

# Engaging Rural Municipalities: FORUM FINAL REPORT



## **North Saskatchewan Watershed Alliance**

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The North Saskatchewan Watershed Alliance (NSWA) is a non-profit society whose purpose is to protect and improve water quality and ecosystem functioning in the North Saskatchewan River watershed in Alberta. The organization is guided by a Board of Directors composed of member organizations from within the watershed. It is the designated Watershed Planning and Advisory Council (WPAC) for the North Saskatchewan River under the Government of Alberta's *Water for Life Strategy*.

Prepared under contract by Teleologic Strategic Communications Inc.

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## EXECUTIVE SUMMARY

In July 2008, the North Saskatchewan Watershed Alliance (NSWA) accepted the *Shared Governance Implementation Strategy (2008)* developed by Teleologic Strategic Communications Inc. Working from that strategy, NSWA spent the fall and winter of 2008 – 2009 preparing and delivering watershed information to rural municipalities. This initiative culminated in a Rural Municipal Forum in February 2009. The Forum represented the formal launch of sector-based stakeholder engagement within the watershed, consistent with recent policy recommendations of the Alberta Water Council (AWC) and Alberta Environment.

In anticipation of the February 10, 2009 Rural Municipal Forum, NSWA made formal presentations to 12 of the 15 rural municipalities that have a significant land base in the North Saskatchewan River (NSR) watershed. All 19 counties and one municipal district within or overlapping the boundaries of the NSR watershed also received information packages to help prepare them to participate in the forum. Representatives from 16 of the 20 rural municipalities within watershed attended the Forum, plus representatives from a number of urban municipalities, counties outside the watershed, observers (from environmental, community and industrial organizations) and the Government of Alberta.

In order to focus the discussion and encourage effective participation, municipalities were divided into three geographical regions within the NSR watershed. Although issues varied in significance from one region to another, panelists found they had in common many issues concerning the implementation of a shared governance approach to support watershed management planning. Panelists shared concerns about:

- How the *Water for Life* planning processes will integrate with other emerging planning processes, in particular, the *Land Use Framework* and proposed *Alberta Land Stewardship Act*;
- their future roles with respect to planning authority and accountability;
- how their participation will be accommodated in partnerships with other stakeholders;
- how watershed management plans will be implemented.

In general, participants expressed gratitude for the opportunity to share their concerns with each other and with NSWA, as well as the opportunity to begin an exploration of solutions to watershed management issues. They supported the idea of further meetings as a “rural municipal caucus” and agreed to participate in expanded discussions that would include other stakeholder sectors. There was general agreement that this would have to happen in order to advance the Integrated Watershed Management Planning (IWMP) process for the NSR.

Forty-three Forum participants completed an exit feedback form. On a scale of one to five (five indicating that a specific criterion was “excellent”) respondents rated all criteria four or better. Of those 43 respondents, 15 left written comments.

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Because most participants indicated, through casual conversation or feedback response, that the facilitated panel discussion approach was an effective way for them to voice their concerns, trade strategies and explore new solutions to watershed management, this engagement method will be used in future with other watershed stakeholders. These stakeholder groups will be identified, using the AWC sector model.

Technical studies scheduled for completion in 2009 will provide additional scientific data for discussion with all stakeholders. NSWA will move beyond rural municipalities to engage industry, non-governmental organizations and all local governments within the watershed to explore the results and implications of these studies for watershed management planning.

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## 1.0 INTRODUCTION

The North Saskatchewan Watershed Alliance (NSWA) was formed in 1997 by EPCOR and Trout Unlimited Canada with funding support from: Agriculture and Agri-Food Canada; TransAlta; and the City of Edmonton Drainage Services Branch. The goal was to provide a forum for sharing information and experience about issues affecting the North Saskatchewan River (NSR) watershed in Alberta, and to initiate activities designed to make a positive impact within the watershed.

In 1999, NSWA became a registered not-for-profit society in Alberta, and has expanded to more than 140 members that represent a wide range of stakeholders living, working or with an interest in the NSR watershed. NSWA membership includes: municipalities; aboriginal communities; industry and industry associations; agriculture, recreation, culture, environment, conservation, and tourism organizations; representatives of the federal, provincial and municipal governments; education and research groups; and private citizens.

When the Government of Alberta adopted *Water for Life: Alberta's Strategy for Sustainability* in 2003, it envisioned the creation of Watershed Planning and Advisory Councils (WPACs) with an official, two-part mandate: to develop state-of-the-watershed reports and watershed management plans. Watershed management plans must support the achievement of the three *Water for Life* goals.

1. Safe, secure drinking water supply.
2. Healthy aquatic ecosystems.
3. Reliable quality water supplies for a sustainable economy.

Under *Water for Life*, WPACs are tasked with the development of watershed management plans for each provincial watershed region. Alberta Environment awarded WPAC status to NSWA in 2005. Within the context of a watershed management plan, individual stakeholders, whose land and water uses can affect the achievement of one or any combination of the three goals, are expected to collaborate with other stakeholders to ensure the sustainability of watershed resources.

In July 2008, NSWA accepted a plan of action prepared by Teleologic Strategic Communications Inc. (Teleologic) entitled *Shared Governance Implementation Strategy*. This plan was designed to help NSWA develop a realistic stakeholder engagement strategy. The *Shared Governance Implementation Strategy* laid the groundwork for a stakeholder engagement effort with as many as 400 independent stakeholders, all of whom need the opportunity to participate in the development and implementation of the proposed Integrated Watershed Management Plan (IWMP).

AWC released *Strengthening Partnerships: A Shared Governance Framework for Water For Life Collaborative Partnerships* in September 2008. This framework recommends a four-sector model (1. provincial government, 2. industry, 3. non-governmental organizations (NGOs), and 4.

other governments) as an appropriate model for all *Water for Life* partnerships, including WPACs. With this information, NSWA began to explore how it could best initiate its stakeholder engagement efforts in 2008-09.

In fiscal 2008-09 NSWA entered into a contract with Alberta Environment to explore the concept of a collaborative approach to watershed planning. The contract with Alberta Environment had three deliverables:

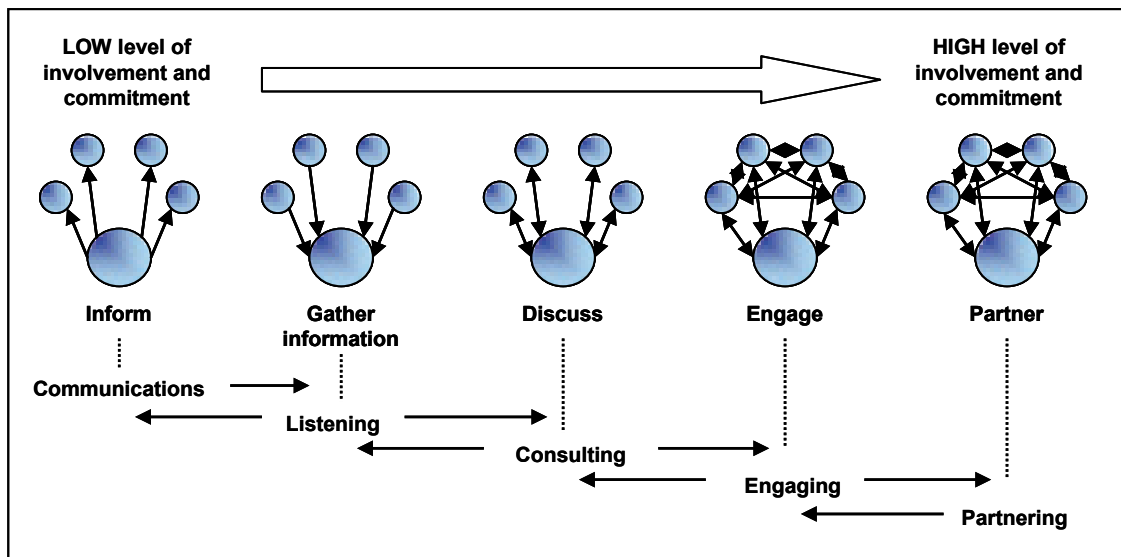
1. NSWA would facilitate a collaborative process with stakeholders to develop support for the IWMP.
2. NSWA would explore ways to discuss watershed planning and management issues with stakeholders.
3. NSWA would prepare a report documenting the methodology, results and conclusions of this process.

NSWA awarded a contract to Teleologic in December 2008 for developing a pilot project to implement the *Shared Governance Implementation Strategy*. Based on its existing governance structure and previous outreach efforts, NSWA decided to pilot a stakeholder engagement strategy with rural municipalities – some of whom were already strong supporters of NSWA, and all of whom have significant land management responsibilities within the NSR watershed. Insights gained through the rural municipal engagement pilot project would assist NSWA in designing a template for developing collaborative relationships with other sector groups.

## 2.0 METHODOLOGY

For the purposes of a Stakeholder Engagement Pilot Project, NSWA adopted the *Public Participation Spectrum (PPS)* as shown in Figure 1 (Teleologic 2008).

Figure 1. Public Participation Spectrum (adapted by Teleologic from the International Association for Public Participation – iap2)



By distributing water management information (**Inform**), and collecting stakeholder input (**Gather Information**), NSWA hoped to lead the way to a meaningful discussion (**Discuss**) that would afford the opportunity to involve stakeholders in a collaborative exercise (**Engage**) that would build a foundation upon which sustainable relationships could form (**Partner**).

Because developing watershed management partnerships is the ultimate goal, and because this type of relationship requires a high level of commitment on the part of both NSWA and watershed stakeholders, NSWA needed to become more directly involved with rural municipalities. It was hoped that this effort would lead to a deeper understanding (for all parties) of the implications of *Water for Life* partnerships, including the roles and responsibilities of WPACs, and watershed management planning concepts.

NSWA visited rural (and smaller urban) municipalities during 2008 and early 2009, presenting watershed management information to local governments and administrative staff. This constituted the “**Inform**” stage of PPS.

The following key messages, developed in NSWA’s *Shared Governance Implementation Strategy* were delivered to municipalities.

1. NSWA was mandated by the Government of Alberta to develop an IWMP for the North Saskatchewan River watershed.



2. The Terms of Reference for the IWMP were approved by Alberta Environment in 2005.
3. Further implementation of the *Water for Life* strategy – including the development of shared governance and watershed management planning frameworks – will require some modification of the IWMP Terms of Reference and associated work plan.
4. Most important of these modifications is the comprehensive involvement of stakeholders in a new shared governance relationship that requires building consensus throughout the watershed on management outcomes.
5. NSWA will develop stronger relationships with current stakeholder members and recruit new stakeholders for a discussion on best ways to implement shared governance and consensus decision-making, for watershed planning.
6. Watershed management planning will be a key component of resource management decisions under the new *Land Use Framework*.
7. NSWA recognizes that *Water for Life* is a new planning process and acknowledges that the process for municipal participation was unclear.

These messages were imbedded in two municipal briefing notes, three information bulletins and overview descriptions of several sub-watersheds. These documents are provided in Appendix 1 (the full suite of sub-watershed overview descriptions is available at <http://www.nswa.ab.ca/>).

During the **Inform** process, NSWA encouraged rural municipalities to express their views on watershed management and to outline specific regional issues. This constituted the first phase of the “**Gather Information**” stage of PPS, and assisted NSWA in structuring a rural municipal forum as a transition to the “**Discuss**” stage of PPS.

The rural municipalities indicated they were most concerned about their capacity to take on the added responsibilities that they anticipate will arise out of new provincial planning initiatives. The announcement of the *Land Use Framework* deepened uncertainty among rural municipalities about how to reconcile land use planning within their jurisdictions with watershed planning and regional land use planning. It also became evident that although there were many similarities in watershed management issues among all rural municipalities, there were also significant differences, due to geographic location and local characteristics.

The “**Discuss**” stage of PPS was facilitated by hosting a Rural Municipal Forum in the spring of 2009.

The Rural Municipal Forum began with an overview of the AWC and NSWA shared governance processes, a provincial policy context of Water for Life, and some insight into the Land Use Framework. These overviews were presented as a way to address questions and concerns heard while visiting rural municipalities.

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Three discussion panels, corresponding to three distinct geographic watershed regions (the *headwaters* region, the *central* region, and the region *downstream* of Edmonton) provided a context for the forum conversation.

In order to broaden the scope of watershed discussion and demonstrate the complexity of collaborative relationships, NSWA joined forces with “Partners FOR the Saskatchewan River Basin” to co-sponsor a conference: *We Are All Upstream II* on February 11-12, 2009. At this conference the *State of the Saskatchewan River Basin* report was released.

It was anticipated that during the conference that followed, the subsequent overview of the entire, interprovincial watershed would emphasize the importance for collaborative watershed planning. The conference was an opportunity to showcase the rationale and necessity for stakeholders to become more fully involved (enter into the “**Engage**” stage) with NSWA and to explore ways to develop watershed management partnerships (enter into the “**Partner**” stage) with NSWA and with each other.

### 3.0 THE RURAL MUNICIPAL FORUM – THE DISCUSSION

During presentations to rural municipalities, it became evident that an understanding of *Water for Life* and the function of the NSWA as a WPAC varied broadly. In answer to this inequity, when preparing for the Rural Municipal Forum, detailed presentations were developed to provide critical background information to ensure a common level of base understanding among participants.

The presentations:

- “*Water for Life: NSWA Municipal Forum*,” Mr. Andy Lamb, Director, Central region, Alberta Environment;
- “*Integrated Watershed Management Planning for the North Saskatchewan River Basin*,” Mr. David Trew, Executive Director, NSWA; and
- “*Collaborative planning under Water for Life*,” Mr. Michael Evans, Teleologic.

The Forum agenda and these presentations are attached in Appendix 2. In addition, Mr. Jim Ellis, Deputy Minister of Alberta Environment, delivered a key-note address entitled “*Integration of Planning Activities under Water for Life and the Land Use Framework*.”

Facilitated panel discussions enabled municipalities to explore watershed management and shared governance issues to their mutual benefit and to the benefit of NSWA. Panel facilitation was shared by Mr. Michael Evans and Mr. Tom Cottrell (NSWA). Representatives from 16 counties were divided into three geographically-determined panels: the *headwaters* region, the *central* region, and the region *downstream* of Edmonton.

Teleologic synthesized detailed notes recorded by NSWA staff and NSWA reviewed the synthesis for accuracy. Issues and concerns unique to the headwaters region are described separately. Issues and concerns from the central and downstream regions were similar enough to be presented together. Issues common to all three regions are summarized beneath “Issues shared across the watershed.” Inferences based on panel participant comments are included at the end of this section under the sub-heading “Conclusions from the Forum.”

To wrap up the Forum, NSWA led a plenary discussion exploring next steps, and how to move forward with the development of the North Saskatchewan River Integrated Watershed Management Plan.

#### 3.1 Headwaters Region

Watershed issues common to rural municipalities in the Headwaters Region include: source water protection; improved water use in agriculture; and conservation practices. The following concerns were noted from the panel discussion:

- Municipalities in the mountains and foothills region are concerned about unregulated recreational activities by campers in the Green Area of the eastern slopes. Several counties expressed concern about the over-use of quads and other off-road vehicles.
- Rural municipalities have no jurisdiction in the Green Area, which represents a significant proportion of their land bases. They do not control industrial activities in the Green Area, such as tree harvesting plans or herbicide use, both of which can have significant impacts in the watershed.
- Some representatives suggested they had concerns and difficulties with the oil and gas industry. Oil and gas operators make agreements directly with landowners. Municipalities feel they have little ability to influence this land use in their communities.
- One representative wanted it recorded that industry (oil and gas, and mining) strongly supported the need for improved recreational management.
- It was suggested that forestry companies spray herbicides in quantities that exceed that applied by agriculture, but non-point source pollution is often blamed on farmers.

### 3.2 Central and Downstream Regions

Because so many agricultural communities in the central and downstream regions of the watershed share significant issues, the concerns from the two panels have been combined to reduce redundancy:

- Declining population is a serious issue that affects municipal capacity to participate in a meaningful way in watershed management planning. With a reduced tax base, increased tax rates and limited new industrial development, rural municipalities are challenged to participate.
- Those close to Edmonton are concerned that their issues will be overshadowed or overlooked by urban development practices in the Capital region.
- Water scarcity is a problem in both central and downstream regions. Some communities have no access to the main stem of the NSR and therefore rely on alternative water sources, such as smaller tributaries, groundwater, lakes, dugouts, *etc.*
- Central and downstream communities are apprehensive about the long-term availability of potable water. Panelists expressed concern that some wells are no longer fit for human consumption. This results in the need for water delivery via costly engineered solutions, ranging from trucking to pipeline projects.
- Some downstream communities reported they pay the highest cost for drinking water in the province. This cost discourages industrial development that could offset the costs of service delivery now paid solely through residential property taxes.
- Many farming communities east of Edmonton are concerned about water scarcity. For years, the local water management strategy was to drain wetlands and smaller lakes to

increase the availability of arable land. Now, panelists reported, people are pleased to have beavers build dams on their land because they retain water.

- On the other hand, flooding is a significant issue for some communities because the water holding capacity of the land has been compromised. Heavy rainfall events flood large areas but none of the water is retained. Water storage is a significant issue in many communities.
- Communities in these regions also emphasized the need for better management of wastewater so that it can be recycled and used again in other capacities.

### 3.3 Issues shared across the watershed

The following issues were common to all panels, and represent significant concerns throughout the watershed (many of these issues are related to the shared governance concept):

- Surface water scarcity, and the overall quality and quantity of groundwater resources, were concerns repeated by participants from all three regions.
- Another common concern centered on a lack of understanding of *Water for Life* and how rural municipalities fit into a shared governance planning model. Municipalities voiced concern about how to integrate municipal planning responsibilities with watershed management planning and the *Land Use Framework*. Rural municipalities expressed hope that a clearer description of roles, authority and accountability, as well as an improved understanding of how watershed management plans will be implemented, will emerge from WPAC partnerships.
- There are several politically charged issues related to watershed management, most of which relate to regulating development, the delivery of municipal services, and each municipality's ability to pay for the delivery of those services. Panelists observed that, as county reeves and councillors, they are elected locally. Constituents (particularly if uninformed about watershed issues) may hold elected officials accountable for a perceived bias against landowners' rights, new industrial and residential development, *etc.*
- Most municipalities are under increased pressure to manage growth and rural residential development. A few municipalities are faced with the dilemma of reduced populations.
- Most municipal service infrastructure is funded through off-site levies. Some Forum participants expressed concern this may not be the appropriate funding tool for such development because it may give developers undue influence.
- One municipality only approves new subdivisions that are in proximity to existing pavement and utility corridors. This controls costs and reduces impacts on the

watershed. However, they find this difficult to sell because weekend residents prefer a ‘wilderness experience.’

- Many panelists agreed that new residential development – dominated by urban residents establishing weekend ‘getaway’ homes – is changing the character of their communities. How the pressures of ‘getaway’ residential development intersect with watershed management planning is unknown.
- Some panelists reported their municipalities approved new development without necessarily considering water issues in terms of supply to new residents, management of wastewater or watershed impacts. Other representatives said issues of service delivery – such as transportation, water supply and wastewater management – are left with the developer.
- All panelists had concerns about wastewater management. Many rural subdivisions use septic systems that must be pumped out and the wastewater hauled away. Some panelists noted sewage lagoons may be pumped out onto the landscape without sufficient concern for the effects of run-off, which may enter neighbouring rural jurisdictions.
- Panelists expressed concern about their ability to evaluate new industrial development proposals where watershed management is part of the planning process. Panelists pointed out that large-scale industrial development – which they want to encourage in order to increase tax revenues – requires substantial water resources. However, municipalities lack the capacity to assess the viability or impacts of such projects on their water supply and existing services. The big challenge for municipalities is how to strike a balance between conservation and development – how to encourage *sustainable* development – when the necessary technical expertise is not available at the municipal level. For this reason, participants expressed a keen interest in cumulative effects management and how that will be implemented through the *Land Use Framework*.
- Rural municipalities are concerned about the need to work with individual landowners, especially farmers, to ensure that they implement best practices with respect to watershed management. They also worry that landowner rights may be compromised. Support available through agricultural field offices was acknowledged but there was a general feeling that it is not sufficient. It was noted that landowners are being left out of the larger discussion about the implementation of *Water for Life*.
- Roughly 600,000 Albertans, or 20 percent of the provincial population, still obtain their potable water from groundwater wells (*Alberta Environment 2007*). According to municipal participants, many of these wells are drying up or have become contaminated. Some central and downstream communities, for which scarcity is a

particular problem, are exploring costly infrastructure projects to pipe water from distant treatment facilities.

- A number of counties are determined to protect good agricultural land. Despite frequent proposals from developers for 40-lot acreage-based subdivisions (a common approach), municipalities try to protect prime agricultural land through their own land use by-laws. Panelists also noted that the residents of these new subdivisions, most of which are weekend homes for city residents, tend to have very high service expectations that are beyond the means of rural municipalities.
- Rural municipalities are bound by Alberta Municipal Affairs regulations that permit septic fields and other sewage systems, even when they are not satisfied that the standards meet sustainability criteria.
- There was vigorous discussion around the notion of increased use of conservation easements in, for example, wetland conservation. Many panelists agreed that if a landowner engages in conservation action for the public good, that landowner should be compensated. This concept was supported by audience members who drew attention to emerging work concerning the evaluation of environmental goods and services provided by wetlands and other natural areas.
- Panelists indicated broad support for the concept of cumulative effects management, noting there is little inter-jurisdictional cooperation to manage non-point source pollution, recreational and industrial impacts, sewage disposal and extreme natural events. However, they also said that cumulative effects management remains ‘mysterious’ and that they would like much more information. In addition, some panelists are concerned about inadequate enforcement of existing statutes, and therefore wonder whether new standards will be more effective than the current regulatory regime.
- Many panelists wondered about the best way to engage stakeholders from the specific sectors recommended by AWC – industry, NGOs, First Nations and Métis Settlements. Rural municipalities, with limited resources, are concerned about their ability to meet these expectations. They are aware that the industrial sector and larger municipalities have superior human, informational and financial resources.
- Panelists and participants from the floor agreed that more effort needs to be committed to education and engagement at the level of elected municipal representatives and administrative officials. At the same time, panelists said that simply providing a framework within which municipalities and other sectors can collaborate – such as envisioned in *Strengthening Partnerships* – is not sufficient. Watershed management planning introduces new responsibilities to rural municipalities for which they have

limited capacity. Panelists suggested the Province has to do more than just develop the framework; it must provide the funding required for building capacity.

- Rural municipalities would like to have a better understanding of the pressures on the watershed from a technical perspective. They expressed strong support for the research work currently being undertaken by NSWA. Rural municipalities want access to science-based, decision-support tools to help them with land use planning and other areas within municipal jurisdiction that will help them to support improved watershed management.

### 3.4 Conclusions

Developing effective partnerships is the ultimate goal to successful watershed management. The lessons learned from this pilot project will be reviewed and adapted to strengthen relationships with rural municipalities and stakeholders in other sectors.

In the early stages of this pilot project, several issues emerged through feedback received from a series of presentations made to rural municipalities. One was that rural municipalities within the NSR watershed did not have a clear understanding of NSWA's WPAC role under *Water for Life*. Another was a variety of gaps in understanding the value of watershed management planning in general.

During the Rural Municipal Forum, panelists expressed broad-based agreement for the value of watershed management planning. They illustrated their support in various ways. One way has been demonstrated by formalized participation in existing watershed-related ventures such as the Beaver Hills Initiative, the Northeast Alberta Water Management Coalition and the Vermilion River Watershed Management Project.

Panelists strongly voiced support for the work of the NSWA, in principle, as it had been described in a presentation by Executive Director David Trew. Many panelists admitted a lack of clear understanding of NSWA's role and their own responsibilities in the development of the NSR IWMP. It was emphasized that this could constitute the next round of presentations and discussions.

Panelists and colleagues from the floor agreed to continue discussing collaborative watershed management planning with NSWA provided that:

- municipalities receive more and continual updates on watershed-related studies and other information;
- sound partnerships emerge among the other sectors;
- jurisdictional uncertainty is addressed.

Panelists appreciated NSWA's challenge with finding sufficient resources for stakeholder engagement and in trying to provide stakeholders with the information and decision-support tools they require for meaningful participation. The timeframe within which watershed



management planning decisions must be made came under extensive discussion. Panelists expressed doubt about 2010 – 11 as realistic completion date for the first iteration of the IWMP.

Municipal elections occur every three years. In many communities, there have been significant changes of elected officials since the initial approval of the IWMP Terms of Reference in 2005. Panelists pointed out that it is critical to work with both elected representatives and administrative officials. The latter provide continuity for elected representatives and provide analysis in support of key decisions. Subsequent implementation and adaptation of the IWMP will require the substantive involvement of stakeholders for at least the next decade and likely longer.

Panelists discussed their struggles to reconcile conflicting political pressures that affect their participation in the collaborative decision-making process of watershed management planning. These pressures relate to: population growth (or, in some cases, reduction); residential and industrial development; costs related to service delivery and service delivery standards; and the adequacy of municipal tax revenues. Communities losing residents to ‘out-migration’ are looking to provide acreage developments, new services, or development-related employment opportunities to reverse that trend, all of which could have undetermined impact on the local watershed.

Panelists and participants from the floor agreed that more effort needs to be committed to public education and engagement, to increase the knowledge level of elected representatives and administrative officials. Panelists look to the NSWA and the Provincial Government to share the responsibility of delivering that education.

Panelists also reiterated that providing a framework, within which municipalities and other sectors can collaborate, as envisioned in *Strengthening Partnerships*, is not sufficient. They suggested that watershed management planning introduces new responsibilities to rural municipalities for which they have limited capacity. Panelists said the Province needs to do more than develop the framework; it must provide the funding required for building capacity.

Some panelists expressed concern about the advisory role of WPACs under *Water for Life* and how advice from WPACs would be provided to the *Land Use Framework* process. Participants suggested that the Province work with NSWA to define how the implementation of the *Land Use Framework* will affect the NSWA WPAC role under *Water for Life*.

Most rural municipal representatives felt strongly about their responsibilities to protect watershed resources and ensure the sustainability of their communities. Panelists and their colleagues from the floor supported the collaborative intent of *Water for Life* in general and hope for opportunities to exercise their legislated authority within their respective jurisdictions in partnership with other stakeholders.

From a technical perspective, rural municipalities would like to have a better understanding of specific pressures on the watershed. They expressed strong support for the research work

undertaken by NSWA. Rural municipalities want science-based, decision-support tools. They want NSWA to continue to make watershed-related technical information available.

Panelists stressed that the outcomes of an IWMP had to improve upon measures that are already specified in existing regulations. It was felt that if enforcement was limited to broad-based, provincial regulatory standards, there was no rationale to support a resource-intensive collaborative planning process or to support an IWMP if its outcomes cannot be made mandatory within a specific watershed.

The complexity of building the social infrastructure within which to implement a shared governance model became evident during the Forum. Interacting with only one stakeholder group simplified the effort; however, since shared governance is built on a foundation of trust, two challenges emerged immediately: limited time and geographical distance. In order to move NSWA's existing relationships with rural municipalities into an arena of open discussion with other stakeholders, it will be necessary to expand the information dissemination as well as initiate more face-to-face meetings in more stakeholder communities.

Finally, although rural municipalities indicated their strong support, in principle, for *Water for Life*, they have concerns with respect to anticipated costs associated with meeting obligations to develop and implement the IWMP and, to a lesser extent, their as-yet to be determined financial obligation to NSWA.

## 4.0 NEXT STEPS

Some participants suggested that NSWA host a watershed management planning workshop with administrative planning and development staff, agricultural field men and other interested parties to explore, in greater depth, issues discussed at the Forum. Other participants wanted further discussion of roles and responsibilities, authority and accountability for implementing watershed management plans. They recommended that NSWA invite the Alberta Urban Municipalities Association and the Alberta Association of Municipal Districts to participate in watershed management discussions between the NSWA and the Counties. This idea warrants further exploration and may also provide important new information about the best way to involve individual landowners. The late autumn of 2009 would be a good time to re-engage rural municipalities.

NSWA plans to use what was learned in their efforts leading up to and during the Forum to design a version of this process for developing relationships with stakeholders in other sectors. Teleologic recommends the other sectors be engaged in the following order: industry; ENGOs; and small and large urban municipalities.

### 4.1 Industry

Industries identified by AWC already comply with regulatory requirements that relate to watershed protection in some way. These industries are often involved in public engagement activities during their application or licensing processes. However, the idea of collaborative decision-making with WPAC partners, as opposed to being accountable to directors and shareholders, introduces new expectations for industry, which the AWC's shared governance project team learned was a "foreign"<sup>1</sup> concept. The implications of collaborative decision-making and shared responsibility to implement watershed management plans must be explored further with industry.

NSWA's report entitled *Current and Future Water Use in the North Saskatchewan River Basin* identifies a number of industry sectors that are operating within the basin. Teleologic recommends contacting all the industry associations who, in many cases, have designated representatives to support their involvement in *Water for Life*.

These include, but are not limited to:

- Alberta Forest Products Association (AFPA);
- Forest Management Agreement (FMA) holders
- Canadian Association of Petroleum Producers (CAPP);

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<sup>1</sup> Teleologic consultant, Michael Evans, supported the Project Team whose stakeholder engagement efforts resulted in both *Strengthening Partnerships* and the *Watershed Management Planning Framework*. Although industry's hesitancy was not explicitly recognized in either document, it was noted by the Project Team.

- Alberta Chamber of Resources (mining);
- Livestock commodity groups, such as Alberta Beef Producers, Alberta Pork Producers, *etc.*;
- Power generators EPCOR and TransAlta; and
- Regional industry associations such as the Northeast Capital Industrial Association.

As with the Rural Municipal Forum, Teleologic recommends that key representatives be recruited in advance to participate in a series of panel discussions that address specific questions targeted to the implementation by industry of *Water for Life*. The recent release of Bill 36, the *Alberta Land Stewardship Act*, provides an opportunity to open that conversation. An industry forum would be best scheduled for autumn 2009.

#### **4.2 Environmental non-government organizations (ENGOS)**

ENGOS are accustomed to operating as independent advocates within the public realm, but have not, with notable exceptions, been invited to participate by other stakeholders when they make decisions that might affect the watershed within their respective jurisdictions. Consequently, many ENGOS have indicated their suspicion about the efficacy of the *Water for Life* process. Increasing the significance of their involvement in the IWMP process would help to alleviate some of those concerns.

The Alberta Water Council provides guidance on whom to engage from this sector. In addition to ‘general’ environmental organizations, AWC recommends involving: fisheries habitat organizations (such as Trout Unlimited); lake-environment organizations and/or user groups; wetland conservations groups (Ducks Unlimited); and watershed stewardship groups, which can be identified through the Alberta Stewardship Network.

A panel-based forum is recommended for the autumn of 2009.

#### **4.3 Small and large urban municipalities**

Small and large urban municipalities do not have the same challenges with regard to regulating land use as rural municipalities have, where the rural jurisdiction stretches over large regions of sparsely populated land. However, the concentration of population in urban areas leads to significant impacts that must be managed within an IWMP. Urban municipalities are likely to have greater resource capacity than rural municipalities to participate in watershed management planning discussions with NSWA, but it will be necessary to negotiate an appropriate engagement processes.

NSWA’s *Municipal Guide* identifies all the small and large urban municipalities within the watershed. NSWA has met with only a few of these communities, compared to their involvement with the rural municipal sector. Because these municipalities often have greater resources (with the exception of summer villages), it is likely that someone within the administrative structure has been designated to deal with watershed management planning issues. It is no less important to have elected representatives at the table. Ultimately, it is the

decision-makers (mayors, reeves and councilors) that will support and implement the NSR IWMP. A panel-based forum is, as for the industry and NGO sectors, recommended for the autumn of 2009.

#### **4.4 Aboriginal groups**

Teleologic does not recommend that Aboriginal communities, as ‘other governments,’ be engaged immediately, although their involvement is no less important than that of other stakeholders. There are, however, a number of related issues remaining to be resolved between the Province and various First Nations and Métis groups. It may be best to let these issues proceed to resolution before initiating more direct engagement.

Recent Supreme Court decisions have affirmed “the Crown’s duty to consult” but what that means is still open to interpretation (*Taku River Tlingit First Nations v. British Columbia*). The Government of Alberta is working through Aboriginal Relations to resolve some of the outstanding concerns of First Nations with respect to consultation or engagement processes.

All the First Nations within the North Saskatchewan River watershed are signatories of Treaty 6, and the Province has signed an environmental stewardship agreement with Chiefs from the Yellowhead Tribal Council and Tribal Chiefs Ventures, both tribal councils within Treaty 6. The agreement includes the Alexander First Nation, Alexis Nakota Sioux First Nation, Enoch Cree Nation, Frog Lake First Nation, Kehewin Cree Nation, O’Chiese First Nation, Sunchild First Nation, and Whitefish Lake First Nation #128 (Goodfish).

Of those First Nations identified within the NSR watershed, only the Paul and Saddle Lake First Nations are not signatories to the agreement. This agreement may provide an opportunity for future collaboration.

Also, Indian and Northern Affairs Canada requires all First Nations develop source water protection plans. This is another venue through which First Nations participation may be secured. The First Nations (AB) Technical Services Advisory Group, represented on NSWA’s IWMP Steering Committee, is leading this effort for Alberta First Nations.

There are two Métis Settlements within the NSR watershed. Relationship building with Métis Settlements is less complex than it is for First Nations, but the capacity challenges are similar.

For a more detailed discussion of issues related to Aboriginal participation in the development and implementation of an IWMP and a targeted approach to their engagement, see NSWA’s *Shared Governance Implementation Strategy*.

#### **4.5 Autumn 2009 stakeholder engagement**

Teleologic suggests that NSWA schedule three, successive, one day workshops, for each of the stakeholder groups specified above, in the autumn of 2009. Technical work conducted by NSWA during the summer of 2009 will support the engagement efforts in the autumn. It is advised that each sector be invited to attend a ‘launch forum’ independent of the other sectors;

then when all sectors have been engaged independently, all the sectors can be brought together for a collective discussion.

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## **APPENDIX A: NSWA Presentations, Events, Tours 2008-09**

In the eight months before and two months following the Rural Municipal Forum, the NSWA made presentations to 27 different organizations and participated with public information and displays in several conferences and public events (see next page). NSWA also participates in a small number of other organizations through which it informs the public and stakeholders of its mandate and ongoing work as the WPAC for the North Saskatchewan River basin.

July 20	NSWA hosted a booth and display at the Inaugural Green Festival, Devonian Botanic Garden.
August 7	Participation in Kalyna Country, local food event, Vegreville.
August 13	Participation in and presentations during a Tour of Holden Drainage District and Vermilion River watershed conducted by the Alberta Environment, Vermilion River Operations Committee.
August 21	Participation in and presentations during 21st Annual Agricultural Tour, Clearwater County.
August 26	Presentation to Council, Thorhild County in Thorhild.
September 2	Presentation to Council, Parkland County in Tomahawk.
September 10	Presentation to the 10th Annual Forum on Watershed Planning, Bow River Basin Council, Calgary.
September 19	Presentation to the Alberta Lake Management Society Annual Conference.
September 24	Presentation to the Natural Resources Conservation Board, Red Deer District Office.
October 15	NSWA hosted a booth and display at the Northwest Regional Conference of the Alberta Agricultural Service Boards Association in Breton.
October 16	Presentation to Source Water Protection Conference of the Western Canada Water, Edmonton.
October 20-22	NSWA participated in the Watershed Planning and Advisory Councils' Summit in Lethbridge.
October 21	Presentation to Council, Strathcona County.



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|--------------|--|
| October 21   | Presentation to Council, City of Fort Saskatchewan.  |
| October 28   | Presentation to Council, Sturgeon County, Morinville.  |
| October 30   | Presentation to the Inaugural General Meeting, Sturgeon River Watershed Initiative, St. Albert.  |
| November 3-4 | NSWA and Ducks Unlimited Canada jointly hosted and conducted a Tour of Holden Drainage District and Vermilion River watershed for a group of professors and researchers from University of Guelph. |
| November 25  | Presentation to a Joint Meeting of Councils of Town of Rocky Mountain House and Clearwater County.   |
| November 27  | Presentation to Board of Directors, Northeast Capital Industrial Association, Fort Saskatchewan.   |
| January 13   | Presentation to Council, Brazeau County, Drayton Valley.   |
| January 15   | Presentation to a Joint Meeting of Councils of Town of Two Hills and County of Two Hills No. 21.   |
| January 19   | Presentation to a Meeting of District 5 of the Alberta Association of Municipal Districts and Counties, Sherwood Park.   |
| January 29   | Two Presentations to Farm Tech 2009 Agricultural Conference, Edmonton.   |
| February 4   | Presentation to Agricultural Services Board, Beaver County, Ryley.   |
| March 4      | Presentation to Board of Directors, N. Sask. River Valley Alliance, Edmonton.  |
| March 21     | Presentation to Annual General Meeting, Mycological Society of Alberta, Edmonton.  |
| March 30     | Participation in a community meeting hosted by Dodds – Round Hill Agricultural Protective Association regarding common water concerns, Bardo Community Hall, Beaver County.                        |

There were, in addition, a large number of informal meetings and briefings held throughout 2008-09 that helped prepare rural municipalities to participate in the shared governance approach to watershed management with NSWA.

NSWA has appointed a member to the Board of Directors of the Beaver Hills Initiative, and is managing the Vermilion River Watershed Management Project in collaboration with the North-East Alberta Water Management Coalition (nine counties).

## APPENDIX B: Evaluation

A total of 88 people registered for the Forum. Representatives from 16 of the 20 counties with land wholly or partly within the North Saskatchewan watershed participated in the Forum. More than 100 people attended all or part of the Forum, exceeding the actual number of registrants. Some attendees accompanied registered participants. Others, who arrived one day early for the “*We Are All Upstream II Conference*” that was scheduled for February 11 and 12, participated in the afternoon session of the Rural Municipal Forum without registering.

Forty-three Forum participants completed the feedback form exit survey. Their responses indicate NSWA’s initial engagement efforts were effective (see Appendix 3). Of these, only two people indicated that the Forum did not meet their expectations and both felt there was not enough time for in-depth discussion. In general, rural municipalities found the Forum to be highly valuable. Participants welcomed involvement with NSWA, were interested in seeing the completion of the IWMP, and would like to become more involved in the water management planning process.

Teleologic’s initial proposal specified eight deliverables (subject to change upon mutual agreement):

Deliverable	Status
1. Methodological approach to engage municipalities.	Complete
2. Education and engagement materials.	Complete
3. Municipal knowledge, attitudes, beliefs and behaviours assessment.	Initiated
4. Engagement key messages and issues catalogue.	Complete
5. Recommendations for the implementation of consensus decision-making.	Complete through different process
6. Recommendations for ongoing municipal financial support to NSWA.	Initiated
7. Sufficient learning about municipal involvement to provide the basis for the February 10 pre-conference municipal workshop.	Complete
8. Pre-conference workshop agenda, support materials, etc.	Complete

Items 1, 2, 4, 7 and 8 above were all delivered through efforts to organize and deliver the Rural Municipal Forum. Data collection for item 3 was part of the pre-forum meetings with rural municipal councils and administrative officials, and through the Forum itself. Item 5 was addressed in a separate process. Item 6 was initiated by NSWA in mid-2009.

## APPENDIX C: MUNICIPAL INFORMATION RESOURCES

- NSWA Municipal Briefing Note: Strengthening Partnerships
- NSWA Municipal Briefing Note: Alberta *Land-Use Framework* Final Report
- NSWA Information Bulletin: The Integrated Watershed Management Plan
- NSWA Information Bulletin: The Municipal Guide
- NSWA Information Bulletin: NSWA Rural Municipal Forum
- North Saskatchewan Watershed Sub-basin Overview
- Cline sub-watershed (example)
- Ram sub-watershed (example)





## NSWA Municipal Briefing Note Strengthening Partnerships in the North Saskatchewan River Watershed

The **Alberta Water Council (AWC)** released their report, *Strengthening Partnerships: A Shared Governance Framework for Water for Life Collaborative Partnerships* in 2008. This document provides guidance for the establishment and operations of *Water for Life* partnerships, especially for **Watershed Planning and Advisory Councils (WPACs)** and **Watershed Stewardship Groups (WSGs)**. This document also provides guidance for various sector stakeholders in determining their roles and responsibilities as the Province implements further the *Water for Life* strategy.

### BACKGROUND

When the Government of Alberta adopted *Water for Life: Alberta's Strategy for Sustainability*, it conferred shared responsibility for watershed management planning to WPACs. Currently, there are nine WPACs in the Province of Alberta, each in a major, provincial river watershed.

WPACs are directed to collaborate with identified stakeholders, including: federal, provincial and local governments; First Nations; Métis; industry; and non-governmental organizations (NGOs).

This collaborative planning approach will result in:

- ◆ Recommendations to the Government of Alberta on water policy
- ◆ Watershed assessment and planning
- ◆ Education, outreach, monitoring, stewardship and other programs
- ◆ Identification of strategies to achieve the three goals of the *Water for Life*:
  - ◆ Safe, secure drinking water supplies
  - ◆ Healthy aquatic ecosystems
  - ◆ Reliable, quality water supplies for a sustainable economy

The NSWA is the designated WPAC tasked with developing an Integrated Watershed Management Plan (IWMP) for the North Saskatchewan River watershed. In order to ensure their preferences are considered, sector stakeholders with an interest in watershed and water resource management are invited to work with NSWA.

The North Saskatchewan Watershed Alliance invites your municipality to:

- ◆ Confirm membership in NSWA
- ◆ Consider designating both elected and administrative positions to receive information
- ◆ Participate in deliberations toward developing the IWMP

Regional plans, under the *Land-use Framework*, will need to find ways to integrate land-use and watershed management planning. With this in mind NSWA is working to strengthen planning partnerships within the North Saskatchewan River watershed.





A special **Rural Municipal Forum** to discuss the collaborative aspects of watershed planning is scheduled for **February 10, 2009 in Nisku, Alberta** at the Royal Executive Inn. This forum will enable NSWA and rural municipal stakeholders in the watershed to test and explore the best means for involving rural municipalities in the development and implementation of the Integrated Watershed Management Plan.

NSWA invites your attendance at the February 10th Municipal Forum.

### RELEVANT DOCUMENTATION

*Strengthening Partnerships: A Shared Governance Framework for Water for Life Collaborative Partnerships*

<http://www.awchome.ca/Portals/0/pdfs/Shared%20Gov%20Partnership%20Report%20FINAL.pdf>

*Water for Life: Alberta's Strategy for Sustainability*  
<http://www.waterforlife.gov.ab.ca/docs/strategyNov03.pdf>

*Water for Life: A Renewal*  
<http://environment.gov.ab.ca/info/library/8035.pdf>

To Register for the Municipal Forum please contact:

Tom Cottrell,  
NSWA IWMP Coordinator  
780.496.6962 tom.cottrell@edmonton.ca

OR

Billie Milholland,  
NSWA Communication Manager  
780.496.5577 billie.milholland@edmonton.ca

Following this workshop is a two-day Conference:

## **We Are All Upstream II: Making Connections** **(Feb 11 & 12)**

Hosted by **NSWA** and the Saskatoon-based **Partners FOR the Saskatchewan River Basin (PFSRB)** To register for the conference, visit:

[www.saskriverbasin.com](http://www.saskriverbasin.com)







## NSWA Municipal Briefing Note Alberta Land-use Framework Final Report

The Government of Alberta released its final Land-use Framework on December 3, 2008. The Framework has several implications for municipalities with respect to land use (residential, commercial and industrial development), watershed management and cumulative environmental effects management.

### BACKGROUND

The Land-use Framework is a comprehensive strategy designed to improve the management of public and private lands (and natural resources) to achieve Alberta's long-term economic, environmental and social goals. The Framework provides a blueprint for land use management and decision-making that addresses Alberta's growth pressures. The Framework will be developed within four categories: land, water, air and biodiversity.

The Province of Alberta suggests that sustainability of growth in designated regions will be predicated on water use and watershed health, which means that the Framework and its implementation are of particular interest to NSWA and its partners in the North Saskatchewan River watershed.

### CURRENT STATUS

The Government of Alberta released this final report following a round of public consultation in the summer and fall of 2008.

### Significant changes in the final document include:

- ◆ Addition of a new strategy (*The Efficient Use of Land*) to reduce the human footprint on the land.
- ◆ Addition of a new region (*Red Deer Region*) to address southern Alberta's larger population, number and size of municipalities, and diversity of landscapes.
- ◆ Planning regions now named for major river watersheds to reflect the integration of land-use and watershed planning.

The Framework's implementation plan and terms-of-reference for regional plans are anticipated in early 2009. Developing a plan for the Capital Region in the North Saskatchewan River watershed (particularly the potential impact and cumulative effects of the Industrial Heartland) is one of four immediate provincial priorities.

The *Land-use Framework*, like *Water for Life*, advocates shared decision-making with regional stakeholders.

The *Land-use Framework* also states:

***"Municipalities will be required to ensure their plans and decisions are consistent with regional plans. The Government of Alberta will respect the existing land-use planning and decision-making authority of municipalities."***





## Municipalities will soon face the challenge of:

- ◆ Outlining how municipal development plans will align with and address provincial directions
- ◆ Amending municipal planning documents to adopt regional planning directions.
- ◆ Aligning municipal development planning with the outcomes of integrated land and watershed planning

## NSWA invites municipalities to:

Participate in the collaborative development of a North Saskatchewan River Integrated Watershed Management Plan (IWMP), which will provide planning advice to the Government of Alberta.

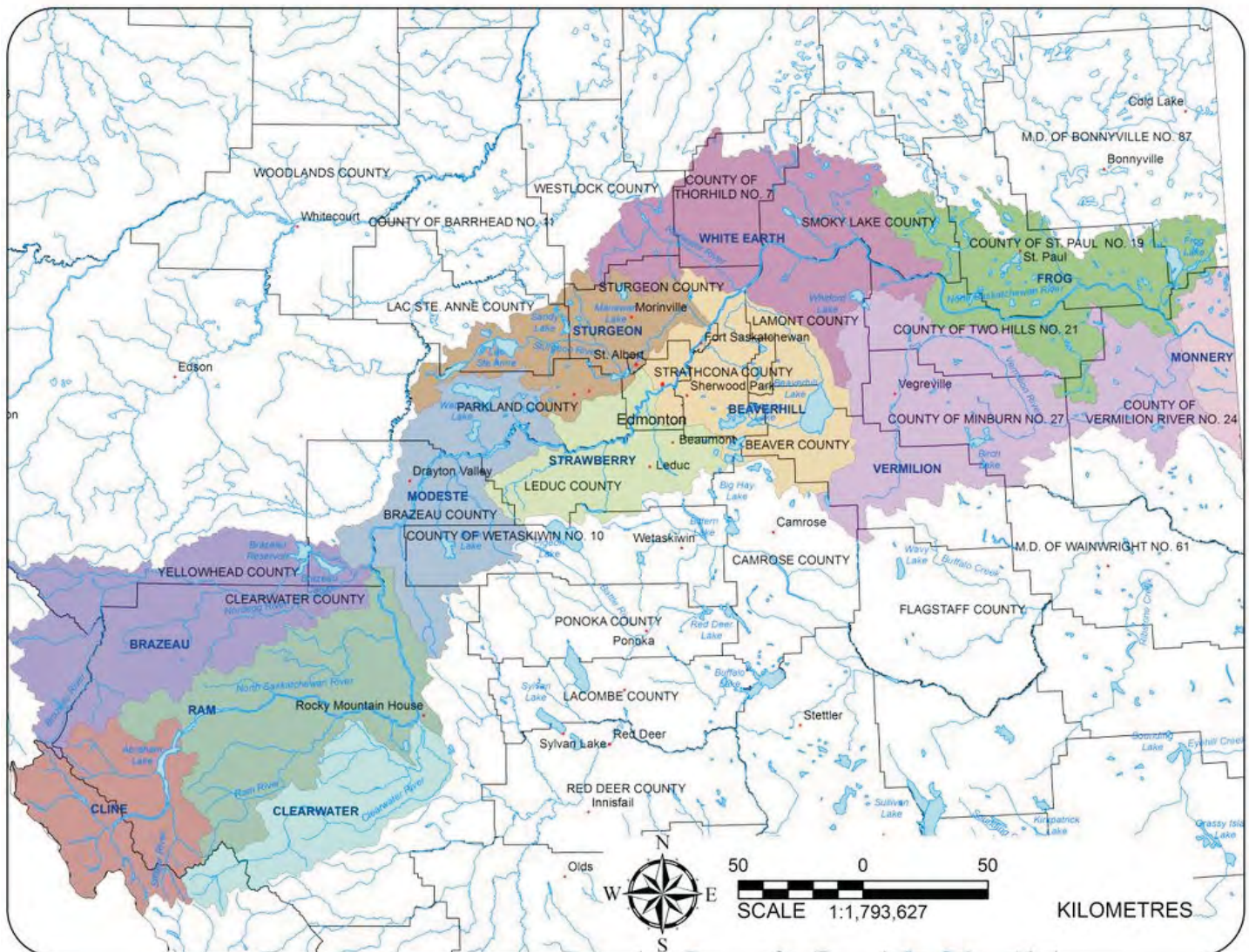
## RELEVANT DOCUMENTATION

Alberta Land-Use Framework homepage <http://www.landuse.alberta.ca/>

Land-Use Framework Final Report [http://www.landuse.alberta.ca/documents/Final\\_Land\\_use\\_Framework.pdf](http://www.landuse.alberta.ca/documents/Final_Land_use_Framework.pdf)

Land-Use Framework regions map [http://www.landuse.alberta.ca/documents/Land-use\\_Framework\\_Regions\\_Map.pdf](http://www.landuse.alberta.ca/documents/Land-use_Framework_Regions_Map.pdf)

Land-Use Framework public Q&A [http://www.landuse.alberta.ca/documents/Land\\_use\\_Framework\\_QAs.doc](http://www.landuse.alberta.ca/documents/Land_use_Framework_QAs.doc)



For more MAPS visit our website: [www.nswa.ab.ca/maps](http://www.nswa.ab.ca/maps)



## NSWA Information Bulletin

# The Integrated Watershed Management Plan (IWMP)

The North Saskatchewan River watershed is a large and complex area with many diverse land uses, hydrological systems and ecological regions. The watershed is a source of water for domestic and municipal users, agriculture, forestry, petroleum and other industries, fishing, recreation and tourism.

In order to maintain and restore a healthy watershed that balances environmental, social and economic needs of watershed stakeholders, the NSWA has embarked upon an Integrated Watershed Management planning process.

### IWMPOBJECTIVES

- \* To develop strategies (including the establishment of Water Conservation Objectives) that will support sustainable use, management and economical value of land and water resources of the watershed;
- \* To identify land uses that could affect the future sustainability of the watershed and propose strategies to address these land use issues;
- \* To prepare the IWMP in collaboration with watershed stakeholders and the public so that the IWMP meets local and regional needs.

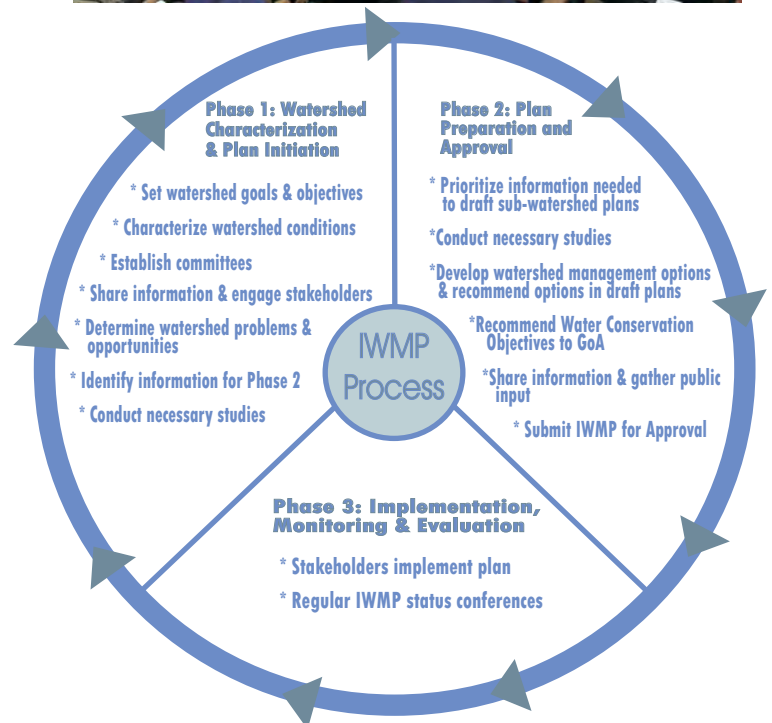
The IWMP process has progressed into Phase Two, with completion planned for 2010.

### STAKEHOLDER ENGAGEMENT

NSWA understands that continual stakeholder engagement is essential to a successful planning process. Those affected by proposed management strategies must have the opportunity:

- \* to understand the current state of the watershed
- \* to provide input
- \* to become effective stewards of watershed health
- \* to participate in integrated watershed planning

NSWA will engage key sectors during the IWMP process.





## NSR Instream Needs Scoping Study (2007)

This study outlines the scope of work needed for determining *Instream Flow Needs* for the North Saskatchewan River. *Instream Flow Needs* describe the rate of flow and water quality requirements needed in order to protect aquatic ecosystems and other river functions. Information from this report is essential to the discussion that will lead to proposing Water Conservation Objectives for river flow and water quality.

### **Information included in this report:**

- A *geographic segmentation analysis* of the North Saskatchewan River main stem. This analysis was based on flow regimes, channel geomorphology and confluences with major tributaries.
- A *comprehensive literature review* of over 200 government and scientific publications relating to the hydrology, geomorphology, biodiversity, water quality and other attributes of the North Saskatchewan River watershed.
- A *summary of available water quality data* in Alberta Environment's Water Quality Data System for 15 key variables in the main river and four contributing watersheds (Brazeau, Clearwater, Sturgeon and Vermilion rivers).
- A *collection of a wide variety of GIS data sources* used for watershed assessment, including land use/land cover, soil and drainage and topography.
- A *detailed review of approaches for modeling Instream Flow Needs*

This report is on our website: [www.nswa.ab.ca](http://www.nswa.ab.ca)

## The State of the North Saskatchewan Watershed Report: a Foundation for Collaborative Watershed Management (2005)

This report captures a "*snapshot in time*"; it describes a baseline from which the Integrated Watershed Management Plan will be developed. It comments on land uses, water quality and environmental integrity in the North Saskatchewan River watershed in Alberta.

The full report is on our website: [www.nswa.ab.ca](http://www.nswa.ab.ca)

## Current and Future Water Use in the North Saskatchewan River Basin (2007)

This report is a comprehensive analysis of water allocations and water use in the North Saskatchewan River watershed in Alberta. An accurate understanding of current and projected water use patterns in the North Saskatchewan River watershed is fundamentally important to Integrated Watershed Management Planning.

### **This Study explains:**

- *Allocation* - the licensed maximum volume, as well as the rate and timing, of a water diversion.
- *Actual Water Use* - the amount of water consumed and not returned to the source.
- The sometimes *vast difference* between allocation and water use (many licensees' actual water use volumes are much less than their allocations)

### **What We Learned:**

- Current Annual Surface Water Allocations - about 2 billion cubic metres (approximately 27% of the NSR's average annual discharge)
- Current Actual Use - about 0.19 billion cubic metres per year (approximately 2.6% of the NSR's average annual discharge)
- Groundwater Allocations - about 25 million cubic metres (a little more than 1% of the surface water allocations). Limited data are available on actual groundwater use. The report estimates that current actual use is about 60% of total allocation.

This report is on our website: [www.nswa.ab.ca](http://www.nswa.ab.ca)



## Water Supply Assessment for the North Saskatchewan River Basin (2008)

This study quantifies the *natural* water supply to the North Saskatchewan River and its spatial, seasonal and annual variability.

### *What We Learned:*

- Nearly 90% of the flow comes from the upper third of the basin (Brazeau, Cline, Ram and Clearwater rivers).
- Before the dams, under natural conditions, 16% of annual flow occurred during the winter (Oct to March).
- The mean annual natural discharge of the river at the Alberta/Saskatchewan border is about 7.5 billion m<sup>3</sup>.
- 10% of the time the annual flow would exceed 10.4 billion m<sup>3</sup> and 10% of the time the annual flow would be less than 5.1 billion m<sup>3</sup>.

This report is on our website: [www.nswa.ab.ca](http://www.nswa.ab.ca)

## Assessment of Climate Change Effects on Water Yield from the North Saskatchewan River Basin (2008)

Building on the Water Supply Assessment, this study provides an initial assessment of climate change effects on water supply to the NSR. The study predicts temperature and rainfall patterns for the period 2021 to 2050.

### *What We Learned:*

All models and scenario combinations predicted an increase in temperature. Ten out of 12 predicted an increase in precipitation. Water yield predictions varied from an increase of 15% to a decrease of 23%.

This report is on our website: [www.nswa.ab.ca](http://www.nswa.ab.ca)



## Basin Water Quality Model (to be completed March 2009)

This project will provide a calibrated, one-dimensional model of water quality for the North Saskatchewan River main stem, from Abraham Lake to the Saskatchewan provincial boundary. It will help to understand the relative inputs of various natural and man-made contaminant sources in order to predict the future impacts of development in the basin and to evaluate the benefits of water quality management options.

## Basin Overview of Ground Water (GW) Resources (to be completed March 2009)

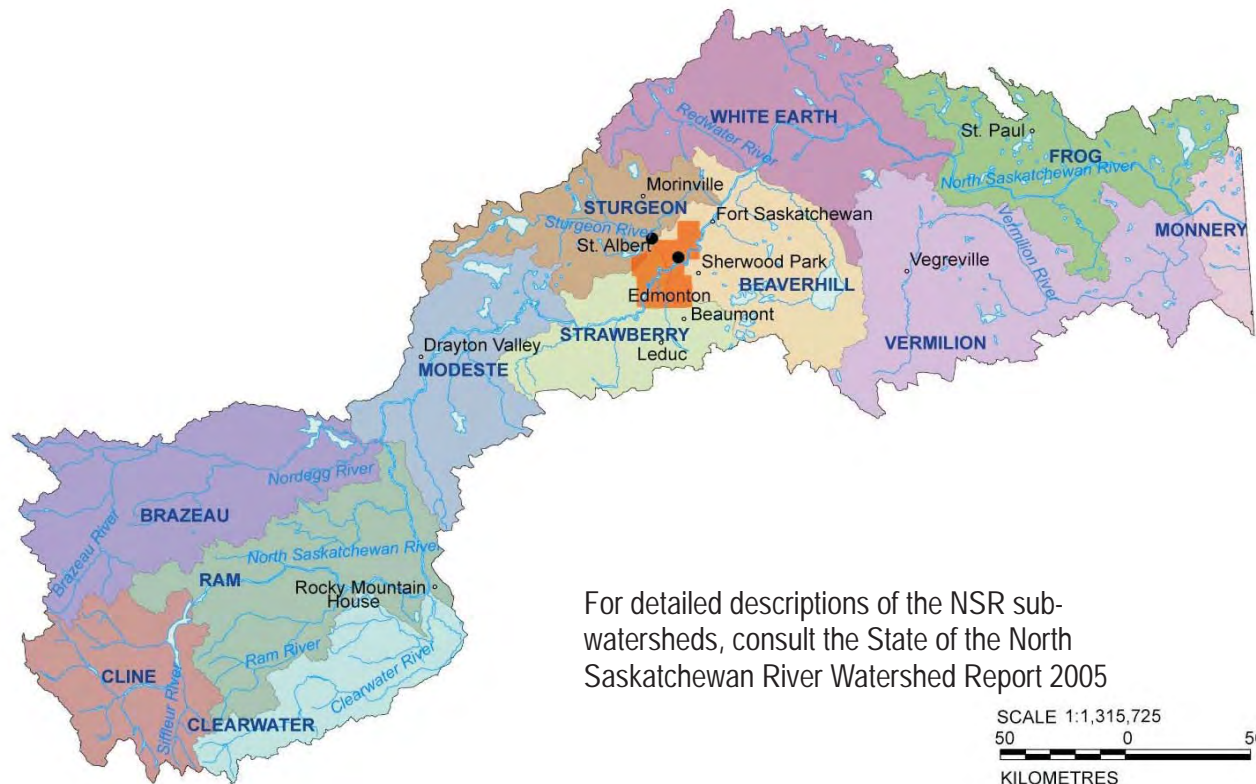
This report will provide an overview of ground water issues, conditions, and knowledge, including:

- Existing geological and hydrological information
- Identifying major aquifers and vulnerabilities
- Potential major sources of GW contamination

## Water Quality Issues, Indicators and Objectives (to be completed March 2009)

This project will:

- Develop site-specific water quality objectives for key reaches of the NSR mainstem and for key tributaries.
- Develop site-specific objectives to protect multiple river system uses.
- Identify significant human pressures.
- Identify probable impacts on water quality.



## North Saskatchewan River Watershed in Alberta

The North Saskatchewan River (NSR) watershed in Alberta is made up of 12 sub-watersheds. The river elevation is 1,390 m above sea level at Saskatchewan Crossing, near the Banff National Park boundary, and 500 m above sea level by the time it reaches the Saskatchewan border. It joins with the South Saskatchewan River just east of Prince Albert, flows into Lake Winnipeg and from there empties into the Hudson Bay by way of the Nelson River.

The NSR is subject to the 1969 Master Agreement on Apportionment between the governments of Canada, Alberta, Saskatchewan and Manitoba, which states that Alberta must pass 50% of the natural flow of east-flowing rivers into Saskatchewan.

Water quality in the NSR is affected by input from natural and human, non-point and point sources. Nutrients, bacteria and chemicals accumulate as water flows downstream. Dissolved oxygen decreases downstream of major urban areas. Flow in the NSR is affected by two headwaters dams: the Brazeau on the Brazeau River, and the Big Horn on the main stem of the river west of Rocky Mountain House. The effect of these impoundments is to redistribute flow to a higher than natural flow in the winter time and lower than natural flow in the summer.

Land use in the NSR Watershed includes: agriculture; resource exploration and extraction; forestry; tourism and recreation; and municipal use. The upper region of the watershed is sparsely populated; the greatest population base is found in and around Edmonton.

For more information about the North Saskatchewan River watershed visit our website: [www.nswa.ab.ca](http://www.nswa.ab.ca)



## NSWA Information Bulletin

### The Municipal Guide:

### Planning for a Healthy and Sustainable North Saskatchewan River Watershed

NSWA's Municipal Guide was published in 2006 and updated in 2008. It is a comprehensive resource, full of information, advice, ideas and tools. It was developed to help municipalities make decisions about land management and development at the community level. A steering committee led by NSWA and supported by municipalities in the North Saskatchewan River Watershed (NSRW) designed the guide to provide an educational and planning tool for municipalities. Individuals and groups within municipalities, such as developers, industry partners, residents and other stakeholders may also find the guide useful.

Local land use activity directly affects the quality and quantity of water in the NSRW; therefore, municipal governments are in a unique position to promote environmental stewardship as a means of protecting their local water resources.

This guide is a planning tool for municipalities and other land managers interested in *watershed stewardship*. Although the guide focuses on issues significant to municipalities within the NSRW, it also contains information that is applicable to municipalities in other parts of Alberta.

The Municipal Guide project originated under the direction of an NSWA coordinator and a steering committee made up of representatives from municipalities within the NSRW, provincial and federal government bodies, and non-government organizations. In the spring of 2005, the project team collected information from municipalities about how their needs could be addressed by a Municipal Guide. Forty-eight representatives from twenty rural and urban municipalities participated in three workshops to kick-start the project.

At the workshops participants discussed an overview of the project and reviewed a draft Table of Contents. They commented on what they liked about the project, what concerns they had with the project and what implications the guide might have in their municipality. They made suggestions for the final content of the guide.

Feedback from these three workshops shaped the form and function of the Municipal Guide. The final draft was reviewed by representatives from municipal, provincial and federal governments and non-governmental organizations prior to publication by NSWA.





## WHAT'S IN THE MUNICIPAL GUIDE?

Chapter 1 Introduction: An overview of the purpose, uses and limitations of this guide.

Chapter 2 Watershed Overview: An overview of watershed issues; components and values of a healthy watershed; how decisions are made; and how activities occurring in individual municipalities affect the overall watershed. There is also an overview of the current state of the North Saskatchewan River watershed and general threats to watershed health.

Chapter 3 Overview of Legislation and Government Bodies Relevant to Watershed Health: A summary of federal and provincial statutes (acts), policies and government bodies that deal with various aspects of watershed health.

Chapter 4 Municipal Planning and Development: A review of the relationship between municipal land use and development decisions and watershed health. It examines a number of opportunities for incorporating watershed considerations into statutory and non-statutory planning.

Chapter 5 Water, Wastewater and Stormwater Operations: An examination of municipal roles relating to watershed health, which include: source water protection; the management and treatment of stormwater; the treatment and distribution of potable water; and the collection and treatment of wastewater.

Chapter 6 Municipal Infrastructure, Property and Operations: An overview of municipal responsibilities relating to: the design of municipal infrastructure; the management of municipal property; and the execution of municipal operations relating to watershed health. Topics include: green spaces; transportation and road maintenance; waste disposal; agriculture services; woodlots; and the oil and gas industry.

Chapter 7 Municipal Bylaws: An overview of the use of municipal bylaws as tools for protecting watershed health. Bylaws discussed in this chapter include those which protect natural areas and trees to prevent pollution and to conserve water.

Chapter 8 Cooperation and Collaboration in the Watershed: A summary of the value of and the strategies for municipal cooperation and collaboration with other stakeholders in the watershed. These stakeholders include departments within a municipality, neighbouring municipalities, residents, community groups, industry groups, non-governmental groups and federal and provincial government bodies.

Chapter 9 Funding Watershed Stewardship:

A summary of funding opportunities for municipalities interested in securing funds for watershed stewardship projects.

The complete Municipal Guide is available on our website: [www.nswa.ab.ca](http://www.nswa.ab.ca)

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Hard copies can be purchased from NSWA.  
[water@nswa.ab.ca](mailto:water@nswa.ab.ca)





## PURPOSE OF THE GUIDE

This guide emphasizes issues significant to municipalities within the NSRW; however, the information is also applicable to other municipalities in Alberta.

In fact, impacts on watershed health resulting from population growth and development pressures are similar in communities around the globe; therefore, much of the information in this guide is relevant beyond Alberta's borders.

Issues concerning both *urban* and *rural* municipalities have been combined in this guide to facilitate understanding and encourage cooperation between the two jurisdictions. While concerns and needs of rural and urban municipalities are often different, watershed management is more effective when there is cooperation across municipal borders.

The information in this guide is useful to municipalities whether they are just beginning to explore their role in watershed stewardship or if they are already active stewards.



This guide can be used as a reference for answering questions, for finding contact information or for gathering ideas about actions municipalities can take to protect their watershed.

Each municipality has its own history, economy, social and environmental conditions, values and visions of how to protect the environment. It is not surprising that approaches to watershed planning will vary from one municipality to another. This guide offers information on various options for local watershed stewardship and from this information municipalities can develop approaches that are unique to each situation.





## Municipalities in the NSRW

### Beaver County

Tofield  
Viking  
Holden  
Ryley

### Brazeau County

Drayton Valley  
Breton

### Clearwater County

Rocky Mountain House

### County of Minburn

Vegreville  
Innisfree  
Mannville  
Minburn

### County of St. Paul

Elk Point  
St. Paul

### County of Thorhild

Thorhild

### County of Two Hills

Two Hills  
Derwent  
Myrnam  
Willingdon

### County of Vermilion River

Vermilion  
Dewberry  
Kitscoty  
Marwayne  
Paradise Valley

### Lac Ste Anne County

Alberta Beach  
Onoway

### Lamont County

Bruderheim  
Lamont  
Mundare  
Andrew  
Chipman

### Yellowhead County

### Camrose County

### Leduc County

Beaumont  
Calmar  
Devon  
New Serepta

Thorsby  
Warburg

### M.D. of Bonnyville

### County of Wetaskiwin

### Parkland County

Stony Plain  
Spring Lake  
Wabamun

### Smoky Lake County

Smoky Lake  
Vilna  
Waskatenau

### Strathcona County

Sherwood Park

### Sturgeon County

Bon Accord  
Gibbons  
Legal  
Morinville  
Redwater

### Westlock County

### Clyde

### Cities

Edmonton  
Fort Saskatchewan  
Leduc  
Lloydminster  
Spruce Grove  
St. Albert





## NSWA Information Bulletin

# NSWA RURAL MUNICIPAL FORUM

February 10, 2009

Ninety people attended the NSWA rural municipal watershed planning forum in Nisku, Alberta. Representatives from 14 of the 19 counties and one Municipal District in the North Saskatchewan River (NSR) watershed participated in three discussion panels.

The conversation focused on the challenges and successes experienced by rural municipalities when dealing with watershed issues. The general response to the forum was positive and there appears to be a willingness on the part of rural municipalities to continue the conversation with NSWA about their role in the integrated watershed management planning process (IWMP). Some counties expressed a need for more information about watershed function and about watershed management in general.

Counties with planning departments indicated their willingness to receive information and direction from their planners who would attend future NSWA IWMP discussions. Other counties without planning departments felt that participation by elected officials and/or agricultural service staff would be acceptable.

**Municipal Forum participants suggested a wide range of topics to be included in future information bulletins:**

- Watershed function
- Groundwater/potable water
- Water distribution & storage options
- Discussion around the many planning processes
- Sub-watersheds
- Fish in rivers and tributaries
- Indicator species (What are they? Where are they? What do they tell us?)
- Wetlands, including suggestions for ways to encourage wetland conservation and ways to understand the concept of wetland water storage
- Wastewater
- The notion of *sustainability* (What does it mean? How can a practice be assessed for sustainability?)
- More information to help understand the implications of NSWA technical reports and studies

*56% of the municipal attendees at the forum filled out a feed back survey.*





## DISCUSSION FORMAT

The discussion panel format worked well, but several counties who were involved with earlier Municipal Guide focus groups and the original IWMP community café meetings suggested NSWA return to those formats for future discussions.

To make the discussions about NSWA technical studies and reports more meaningful, it was suggested that charts and graphs be presented in the context of geography - e.g. using maps, simplified diagrams and other visuals.

There seemed to be a general agreement that future forums encourage practical discussion rather than focusing on abstract processes. There also was a strong desire to avoid the use of jargon and acronyms, both in policy and technical discussions.

Many participants expressed appreciation for the opportunity to talk about watershed issues county to county. County representatives interact with each other in other venues; however watershed topics are not often part of those discussions.

## Suggestions for future workshops and presentations:

- Nuts & bolts of the *Water Act* and the draft Wetland Policy
- Jurisdictional overlap and responsibility in watershed management
- Information on groundwater
- Wetland function: dynamics and identification of 'recharge' areas
- Options for water storage & water distribution
- Opportunity for dialogue among NSWA, counties and the Land-use Secretariat
- Opportunity for dialogue between counties and urban recreation users
- Issues around potable water
- Issues around re-cycling waste water

## RURAL MUNICIPALITIES with a land-base within THE NSR WATERSHED:

CLEARWATER  
 BRAZEAU  
 YELLOWHEAD  
 PARKLAND  
 STURGEON  
 LAC STE. ANNE  
 THORHILD  
 LEDUC  
 WETASKIWIN  
 STRATHCONA

WESTLOCK  
 LAMONT  
 TWO HILLS  
 MINBURN  
 BEAVER  
 CAMROSE  
 SMOKY LAKE  
 ST. PAUL  
 VERMILION RIVER  
 BONNYVILLE





## Municipal Forum - WHAT WE HEARD

### Obstacles/Opportunities

- More information needed about NSWA and the watershed in general
- Confusion around interjurisdictional responsibilities for watershed planning
- Skepticism about the accuracy and efficacy of the 'science'
- Technical information is complex
- Too many acronyms / too much ever-changing jargon
- Not all rural municipalities were represented at the forum
- Disparity in knowledge of watershed issues among counties
- Not enough is known about the state of the sub-basins
- Not enough opportunities to pose watershed questions
- Mixed reaction about county role in watershed planning process
- Diversity of issues



### Resources/Strengths

- Rural municipalities are generally interested in participating in the IWMP
- Many rural municipalities have planning and agricultural service staff available to participate in further workshops.
- Rural municipalities are interested in results of NSWA studies
- NSWA Information Bulletins were well received.
- New website is more accessible
- People are generally more informed about the environment
- NSWA staff have broad skill sets and strong interest in strengthening partnerships

### Strategies Suggested for More Effective Engagement

- Future workshops (3 or 6 month intervals)
- Find more ways to translate technical information
- Make more use of maps to explain watershed issues at sub-basin level
- NSWA to bring information to regional conferences and events
- Keep counties up to date with results of NSWA studies as information becomes available
- Invite county planning and agriculture services personnel to participate in the next stage of developing the IWMP. They would be the liaison with their counties, until such time that NSWA has a draft plan for counties to review.



# North Saskatchewan Watershed Alliance

[www.nswa.ab.ca](http://www.nswa.ab.ca)

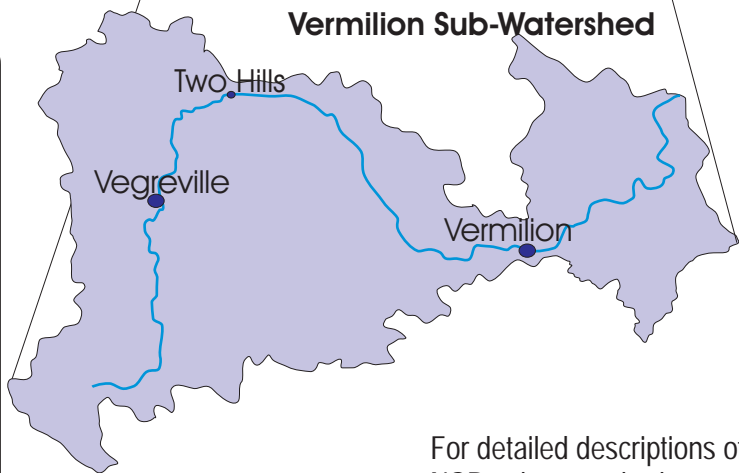


The **Sturgeon** subwatershed encompasses 331,764 ha including 15,813 ha of natural and artificial water bodies. It includes the municipal boundaries of Barrhead, Lac Ste. Anne, Parkland and Sturgeon Counties; the communities of Spruce Grove, Stony Plain, Onoway, Morinville, Bon Accord, Gibbons, Calahoo, Villeneuve, Spring Lake; the First Nations' reserves of Alexis 133 and Alexander 134; and parts of the City of Edmonton and St. Albert.

No published assessment of riparian health was located for lakes, wetlands, rivers or creeks in the Sturgeon subwatershed. This data gap could be addressed by future research within the Sturgeon subwatershed.

11% of the subwatershed is treed. 71% of the land area has been disturbed by various forms of development. Water bodies cover a little over 5% of the subwatershed.

*The North Saskatchewan River in Alberta receives water from 12 sub-watersheds*



The **Vermilion** subwatershed encompasses 782,642 ha including 35,995 ha of water bodies. It includes the municipal boundaries of Beaver, Lamont, Minburn, Two Hills, St. Paul and Vermilion River Counties and the towns of Beauvallon, Clondonald, Dewberry, Hairy Hill, Holden, Innisfree, Islay, Kitscoty, Mannville, Marwayne, Minburn, Mundare, Musidora, Ranfurly, Two Hills, Vermilion, Vegreville and Willingdon.

As of 1999, riparian health along the Vermilion River was assessed as: 54% percent of the sites as 'unhealthy', 30% as 'healthy, but with problems' and 16% as 'healthy'.

Water bodies cover 5% of the subwatershed. About 0.2% of the subwatershed is covered in trees. No published assessment of aquatic macrophytes was found for the waterbodies in the Vermilion Subwatershed: this data gap could be addressed by future research within the Vermilion subwatershed.

For detailed descriptions of all the NSR sub-watersheds, consult the **State of the North Saskatchewan River Watershed Report 2005**  
[www.nswa.ab.ca](http://www.nswa.ab.ca)

## North Saskatchewan River Watershed Sub-basin Overview

**The North Saskatchewan Watershed Alliance (NSWA)** a multi-stakeholder group committed to protecting and improving water quality and ecosystem function in the North Saskatchewan River watershed within Alberta.

The designated **Watershed Planning and Advisory Council (WPAC)** for the North Saskatchewan River system under *Water for Life*, Alberta's Provincial Water Strategy.



### Current Priority

The **Integrated Watershed Management Plan (IWMP)** that will provide a framework for protecting, maintaining and restoring a healthy, natural watershed where economic and social needs are balanced with the ecological needs of the watershed.

[www.nswa.ab.ca](http://www.nswa.ab.ca)



### Ask us about:

- **Municipal Resource Guide**—to guide sustainable development. Created through a steering committee with strong municipal representation. Your municipal office has a copy of this publication.
- **State of Watershed Report** - summary of the current status of the watershed. On our website and available on CD from our office.
- **Community Watershed Toolkit** - "how-to" manual for groups working to improve watershed health. On our website and available from our office.
- **North Saskatchewan Eco-Recreation River Guide** - brief cultural and natural tour of the river, with maps.
- **Canadian Heritage River Background Study** - more comprehensive river tour featuring cultural and natural heritage values along the river. On our website and available from our office.

### Contact Us

**North Saskatchewan Watershed Alliance**  
6th Floor Century Place  
9803—102A Avenue  
Edmonton, Alberta T5J 3A3  
Tel: (780) 496-5577 or Fax: (780) 496-5648  
Email: [water@nswa.ab.ca](mailto:water@nswa.ab.ca)

## Cline SUBWATERSHED

Healthiest sub-watershed, but significant data gaps exist for assessing ecosystem health. It is a spectacular headwater area within the North Saskatchewan Watershed with 60% of its area in National Parks or wilderness areas. Because of the protected nature and the terrain of the Sub-watershed, there is little linear development (mostly roads) and little or no cut lines or seismic activity. With its rugged landscape, low level of disturbance and pristine wilderness, there is a significant amount of recreational activity in the Sub-watershed. Livestock densities in the Cline Sub-watershed are minimal.

Most aquatic ecosystems are unimpaired and likely in a natural, optimal functioning state. Water quality on the main stem of the North Saskatchewan River monitored by Environment Canada at Whirlpool Point was found to be only “fair” for the 1983-2002 period, while similar sites in the headwaters of the Bow and Athabasca rivers both received a “good” rating. These differences can be explained by the nature of the parameters that were used to calculate the WQI. Site-specific WQI parameters for Whirlpool Point may be required to accurately reflect the true state of the water quality at this site.

Water quantity is measured at ten stations in the sub-watershed: one site has real-time online data. These stations provide information for the operation of the Bighorn hydroelectric dam. No detailed population assessments were found for fish species in the sub-watershed, nor was a systematic examination of riparian health, aquatic plants or benthic invertebrates found for the Sub-watershed. These data gaps could be addressed in future research of the Cline Sub-watershed.

There is little information related to several of the indicators required to assess ecosystem health for this sub-watershed. However, of the 5 indicators assessed, three were good, one was fair, and one was poor, yielding an overall subjective rating of good. Given the high percentage of this basin that lies in national parks and wilderness areas and the rugged terrain, there is little development and significant negative impacts are not anticipated. However, the potential impacts of forest harvesting on the sub-watershed should be examined.

### **Human Habitation:** Clearwater County, Saskatchewan Crossing

*This information is from State of the North Saskatchewan Watershed Report 2005—available on our website.*

### **Contact Us**

**North Saskatchewan Watershed Alliance**  
6th Floor Century Place  
9803—102A Avenue  
Edmonton, Alberta T5J 3A3  
Tel: (780) 496-5577 or Fax: (780) 496-5648  
Email: [water@nswa.ab.ca](mailto:water@nswa.ab.ca)



## RAM SUBWATERSHED

2% of developed area is municipal or reserve area, a small area affected by well sites and other facilities. No long-term river water quality information exists. Town of Rocky Mountain House discharges treated wastewater to the North Saskatchewan River. Water quantity is measured at twelve stations, two of which have real-time online data. No detailed assessments of fish populations have been done. Studies suggest that the North Saskatchewan River and Baptiste River systems provide critical habitat for spawning, rearing and over-wintering of fish.

Future Studies could focus on the impacts of linear development and the potential conflicts between industrial activities – forest harvesting and oil and gas development – and recreational uses. The importance of this area to recreation and tourism, and the importance to fish habitat make provide the incentive for filling data gaps.

**Human settlement:** Ochiese I. R. 203, Sunchild I. R. 202, Big Horn I. R. 144A, Clearwater County, Rocky Mountain House, Nordegg

*This information is from State of the North Saskatchewan Watershed Report 2005—available on our website.*



## APPENDIX D: FORUM AGENDA, QUESTIONS AND PRESENTATIONS

- NSWA Rural Municipal Forum Agenda
- Municipal Panel Discussion and Plenary Questions
- Presentations
- “*Water for Life: NSWA Municipal Forum*”, Andy Lamb, Alberta Environment
- Integrated Watershed Management Planning for the North Saskatchewan River Basin:, David Trew, NSWA
- “Collaborative Planning under *Water for Life*”, Michael Evans, Teleologic Strategic Communications Inc.





## NSWA RURAL MUNICIPAL FORUM DRAFT AGENDA

Tuesday, February 10, 2009  
Royal Executive Inn, Nisku, Alberta

### GOALS

- ◆ To describe watershed planning directions and goals under Water for Life
- ◆ To outline NSWA's basin-wide progress to date
- ◆ To identify watershed and planning issues most relevant to counties
- ◆ To identify the content of the IWMP most relevant to counties' needs
- ◆ To evaluate potential for collaborative development of the IWMP

TIME	TOPIC	SPEAKER
9:00 am	Map out the process of the day	Mike Evans
9:15 am	Watershed Planning under Water For Life	Andy Lamb
9:45 am	Watershed Management Planning in the North Saskatchewan River basin	Dave Trew
	10:15 Coffee Break	
10:30 am	Collaborative planning under Water for Life	Mike Evans
11:00 am	Municipal Panel #1 - Counties outline watershed planning issues/activities	County Reps
	Noon Lunch	
1:00 pm	Key Note Address: "Integration of planning activities under Water for Life and the Landuse Framework" Mr. Jim Ellis, Deputy Minister, Alberta Environment	
1:45 pm	Municipal Panel #2 Counties outline watershed planning issues/activities	County Reps
	2:45 pm Coffee Break	
3:00 pm	Municipal Panel #3 Counties outline watershed planning issues/activities	County Reps
4:00 pm	Proposed Integrated Watershed Management Plan for the NSR	Tom Cottrell Andrew Schoepf Sharon Reedyk
4:45 pm	Reflections on the day's discussion	Pat Alexander Pat Gordeyko
	5:00 pm END	

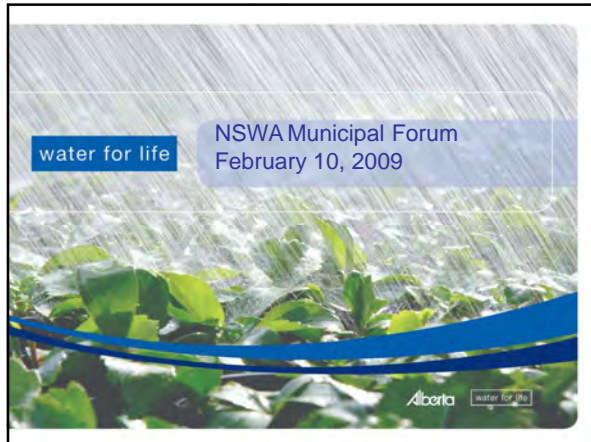
Municipal Panel #1: Clearwater, Yellowhead, Brazeau, Wetaskiwin, Parkland, Leduc

Municipal Panel #2: Lac St. Anne, Sturgeon, Westlock, Strathcona, Thorhild, Beaver, Lamont

Municipal Panel #3: Smoky Lake, Minburn, Camrose, Two Hills, St. Paul, M.D. of Bonnyville, Vermilion River

7:00 pm to 9:00 pm Registration for conference: WE ARE ALL UPSTREAM II: Making Connections

"What We Heard" from the Municipal Forum will be presented during the Conference



### Water for Life: Alberta's Strategy for Sustainability

- Original *Water for Life* Strategy approved in 2003, after extensive public consultation
- *Water for Life* is Alberta's strategic plan to sustainably manage Alberta's water resources
- Alberta Water Council established in 2004 to monitor and steward implementation of the Strategy

Alberta water for life

This slide has a light blue background with a white rounded rectangle containing the title and a darker blue rounded rectangle containing the bullet points. The Alberta logo and 'water for life' are in the bottom right corner.

### Strategy Goals and Directions

- **Goals**
  - Safe, secure drinking water supplies
  - Healthy aquatic ecosystems
  - Reliable, quality water supplies for a sustainable economy
- **Directions**
  - Knowledge and Research
  - Partnerships
  - Conservation

Alberta water for life

This slide has a light blue background with a white rounded rectangle containing the title and a darker blue rounded rectangle containing the bullet points. The Alberta logo and 'water for life' are in the bottom right corner.

### Water for Life Achievements (2003-08)

Safe, secure drinking water supplies:

- Completed an assessment of all drinking water facilities in Alberta, and provided online access to all drinking water facility test sample results
- Implemented a regional drinking water systems program

Healthy aquatic ecosystems

- Completed an initial assessment of the status of Alberta's aquatic ecosystems

Reliable, quality water supplies for a sustainable economy

- Established water conservation objectives for the S. Sask. River Basin

Alberta water for life

This slide has a light blue background with a white rounded rectangle containing the title and a darker blue rounded rectangle containing the text and bullet points. The Alberta logo and 'water for life' are in the bottom right corner.

### Water for Life Achievements (2003-08) - continued

Knowledge and Research

- Established the Alberta Water Research Institute

Partnerships

- Established the Alberta Water Council, nine watershed planning and advisory councils, and a growing number of community stewardship groups.

Conservation

- Established a system to monitor and report actual water use by all sectors
- Agreement by seven sectors to develop water conservation, efficiency and productivity plans

Alberta water for life

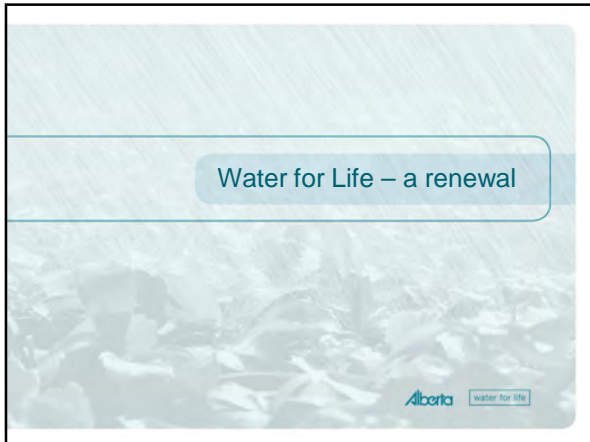
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### Changing context since 2003

- South Saskatchewan River Basin plan signed off, closing three sub-basins to new surface water allocations
- Increased population and industrial growth in Alberta
- Industrial growth pressures on "water sources" to deliver assured supplies, including pressures on the Athabasca River and the North Saskatchewan River
- Increased concerns about groundwater contamination from oil and gas development

Alberta water for life

This slide has a light blue background with a white rounded rectangle containing the title and a darker blue rounded rectangle containing the bullet points. The Alberta logo and 'water for life' are in the bottom right corner.



### Alberta Water Council Renewal Recommendations

**Safeguard our water sources**

1. Address aquatic ecosystem degradation
2. Integrate water and land management
3. Create, enhance and use innovative tools and best practices

**Accelerate Action**

4. Clarify roles, responsibilities and accountabilities
5. Enhance data collection, analysis, and reporting
6. Expand public awareness programs and build shared commitment

Alberta water for life

### Alberta's Water Management Principles:

**13 principles govern GOA's approach to water management. Examples include:**

- Alberta's water resources must be managed within the capacity of individual watersheds.
- Citizens, communities, industry and government must share responsibility for water management and work together to improve conditions within their local watersheds.
- Best available practices and market-based tools will be used in order to maintain flexible and adaptive water management.

Alberta water for life

### Alberta's Water Management Principles:

- **NEW:** 'Water for Life' will be integrated into other policies and plans, such as Land-use Framework Planning, ensuring better resource management integration'
  - WPACs will play a key role in defining place-based outcomes through adaptive regional planning and cumulative effects management.

Alberta water for life

### Water for Life strategy – key areas of focus

- Regional drinking water and wastewater solutions
- Develop and implement an enhanced surface water transfer system
- Develop and implement a viable governance system that supports sustainable management of water
- Enhance provincial water monitoring, evaluation and public reporting
- Finalize and implement a new Wetland Policy for Alberta
- Sector based Water Conservation, Efficiency and Productivity plans and market incentives
- Partnership-based watershed assessment and integrated regional planning

Alberta water for life

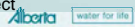
### A Roadmap For Action

- Action Plan to be released in early 2009
- The action plan will outline a number of short, medium and long-term key actions to achieve the goals and outcomes outlined in the strategy including:
  - Actions carried over from original 2003 strategy
  - 15 key actions outlined within the Water for Life strategy
  - Others to integrate with Land-use Framework and address emerging issues
- Report annually on progress on commitments outlined in the Action Plan

Alberta water for life

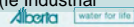
### Water for Life in Central Region

- Four WPAC's – NSWA, Battle River Watershed Alliance, Red Deer River Watershed Alliance, and Athabasca River (currently in development)
- Numerous Stewardship groups – eg: Pigeon lake Watershed Association, Wabamun Watershed Council
- State of the Watershed reports complete or underway in each Basin. Integrated Watershed Management Plans under development.
- Regional drinking and wastewater projects proceeding:
  - Red Deer water line, Shirley McLennan Water Commission
  - Central Alberta Wastewater project



### Watershed Planning under WFL

- Past AENV water management planning focused on water allocation and setting instream water conservation objectives (WCO) i.e. SSRB Water Management Plan
- WFL Renewal re-emphasized need to integrate water/land management within a watershed approach.
- Future plans will include both water allocation and protection of water quality – NSWA IWMP is breaking ground!
- Alignment with Land Use Framework – increased focus on cumulative effects (air, land and water), and progressive management response (ie Industrial Heartland).




The screenshot shows the homepage of the Alberta Water for Life website. At the top, there is a navigation menu with links for Programs, Services, Legislation, Forms, Publications, Contact Us, and News. The main content area features a large banner with the text "Water for Life" and a sub-header "Alberta's quality of life, and life itself, depends on having a healthy and sustainable water supply for the communities, for our cities, and for our beautiful wilderness." Below the banner, the website URL "www.waterforlife.alberta.ca" is prominently displayed. There are also several informational boxes and a footer with contact information.





## Integrated Watershed Management Planning for the North Saskatchewan River Basin

Presented by  
David Trew - Executive Director NSWA  
to  
Rural Municipal Watershed Planning Forum  
February 10, 2009



## North Saskatchewan Watershed Alliance (NSWA)

- A multi-stakeholder, non-profit society
- Formed in 1999 by: EPCOR, Trout Unlimited, PFRA, TransAlta, City of Edmonton
- 220+ members (2008)
- Web site [www.nswa.ab.ca](http://www.nswa.ab.ca)
- Appointed WPAC in 2005



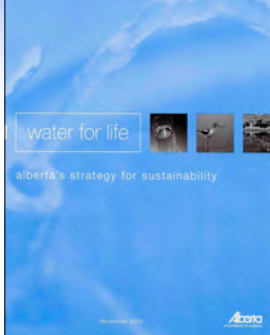
## Water for Life (2003)

**OUTCOMES:**

- Safe drinking water
- Healthy aquatic ecosystems
- Reliable water supplies

**KEY DIRECTIONS:**

- Knowledge and research
- Water conservation
- *Partnerships for watershed management and stewardship*




## Water for Life Renewal (2008)

- Nov. 16, 2008
- Minster Renner confirms original WFL *outcomes* and *key directions*
- New *specific outcomes* and *key actions* identified
- WPAC role in watershed assessment and planning re-confirmed



## Watershed Planning Advisory Councils

- Nine WPACs have been appointed in Alberta
- Mandate:
  - State of the Watershed Reports
  - Integrated Watershed Management Plans
  - Develop a collaborative, sector-based approach to watershed planning



## NSWA – Board of Directors (14)

- 2 Industrial
- 2 Provincial Departments
- 1 Federal Department
- 2 Rural Municipalities
- 1 Urban Municipality
- 2 NGOs
- 2 Agricultural
- 1 First Nations, 1 Metis



### 2008-09 Executive Members

- **President:** Dr. Les Gammie (EPCOR)
- **Vice-Pres:** Pat Alexander (Clearwater County)
- **Treasurer:** Celeste Nicholson (NEAWMC)
- **Secretary:** Andrew Schoepf (AENV)



### NSWA - Capacity

**Staff**

- Billie Milholland, B.A.
- Gordon Thompson, P. Eng
- Graham Watt-Gremm, M.Sc.
- Tom Cottrell, M.A.
- Jayme Nelson, B.Sc.
- David Trew, P. Biol.

- In-kind support - members
- City of Edmonton provides offices and IT support
- Consultants and GOA staff



### Operational and Project Support

- Water For Life: Alberta's Strategy for Sustainability
- Government of Canada (PFRA - CAWSEP)
- City of Edmonton
- Rural Municipalities
- Industry (EPCOR, Petro-Canada)
- Alberta Beef Producers
- Ducks Unlimited Canada
- Alberta Ecotrust
- Other partners



### NSWA Initiatives (2002-06)

- North Saskatchewan River Guide (2002)
- Community Watershed Stewardship Toolkit (2002)
- Canadian Heritage Rivers Program (2005)



### NSWA Initiatives (2002-06)

- State of the Watershed Report (2005)
- Municipal Resource Guide (2006)



### NSWA Strategic Plan 2008-2011

- Three primary goals:
  - Completion of the *Integrated Watershed Management Plan (2010)*
  - Design and implementation of the *Vermilion River Watershed Management Project*
  - Ongoing provision of education, communication and information exchange opportunities for watershed stakeholders



## The NSR Integrated Watershed Management Plan (IWMP)


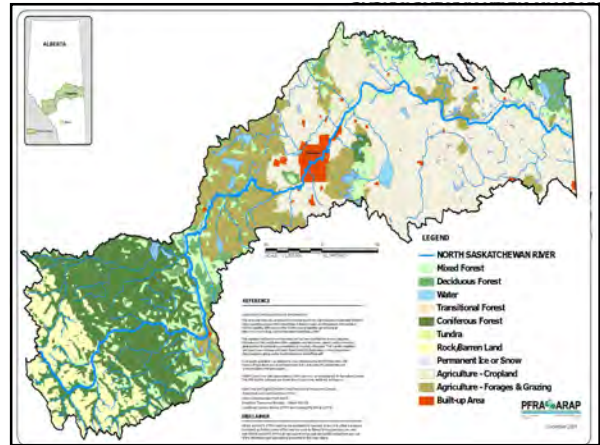
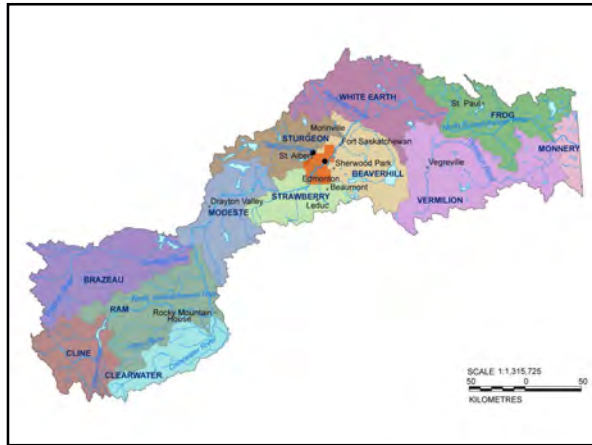
**Objectives:**

- Develop strategies to protect drinking water, aquatic ecosystems and water supplies for future generations
- IWMP meets economic, social, health and environmental needs
- Plan collaboratively with all watershed sectors (IWMP-SC)
- Rural municipal sector role




## NSWA IWMP Overview

- Identify NSR issues and concerns (basin-wide)
- Develop environmental indicators and objectives
- Develop modelling/forecasting capability
- Engage all stakeholders in watershed planning to meet objectives
- Timeframe – 2010


## Basin Features

- Basin area 57,000 km<sup>2</sup>
- 12 sub-basins
- 19 counties, 1 M.D.
- 1.1 million+ people
- 100+ small cities, towns villages
- Edmonton and large industrial zone
- 14 First Nations/Metis settlements
- 2 large hydroelectric reservoirs
- 37 recreational lakes
- extensive agriculture, forestry, oil and gas



## IWMP Work Plan – Main Activities

- Watershed Assessment and Modeling (Research and Knowledge)
- Public Participation and Multi-Sector Involvement
- Economics of Watershed Management
- Plan Development (recommendations, strategies, policies)



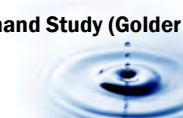
### Completed Technical Projects

- State of the Watershed Report (Aquality 2005)
- In-stream Flow Needs (Golder Associates 2007)
- Water Use and Demand (AMEC 2007)
- Water Supply Assessment (Golder Associates 2008)
- Climate Change Effects on Water Supply (Golder Associates 2008)
  
- All reports at [www.nswa.ab.ca](http://www.nswa.ab.ca)



### Current projects – March 31, 2009

- Development of Water Quality Targets (Golder Associates)
- Development of a Water Quality Model for the NSR Basin (Tetra-Tech)
- Summary of Groundwater Issues in the NSR Basin (WorleyParsons)
- Development of a Landscape Model (ALCES) for the NSR Basin (Sullivan- ALCES Group)
- Vermilion River Water Supply/Demand Study (Golder Associates)



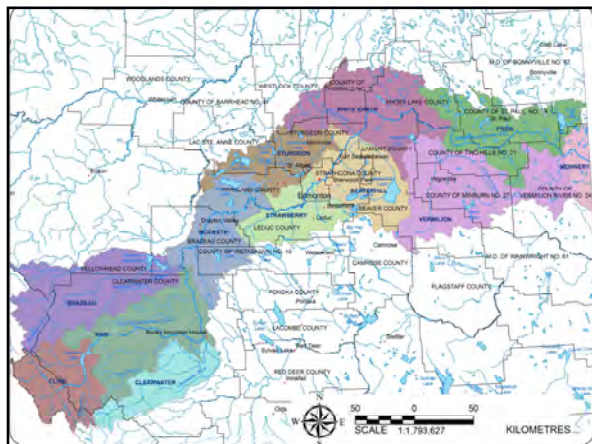
### IWMP - Proposed work for 2009-10

- Review and Finalize Water Quality Targets
- Create Future Basin Development Scenarios
- Model Future Scenarios
- Determine Instream Flow Needs (IFN)
- Economic Analysis of Watershed Plan Concepts
- Develop preliminary IWMP report - for discussion



### Challenges


- The WFL- WPAC model is a new approach to water resources and watershed planning in Alberta - still evolving
- Align IWMP with new planning initiatives (Industrial Heartland, Land Use Framework)
- Need active participation of all stakeholders (to ensure completion and success of plan)
- Plan must be relevant to different sectors and scales of planning needs
- **KEEP GOING, IWMP IS NEEDED!**



For more information and to join NSWA:

[www.nswa.ab.ca](http://www.nswa.ab.ca)





## NSWA Rural Municipal Watershed Planning Forum


Tuesday, March 10, 2008  
Royal Executive Inn, Nisku, AB

1

## Housekeeping

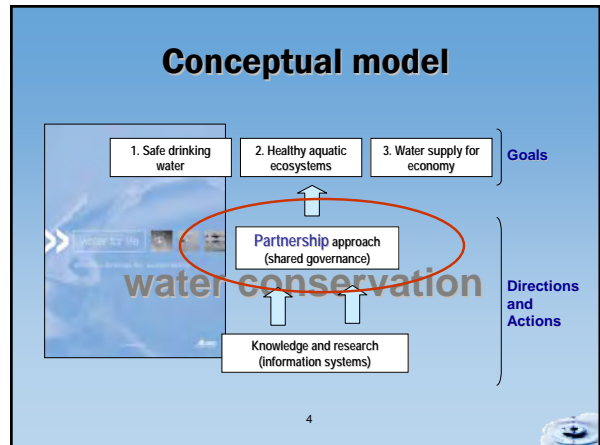
- A very long and challenging day.
- Washroom locations.
- Three presentations to start the day. Three panels of rural municipalities to follow.
- Facilitators will direct participation based on the questions sent to panel participants in advance.
- We'll be hearing at noon from Deputy Minister Jim Ellis about the integration of watershed management planning with the Land-Use Framework.
- Everyone must participate to get good results. Please respect the diversity of opinions represented by participants.

2



## Collaborative Planning under Water for Life

3



## Water for Life renewal

**Safeguard our water sources**

1. Address aquatic ecosystem degradation
2. Integrate water and land management
3. Create, enhance and use innovative tools and best practices


**Accelerate Action**

4. Clarify roles, responsibilities and accountabilities
5. Enhance data collection, analysis, and reporting
6. Expand public awareness programs and build shared commitment

5

## Resource-based economy

- Alberta's top four industries are oil and gas (petrochemical), agriculture and agri-food, forestry, and tourism.



The map of Alberta is color-coded to show different resource-based industries. Red areas represent oil and gas, green areas represent agriculture and agri-food, and blue areas represent forestry. Small icons and photos are placed over the map to illustrate these industries, including a water tower, a person, a water drop, and a water tap.

6

## Related water issues

- Competing water uses and consequent water scarcity.
- Increased glacial melting and other climatic impacts.
- Blue-ribbon fisheries conservation and riparian protection.
- Unconstrained recreational use causing environmental degradation, *i.e.*, soil erosion, *etc.*
- Non-point source pollution – fertilizer run-off, nutrient loading, *etc.*
- Aquatic environment degradation.
- Wetlands conservation – inventory underway with new policy.
- Groundwater recharge and protection.
- Competing upland activities with water impacts – forestry, oil & gas, mining, *etc.*
- Overall water quality.
- Population growth.
- Water/wastewater treatment.

7

## Water for Life partnerships

**Partnerships**  
Three types of partnerships work together to make recommendations to government, stakeholders and the public-at-large to improve water and watershed management throughout Alberta.

**Watershed Planning & Advisory Councils**  
Collaborative, volunteer-led, consensus-based, independent organizations with representation from all key partners within the watershed. WPACs engage partners, and the general public, in watershed assessment and planning.

**Watershed Stewardship Groups**  
Typically community-based volunteer organizations actively engaged in activities to protect and enhance local lakes and streams and to deliver awareness and education programs.

**Government of Alberta**  
Holds the responsibility, accountability and authority for all water management decisions. Partnerships will help the government to achieve an integrated approach to water and watershed management.

**Alberta Water Council**  
This multi-stakeholder advisory body provides direction and advice under the province's Water for Life strategy. Makes recommendations on provincial water issues and their solutions.

**Information sharing, advice and collaboration**

## W4L partnerships

These are NOT hierarchical – more often described as “nested.”

Government of Alberta, which is accessible to all Albertans

Shared responsibility to achieve Water for Life goals

- Secure drinking water supply
- Healthy aquatic ecosystems
- Water supplies for economy

9

## Partnership functions

Alberta Water Council	Policy recommendations
WPACs	Planning recommendations
WSGs	On-the-ground service delivery; some are planning in sub-watersheds

10

## Alberta Water Council

<b>Industry</b>	Chemical and petrochemical, forestry, irrigation, livestock, mining, oil and gas, and power generation.
<b>Non-governmental</b>	Environmental, fishery habitat conservation, lake environment conservation, Watershed Planning and Advisory Councils and wetland conservation.
<b>Government of Alberta</b>	Alberta Agriculture and Food, Alberta Economic Development Authority, Alberta Energy, Alberta Environment, Alberta Health and Wellness, Alberta Science and Research Authority and Alberta Sustainable Resource Development.
<b>Other government</b>	Federal, First Nations, large urban, Métis Settlements, rural and small urban.

11

## Watershed Planning and Advisory Councils

- Mandated by government to produce two watershed-based deliverables:
  - state-of-the-watershed reports; and
  - watershed management plans,
    - which include both the “what” and the “how.”

12

## North Saskatchewan Watershed Alliance

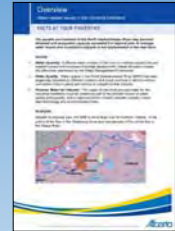
- Different issues dominate in the central regions of Alberta.
- No irrigation districts but agriculture is still a significant industry.
- Forestry and mining are significant industries in the foothills and more northern regions; downstream impacts are notable.
- Impacts of coalbed methane on groundwater and related surface development.
- NSWA has a larger percentage of the provincial population than any other WPAC – and is dominated by the Capital region.



13

## Development impact on NSR

- Despite its physical size, the NSR is not a large river for northern Alberta. It has one-third the flow of the Athabasca River and one-seventh (15%) the flow of the Peace River.
- It also has relatively heavy municipal demands and growing industrial demands.



14

## Alberta's Industrial Heartland



15

## Strengthening Partnerships

- Released in September 2008.
- Contains 13 recommendations for the implementation of "shared governance" among the four broad sectors.
- NSWA is, in effect, testing these recommendations with its stakeholder partners to determine the best way forward.



16

## Government/AWC assumptions

- Sector model best way forward.
- Consensus decision-making strongly advocated.
- All sectors must participate.
- Adaptive management and outcome-based planning methodologies enable the sharing of responsibility among partner stakeholders.

17

## Authority and accountability

- Authority and accountability in any governance structure are ordinarily two sides of the same coin.
- WPACs are accountable to deliver state-of-the-watershed reports and watershed management plans.
- They do not, however, have any legislative authority to implement those plans.
- Authority is vested in and distributed among their partner stakeholders.



18

## Making change happen

"Action has meaning only in relationship and without understanding relationship, action on any level will only breed conflict. The understanding of relationship is infinitely more important than the search for any plan of action."

– J. Krishnamurti

"Culture trumps strategy."

– Chuck Klosterman

19

## Collaborative planning

- NSWA administrative body is trying to find solutions to the issues with which you're familiar.
- NSWA governance body is trying to build the process through which those solutions can best be found.

Relationship	=	Culture	=	Shared Governance
Action	=	Strategy	=	Watershed Management Planning

20


## Resistance to change

- Province performed this function until the mid-90s.
- Municipalities among those who feel that Alberta 'downloaded' responsibilities for service delivery to them.
- Some resentment remains which reduces willingness to adopt the proposed shared governance model.
- Municipalities remain important contributors to the goals of *Water for Life*.
- Rural municipalities, in particular, encompass large land bases.



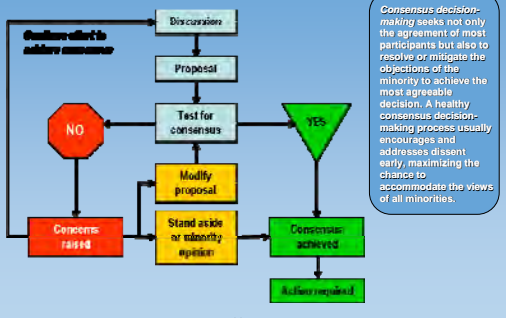
21

## How are sectors best engaged?



22

## Consensus decision-making



*Consensus decision-making seeks not only the agreement of most participants but also to resolve or mitigate the objections of the minority to achieve the most agreeable decision. A healthy consensus decision-making process usually encourages and addresses dissent early, maximizing the chance to accommodate the views of all minorities.*

23

## Moving from water to watersheds

- The Province has encouraged *water management plans* for several years under the *Water Act*.
- Two kinds exist: "authorized" and "approved." Suggest that WPACs "endorse" plans.
- The shift to watersheds moves beyond parameters relating strictly to water and incorporates land use that affects those parameters.


*A watershed is an area of land that catches precipitation and drains it to a common point such as a marsh, lake, stream or river and recharges groundwater. A watershed can be made up of several sub-watersheds that contribute to the overall drainage of the watershed.*

24



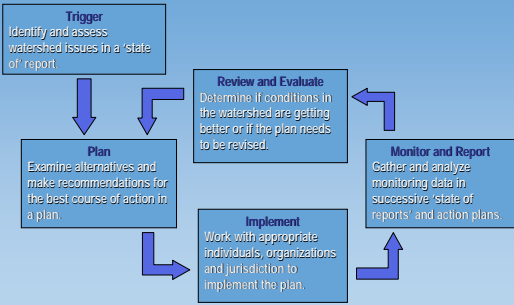
## Watershed management plan

A comprehensive document that provides assessment and management information for a geographically defined watershed, including the analysis, actions, participants, and resources related to development and implementation of the plan.



25

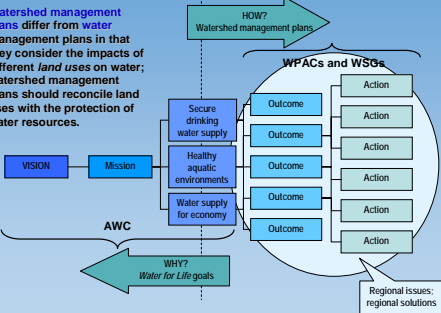
## Using adaptive management



26

## Outcome-based planning

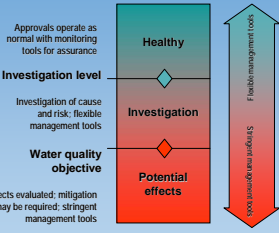
Watershed management plans differ from water management plans in that they consider the impacts of different land uses on water; watershed management plans should reconcile land uses with the protection of water resources.



27

## Defining outcomes - 1


- Water quality is managed based on many chemical parameters, while quantity is managed based on weekly flow expectations.
- Individual investigation and water quality objective triggers exist for each parameter (e.g. nutrients, metals, industrial chemicals, etc), with management actions for these triggers as shown in the figure to the right.



28

## Defining outcomes

- Might more easily be thought of as "quality-of-life" contributions to be made by the watershed.
- One outcome might be, for example, to restore an indigenous arctic grayling fishery, which would be supported by a number of actions, all of which would have appropriate performance indicators related to water quality and quantity, etc.



29

## NSWA in action

- There is an important distinction to be made between governance and administration.
- "YOU" comprise the governing bodies and are the decision-makers (within your sector). That **authority** is shared with other sectors.
- The Edmonton-based office staff are the administration who, in effect, do your bidding.
- They provide technical data and expert analysis that are decision-support tools for YOU.
- Implementation, and therefore **accountability**, is shared among partner stakeholders.

30



## **APPENDIX E: FORUM PARTICIPANT FEEDBACK**

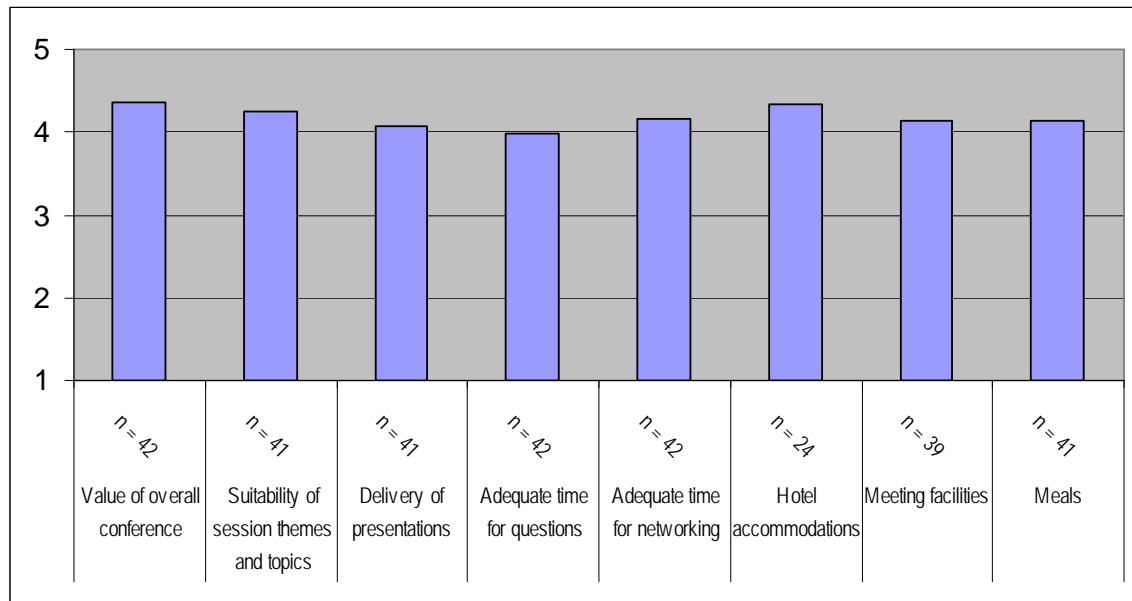


## Numerical responses to given questions

Forty-three Forum participants completed feedback form exit surveys that asked them to indicate, on a scale of one to five, their satisfaction with eight different criteria. Five indicated “excellent” and one indicated “poor.”

As illustrated in Figure 3, aggregate responses to all questions received a value of four or greater, indicating high levels of satisfaction.

Figure 3: Numerical satisfaction scores



## Municipal participants - written comments

Fifteen of the 43 feedback form respondents also provided detailed comments that have been reproduced in their entirety below.

1. “Thought that municipal participants were supposed to discuss... not so much Alberta Environment and Epcor. It would be good for counties to talk together with NSWA about that plan. More talk and not so much talk at.”
2. “Great way to see what others do in communities all over Alberta. Found it very useful. Sparked interest in water issues. Really felt our area should focus on Athabasca Watershed.”
3. “Exceptional, good presentations, good scope of watershed issues where identified and discussions were good. Great to see the number of attendees eager to learn from others and share experiences”.

**SUGGESTION FOR OTHER WORKSHOPS:** “Nuts & bolts of Water Act & Wetland Policy; constructed wetlands for storm water management. Who has jurisdiction on watersheds? A very confusing question!”

4. “It was pretty good. If you really want to get us involved we need more information not just your opinions.”
5. “Not sure if panel helped NSWA determine key actions for IWMP - mostly discussed access to water and treatment of waste water. Not much discussion on actual water management opportunities such as riparian protection, wetland conservation and creek restoration programs. Disappointed in several councillors today who mentioned that watersheds are not a priority - it should be clarified that the province is saying that they are and that municipalities NEED to be involved in action plans - NSWA is a resource to help sectors work towards goals of Water for Life”.

**SUGGESTION FOR OTHER WORKSHOPS:** “River Tours canoeing, kayak, picnic discussions (paid participation of course) OK to charge for equipment, etc. but perhaps free bagged lunch. Sustainable farm tour. Review authority given to municipalities through MGA, *etc.* - webinar, workshop, retreat.”

6. “Very Informative. Good policy to have municipalities talk about and work on similar challenges.”
7. “For newcomers to municipal council - pre-orientation is a must”.

**SUGGESTION FOR OTHER WORKSHOPS:** “Provide info. Sessions to general public through municipal activity. E.g. Awareness is paramount.”

8. “Good presentations - both speakers and panels”.

**SUGGESTION FOR OTHER WORKSHOPS:** “Good suggestion to present at Feb 2010 Ag. Service Board Provincial Conference in Edmonton.”

9. “Information update on basin water issues and process on management plans is very timely and sorely needed”.

**SUGGESTION FOR OTHER WORKSHOPS:** “We need workshops strategically held during the plan development. Suggest every 6 months.”

10. “A nice combination of general attitude adjustment and good contacts and some specific ideas for action.”
11. “Too much NSWA talk and not enough municipality talk. 1. Give us more lead time. 2. Give us better instructions. 3. If you already have it figured out don't waste our time. 4. It was good to talk to other counties this way. 5. I liked the information on the stick and in the package, but we need more of it! 6. There were some counties missing. 7. We need more information on ground water. 8. We need more information on wetlands and if they really store water. 9. What about more dams? 10. Maybe have a forum with just counties and not public.”
12. “It would be useful to have a workshop involving municipalities, the NSWA, and the Land Use Framework group on how we together effectively work with this new common process. Current structure has the most experience & knowledge on the subject. They should develop the plan. Send it out to the planning departments of the municipalities for their input then hold workshop meetings (probably 5) across region involving all sectors presence for further input before developing a final draft plan.”

13. “How do we determine the state of the watershed in Brazeau County? How can we improve without knowing where we are? Where is the science?”

**SUGGESTION FOR OTHER WORKSHOPS:** “Conduct a brainstorming session with members to workout a rough draft of a policy. Break into small groups with facilitators.”

14. “We seem to have different priorities than most others. However, we cross paths with other municipalities frequently and discuss things with them regularly.”

15. “You have to let us talk and not interrupt with your opinions, you already know your opinions”.

**SUGGESTION FOR OTHER WORKSHOPS:** “I think you should talk with the planners where there are some for a start.”





## Developing Collaborative Planning Partnerships: Final Report



March 31, 2010

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The North Saskatchewan Watershed Alliance (NSWA) is a non-profit society whose purpose is to protect and improve water quality and ecosystem functioning in the North Saskatchewan River watershed in Alberta. The organization is guided by a Board of Directors composed of member organizations from within the watershed. It is designated the Watershed Planning and Advisory Council (WPAC) for the North Saskatchewan River under the Government of Alberta's *Water for Life Strategy*.

This report was prepared under contract to NSWA by Abells-Henry Public Affairs.

**Suggested Citation:**

North Saskatchewan Watershed Alliance (NSWA). 2010. *Developing Collaborative Planning Partnerships: Final Report*. 10 Pages + app. Submitted by Abells-Henry Public Affairs. Edmonton, Alberta: The North Saskatchewan Watershed Alliance Society. Available on the internet at <http://>

## EXECUTIVE SUMMARY

As a Watershed Planning and Advisory Council (WPAC), the North Saskatchewan Watershed Alliance (NSWA) has been mandated by the Government of Alberta (GoA) to develop an Integrated Watershed Management Plan (IWMP) for the North Saskatchewan River Watershed as a means of achieving the outcomes identified in the *Water for Life Strategy*.

*Water for Life* requires WPACs to develop their IWMP through a process of collaborative planning that engages four sectors:

1. ***Industry***: chemical and petrochemical, forestry, irrigation/drainage districts, livestock, mining, oil and gas, power generation.
2. ***Non-government organizations***: environmental, fishery habitat conservation, lake environment conservation, wetland conservation.
3. ***Government of Alberta and provincial authorities***: Alberta Agriculture and Food, Alberta Economic Development Authority, Alberta Energy, Alberta Environment, Alberta Health, Alberta Science and Research Authority, Alberta Sustainable Resource Development.
4. ***Other government***: federal, First Nations (one representative for each Treaty area), large urban, Métis Settlements, rural, small urban.

In December 2009, ***Abells Henry Public Affairs*** submitted a report to the NSWA outlining recommendations for a collaborative planning engagement strategy, supported by a communications strategy and work plan.<sup>1</sup> Following the recommendations contained in this report, the NSWA agreed to:

1. Shift the NSWA's IWMP engagement strategy from an approach that considers the entire watershed as a single region and engages each of the four sectors identified above separately on a region-wide basis, to one where the watershed is divided into three sub-regions (Headwaters, Central and Downstream) with community leaders from all four sectors invited to participate, so they can work together as a cross-sectoral planning team in each of the sub-regions.
2. Hold one cross-sectoral **IWMP collaborative planning forum** every three months in each of the sub-regions of the watershed until the IWMP report is ready to be submitted to GoA. (A total of 15 forums; three in each of March, June, September, December 2010 and March 2011.)
3. Add a new section to the NSWA website to provide all forum participants, NSWA members and the public with access to all information, presentations and reports prepared for these forums. This website section will be interactive, offering visitors the opportunity to not only read the information, but to join the discussion by sending their comments and feedback to NSWA for inclusion in the collaborative planning process.
4. Develop brief Coffee Shop Discussion Papers (1-2 pages only) as a way of being responsive to the information needs of forum participants. Their purpose is to interpret complex scientific information in a form that is readily accessible and interesting to a general audience.

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<sup>1</sup> Abells Henry Public Affairs. *Developing Collaborative Planning Partnerships*. Prepared for the North Saskatchewan Watershed Alliance. December 2009.

5. Attend conferences, trade shows and community events to promote the NSWA and its efforts to protect the watershed, including the IWMP, directing people to the website to participate in the discussion.

This report focuses on the implementation of this collaborative planning strategy from December 2009 to March 2010. The first section describes in detail the decision making framework the NSWA has developed to support its collaborative planning process. The second section describes the steps taken to implement the collaborative planning strategy.

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## **ACKNOWLEDGEMENTS**

The NSWA wishes to thank Susan Abells and Mike Henry of Abells-Henry Public Affairs for their diligent work on this report. Valuable comments on the draft report were brought forward by members of the NSWA Board of Directors and the Integrated Watershed Management Plan Steering Committee.

This project was made possible through a contract?

## 1.0 Section One: Decision Making Framework

### 1.1 GoA's legislative and policy framework

In their December 2009 report, the consultants described the challenging policy and planning context facing organizations tasked with implementing collaborative planning processes. In their report, the consultants reviewed the evolving policy and planning context within GoA, including:

- The *Water for Life* Strategy (2003).
- The renewal of the *Water for Life* Strategy, and the Alberta Water Council's emphasis on shared governance and its recommendations for a watershed management planning framework (2008).
- The Land-use Framework (LUF) adopted in 2008.
- Enactment of the *Alberta Land Stewardship Act* (ALSA) in the spring of 2009, which requires cumulative effects management in regional planning.

Recognizing the challenges stakeholders face understanding their roles, responsibilities and accountabilities associated with the concepts of shared governance and shared responsibility identified in *Water for Life* and LUF, the consultants highlighted the synergies between all of these GoA initiatives, and how they work together to create a policy framework to support collaborative planning vertically between scales (federal/provincial/regional/local) and horizontally between sectors.

Recent reports from the Canadian Institute of Resource Law (CIRL)<sup>2</sup> remind us, however, of the continuing challenges organizations like the NSWA face when trying to respond to the mandate of developing an IWMP. These reports emphasize that while collaborative watershed planning has been adopted by GoA as a method of managing water and land in an integrated way, there is as yet no statutory framework in place to support the adoption and implementations of such plans.

Several attempts have been made by the Alberta Water Council to clarify the role of WPACs and how an IWMP resulting from such a collaborative planning approach might be implemented.<sup>3</sup> However, endorsement or approval of these plans by GoA and other stakeholders remains voluntary; there is currently no legislative obligation for stakeholders in the watershed to implement an IWMP, even if the IWMP is approved by GoA.<sup>4</sup> Therefore, the concept of accountability embedded in the notions of shared governance and shared responsibilities remain "more of a moral than legal nature."<sup>5</sup> In the shared governance model, "each party to the partnerships' decisions assumes responsibility for implementing them through its own legal authority."<sup>6</sup> The Alberta Water Council, in its report on *Recommendations for a Watershed Management Planning Framework*, also states that the WPACs "must have a process for sign-off. That is, members must have a way to indicate they agree to the plan's

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<sup>2</sup> Wenig, Michael R. *Understanding Local Alberta's Role in Watershed Planning – Will the Real Blueprint Please Step Forward?* Canadian Institute of Resource Law, CIRL Occasional Paper #28, February 2010;  
Unger, J. *Consistency and Accountability in Implementing Watershed Plans in Alberta: A Jurisdictional Review and Recommendations for Reform*. Canadian Institute of Resource Law, December 2009.

<sup>3</sup> The Alberta Water Council. *Strengthening Partnerships*. September 2008.  
<http://www.albertawatercouncil.ca/Portals/0/pdfs/SharedGov%20-%20Strengthening%20Partnerships%20FINAL.pdf>  
The Alberta Water Council. *Recommendation for a Watershed Management Planning Framework*. December 2008.  
<http://www.albertawatercouncil.ca/Portals/0/pdfs/SharedGov%20-%20Watershed%20Management%20Plan%20FINAL.pdf>

<sup>4</sup> As Wenig (2010, p. 18) describes it, "these roles are not "captured in legislation", therefore the partnerships have a "challenge" in trying to implement their decisions "in areas in which they have no authority"."

<sup>5</sup> Wenig (2010, p. 19)

<sup>6</sup> Wenig (2010, p. 18)

recommendations and actions, and can endorse it and eventually implement the actions assigned to them in the plan.”<sup>7</sup> To acquire such endorsement, the Alberta Water Council strongly encourages WPACs to use consensus in their decision-making process. However, even if WPACs use a consensus model of decision making and acquire the endorsement of a wide cross-section of their stakeholders, without a supporting statutory framework, the plans are not legally binding.<sup>8</sup> In the absence of such a framework, the NSWA has developed a decision-making framework that works within its own legal authority.

## 1.2 NSWA’s Decision-Making Framework

As a non-profit organization constituted under the *Societies Act*, the decision making framework developed by the NSWA conforms to the society’s by-laws. First, it is important to note that although the shared governance model requires a commitment to consensus decision making, the NSWA Board has decided to use a majority principle (50%+1).

In 2007, the NSWA Board conducted a workshop to develop its own framework for developing an IWMP, which includes a table outlining the decision making process.<sup>9</sup> Here, the NSWA’s Board of Directors is identified as being accountable to its members for ensuring that when the NSWA’s Steering Committee develops the IWMP:

1. GoA water requirements (such as instream flow needs, water conservation objectives, and water transfer/allocation requirements) are known, so that any recommendations of the IWMP meet these requirements.
2. NSWA requirements (such as guiding principles, use of the plan, fiduciary concerns and procurement guidelines) are specifically identified and met.
3. The work of the IWMP Steering committee, including the initial outline (Table of Contents) and the work plan, is approved to ensure they meet the NSWA and GoA requirements (AENV will be asked to review the Table of Contents and work plan to ensure GoA requirements have been met).
4. The budget is approved and resources are allocated based on the work plan, or requests resulting from the work plan.
5. Drafts of the IWMP are reviewed, to ensure requirements are being met.
6. Recommendations to GoA in the form of a final IWMP are made.

The role of the NSWA’s IWMP Steering Committee is to:

1. Develop and approve an outline of the plan (Table of Contents) for approval by the NSWA Board.
2. Develop a work plan for approval by the NSWA Board.
3. Draft the IWMP according to the Steering Committee’s 2005 Terms of Reference, which include: major steps or phases; sources of expertise; consultation plan; communications plan; training, technical skills; drafting of the plan; review/revisions process; verification.
4. Direct the work of preparing a draft of the IWMP, including consultation with stakeholders and experts.

A Technical Committee of scientists/experts is also identified as overseeing data, studies and technical information to ensure quality control of scientific information used to inform the IWMP.

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<sup>7</sup> The Alberta Water Council. *Recommendation for a Watershed Management Planning Framework*. December 2008, p. 25.

<sup>8</sup> Wenig (2010, p. 22)

<sup>9</sup> McMillan, W. Equus Consulting. *Integrated Watershed Management Plan Framework Session*. North Saskatchewan Watershed Alliance. February 21, 2007.



### 1.3 The role of stakeholders in developing the IWMP

At the time this decision making framework was developed (2007), the NSWA was considering establishing Regional Advisory Committees (RACs) comprised of stakeholders from the North Saskatchewan River watershed to provide advice, support, local knowledge and networking. The role of these RACs was envisioned to be purely advisory. They were not assigned any decision-making authority.<sup>10</sup>

The current sub-regional/cross-sectoral IWMP collaborative planning forums can be considered similar to the envisioned RACs. Participants in these forums are asked to provide the same services (advice, support, local knowledge and networking), and are not assigned any decision-making authority.

For this IWMP collaborative planning process, *stakeholders* are defined as:

- Community leaders participating in the IWMP collaborative planning forums.
- NSWA members engaged in the collaborative planning process through their online participation, where they provide comment and feedback through the NSWA website.
- Any member of the public engaged in the collaborative planning process through their online participation, where they provide comment and feedback through the NSWA website.

### 1.4 The NSWA's Commitment to Public Participation (The IAP2 Process)

#### Consultant's Recommendation:

Because NSWA is not assigning decision making authority to stakeholders, the level of public participation the NSWA should be prepared to commit to (from an IAP2 perspective) is to INVOLVE them. This is interpreted as a commitment:

- To work directly with stakeholders to ensure their concerns and aspirations are consistently understood and considered (based on the IAP2 Public Participation Goal for the level INVOLVE).
- To work with stakeholders to ensure their concerns and aspirations are directly reflected in the alternatives developed and to provide participants with feedback on how their input influenced the recommendations included in the IWMP (based on the IAP2 Promise to the Public for the level INVOLVE).

Therefore, the role of stakeholders is to consider IWMP recommendations (in the form of goals, objectives and actions) drafted by the IWMP Steering Committee. Stakeholders will be asked to consider the implications/impacts such recommendations may have on the way they currently live and do business in the sub-region. They will then be asked if they can support these statements, or if they have alternatives they would like to suggest.

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<sup>10</sup> North Saskatchewan Watershed Alliance. *Integrated Watershed Management Plan Framework Session*. February 21, 2007.

### **1.5 The decision making framework within the public participation process**

Based on this IAP2 level of public participation (INVOLVE), the NSWA will work to ensure the following decision making process is implemented throughout the IWMP collaborative planning process:

- Work with stakeholders to craft a clear statement (goal/objective/action) that reflects their values.
- Work with stakeholders to identify information that will be considered, as well as share and explain all information and sources considered.
- Work with stakeholders to identify criteria that reflect their values.
- Work with stakeholders to develop alternatives that meet the stated criteria and incorporate their values and concerns.
- Work with key stakeholders to evaluate alternatives.
- Use results of this evaluation to prepare a final draft of the IWMP recommendations.
- Announce the IWMP recommendations and clearly describe the rationale used and how stakeholder input influenced the result.

The following section describes in detail steps taken to implement NSWA's IWMP Collaborative Planning process.

## 2.0 Section Two: Implementation of the IWMP Collaborative Planning Process

### 2.1 Step 1: Engaging Rural Municipalities

The NSWA collaborative planning effort to engage stakeholders in the development of the IWMP for the North Saskatchewan River Watershed began with the engagement of rural municipalities. NSWA initiated meetings with this sector in February 2009.<sup>11</sup> Representatives from 16 of the 20 rural municipalities within the watershed attended this forum, plus representatives from a number of urban municipalities, counties outside the watershed, observers from environmental, community and industrial organizations, and from the Government of Alberta.

Presenters at the February 2009 forum shared information about how they expected the *Water for Life* planning process to integrate with other emerging planning processes (Land-use Framework) and legislation (*Alberta Land Stewardship Act*), and how they anticipated watershed management plans would be implemented. The report from the forum revealed that participants raised concerns regarding the need for clarity surrounding roles, responsibilities and accountabilities in light of the rapidly changing policy and planning context within GoA. They voiced concerns around the uncertainty presented by these various strategies, and how their municipal planning efforts would fit within the context of these broad GoA frameworks. Forum participants identified:

- The need to foster cooperation/understanding between neighboring counties.
- The need for inter-jurisdictional coordination.
- The need for more knowledge and information to better understand the pressures on the watershed, particularly concerning better wastewater technology and the concern over the supply and quality of potable water.
- The need for stakeholder education and awareness around watershed stewardship.
- Concerns regarding costs and capacity associated with effective water and land management practices.

### 2.2 Step 2: Responding to Concerns Raised by Rural Municipalities

In December 2009, the NSWA organized a second Rural Municipalities Round Table. The consultants utilized this opportunity to lay the groundwork for the IWMP collaborative planning forums to follow. The consultants helped the NSWA:

- Organize the Round Table to initiate a process that would act as a template for future forums.
- Organize participants into three groups representing the sub-regions of the North Saskatchewan River watershed: Headwaters, Central and Downstream.
- Engage participants from each sub-region in round table discussions to examine local implications of the information presented.
- Develop questions to guide discussion at the round tables so that participants would:

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<sup>11</sup> North Saskatchewan Watershed Alliance. *Engaging Rural Municipalities: Forum Final Report*. February 9, 2009. <http://www.nswa.ab.ca/iwmp/regional-forums/engaging-rural-municipalities>

- Examine how the vulnerabilities identified in the State of the Basin (SOB) report<sup>12</sup> were affecting their sub-region, thereby identifying watershed issues relevant to each sub-region.
- Identify other stakeholders in their sub-region who should be involved in the discussion by inviting them to join the upcoming IWMP collaborative planning forums.

### 2.3 Step 3: Establishing open, transparent and responsive communications

To establish an open, transparent and responsive communications process with forum participants, NSWA members and others interested in watershed planning, a new section was added to the NSWA website inviting all visitors to join the collaborative planning discussions (see Box #1). This new section of the website is designed to be interactive, as visitors are invited to not only read but respond to the reports from the two engagement forums held for rural municipalities.

Reports from the second Rural Municipal Round Table were developed as templates for future IWMP collaborative planning forums. These reports included:

- An annotated agenda – so visitors can quickly review the highlights of topics covered.
- PowerPoint Presentations – so visitors can review slides presented by each of the speakers.
- Summary reports of discussions held at each of the round tables - so visitors can review how forum participants responded to information presented.

Visitors to the website are also invited to respond to what they are reading by clicking [\[send feedback\]](#) as they read through the reports so they can quickly and easily provide their input. (See **Appendix 1** of this report: Communications Products.)

### 2.4 Step 4: Identifying Issues and Stakeholders

The NSWA has been laying the groundwork for the IWMP for over four years. From 2005 to 2008, the NSWA conducted various background studies to characterize the watershed, developed a State of the Watershed (SOW) report, and identified watershed management issues by hosting various meetings throughout the watershed (community cafés). The NSWA used these studies, reports and meetings to develop a preliminary list of draft recommendations that provide the foundation for the upcoming

<sup>12</sup> Partners FOR the Saskatchewan River Basin. *From the Mountains to the Sea. Summary of the State of the Saskatchewan River Basin.* 2009.

#### Box #1: NSWA Home Page - Left Hand Sidebar

[Home](#) » [Planning Forums \\*NEW\\*](#)

##### Contents

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##### **You are invited to join the discussion!**

The NSWA is engaging with community leaders who live and do business within the North Saskatchewan Watershed. Discussion began in February 2009 with Rural Municipalities. A second meeting was held with this group in December 2009. We are now opening up these meetings to other community leaders in the watershed. You are invited to join the discussions taking place in each of the Headwaters, Central and Downstream sub-regions.

Please go to our [Planning Forums](#) section for more details...

IWMP collaborative planning forums. These draft recommendations will be used as “straw dogs” for forum participants to respond to.<sup>13</sup>

The purpose of continuing to identifying watershed management issues with collaborative planning forum participants is to help prepare them to respond to the draft recommendations. This process helps participants identify the watershed management issues they want to raise, examines how stakeholders feel about the issue, and sets the stage for discussing the implications of the IWMP draft recommendations in light of these issues.

#### **2.4.1 Identifying Issues – Second Rural Municipalities Round Table (December 2009)**

The vulnerabilities presented in the SOB Report for the Saskatchewan River Basin provided an excellent way of organizing the discussion around watershed management issues. The list of vulnerabilities created the structure needed to ensure the discussion of issues remained focused on scientific findings. The list of vulnerabilities not only provided a way of organizing the discussion, but also a way of organizing the summary reports of the round table discussions, so other stakeholders could join the discussion online through the NSWA website, and the IWMP Steering Committee can review the discussion in light of the scientific evidence presented in the SOB Report.

#### **2.4.2 Identifying Stakeholders – Headwaters and Downstream Forums**

The participants at the second Rural Municipal Round Table (December 2009) also identified a list of stakeholder sectors in each sub-region they thought should join future IWMP collaborative planning forums. Based on these lists, NSWA Board and Steering Committee members from the Headwaters and Downstream were asked to identify community leaders from their sub-region who could represent the views of these stakeholder sectors. These NSWA representatives were instrumental in organizing the March cross-sectoral forums. They not only identified and invited community leaders, but also identified co-hosts for the events.

The fact that the IWMP March forums were held in the sub-regions proved to be important. One participant commented that he was pleased *the suits from Edmonton were coming to them*. It reinforced for these stakeholders that the NSWA considers their communities important, that the NSWA values what they have to say, and is willing to enable much broader participation from their communities. The Headwaters forum in Drayton Valley (March 4, 2010) attracted 24 participants from the sub-region. The Downstream forum at Lakeland College in Vermilion had 16 participants from the area, attracting some stakeholders NSWA had had difficulties persuading to participate in the past. One participant commented that *he would not have been able to attend had the meeting been in Edmonton*.

#### **2.4.3 Identifying Stakeholders - Central Forum**

While the forums scheduled for the Headwaters and Downstream proceeded within the proposed March timeframe, the forum in the Central sub-region is taking more time to organize. With over 1.5 million people living in this sub-region, the number of potential stakeholders makes this area more complex. NSWA’s Executive Director met twice with staff of the Capital Region Board (CRB), which represents 25 municipalities in the Capital Region, and has three presentations scheduled: CRB Planning Committee (April 19, 2010), CRB Land Use Committee (May 6, 2010) and the CRB (May 20, 2010). It is anticipated that IWMP collaborative planning forums for the Central sub-region will be organized over April, May and June, 2010.

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<sup>13</sup> North Saskatchewan Watershed Alliance: IWMP Table of Draft Recommendations, January 22, 2010. Internal Document.

## 2.5 Step 5: Communications Products Developed for the March Forums

While the new section on the NSWA website creates the mechanism to facilitate an open and transparent planning process (key components for building trust between the NSWA and stakeholders), a successful collaborative planning process must also be responsive to the information needs of stakeholders. If the NSWA can present timely information in plain language, which is perceived to present the science in an unbiased, straightforward manner, this too will build trust in the collaborative planning process. To begin the implementation of this aspect of the communications strategy, the NSWA is developing short briefs called Coffee Shop Discussion Papers. Their purpose is to:

- Interpret available scientific data in light of the specific issue at hand.
- Bring information on best practices around specific issues.
- Provide advice on how to consistently address similar issues across the North Saskatchewan River watershed in ways that contribute to and are supportive of the development and implementation of IWMP recommendations.

These short briefs will help to position the NSWA as a **bridging organization**. A bridging organization is one that helps develop shared understanding of watershed issues across sectors and sub-regions of the North Saskatchewan River watershed, in order to lead to the adoption of best practices and the cultivation of a stewardship ethic that supports the health and well-being of the watershed as a whole (the vision, purpose and mission of the NSWA). While NSWA will continue to be involved in the development and updating of scientific research, these short briefs will focus on the interpretation of existing scientific information and the promotion of best practices.

As an interpreter of scientific information, the NSWA has the opportunity to bridge understanding between sectors, helping competing interests find shared understanding of the impacts, while guiding the development and implementation of best practices. It is through these types of briefs that learning and understanding will be fostered among the non-scientific community, enabling them to become the effective stewards of the North Saskatchewan River watershed envisioned in the IWMP collaborative planning process.

### 2.5.1 Coffee Shop Discussion Papers – March 2010 Forums

In preparation for the first series of forums in March, the NSWA developed five Coffee Shop Discussion Papers, providing stakeholders with some basic information about the upcoming IWMP collaborative planning process. The following papers were developed to provide participants in the collaborative planning forums with background information about the NSWA, watersheds and watershed planning:

- **What is NSWA**
- **What is a Watershed?**
- **Watershed Components**
- **Why a Watershed Approach?**
- **Water Quality**

These papers were posted on the website and distributed by the NSWA representatives responsible for inviting community leaders to participate in the March IWMP forums (see **Appendix 1: Communications Products**).

## 2.6 Step 6: Introducing the IWMP process

When developing the agenda for the March forum, the consultants had two objectives in mind. The first was to bring forward the discussion with rural municipalities from the December 2009 Round Table, to suggest a direct link between the two. The purpose here was to create a sense of moving forward with a purpose by building upon information presented in the previous session. The morning was focused on reviewing the issues identified in the Rural Municipal Round Table (of December 2009), which were based on the vulnerabilities identified in the SOB Report. This enabled a wider cross-section of stakeholders to consider and discuss the watershed issues they are facing in their sub-region.

The second objective of the March forums was to introduce the IWMP collaborative planning process. The consultants reviewed the engagement strategy (as described in this report) with forum participants, and the NSWA presented the IWMP process, which included:

- A description of IWMP goals and objectives.
- The process undertaken by the NSWA since 2005 to lay the groundwork for this collaborative planning process.
- Underlying assumptions: what the NSWA understands the research is saying about the condition of the mainstem, watershed and groundwater.
- Existing federal and provincial water quality policy requirements (a policy of no further degradation).
- Information contained in an IWMP.
- Next steps.

The discussion with stakeholders was focused on reviewing the underlying assumptions for the IWMP (based on the scientific research) and the existing federal/provincial policy framework of *no further degradation*, within which the IWMP must fit. Recognizing and accepting these assumptions is a critical first step, if there is to be a strong basis for shared understanding going forward.

With the assumptions and current policy framework clearly explained and discussed, the last half of the afternoon was spent discussing the four long-term goals of the IWMP, which were drafted by the NSWA's IWMP Steering Committee. Questions guiding the discussion asked participants to consider the impact these goals might have on the way they currently live and do business, considering the types of actions that may be taken to achieve these goals. Participants were asked if they could identify examples of actions they could, or could not, support.

See **Appendix 2: Reports from the March 2010 IWMP Collaborative Planning Forums**, including annotated agendas and Summary Reports from the Headwaters Forum in Drayton Valley (March 4, 2010) and the Downstream Forum in Vermilion (March 10, 2010).

## **2.7 Step 7: Work Plan for Upcoming IWMP Collaborative Planning Forums**

### **2.7.1 IWMP Steering Committee to Review Forum Reports**

The NSWA's commitment to INVOLVE stakeholders in this level of IAP2 public participation process requires the NSWA to consider the information received from stakeholders, and to inform them how this input is beginning to shape the content of the IWMP and its recommendations. The Summary Reports of discussion held with stakeholders during the first IWMP collaborative planning forums in March will now be reviewed by the NSWA's IWMP Steering Committee.

Following the template developed and implemented for the March forums, the following schedule is proposed for upcoming IWMP Collaborative Planning Forums:

#### **June 2010**

- Presentation by NSWA concerning how stakeholder input provided during the March Forum has influenced their thinking about the IWMP
- Review of NSWA Proposed Site-Specific Water Quality Objectives for the Mainstem of the North Saskatchewan River
- Consider Objectives and Actions related to IWMP Goal #1

#### **September 2010**

- Presentation by NSWA concerning how stakeholder input provided during the June Forum has influenced their thinking about the IWMP
- Consider Objectives and Action related to Goal #2

#### **December 2010**

- Presentation by NSWA concerning how stakeholder input provided during the September Forum has influenced their thinking about the IWMP
- Consider Objectives and Action related to Goal #3 and #4

#### **March 2011**

- Presentation by NSWA concerning how stakeholder input provided during the December Forum has influenced their thinking about the IWMP
- Review of the IWMP Draft Plan
- Consider how stakeholder input influenced the overall result.

See **Appendix 3: NSWA Cross Sectoral Engagement Work Plan: December 2009 to March 2011**  
(As appended to Consultant's December 2009 Report)



## Appendix 1: Communications Products Developed to Support the IWMP Collaborative Planning Engagement Strategy

Planning for the new IWMP Collaborative Planning engagement strategy began with the Rural Municipal Watershed Planning Round Table (December 10, 2009). This meeting was used to establish the foundation for the NSWA engagement strategy going forward. This meeting shifted the approach:

- From a region-wide sector-based to a sub-regional (place-based) cross-sectoral approach.
- From a forum to deliver information to one that engaged participants in lively discussion regarding how the information presented was relevant to what was happening in their sub-region.
- From a reporting process that presented a single large final report on the information presented at the meeting to an interactive approach that enabled others who were not in attendance at the forums to comment and add their perspective to the discussions.

Following is a list of communications products produced to support the design and implementation of the IWMP Collaborative Planning Engagement Strategy. The purpose of these products was to implement a communications strategy that supported an **open, transparent and responsive** collaborative planning process.

### I. Website Development

The NSWA website was expanded to support a new section for the Regional Watershed Planning Forums (<http://nswa.ab.ca/iwmp/regional-forums>). This section not only posts information developed for the forums, but also solicits comments from NSWA members and the public (anyone visiting the site can comment. Comments are not restricted to the membership).

### II. Information prepared for the rural municipal watershed planning round table: Wednesday, December 10, 2009

#### a. Annotated Agenda – public reporting on the proceedings

- <http://nswa.ab.ca/iwmp/regional-forums/agenda-dec-10>

#### b. Review results of Rural Municipal Forum on Feb. 10, 2009

- Main issue identified: integration of different planning processes under Water for Life (W4L), Land-use Framework (LUF) and Cumulative Effects Management System (CEMS), rural planning under the Municipal Government Act (MGA), and now the implementation of watershed plans.
- Information is needed to translate, interpret and provide information and data to local governments to enable or support their planning activities, and our collaborative planning efforts.
- Highlights presented from the 2009 Report "Engaging Rural Municipalities, Forum Final Report: [http://nswa.ab.ca/resources/nswa\\_publications/engaging\\_rural\\_municipalities](http://nswa.ab.ca/resources/nswa_publications/engaging_rural_municipalities)

**c. NSWA's Engagement and Consultation Strategy**

- Described how all the different planning processes (W4L's "shared governance", LUF and CEMS) have very similar principles.
- All the different planning initiatives converge around the same opportunities and challenges: how knowledge, regulation and stewardship work together to achieve desired outcomes.
- Described how this meeting lays the foundation for future discussions with the counties and other stakeholders, by first describing the challenges faced in the Saskatchewan River Basin, the specific watershed issues the counties face in relation to these basin-wide challenges, and then by identifying other stakeholders who should join the discussion on how to address these challenges.
- Presentation: <http://nswa.ab.ca/userfiles/Dec%2010%20Rural%20Municipalities.ppt>

**d. Overview of the State of the Saskatchewan River Basin Report (SOB)**

- Reviewed the key vulnerabilities facing the Saskatchewan River Basin including: landscape modification; water supply; water use trends; in-stream flow needs (IFN); dams and diversions; municipal water needs, storm water and waste water disposal; climate change; floods and droughts; invasive species; institutional development needed to meet these challenges.
- Presentation: [http://nswa.ab.ca/userfiles/From%20the%20Mountains%20to%20the%20Sea%20-%20NSWA-web\(1\).pdf](http://nswa.ab.ca/userfiles/From%20the%20Mountains%20to%20the%20Sea%20-%20NSWA-web(1).pdf)
- Report : link to [State of the Basin Summary and full reports](#)

**e. SOB Report Continued: Facilitated Discussion of Vulnerabilities**

- Facilitated group discussion regarding how these identified vulnerabilities at the Basin scale translate into issues at the local municipal/county scale.
- Comments recorded during this discussion are included in the summary reports for each round table discussion (see #g below)

**f. Overview of Beaver Hills Initiative (BHI)**

- Focused on the value of working together to meet challenges that impact us all.
- Presentation: [http://nswa.ab.ca/userfiles/NSWA%20Forum%20II%20\\_091210\\_BW\\_ppt.pdf](http://nswa.ab.ca/userfiles/NSWA%20Forum%20II%20_091210_BW_ppt.pdf)
- Round Table Discussion on Managing Watershed Vulnerabilities in Local Areas
- Participants were divided into four tables for group discussions: Headwaters, Downstream and two tables discussing Central watershed issues.

**g. Summary Reports from regional watershed discussion groups:**

- Headwaters Report - <http://nswa.ab.ca/iwmp/regional-forums/upstream#report-from-discussion>: Key issues: information about water (water bodies; ground water; water for livestock; drainage of wetlands); surface run-off from cut-blocs. Stakeholders: We should invite developers and real estate agents (development has a huge impact on the watershed) and stewardship groups.
- Link to [Downstream](#) Report - <http://nswa.ab.ca/iwmp/regional-forums/downstream#table-report>: Key issues: loss of wetlands and illegal drainage; access to information; Ecological Goods & Services (EG&S). Stakeholders: Grain producers.

- Link to [Central](http://nswa.ab.ca/iwmp/regional-forums/central#table-report) Report - <http://nswa.ab.ca/iwmp/regional-forums/central#table-report>:  
Table A: Key issues: climate change impacts; invasive species. Stakeholders: Ducks Unlimited and land trusts (to help address invasive species issue). Table B: Key issues: septic compliance for private sewage systems; water supply for livestock; country residential sprawl; access to information; stakeholders: Developers; Approval authorities.

Each of the above three summary reports were designed so that readers could [send feedback](http://nswa.ab.ca/contact) (<http://nswa.ab.ca/contact>) and add their voice to the conversation.

#### IV. Coffee Shop Discussion Papers

These short papers (1-2 pages only) are being developed by the NSWA as a way of being responsive to the information needs of people living and working in the watershed. They are designed to interpret complex scientific information in a form that is readily accessible and interesting to a general audience. The following papers were developed to provide background information on watershed and watershed planning in preparation for the next series of meetings held in March 2010:

**What is NSWA?** <http://nswa.ab.ca/userfiles/WHAT%20IS%20NSWA.doc>

**What is a Watershed?** <http://www.nswa.ab.ca/userfiles/WHAT%20IS%20A%20WATERSHED.doc>

**Watershed Components-** <http://www.nswa.ab.ca/userfiles/Watershed%20Components%20.doc>

**Why a Watershed Approach?** <http://www.nswa.ab.ca/userfiles/Why%20a%20Watershed%20Management%20Approach%20.doc>

**Water Quality** - <http://www.nswa.ab.ca/userfiles/Water%20Quality.doc>

#### V. Water Quality Objectives (WQO) Report

The Water Quality Objectives Report entitled *Proposed Site-Specific Water Quality Objectives for the Mainstem of the North Saskatchewan River* prepared by the NSWA was edited (shortened and simplified) into a more public-friendly document, then posted on the NSWA website for comment. [http://nswa.ab.ca/resources/nswa\\_publications/water-quality-objectives](http://nswa.ab.ca/resources/nswa_publications/water-quality-objectives). Future water quality in the North Saskatchewan River is a fundamental part of watershed planning that must be addressed in the NSWA's Integrated Watershed Management Plan.

#### VI. NSWA Members Meeting: February 27, 2010

A meeting of NSWA members was held to give members an update on NSWA activities and inform them of the upcoming IWMP collaborative planning engagement process. Power Point Presentations were given by:

- Dave Trew, Executive Director: Update about the organization, its activities, and finances. - <http://nswa.ab.ca/sites/default/files/NSWA%20Briefing%20Winter%202010%20Members%20meeting.ppt>
- Graham Watt: NSWA's new Basin Atlas
- Sharon Reedyk, Chair, IWMP Steering Committee: *Why Develop an IWMP?* - <http://nswa.ab.ca/sites/default/files/reedyk-IWMP-members-meeting.ppt>
  - Including information on IWMP goals; objectives; the process to date; issues identified; what the research says about the condition of the mainstem, watershed and groundwater; current watershed policy; what an IWMP process contains; and next steps

- Gord Thompson: New Technical studies underway at the NSWA - <http://nswa.ab.ca/sites/default/files/NSWA%20IWMP%20Projects%2010.02.ppt>
- Graham Watt: Update on the Vermilion River Watershed Management Project - <http://nswa.ab.ca/sites/default/files/grahamwatt-feb27-2010.ppt>
- Abells Henry Public Affairs- *Working Together: Engaging NSWA Stakeholders* - <http://nswa.ab.ca/sites/default/files/Engaging%20our%20stakeholders%20.ppt>
  - Including information about the IWMP collaborative planning engagement strategy; the March 2010 forums; schedule of upcoming collaborative planning meetings (to March 2011); the invitation to community leaders, NSWA members and the public to participate in the collaborative planning process.
- Jayme Nelson: Live demonstration: NSWA website – the new interactive features to receive public feedback

These presentations form the basis for the March 2010 Collaborative Planning forums

## VII. NSWA Displays for Tradeshows and Conferences

NSWA attended the following tradeshows and conference:

- AFGA: Alberta Fish & Game Association Trade Show (February 18-19, 2010)
- AAMD&C: Alberta Association of Municipal Districts and Counties Trade Show (March 15, 2010)
- CWRA: Canadian Water Resources Association Conference (March 28-30, 2010)

NSWA plans to attend the following tradeshows and conference:

- Farm & Ranch Show (April 8-10, 2010)
- River Day Edmonton (June 12, 2010)
- Other regional events

The purpose and goals of attending these tradeshows and conferences is to:

- Promote the NSWA to a wider audience and introduce the role the organization plays as a Watershed Planning and Advisory Council.
- Build a sense of place and community around the North Saskatchewan River watershed.
- Inform a wider audience of the importance of the IWMP and how they can become engaged in developing and supporting IWMP recommendations as active participants in a collaborative planning process.

All tradeshows feature the following communication products:

- Coffee Talk Sheets (Who is NSWA, What is a Watershed, Watershed Components, Why a Watershed Approach, Water Quality)
- General Information Sheets
- Base map & land cover maps of the watershed
- Display copies of all NSWA publications
- Post Cards (Aerial photos showing the river in relationship with the surrounding watershed)
- 1-page Trivia Sheets about the Watershed (e.g.: area in km<sup>2</sup>; number of counties, etc.)
- Placemats (maps from the atlas project)

Presentations at each event were tailored to match the interests of each target audience:

- AFGA: River Guides were available for sale and promoted to fish and game enthusiasts
- AAMD&C: Municipal Guides were available free of charge; demonstration of an interactive computer-based map of the Sturgeon Watershed was available for tradeshow guests to experience, with guidance from NSWA booth attendants; legal-sized copies of the Land Cover map from the forthcoming NSWA Watershed Atlas were available free of charge.
- At future tradeshows, a set of 4 postcards featuring aerial shots of the North Saskatchewan River will be available.
- Currently designing a framed fabric booth display that will showcase a changing array of communications products (photos, maps, and messages) targeted for audience education and development.
- NSWA-stamped promotional items (such as maps, pens, coffee mugs, magnets, etc.) are in the design stage.

Presentations at CWRA are more technically based and designed to inform water science professionals about NSWA's knowledge advances, technical products and collaborative planning progress.

- Dave Trew: Integrated Watershed Management Planning for the North Saskatchewan River basin in Alberta - <http://nswa.ab.ca/userfiles/NSWA%20Briefing%20to%20CWRA%20Mar%2029%202010.pdf>
- Mike Sullivan: Cumulative Effects Assessment of the NSRB using ALCES
- Gordon Thompson: Proposed Site – Specific Water Quality Objectives for the Main stem of the North Saskatchewan River - [http://nswa.ab.ca/userfiles/NSR%20Water%20Quality%20Objectives%20-%20CWRA%20Conf%2010\\_03\\_29.pdf](http://nswa.ab.ca/userfiles/NSR%20Water%20Quality%20Objectives%20-%20CWRA%20Conf%2010_03_29.pdf)
- Graham Watt: Development of a watershed management Plan for the Vermilion River - <http://nswa.ab.ca/userfiles/watt2010vermilion-cwrajan30.pdf>
- Stephanie Neufeld: Source water protection planning for Edmonton's Drinking Water Supply

## VIII. The Atlas Project – Maps for the North Saskatchewan, Vermilion and Sturgeon Rivers

A selection of maps from the forthcoming NSWA Watershed Atlas were formatted and printed for distribution at the NSWA Members Meeting (February 27, 2010) and at each of the March 2010 Watershed Forums. Twelve (12) poster-sized maps were printed for display; laminated handouts of base maps (sub-watersheds & municipalities) as well as land cover maps were given to meeting participants. Maps were accompanied by messages informing people of the forthcoming atlas and the relevance of maps to the IWMP process.

## IX. Social Media Strategy

NSWA has initiated a social media strategy to increase awareness of NSWA's IWMP collaborative planning activities among broader audiences. NSWA staff members are beginning to implement the strategy by testing various social media initiatives and gauging response by monitoring increased traffic to the main NSWA website. Social media activities include:

- Developing a Facebook group page for the North Saskatchewan River watershed -

- Publishing NSWA news items, publications, and events on staff & NSR watershed Facebook pages
- Updating Wikipedia entries related to the North Saskatchewan River to reference the NSWA website and NSWA publications
- Podcasts featuring board members and stakeholders

The NSWA social media strategy will be adapted as lessons learned are applied to improve NSWA's social media presence.

#### **X. Briefing Materials and Presentations to be developed for March Watershed Forums**

- Forum Agenda - <http://nswa.ab.ca/sites/default/files/AGENDA%20-%20March%202010%20forums.doc>
- Presentation: Overview on NSWA initiatives by Dave Trew - <http://nswa.ab.ca/sites/default/files/dave-NSWA%20Briefing%20Downstream%20Watershed%20Forum%20Mar%2010%202010.ppt>
- Presentation: Overview on IWMP progress by Tom Cottrell - <http://nswa.ab.ca/sites/default/files/tom-IWMP%20downstream%20Consultation%20Vermilion,%2010.ppt>
- Presentation: IWMP Engagement Strategy by Susan Abells – <http://nswa.ab.ca/sites/default/files/susan-IWMP%20Engagement%20Strategy.ppt>
- Presentation: IWMP Assumptions Facilitated Discussion by Susan Abells - <http://nswa.ab.ca/sites/default/files/susan-IWMP%20Assumptions%20-%20Facilitated%20Discussion.ppt>
- Briefing notes & discussion guide: Summaries of watershed issues by Region, from Dec 10, 2009 Round Table - <http://nswa.ab.ca/sites/default/files/Morning%20discussion%20-%20Downstream%20%20Issues.doc>
- IWMP Goals: Questions and notes for facilitated discussion - <http://nswa.ab.ca/sites/default/files/Aft%20discuss%20-IWMP%20Long%20term%20Goal01.doc>

## **Appendix 2: Reports from the March 2010 IWMP Collaborative Planning Forums**

Note: The Following reports will be uploaded to the NSWA website:

Reports from the Headwaters IWMP Collaborative Planning Forum, March 4, 2010:

- Annotated Agenda
- Summary of Morning Discussion: Watershed Issues in the Headwaters
- Summary of Plenary Discussion: IWMP Assumptions
- Summary of Afternoon Discussion: IWMP Goals

Reports from the Downstream IWMP Collaborative Planning Forum, March 10, 2010:

- Annotated Agenda
- Summary of Morning Discussion: Watershed Issues in the Headwaters
- Summary of Plenary Discussion: IWMP Assumptions
- Summary of Afternoon Discussion: IWMP Goals



## NSWA INTEGRATED WATERSHED MANAGEMENT PLANNING FORUMS

HEADWATERS: DRAYTON VALLEY, THURSDAY, MARCH 4, 2010

### Annotated AGENDA

#### Goals:

- Discuss the NSWA approach to engage stakeholders in the IWMP collaborative planning effort
- Review the results of the Rural Municipal Watershed Planning Round Table Dec 10 2009
- Continue dialogue with stakeholders on issues raised
- Learn about IWMP, foundational philosophy and potential implications
- Present and discuss the four IWMP goals drafted by the NSWA IWMP Steering Committee

TIME	TOPIC	SPEAKER
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**24 participants attended this first NSWA Integrated Watershed Management Planning (IWMP) forum held in Drayton Valley in the Headwaters sub-region of the North Saskatchewan River.**

9:30 a.m.	Introductions and welcome	Dave Trew
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- The Executive Director provided an overview of the NSWA organization: the number of members; the composition of the board, its vision and mandate; current projects; how the organization is funded.

9:40	NSWA approach to stakeholder engagement going forward	Abells Henry
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- NSWA plans to engage community leaders (watershed stakeholder) who are actively interested in watershed planning, as well as NSWA members and the public in a collaborative planning process to develop recommendations for an integrated Watershed Management Plan (IWMP)
- NSWA is committed to a process that is open, transparent and responsive.
- The focus will be on building a shared understanding among those who live and work in the watershed on how to best protect, maintain and restore the North Saskatchewan River (NSR) Watershed.
- NSWA plans to host three forums every three months in each of the Headwaters, Central and Downstream regions of the watershed until March 2011 when final recommendations will be made to the Government of Alberta.
- Reports from each forum will be posted on the NSWA. Those visiting the site can post their feedback and join the discussion. All input received will form an integral part of the IWMP report.

9:50	Explanation of the organization of the discussion and the day	Abells Henry
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10:00	Demonstration of new interactive features on NSWA website	Billie Milholland
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- NSWA staff demonstrated how easy it is to send comments to the NSWA from the Website and encouraged participants to encourage their colleagues and friends interested in watershed planning to participate by sending their comment via the web.



Presentation: NSWA briefing notes (Coffee Shop Discussion briefs)

- The purpose of the short briefs is to respond to the information needs of people living and working in the watershed. They are designed to interpret complex scientific information in a form that is readily accessible and interesting to a general audience:
  - What is NSWA?
  - What is a Watershed?
  - Watershed Components
  - Why a Watershed Approach?
  - Water Quality

**10:30 Coffee**

10:45 The three NSWA Board members who invited participants to attend the forum were why this meeting was important to them:

- **Pat Alexander (Reeve, Clearwater County; Vice-president, NSWA):** *We want to hear what our stakeholders have to say. What should be in this plan? Everyone needs to understand the issues and how we can work together.*
- **Bob Kitching (Councillor, Brazeau County; Member, IWMP Steering Committee):** *Look at the horsepower in this room. I do it to represent the community and the agriculture community. It affects all our lives and businesses. We need the involvement of the people in this room.*
- **Bob Winship (Forestry; Board member, NSWA):** *We are only going to be able to address trade-offs in a satisfactory way if we work together – we do not need more regulations – what we need is more working together. In the Headwaters, everyone is very concerned about what we do. There are two big industries that operate in the Green Zone – Forestry and Oil & Gas. I would like to thank the Oil & Gas sector for coming to this meeting. How we are going to get things done in each of our sectors depends on our ability to work together.*
- If the recommendations in the IWMP have wide support, then there is good reason for Alberta Environment to support it. They would have a hard job not doing so.

Review of Rural Municipal Planning Round table Dec 10, 2009 Abells Henry  
 Round Table Discussions

- In December 2009, rural municipalities met to discuss the State of the Saskatchewan River Basin Report. This report identified a number of vulnerabilities facing the Basin, and participants were asked to discuss how these vulnerabilities were impacting their region. Issues regarding the Headwaters that were identified at the December 10 meeting were presented to participants at this meeting for further discussion.  
 (Link to summary of morning round table discussions)

11:45 Summary of table discussions

**Noon Lunch**

1:00 p.m. Over View of IWMP Tom Cottrell

- Including information on IWMP goals; objectives; the process to date; issues identified; what the research says about the condition of the mainstem, watershed and groundwater; current watershed policy; what an IWMP process contains; and next steps  
 (Link to Tom Cottrell’s Presentation)

1:30 Facilitated Discussion between IWMP Panel & Forum Participants Abells Henry  
 regarding assumptions underpinning the IWMP.

- Discussion focused on key elements of the previous presentation, which form the assumptions upon which the IWMP is based: What the research says about the condition of the river’s mainstem,

watershed and groundwater in the North Saskatchewan River Watershed, and current watershed policy. (Link to summary of facilitated discussion)

**2:30 Coffee**

2:45 Round Table Discussion: Discussion of four (4) IWMP long term goals Abells Henry

- Participants were presented with four (4) long term goals drafted by the IWMP Steering Committee. These goals represent what people living and working in the NSR watershed want to achieve through the implementation of the IWMP recommendations.
- Thinking about the types of actions that might have to be taken to achieve these goals, participants were asked to consider how these goals could positively or negatively impact the way the live and do business in the Headwaters. (Link to summary of afternoon round table discussion)

3:45 Summary of table discussion

4:15 Next steps

- The next forum is scheduled for early June. It will be held in the Headwaters sub-region of the NSR watershed. Location, date and time TBA. If you are interested in participating please contact Jayme Nelson at the NSWA office: Jayme Nelson [Jayme.Nelson@edmonton.ca](mailto:Jayme.Nelson@edmonton.ca) or call (780) 442-6363

**4:30 p.m. End.**

**Thank you for your participation!**

## **Summary of Morning Round Table Discussion: Watershed Issues in the Headwaters - March 4, 2010**

In December 2009, rural municipalities met to discuss the State of the Saskatchewan River Basin Report. This report identified a number of vulnerabilities facing the Basin, and participants were asked to discuss how these vulnerabilities were impacting their region.

Following is a summary of issues raised concerning how each of the vulnerabilities facing the North Saskatchewan River Basin are affecting the Headwaters sub-region. Participants in the table discussion were from the counties of Brazeau, Clearwater, Leduc and Parkland.

### **1. Vulnerability Issue: Landscape Modification: (how human activities were disturbing and changing the natural landscape)**

#### **Comments from the Dec 2009 Round Table Discussion**

##### **Alignment of policies/regulations between jurisdictions (example: stormwater retention policy)**

- Brazeau County - over half of our municipality is under the control of the Government of Alberta (GoA), so there is split jurisdiction between regulations under the Municipal Government Act (MGA) and other GoA ministries. Alberta Environment has the lead jurisdiction, but provides us with little support. For example, our subdivision processes have implemented a stormwater retention policy, but AENV has no such policy.

##### **Run-off (from cut blocks)**

- Cut blocks increase run-off and erosion. Forestry companies do put in water course barriers, but that does not do much. The creeks do not run clear anymore.

##### **Land clearing**

- We do not have a lot of tools to prevent land clearing. The county has little control over private land. For example, land is purchased as farmland, and then owners chop down trees, fill in wetlands and apply for a re-development permit.

##### **Using wood as biofuels**

- The biofuel plant in Drayton Valley is making things worse. Before, only a third of every tree was used, and the rest was chipped and shredded. Now all the waste wood is being used. It will be removed from forest floor and turned into ethanol. On the one hand we put the waste wood to mulch, and on the other we put it into methane development

##### **Draining wetlands**

- Parkland: Cormie Ranch was drained of wetlands. We do not understand re-charge. We don't know what was there. (Cormie Ranch is now Tomahawk Ranch)

##### **Questions**

- Do the comments made about this issue sound right to you?
- What else needs to be said to flesh out the issue?
- If you could ask the experts questions about this issue – what questions would you ask?
- What information do you need to help answer these questions?

#### **Comments from March 4, 2010 Round Table Discussion**

##### **Alignment of policy/regulation**

- Municipalities have to have stormwater retention plans, but industry doesn't. Is this fair?
- There are too many levels of approval for land use and too many loop holes.

- Need a flow chart of jurisdictions. A guide for navigating between them all.
- What suggestions do you have for integrating so many levels of authority?
- Companies have to deal with many different govt. agencies regarding what they are doing on land

#### **Run-off – from road construction**

- Runoff from forest cut blocks is less of a concern. Runoff from roads is the greater source of erosion! The *focus should be on road construction*, but public perception is putting the blame on cut blocks. It's crucial to address perceptions but to separate fact from fiction.
- The sheer volume of road development is a big issue. Is there some way to cooperate with road use? (oil/gas, municipal and forestry)
- Road development and the effect on streams and run-off/erosion causing silt.
- Erosion is a huge issue from multiple roads/trails built for all types of development by many different parties; no coordination; no integration of purpose of roads; no notion at all of assessing cumulative effect of all different roads;
- Modern road construction practices are much better and run-off and sediment control is much better
- Construction considerations are different for temporary versus permanent roads; temporary roads are reclaimed (or at least are supposed to be reclaimed)

#### **Use of wood as biofuel**

- Scandinavia harvests biomass from forest floors to use as biofuel, and they're affecting nutrient levels in their forests! They now have to apply fertilizer to their forest floors in order to have vegetation actually grow, because by removing the biomass they've removed the natural fertilizer. If biofuel is to be introduced here, there should be targets set as to how much biofuel can be removed to ensure that doesn't happen.

#### **Draining Wetlands**

- Drainage practices in the past and the effect of past policies have caused drainage actions by land owners

#### **Other issues**

##### **Alberta Stewardship Act:**

- Will it have an impact on what private owners can do?

##### **Education:**

- The best tool we have is education
- The attitude among people that there is lots of water in the region has to change. There is a belief that there is lots of water so we can use it for anything

##### **Monitoring:**

- If we want to start a restorative process, where do we start if we don't know what was there. Monitoring is critical.

##### **Impact of recreational land riparian areas:**

- There needs to be an emphasis on recreational land use and its impact on stream banks and green areas.
- Degradation of landscape from widespread and indiscriminate use of ATVs and recreational vehicles for personal recreational purposes; very extensive impact on streams and riparian vegetation and land in the Green Zone particularly

##### **Land-use Framework:**

- The role of the Land Use Framework needs to be understood.

##### **Wetland policy:**

- We need to know what the wetland policy will have in it.

##### **Headwaters not developing so Downstream users have clean water**

- Upstream area will be charged with the responsibility to supply good quality and quantity of water for the City of Edmonton and so the upstream areas won't be allowed to develop because they will have to protect Edmonton's interest - what is the effect on the Drayton Valley area?
- Who are we protecting the water for? Upstream area shouldn't be charged just with protecting Edmonton's purpose

## **2. Vulnerability Issue: Water Supply**

### **Comments from the Dec 2009 Round Table Discussion**

#### **Supply is not seen as an issue yet.**

- Towns pull water from the river and rural residents use groundwater. There are some concerns with water supply in some towns.

#### **Alignment of policy/regulation**

- The Water Act requires a water study if there are more than 6 lots/parcels – but these wells add up. AENV does not back us up when we try to put the breaks on digging more wells.

#### **Mapping of Groundwater**

- Mapping needs to be done.

#### **Headwaters not developing so Downstream users have clean water**

- Perception in the Headwaters is that the Headwaters are vulnerable. 75% of water in the river arrives in the river prior to Stony Plain. So when Edmonton wants more water, they ask for more water to be released from Brazeau dam. So we have to pay for downstream users.

#### **Questions**

- Do the comments made about this issue sound right to you?
- What else needs to be said to flesh out the issue?
- If you could ask the experts questions about this issue – what questions would you ask?
- What information do you need to help answer these questions?

### **Comments from March 4, 2010 Round Table Discussion**

#### **Supply is not seen as an issue yet.**

- Every straw also has a return back to the river, and not everyone realizes this.
- Why would you want to put the breaks on wells?
- The kneejerk management reaction shouldn't be restriction, it should be reduction.
- Do we know what we use domestically? I can tell you how much my cows drink, but I don't know how much I use.
- We need more information on new technology for saving and cleaning water.

#### **Alignment of policy/regulation**

- The O&G industry and agricultural industries are treated differently regarding treatment of waste and land spreading of drilling mud and manure on frozen ground
- Why is there so little water monitoring?

#### **Mapping of Groundwater**

- Aquifer mapping is key. Need aquifer mapping

#### **Headwaters not developing so Downstream users have clean water**

- If the Industrial Heartland upgraders go in, or if there's more water reserved for their use, that means we in the Headwaters will just have to sit and watch the water go by since we won't be able to use it for our own industrial use.
- Downstream users have to pay for their downstream users, and so do we. Everyone has to be responsible.

**Other issues raised:**

- There is a difference between water used and returned and water not returned to NSR
- Run-off from urban areas is an addition of extra water supply to streams
- Most of agriculture water consumed (i.e., in cattle) is returned
- Permanent grass lands are very good at storing water and holding back run-off
- Not much problem in upstream areas regarding run-off from ploughed fields because not many ploughed fields
- Municipal sewage treatment has improvement a lot by use of better technology

**3. Vulnerability Issue: Municipal Waste Water**

**Comments from the Dec 2009 Round Table Discussion**

- Brazeau: Disposal of effluent from sewage lagoons, using sewage lagoons as primary treatment. Where do we dump it?...into a watercourse.

Questions

- Do the comments made about this issue sound right to you?
- What else needs to be said to flesh out the issue?
- If you could ask the experts questions about this issue – what questions would you ask?
- What information do you need to help answer these questions?

**Comments from March 4, 2010 Round Table Discussion**

**Using fresh water for industrial purposes**

- Use of fresh water, especially high-quality municipal drinking water for flooding and fractionation (separation) of underground oil formations, for enhanced oil recovery – what a waste.... Oil companies are using municipal drinking water from the Town of Drayton Valley and Brazeau County. Yes, the Oil & Gas companies pay for the water, but it is still a waste. O&G companies get permits from AENV to take water from streams for these purposes.
- Need a balance between economic development and use/protection of the environment; can't have any development without some impact

**4. Vulnerability Issue: Instream Flow Needs (IFN)**

**(How much water needs to remain in the river to maintain the natural aquatic environment)**

**Comments from the Dec 2009 Round Table Discussion**

- IFN is used against the municipality – we can't develop due to IFN.
- AENV asked us for impacts of taking gravel out of the river's streambed. They are asking way too much. What a municipality needs for stream bed maintenance is way less than what the IFN is said to be. It's a constraint for municipalities.
- Agricultural producers (cow/calf operations) – when surface water supplies dried up, they could haul water or do dugout pumping, but they couldn't access water from recreational lakes. Farmers living beyond two miles from the river (pipe length), couldn't get water for their herds.

Questions

- Do the comments made about this issue sound right to you?
- What else needs to be said to flesh out the issue?
- If you could ask the experts questions about this issue – what questions would you ask?
- What information do you need to help answer these questions?

**Comments from March 4, 2010 Round Table Discussion**

- Can't hold upstream areas responsible for meeting IFN needs of downstream areas
- Need to use better technology to minimize water use to leave more water in the river
- The constraints will get worse, not better, and that's okay.
- Balancing the health of the watershed to the impacts in crucial. Also the impacts on economics and infrastructure.
- Hwy 55 gravel pits are a problem

**Questions:**

- Is dissolved oxygen higher in summer or winter?
- If oil & gas to truck water in - what is the impact on the watershed?
- Is there an issue with recreation users having direct access to the lake?

**5. Vulnerability Issue: Water Use Trends**

**Comments from the Dec 2009 Round Table Discussion**

- Increasing use of both ground water and surface water.
- Need much better monitoring.
- There are declining recreational lake levels.
- **Information needs:** Municipality's need to make a list of what info is useful; what they have; what they do not have – perhaps NSWA can help them find the information they need.
- **Lack of information:** we don't know how our decisions impact other things. We don't have enough info to make good decisions.

**Questions**

- Do the comments made about this issue sound right to you?
- What else needs to be said to flesh out the issue?
- If you could ask the experts questions about this issue – what questions would you ask?
- What information do you need to help answer these questions?

**Comments from March 4, 2010 Round Table Discussion**

- Why are lake levels declining? It is climate change, or is it the amount of straws (i.e. Red Deer irrigation)
- Is there an environmental inventory at the watershed level? Is this provincial responsibility?
- Dilution is the mitigation for pollution, it is not the solution!

**6. Vulnerability Issue: Dams and Diversions**

**Comments from the Dec 2009 Round Table Discussion**

- GoA says we may need more storage – more info is required here! If and when the next high water event/year occurs, maybe we need to revisit the issue of creating new dams or additional storage.
- Brazeau dam - we've added a lake, now we have ospreys. A whole new natural culture has been built up around a water body, hydro power and clean energy. We need more info on the positive/negative effects of this.

**Questions**

- Do the comments made about this issue sound right to you?
- What else needs to be said to flesh out the issue?
- If you could ask the experts questions about this issue – what questions would you ask?

- What information do you need to help answer these questions?

**Comments from March 4, 2010 Round Table Discussion**

*Questions about dams*

- Are dams so bad? They have positive and negative effects. You create an ecosystem, and there are birds now where there didn't use to be.
- If you build a dam, economics says you'll build around it, because that's where the water is, so a town or development will grow around that dam. If the dam is built and you're not near it, then you're out of luck on that economic issue.
- 50% of the river is already allocated to Saskatchewan. Are allocations in perpetuity? Can that be changed? Are the current allocations important enough to stay untouched? What about hoarding in an emergency? If we create a water market, who owns the unallocated water?
- If a company builds a dam, who owns the water they're holding back? Do they decide how much to hold back? That water has a value to them. The water is required for the ecosystem, but it has a higher value if it's held back. So what happens? What's the cost of that water and who pays for the ecosystem to get water?



## **Summary of Afternoon Plenary Discussion: IWMP Assumptions - March 4, 2010**

### **Facilitator asked NSWA representatives to describe the IWMP process**

#### **IWMP approval process**

- The Integrated Watershed Management Plan (IWMP) will be submitted to Alberta Environment (AENV) in March 2011
- Under the Water Act, An AENV Director is required to review aspects of the plan for approval
- How long will that take? Not known. Perhaps less than one year.

#### **IWMP and LUF**

- AENV's approval will be influenced by the Land-use Framework (LUF) and the North Saskatchewan Regional Plan (NSRP).
- Two of LUF's seven regional plans are currently underway – Lower Athabasca Regional Plan (LARP) and the South Saskatchewan Regional Plan (SSRP). The NSRP may be implemented by the fall of 2010.
- We hope to have the IWMP ready for consideration by the NSRP Regional Advisory Committee (RAC) for inclusion in their regional plan.

#### **Role of NSWA**

- Our approach to developing the IWMP is to hold discussion with stakeholders, like this one, and build commitment to implementing the IWMP. This commitment is a social commitment.
- Only the Government of Alberta (GoA) can regulate water use under the Water Act. We do not have a regulatory role. Our role is limited to planning and to making a persuasive case so that the AENV Director and the NSRP RAC will adopt aspects of the plan.
- The role of the NSWA is to build commitment to the plan so that all water users are committed to implementing it.

#### **Role of GoA**

- Once adopted by AENV, we will be relying on both AENV and Sustainable Resource Development (SRD) to incorporate IWMP recommendations into their regulatory frameworks – that is GoA's role.
- LUF (and the NSRP) will create an overall policy framework that is to be approved by Cabinet. This will influence the regulatory decisions of GoA ministries.
- If the NSWA's IWMP can influence the LUF regional plan for the North Saskatchewan, then this will influence the policy/regulatory framework GoA is committed to.
- LUF regional plans are approved by Cabinet, which should include the IWMP recommendations.

#### **Role of the Counties**

- Counties can regulate land use using by-laws (which impacts water quality).

#### **Comments from Forum Participants**

- Yes, we often get to the point of recommendations, but to be implemented the recommendations need to be supported by regulations with teeth – only this will make a difference.
- Regulations need to be enforced – punish the polluter.
- Recommendations need to be turned into regulation.

**NSWA's Response:**

- To do this, NSWA needs to demonstrate support for the recommendations contained in the IWMP. GoA (through AENV) must then approve the IWMP, and then develop and enforce regulations that support IWMP recommendations. Only GoA and the counties can regulate.

**Comments from Forum Participants**

- Does NSWA collaborate with other Watershed Planning and Advisory Councils (WPACs)? Do the WPACs work together?

**NSWA's Response:**

- Yes, all 10 WPACs have the same mandate under AENV's *Water for Life* Strategy. The NSWA is the largest in terms of its organization. We have been around a long time, and were a non-profit organization before we were given the WPAC mandate. We also have one of the most complex and populated watersheds – but each WPAC faces its own unique set of challenges, and very different issues. There is some communication between the province's 10 WPACs. We hold quarterly meetings, share information and have an annual conference. But we all face very unique challenges.

**Facilitator asked the NSWA how they plan to address the trade-offs involved in developing any plan**

- Lessons learned from the Eastern Slopes planning process (1979) – a plan is suppose to tell you not only what you have to do but also how to do it.
- This is the first time cumulative effects (CE) has come into a planning process.
- There are a lot of regulations that respond to specific issues – but not regulations that guide how we are to consider CE.
- CE requires us to think beyond the needs of any one project, and to consider the cumulative effects of all projects on the landscape. This will result in trade-offs – where we may have to make sacrifices in one area in order to accomplish our outcomes in other areas.

**The need to work together**

- We are only going to be able to address trade-offs in a satisfactory way if we work together – we do not need more regulations – what we need is more working together.
- In the Headwaters, everyone is very concerned about what we do. The Green Zone was originally created in order to protect the forest – not to protect the forestry industry. There are two big industries that operate in the Green Zone – Forestry and Oil & Gas. I would like to thank the Oil & Gas sector for coming to this meeting. How we are going to get things done in each of our sectors depends on our ability to work together.

**Comments from Forum Participants**

- Timing for this effort seems to be quite poor. LUF is suppose to name the RAC for this region in the spring – the IWMP will become subservient to the LUF regional plan.
- There is no guarantee that anything we say here will be incorporated into the LUF regional plan.
- How do we keep people involved when the LUF plan starts up?
- I don't think we should let GoA off the hook – they are putting huge resources into LUF and limited resources into IWMP.

### **NSWA's Response**

- This plan has great potential to inform the NSRP, but our plan is just one piece of their puzzle.
- Municipal plans will have to align with the LUF plan. LUF will be quite a high level plan – but the level of detail in the IWMP should be greater. The IWMP has to fit under the LUF regional plan – and so do the municipal plans.
- The evolution of the LUF plans has been greatly delayed. There are still lots of uncertainty around the LUF plans. We will continue to work within our WPAC mandate and continue to develop the IWMP. We will provide information to the LUF process as it evolves.

### **Facilitator asked the NSWA representatives to review the assumptions with the audience:**

#### **NSWA:**

- We were amazed when we first began with how much we did not know about water use. So we had to do a lot of technical work to do to understand how much was already allocated and how much is being consumed.
- What we found out is that approximately 27% is allocated – but not that much is consumed (<3%). We had to ask ourselves, does that mean that more can be allocated? What if Rocky Mountain House wants to grow?
- If the basic assumption is that there is no further degradation of water quality, how do we continue to grow?
- The assumptions are very profound and important statements. They set the course for everything else we do.

#### **Comments from Forum Participants**

- The assumptions seem accurate, but when there is a problem, people always look upstream. We want to improve water quality – but we also need to communicate that what we already do to maintain the good water quality we already have – municipalities, forestry, Oil & Gas already do a lot.
- I do not want to point fingers, but a lot of the finger pointing comes from the larger municipalities and they always point at us. They need to look at what they are doing – at their municipal waste.
- The quality is good in the Headwaters because we have done a lot of the work. We feel that downstream, they look at us and say, thanks for your effort – so that we can continue business as usual downstream.
- How do you now that 27% is allocated and only 3% is consumed? If I have a license for 1 gallon of water, a cow will use it all – it will go the packing plant with 800lb – 80% of which is water. Water comes out of a pipe – it is taken out and physically gone. What happens to the water?

#### **NSWA's response:**

- First, monitoring is important. Climate change will change the conditions. We need to be able to track changes over the long term – which then will change our course of action.
- But to answer your question, the information we have about water use is not ideal. Information about water use/consumption in agriculture is the weakest. We can do a briefing note about that.
- Modeling tells us a bit more – but it does not tell us what will happen – only what could happen under a certain set of assumptions. So modeling is based on assumptions – not facts. It is a tool – not a predictor – but it does give us a picture of how the system works.
- 50% of all natural flow in the North Saskatchewan River must be sent on to Saskatchewan – Alberta is only entitled to 50% of the flow. This means that the allocated 27% of the flow in the river

represents 54% of the flow that is available to us in Alberta – and the 3% consumption is actually 6% of the flow available to us. The only thing that prevents us from having a quantity problem is that most licenses are not using their full allocation.

- We have a pretty good quantity picture – but quality is much more complex.

#### Comments from Forum Participants

- Bullet #3 (mainstem assumptions) suggest that Edmonton is doing most of the polluting – it suggests the problem is Edmonton. But some of it is coming from the Headwaters.

#### NSWA:

- There is no question the Capital Region has the biggest footprint – Edmonton, Headwaters and Downstream need to work together, so that we are not solely dependent on the regulatory regime.

#### Comments from Forum Participants:

- What are the instream flow needs (IFN) – will there be thresholds? Targets?

#### NSWA:

- We will be examining fisheries habitat, riparian areas, flows needed for water quality and structural needs of the river. IFN targets will be proposed, along with Water Quality Objectives (WQO) – so both flow and quality targets.

#### Comments from Forum Participants:

- In the Headwaters the land is typically grassland – that requires little fertilizer. Around Edmonton farming becomes really intense and requires lots of fertilizer. Lots of testing has been done here.
- Yes, but we also sand every corner of the road – using nutrients (fertilizer) mixed with the sand.
- Coal fired generating plants emit a lot of Nitrous Oxide (NO<sub>2</sub>) – which also contributes to the nitrate load in the water.
- We have to account for evaporation at the Brazeau Dam here – and not when it comes down as rain downstream (in Saskatchewan/Manitoba).

#### Comments from Forum Participants: Aquifers and groundwater

- Aquifers – there is not much information here. Modeling does not work well when there is not a lot of data. So we do not have a clear picture about the state of our aquifers.
- Groundwater – we do not know enough in Brazeau County. Where are the re-charge areas? Monitoring in the different townships suggest that different recharge areas have different recharge levels and time frame. We have a lot more questions than answers here.

#### Key Policy Assumption of Non-degradation: NSWA's comments

- The NSWA will post a report on proposed Water Quality Objectives (WQO). This report will be on the website. We hope you will read it and send us your comments.
- The NSWA is proposing a very protective regime that corresponds to policies of non-degradation already in place.
- The policy of non-degradation is one that is supported by the both the federal and provincial governments:
  - In 1999 – the Canadian Council of Ministers of the Environment (CCME) developed Canadian Environmental Quality Guidelines for the protection of Aquatic Life. In this report it states: *For water of superior quality or that support valuable biological resources, the CCME non-degradation policy states that the degradation of the existing water quality should always be avoided.*

- In 1999 – the Federal Government and three Prairie Provinces identified water quality objects under the Prairie Provinces Water Board Master Agreement on Apportionment that requires each jurisdiction *to maintain the water quality in the river reach, and for upstream jurisdictions to take measures to maintain water quality.*
- In 1999, Alberta Environment developed Surface Water Quality Guidelines for use in Alberta that has water quality targets. The document suggests that these targets can be used to develop objectives *to protect designated water uses and maintain the quality of ambient waters.*
- NSWA's report of Water Quality Objectives follows the same policy of non-degradation.
- This report is very important, and contains a major set of recommendations. We encourage you to go to our website ([www.nswa.ab.ca](http://www.nswa.ab.ca)) to read it and provide us with your feedback.

## **Summary of Afternoon Round Table Discussion: IWMP Long Term Goals – March 4, 2010**

### ***IWMP Long term Goal #1:***

***Protect or improve the water quality of the mainstem of the North Saskatchewan River by managing contaminant loadings to the river.***

### **Questions**

If we do more to manage contaminant loading to the river, what could this mean to the way you currently live and do business?

1. What could you support or live with?
2. What would you not be able to support?

### **Summary of comments**

#### **Cultural Values in the Headwaters**

- The feeling that “this is my land – don’t tell me what to do with it” runs deep in the Headwaters – but there is also a profound sense of community.
- There is a stewardship ethic here – people look after their land, animals, and plants. We want to pass our land on to the next generation.
- “My land” does not mean “I can be reckless”. My land also means I want to take care of it.
- We assume that “unregulated” means short term vision – not necessarily. There is a deep attachment to the land here.
- There is a perception that we are lawless in the Headwaters – no, we are very regulated.
- Agricultural regulations – can we live with them now? Are they working now? These are fair questions.
- Yes, we can always improve best practices – instead of more regulation we need education on improving best practices by learning about new technologies.
- Incentives can include education and support for the use of new technology. Better partnerships with industry. Cooperation between competing interests.
- Forestry is a big economic component – we manage this landscape carefully and we take care of it.
- The urbanites are the ones who like to come in with their quads and camping gear and trash the place – they are ones lacking a stewardship ethic.
- The recreational industry (quads etc.) has really exploded – and it is having a huge impact – and creating an impressive amount of damage – there has been an amazing impact around the Brazeau Dam.
- There is, however, far better stewardship now than there was 20 to 30 years ago.

#### **Waste water management:**

- Tomahawk (town) is an open sewer, and the cattle downstream are severely impacted (some have even died!) by drinking the contaminated stream water. Who is monitoring places like Tomahawk? Why is this allowed? Where is the enforcement of the rules?
- Dry years mean no dilution, so the contaminants are even worse!
- In a perfect world, beaver fever is eradicated with UV, from a management and economic perspective, so do you (as a municipality) treat the water only coming in for drinking, or do you treat it as it goes out too? Who’s responsible?
- Who is paying for the water quality? Is no development alright?

### **Different standards in different communities**

- We have to be honest about things like this. Why are there different standards for different industries? And different municipalities? Just because Tomahawk is small doesn't mean it has a small impact on the water. Cows are dying!
- We support stricter regulations on waste water for all municipalities of all sizes.

### **Soil contamination and run-off**

- It also depends on the soil types too. Depending on your soil, some contaminants might leach into the ground right where you are, or they might runoff the soil until they hit a pocket of soil that can absorb them. People don't know this.
- How much manure is actually running off lands? Do we know? Can we find out?

### **Review/update of existing regulations**

- Do the loadings limits from AENV stand the test of time/acceptability for current health?
- When were the loadings limits set, and do they reflect what we think is safe and healthy right now? Or do they need to be changed?
- What about non-regulated point sources, like golf courses and ag lands. How do we figure out what they are contributing?
- Need incentives for good performance and implementing best practices
- Already have enough regulations
- Don't tell people what to do on their own land like can't cut down trees; landowners won't be reckless

### **Monitoring and access to new technology**

- We need monitoring of the regulations already in place
- What level of monitoring could your industry deal with? It depends on the level of technology being used. We need access to better technology. There is much better stuff being done in other places, but sometimes we don't even know about it.
- Need to do a better job of monitoring environment conditions; if the data shows a lack of performance to meet environmental protection requirements, then need to use strong enforcement actions
- Need better baseline data of environmental conditions
- Benchmark current state for each region

### **Road construction:**

- Roads are water movers, so road construction needs to be looked at.

### **Acreage developments**

- Are also an issue, because people don't get it.

### **Recreation**

- Need better partnerships and cooperation among all people with an interest in an area of land, e.g., examine the impact of recreation industry on private and Crown land

### **Need for Information/Education**

- Sometimes just knowing about the problem solves it, so if people know it's bad, maybe they'll fix it! Education.
- Need to promote an alternate conservation ethic
- More education in Best Practices
- More information on acceptable levels of contaminants and what kind of contaminants we have.
- Need to distribute information on Best Management Practices and provide incentives for taking action.

**Summary of measures participants indicated they could support:**

- We urge better monitoring and to step up enforcement. Use the tools we already have – we have enough regulations – they just need to be monitored and enforced.
- We need more testing of the water; better protection of riparian areas, education, incentives and collaboration.
- We should focus on incentives.
- We support stricter regulations on waste water for all municipalities of all sizes.
- Protecting riparian area
- Decisions based on science
- A risk-assessment system
- Incentives for managing contaminants.
- Cross-industry collaboration
- A range of loadings to work within – not a number
- Best Practices not more policy
- Risk assessment and mitigation
- Education or preventative measures for oil & gas & well sites.

**Summary of measures participants indicated they could NOT support**

- We are against capping development – we support more monitoring so that we do a better job enforcing regulations already in place. It is tough enough to enforce existing regulations.
- Infringing on the rights of private land owners.
- Having to contain all the run off on private property.
- More regulation.
- Decisions based on perception.
- Restricted access to water because of cumulative effects of impacts from other users.
- Being dictated by downstream needs when downstream does not have to meet same standards.



***IWMP Long term Goal #2:***

***Maintain or improve the ecological integrity of the aquatic ecosystems in the sub-basins of the North Saskatchewan River watershed, including lakes, wetlands and tributaries.***

**Questions**

If we do more to Maintain or improve the ecological integrity of the aquatic ecosystems in the sub-basins of the North Saskatchewan River watershed, including lakes, wetlands and tributaries, what could this mean to the way you currently live and do business?

1. What could you support or live with?
2. What would you not be able to support?

**Summary of comments**

**Wetlands policy & the inclusion of muskeg:**

- Any time and any where you want to build a road in Brazeau County, you're pulling out muskeg. It's not fair to us. Muskeg should be taken out of the wetlands policy, or at least some concession made for those who don't have a choice.

**Standards for pipe**

- Every pipe must be held to the same standards, regardless of the industry.

**Regulation on private land**

- In Africa, the people became the stewards of the land and own what's on it, so even the animals. They learned to manage them much better when they became responsible. "This is my land...don't regulate me, but trust me not to be reckless."

**Summary of measures participants indicated they could support:**

- We can support designated recreation areas.
- A replacement policy for wetlands – if you drain one wetland, you have to create an equal or better wetland. So no net loss of wetlands
- Modified land uses based on Best Management Practices
- Long-term land use plans
- Long term plan showing vision instead of short term 'trendy' ideas.

**Summary of measures participants indicated they could NOT support**

- Policy of never draining any wetland
- Total exclusion of traditional land use
- Private land being excluded from protecting wetlands
- Rules that only apply to industry and not other users

**Long term Goal #3:**

***Maintain or improve groundwater quality and quantity.***

**Questions**

**Questions**

If we do more to *maintain or improve groundwater quality and quantity*, what could this mean to the way you currently live and do business?

1. What could you support or live with?
2. What would you not be able to support?

**Summary of measures participants indicated they could support:**

- More ground water research
- Proactive protection
- More ground water monitoring
- Assessment and monitoring of groundwater
- More information on what impacts ground water

**Summary of measures participants indicated they could NOT support**

- No effort to protect ground water
- Ground water use that's not sustainable

***Long term Goal #4:***

Maintain mainstem hydrological function (water quantity and flow)so uses are protected.

**Questions**

If we do more to maintain mainstem hydrological function, what could this mean to the way you currently live and do business?

3. What could you support or live with?
4. What would you not be able to support?

**Summary of measures participants indicated they could support:**

- Discovering ways to assess and monitor function

**Summary of measures participants indicated they could NOT support**

- No comments made.



## NSWA INTEGRATED WATERSHED MANAGEMENT PLANNING FORUMS

DOWNSTREAM: LAKELAND COLLEGE, VERMILLION: MARCH 10, 2010

### Annotated AGENDA:

#### Goals:

- Discuss the NSWA approach to engage stakeholders in the IWMP collaborative planning effort
- Review the results of the Rural Municipal Watershed Planning Round Table Dec 10 2009
- Continue dialogue with stakeholders on issues raised
- Learn about IWMP, foundational philosophy and potential implications
- Present and discuss the four IWMP goals drafted by the NSWA IWMP Steering Committee

TIME	TOPIC	SPEAKER
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**14 participants attended this first NSWA Integrated Watershed Management Planning (IWMP) forum held at Lakeland College in Vermilion, in the *Downstream* sub-region of the North Saskatchewan River.**

9:30 a.m.	Introductions and welcome	Dave Trew
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- The Executive Director provided an overview of the NSWA organization: the number of members; the composition of the board, its vision and mandate; current projects; how the organization is funded.

9:40	NSWA approach to stakeholder engagement going forward	Abells Henry
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- NSWA plans to engage community leaders (watershed stakeholder) who are actively interested in watershed planning, as well as NSWA members and the public in a collaborative planning process to develop recommendations for an integrated Watershed Management Plan (IWMP)
- NSWA is committed to a process that is open, transparent and responsive.
- The focus will be on building a shared understanding among those who live and work in the watershed on how to best protect, maintain and restore the North Saskatchewan River (NSR) Watershed.
- NSWA plans to host three forums every three months in each of the Headwaters, Central and Downstream regions of the watershed until March 2011 when final recommendations will be made to the Government of Alberta.
- Reports from each forum will be posted on the NSWA. Those visiting the site can post their feedback and join the discussion. All input received will form an integral part of the IWMP report.

*The following questions were asked of the NSWA Executive Director, Dave Trew:*

- Will the NSWA get a seat on the LUF Board? We will submit names on behalf of NSWA.
- Did you say the government is looking into planning? Why didn't they continue? Are we reinventing the wheel with this process? The Alberta Government has not conducted comprehensive water resource planning over the last few years. They have now started up again. The *Water For Life* policy recommended creating Water Planning and Advisory Council (WPACs) – which NSWA now is - to support watershed planning in the community. There has never been integrated water and land

planning done systematically in Alberta. The *Land-use Framework* and *Water for Life* policies are trying to address this problem.

- Is there a federal umbrella? Water resource management is primarily a provincial responsibility, but Alberta has signed an agreement promising that 50% of the water in the North Saskatchewan River will flow to Saskatchewan.
- What about our neighbours to the south? There are transboundary government agreements on that between the United States and Canada, which applies to the Milk River in Southern Alberta.

9:50 Explanation of the organization of the discussion and the day Abells Henry

10:00 Demonstration of new interactive features on NSWA website Billie Milholland

- NSWA staff demonstrated how easy it is to send comments to the NSWA from the Website and encouraged participants to encourage their colleagues and friends interested in watershed planning to participate by sending their comment via the web.

Presentation: NSWA briefing notes (Coffee Shop Discussion briefs)

- The purpose of the short briefs is to respond to the information needs of people living and working in the watershed. They are designed to interpret complex scientific information in a form that is readily accessible and interesting to a general audience:
  - What is NSWA?
  - What is a Watershed?
  - Watershed Components
  - Why a Watershed Approach?
  - Water Quality

10:30 **Coffee**

10:45 Three NSWA Board members who were in attendance, were asked why the IWMP collaborative planning process is important to them:

- **Pat Gordeyko – Board Member; Councilor County of Two Hills; President of Two Hills Agricultural Society; farmer):** This is something I strongly support, talking cross-sectorally. The sooner our paths cross and we have these important conversations the better. It is absolutely essential we form these relationships now.
- **Candice Vanin – Secretary, NSWA; Land Use Analyst with the Agri-Environment Services Branch, of Agriculture & Agri-Food Canada:** My interests have always been in land and water conservation. The NSWA has been a model for *Water For Life*, and LUF has been watching us to see what we’re doing. The whole watershed planning concept is not formal in Alberta. How can communities and the formal systems be able to bring these ideas together? Maybe I’m an adrenaline junkie or crazy but overtime I have seen a lot of good stuff happen.
- **Bill Fox – Alberta Beef Delegate; Operates a mixed farm, Elk Point/Bonnyville:** After I became a delegate with Alberta Beef, many of the issues I kept hearing about is how Agriculture is causing all these problems, so I arranged a tour of St. Paul grazing reserve. The work being done out there was so good, and so well managed, that people were really impressed that Agriculture could be doing good instead of bad. I just think it’s necessary that people know this. WE all have to work together if we are going to make things better.

10: 50 Review of Rural Municipal Planning Round table Dec 10, 2009 Abells Henry  
Round Table Discussions

- In December 2009, rural municipalities met to discuss the State of the Saskatchewan River Basin Report. This report identified a number of vulnerabilities facing the Basin, and participants were asked to discuss how these vulnerabilities were impacting their region. Issues regarding the

Headwaters that were identified at the December 10 meeting were presented to participants at this meeting for further discussion.

(Link to summary of morning round table discussions)

11:45 Summary of table discussions

**Noon Lunch**

1:00 p.m. Over View of IWMP Tom Cottrell

- Including information on IWMP goals; objectives; the process to date; issues identified; what the research says about the condition of the mainstem, watershed and groundwater; current watershed policy; what an IWMP process contains; and next steps

1:30 Facilitated Discussion between IWMP Panel & Forum Participants Abells Henry  
regarding foundational principles underpinning the IWMP.

- Discussion focused on key elements of the previous presentation, which form the assumptions upon which the IWMP is based: What the research says about the condition of the river’s mainstem, watershed and groundwater in the North Saskatchewan River Watershed, and current watershed policy.

*The following comments were made about the assumptions:*

- 3% consumption results from evaporative cooling at industrial sites.
- Wetland loss occurs as a result of human activities (drainage) and through drought
- Research by Ducks Unlimited Canada suggests that we have lost 2/3<sup>rds</sup> of our wetlands in the white zone through farming and urban development.
- Vermilion has a comprehensive map of historic/current wetlands. This map was developed based on historical photographs: (Link to NSWA **Bulletin: Vermillion River wetlands and 5-year plans**)
- **Policy of No Further Degradation:** Does that mean a new user can’t have any impact? Or does that mean that current users have to reduce their impact and a new user must comply to stricter rules? These are the type of questions that will be discussed during the collaborative planning process.
- Ultimate question – How do we get there? If there is zero degradation does that mean that the new guy coming in has to have zero impact, or do the people already there have to reduce their impacts? In other words, do others already in the area have to make changes in order to accommodate new development? For example – the new minimal disturbance practices in Oil & Gas has to be widely adopted.

**2:30 Coffee**

2:45 Round Table Discussion: Discussion of four (4) IWMP long term goals Abells Henry

- Participants were presented draft of four (4) long term goals drafted by the IWMP Steering Committee. These goals represent what people living and working in the NSR watershed want to achieve through the implementation of the IWMP recommendations.
- Thinking about the types of actions that might have to be taken to achieve these goals, participants were asked to consider how these goals could positively or negatively impact the way the live and do business Downstream.

3:45 Summary of table discussion

4:15 Next steps

- The next forum is scheduled for early June. It will be held in the Downstream sub-region of the NSR watershed. Location, date and time TBA. If you are interested in participating please contact Jayme Nelson at the NSWA office: Jayme Nelson [Jayme.Nelson@edmonton.ca](mailto:Jayme.Nelson@edmonton.ca) or call (780) 442-6363

**4:30 p.m. End. Thank you for your participation!**

## **Summary of Morning Round Table Discussion: Watershed Issues Downstream March 10, 2010**

In December 2009, rural municipalities met to discuss the State of the Saskatchewan River Basin Report. This report identified a number of vulnerabilities facing the Basin, and participants were asked to discuss how these vulnerabilities were impacting their region.

Following is a summary of issues raised concerning how each of the vulnerabilities facing the North Saskatchewan River Basin were affecting the downstream sub-region. Participants in the table discussion were from the counties of Beaver, Thorhild, Vermilion River, Minburn, and Two Hills.

### **1. Vulnerability Issue: Landscape Modification: (how human activities were disturbing and changing the natural landscape)**

#### **Comments from the Dec 2009 Round Table Discussion**

##### **Loss of wetlands**

- Similar to other regions: acreages, agriculture, wetland loss, drainage – loss of wetlands and illegal drainage, preservation of existing wetlands.
- Landowners/farmers – don't want anything done to limit or prevent their ability to drain wetlands in their fields as it is their land and they might be able to enhance their production, return and operation of farm machinery if they drain a slough.
- Counties lack the authority past the edge of a drainage ditch to address drainage on farm land.
- Counties can address wetland issues only under a sub-division proposal but can't address drainage issues in a farm field.

##### **Preserving agricultural land**

- Beaver County: Land use planning plays a part.
  - Sustainability initiatives: trying to conserve the inventory of agricultural land, building up more agricultural land near existing urban development.
- Vermilion River County: now has provision for four parcels out (sub-division of four parcels out of a quarter section of land). Beaver County has provision for one parcel out.
- Counties need tougher provisions in their Municipal Development Plans or Land-use By-laws to control land use and restrict the size and number of parcels in a subdivision.

##### **Questions**

- Do the comments made about this issue sound right to you?
- What else needs to be said to flesh out the issue?
- If you could ask the experts questions about this issue – what questions would you ask?
- What information do you need to help answer these questions?

#### **Comments from March 2010 Round Table Discussion**

##### **Loss of wetlands – legal drainage - Drainage Districts**

- Legal drainage is not listed as an issue, such as by the Holden Drainage District
- Gate control structures we built by Alberta Environment to store water in lakes and storage ponds along the Vermilion River. But they are operated to drain water from those lakes and ponds and this causes damage

### Illegal drainage

- Illegal drainage causes problems and the landowners don't pay taxes on that drainage. It causes problems with increased flow at certain times in a wet year.
- loss of wetlands by land owners draining wetlands and removal of surface cover
- Will landowners be compensated with these recommendations?
- *Question:* what's worse – draining several small wetlands into a consolidated slough or driving around multiple wetlands with tractors, ploughing, seeding, fertilizing, and spraying more than once? - Where is the tradeoff?

### Increasing cooperation between Oils and Gas companies and the Counties

- Oil & Gas industry is regulated tightly and can't touch wetlands or cause drainage issues. Water for a well site is taken from a pumping station or maybe a farmer's dugout but not from wetlands.
- Communication and cooperation between Counties and Oil & Gas companies is better and improving. Oil & Gas activities appear to be better received, with less conflict.
- Oil & Gas companies are now building low disturbance well sites and roads

### Subdivisions of agricultural land and loss to non-farm use

- Concern about conversion of farm land and crop rotation practices
- County of St. Paul allows four parcels out but they have to be grouped and a maximum of 20 acres total
- Counties are emphasizing conservation of wetlands and agricultural use of land. (County of Vermilion River held two public meetings in Kitscoty and Vermilion in February and March on the results of a study of the conservation of agricultural land; Graham has a copy of this study)
- Concern over feed lots

### Subdivision development

- Construction of homes and buildings should not be allowed in flood plain areas that will be flooded in the future; development in the flood plain is a problem
- What are the regulations concerning expanding subdivisions and riparian protection?

### Identification of environmentally sensitive sites

- Identify environmentally sensitive areas before development
- ***\*Request for information about sensitive areas in the region***

### Reclamation of abandoned sites

- Concern over abandoned gravel pits/oil & gas sites and the need for reclamation
- Lack of reclamation of old, abandoned Oil & Gas development sites and orphan sites
- Reclamation of abandoned gravel pits and potential for restoration - who is responsible? Especially pits with ground water present - what can be potential use? We need an inventory of these sites.

### Construction practices

- When we used to construct bridges across rivers, there was never a machine in the water – this has changed. We need to be concerned about **construction practices**.

### Other comments

- Water comes from the mountains – forestry used to on flatlands – now it occurs right up to the tree-line. To manage water, all of our mountains should be managed as watersheds. Forests there need to be protected.
- There should be one-mile set-back from rivers. Buy the land back from the farmers – it will be cheaper to do that now than it will be a 100 years from now.

### Questions raised:

- What is the extent and impacts of gravel extraction and oil and gas sector?
- Is there any effect from the salt plant?
- What's done with concentrated arsenic from cleaning well water?



- Is there any connection between Steam Assisted Gravity Drainage (SAGD) and arsenic?
- How much fresh vs. produced water is used in oilfield injection?
- What are the locations of springs?
- How can we be more resilient to these big-picture vulnerabilities?

## **2. Vulnerability Issue: Water Supply**

### **Comments from the Dec 2009 Round Table Discussion**

- Rurals remain on wells; urbans get hooked up to the mainstem.
- Because of the drought there are less surface water supplies.
- We rely on groundwater, but have very little data on it.
- Less water available for fighting fire (Sturgeon/Lamont/Strathcona Counties).

### **Questions**

- Do the comments made about this issue sound right to you?
- What else needs to be said to flesh out the issue?
- If you could ask the experts questions about this issue – what questions would you ask?
- What information do you need to help answer these questions?

### **Comments from March 2010 Round Table Discussion**

#### **Groundwater**

- Concerned about groundwater and lack of information about aquifers
- People who use groundwater wells need education
- Need better mapping of groundwater resources so people know where aquifers are located.
- Lack of knowledge of effects on groundwater of development activities and disturbance
- Education and awareness of status/health of water wells of individual owners and characterization of groundwater aquifers.
- Lack of proper well maintenance, use and testing of groundwater wells by individual owners.

## **3. Vulnerability Issue: Municipal Waste Water**

### **Comments from the Dec 2009 Round Table Discussion**

- Lack of available drinking water through a regional pipeline.
- Thorhild got rid of their last water treatment plant a while ago. Cannot justify having trained personnel for 200 people. Community wells and tank loaders are now all they have. If there is a problem, they lack the resources to manage the water quality. The second last plant was decommissioned in 1995.
- North East Alberta Water Management Coalition (NEAWMC) and Vermilion are seeking diversion from mainstem to combine 15 communities on one municipal water system.
- Source water protection is key for EPCOR and its regional distribution.
- Equity in pricing is an issue for communities on the system - those farthest out pay the most. EPCOR pilot at Bonnyville water treatment resulted in price increases from \$2/cu m to \$7 cu m.
- **Questions**
- Do the comments made about this issue sound right to you?
- What else needs to be said to flesh out the issue?
- If you could ask the experts questions about this issue – what questions would you ask?
- What information do you need to help answer these questions?

**Comments from March 2010 Round Table Discussion**

**Local water systems**

- Aging infrastructure in Edmonton creates more costs for people downstream
- Regional water pipelines – and the associated vulnerabilities. What happens downstream, if there is too much demand upstream? Serious thought needs to be given to this type of dependency. Sustainability requires a certain amount of independence.
- Counties are encouraging development of local water systems for clustered rural developments

**Waste water**

- What is the effect of drainage of local sewage lagoons twice a year into a water course? Concern about drainage of sewage lagoons and the effect on tributaries
- Lagoons are drained into the Vermilion River in the fall when there isn't any water in the river. It smells. The only flow is lagoon water
- Water testing and arsenic – if we remove it – what do we do with it? How do you dispose of it?
- We need to look at better use of new technology to dispose of waste water from local systems.
- Legacy of heavy pollution of Vermilion River and degradation over many years. Now no water flowing at all most of the year
- People put 100 lbs of fertilizer on their lawns – you can imagine how much fertilizer is used in agriculture. We need to recognize that we are polluting through our use of fertilizer.
- Need to know about the impact of recycling waste water – both good and bad

**Water rights**

- Equitable access to water: who pays? Who owns? Who has rights to the water?
- Does Edmonton own the water that runs through it? Does Edmonton have the right to dictate water prices?
- The economics of serving a population of 1 million in Edmonton vs. 200 downstream – economics often dictates price.
- On the other hand, you need to look at the high cost of building your own water plant and managing that for 200 people.
- Key questions around who owns the water? Who pays for the water? What is a fair price for water?
- EPCOR – what if it turns into a publicly-traded corporation (City of Edmonton is currently the sole shareholder). There could be issues around the future cost of water.
- Are there examples of privately owned companies and what happens to the cost of water?
- What are the tools outside of Alberta? Private companies owning water; what's the cost to rural municipalities?

**Value of Water**

- Should NSWA make people understand what the value of water really is?
- One of the prime purposes of NSWA is to make people realize the value of water, and the cost of guaranteed quality of water.

**4. Vulnerability Issue: Instream Flow Needs (IFN)**

**(How much water needs to remain in the river to maintain the natural aquatic environment)**

**Comments from the Dec 2009 Round Table Discussion**

- There's a lot of uncertainty regarding prairie-fed tributaries with highly variable flow regimes.
- There's a huge difference between needs of the mainstem of the river and needs of a tributary.
- A basic definition is needed especially for tributaries. Problems arise from working from some presumed value. How does Instream Flow Needs affect rural areas? GoA has never studied that. No

baseline for that. (Note: NSWA is planning to prepare major report in 2010, tackling the Instream Flow Needs in the mainstem.)

Questions

- Do the comments made about this issue sound right to you?
- What else needs to be said to flesh out the issue?
- If you could ask the experts questions about this issue – what questions would you ask?
- What information do you need to help answer these questions?

**Comments from March 2010 Round Table Discussion**

- Concern about loss of flows/degradation from tributaries
- Does Instream Flow Needs apply to tributaries? If so, how?

**5. Vulnerability Issue: Institutional Development**

**(How people organize themselves to develop and implement the policies, regulations and best practices needed to manage the watershed)**

- Conservation of land now includes conservation of wetlands. No net loss policy. Developers have to replace any loss. Municipalities with this policy can enforce their own protection of wetlands. Developers can choose their own approach, which may include compensation to the municipality.
- Counties need tougher provisions in their Municipal Development Plans or Land-use By-laws to control land use and restrict the size and number of parcels in a subdivision.
- Lack of coordinated action among counties, and different approaches by neighbouring counties.
- What to do when dealing inter-provincially as well as inter-municipally? Vermilion River often has to be concerned about what is happening on the Saskatchewan side of the border.

Questions

- Do the comments made about this issue sound right to you?
- What else needs to be said to flesh out the issue?
- If you could ask the experts questions about this issue – what questions would you ask?
- What information do you need to help answer these questions?

**Comments from March 2010 Round Table Discussion**

- Impact of Land-use Framework on water management issues.
- How will the conversation about trade-off happen?
- Recommendation: province needs to address long-term water capacity issues.
- We need to recognize the connection of all other things to the watershed – like air quality. Our concern about the water shed should extend beyond water and land to include air. We need to be concerned about the prevailing winds blowing from the west.
- Federal government (Department of Fisheries and Oceans) involvement – impact of putting Sturgeon on the list of species-at-risk
- Communicate with older people; educate the younger ones

**6. Vulnerability Issue: Water Use Trends**

**Comments from the Dec 2009 Round Table Discussion**

- Thorhild: all hamlets have regional water. Installing meters resulted in consumption dropping in half. Start measuring and people can see their use and conserve or be aware of their water use.

- Non-potable use may increase demand for irrigation and recreational opportunities. Defining recreational lake levels caused water use issues.
- Information needs:
  - Lack of information about some aspects of groundwater, like amount, quality, location, reliability of delivery, etc.
  - Lack of availability of current information or it doesn't relate to the important issues.
  - Translation of water quality information into useful information for land-use decisions.
  - Farmers and developers lack of information, awareness and understanding of environmental value of wetlands and sloughs.
- Need information about the value of **ecological goods and services** (EG&S): the cost of operation for a farmer versus the value of leaving a wetland. Where do municipalities get funding to finance preservation and restoration of wetlands?

#### Questions

- Do the comments made about this issue sound right to you?
- What else needs to be said to flesh out the issue?
- If you could ask the experts questions about this issue – what questions would you ask?
- What information do you need to help answer these questions?

#### **Comments from March 2010 Round Table Discussion**

- Potential of inter- basin transfer of water from Athabasca River to supply drinking water to small communities along the northern side of the North Saskatchewan River watershed
- The County of Vermilion River is not using the ALUS (Alternate Land Use Services) of Delta Waterfowl from Manitoba. ALUS promotes having farmers keep some areas as wetland and natural habitat; the farmers get paid a small amount per acre for the land in wetlands, grasslands and growing trees.

## **7. Vulnerability Issue: Dams and Diversions**

#### **Comments from the Dec 2009 Round Table Discussion**

- High Gate Dam: County of Vermilion River participated in a multi-jurisdictional discussion about this. There were challenges from First Nations, although Pound Maker Band came on side and were willing to put money into it. There were also concerns about sturgeon fish. We need a supply to draw from – we would be at the headwaters of this dam.

#### Questions

- Do the comments made about this issue sound right to you?
- What else needs to be said to flesh out the issue?
- If you could ask the experts questions about this issue – what questions would you ask?
- What information do you need to help answer these questions?

#### **Comments from March 2010 Round Table Discussion**

- Issue – placement and operation of dams and control gates that cause a deficit of water
- Storage capacity – what are the province's plans?

## **8. Vulnerability Issue: Drought and Floods**

### **Comments from the Dec 2009 Round Table Discussion**

- There is flooding due to a big flush of water in the spring and lack of water holding capacity on the land to slow down the flooding.

### **Questions**

- Do the comments made about this issue sound right to you?
- What else needs to be said to flesh out the issue?
- If you could ask the experts questions about this issue – what questions would you ask?
- What information do you need to help answer these questions?

### **Comments from March 2010 Round Table Discussion**

No comments recorded on this topic.

## **Summary of Afternoon Plenary Discussion: IWMP Assumptions - March 10, 2010**

### **Clarifications:**

- 3% consumption results from evaporation and transfer (it goes to Saskatchewan/Manitoba)
- Wetland loss occurs as a result of human activities (drainage) and through drought
- Ducks Unlimited Canada (DUC) research suggests that we have lost two-thirds of our wetlands in the white zone through farming and urban development.
- Vermillion has a comprehensive map of historic/current wetlands. This map was developed based on historical photographs

**Request: Copy of Vermillion River wetlands and plans for next 5 years.**

### **Policy of No Further Degradation**

- Ultimate question – How do we get there? If there is zero degradation does that mean that the new guy coming in has to have zero impact, or do the people already there have to reduce their impacts? In other words, do others already in the area have to make changes in order to accommodate new development?
- For example – the new minimal disturbance practices in Oil & Gas has to be widely adopted.

## **Summary of Afternoon Round Table Discussion: IWMP Long Term Goals – March 10, 2010**

### ***IWMP Long term Goal #1:***

***Protect or improve the water quality of the mainstem of the North Saskatchewan River by managing contaminant loadings to the river.***

### **Questions**

If we do more to manage contaminant loading to the river, what could this mean to the way you currently live and do business?

3. What could you support or live with?
4. What would you not be able to support?

### **Summary of comments**

#### **Integrated planning**

- Planning has to be more inter-related, integrating social, economic and ecological.
- Who makes the management decisions for wasteload allocation? How will we accommodate future growth with present loadings? These are complex questions: timing, permits, locations – lots of politics involved.
- Need continuous planning with clear description of implementation.

#### **Accountability and Enforcement**

- Who would do it and under what accountability? Who is the administrator/manager/ controller of this? Right now these responsibilities are split up all over the place.
- Need accountability on the “backstop” - how will regulation help.
- Needs to be defined accountability for the process to work.
- Enforcement needs to be set up to be feasible for each of the different sectors, must be carefully designed with smart enforcement (i.e. “ladder of enforcement”).

#### **Education and training**

- Key need is more education and training, including for regulatory staff.
- Would support better partnerships with universities and research community.

#### **Implementation costs**

- Implementation must consider full costs!

### **Summary of measures participants indicated they could support:**

#### **Low impact development approach:**

- Support policy to collaboratively reduce impact so low-impact development can continue.

#### **Risk management approach:**

- All major players should be at the table for a risk management approach – everyone who is using or impacting watersheds.

#### **Stormwater:**

- Better planning & treatment methods for stormwater contaminants.
- Explore alternatives to road salt.
- Would Support a policy for regulation of storm water from urban areas.
- Regulate urban use of pesticides and fertilizers.

### Incentives

- New development potential shouldn't be limited by existing standards and the requirement of no further degradation; should support collective reduction of current loadings to make room for new loadings by providing incentives to existing industry to reduce.

### **Summary of measures participants indicated they could NOT support**

#### **Offset credits**

- Should not have pollution compensated outside of the area / water body / sub-watershed where occurs.
- Would not support a policy of one industry that is polluting water to buy an offset in another area.
- What if the offset credit was applied locally? Yes, if it is in close proximity to where the pollution is occurring. For example: if you have three small wetlands, and you want to get rid of two, but build up the third. But that has to be applied for and approved, to make sure there is actually a net benefit to what you are doing – like the one you select to build up is the one that is connected to the recharge area, etc.
- The principle we are after: it has to be a site-specific offset – where compensation does happen somewhere else.
- Yes, but you need to be cautious even locally – the positive has to outweigh the negative impacts, so that adverse effects are actually mitigated.
- There has to be a process, where the request for change is considered.

***IWMP Long term Goal #2:***

***Maintain or improve the ecological integrity of the aquatic ecosystems in the sub-basins of the North Saskatchewan River watershed, including lakes, wetlands and tributaries.***

**Questions**

If we do more to Maintain or improve the ecological integrity of the aquatic ecosystems in the sub-basins of the North Saskatchewan River watershed, including lakes, wetlands and tributaries, what could this mean to the way you currently live and do business?

3. What could you support or live with?
4. What would you not be able to support?

**Summary of comments**

- We need better enforcement of existing regulations.
- The backstop is good – but everyone needs to be involved in the decision to develop new regulations
- Look at response to first set of goals – collaborative approaches in particular apply

**Summary of measures participants indicated they could support:**

**Wetlands inventory**

- Need wetland inventory performed across watersheds.
- Support a policy of re-establishing, protecting and maintaining riparian areas that are continuous along rivers and streams
- Support wetland enhancement

**Stream crossings**

- Manage & remove barriers to fish travel. Support a policy of construction of stream crossings that allow fish passage and not crossings that impede fish passage

**Sensitive areas**

- Limit access in sensitive areas and during sensitive times – adaptive, site-specific cumulative effects management (e.g. winter wheat, spawning bed protection)

**Low-impact development and setbacks**

- Municipalities need to specify development setbacks from water bodies
- would support appropriate setbacks from waterways, with ecological integrity, continual cover, natural riparian conditions
- *Question:* how do we better zone development to be on appropriate soil types and geological settings and encourage sensitive (i.e. Low impact) development that would allow natural treatment of runoff?
- Have natural treatment of sewage.
- Agricultural Operations Practices Act (AOPA) guidelines need to be enforceable

**Increasing penalties**

- would support policy increasing penalty for illegal activities in water bodies (wetland drainage, Off Highway Vehicle - Recreation in streams)

**Education, monitoring, enforcement, incentives**

- Increased dollars needed for education, monitoring and ENFORCEMENT.
- Better enforcement.
- Support incentive and education programs that encourage landowners to keep wetlands using compensation.



- Positive incentives with fair compensation combined with education then monitoring and enforcement when needed.
- Enforcement of regulations to keep vehicles and livestock out of water bodies

**Ecological Goods and Services**

- Support a policy of payment to land owners for maintenance of ecological goods and services values on private land

**Conservation easements**

- Important to have long-term continuity in conservation, too, i.e. Conservation easements, which allow some appropriate activity (i.e. Hay cutting in right season & during drier periods)
- Support a policy to use conservation easements

**Summary of measures participants indicated they could NOT support**

- poorly integrated regulation without monitoring
- Not support a policy of preventing landowners from managing their own land and drainage without compensation to leave wetlands

**Long term Goal #3:**

***Maintain or improve groundwater quality and quantity.***

**Questions**

If we do more to *maintain or improve groundwater quality and quantity*, what could this mean to the way you currently live and do business?

5. What could you support or live with?
6. What would you not be able to support?

**Summary of comments**

- better regulation of activities
- more fundamental research & knowledge needed

**Summary of measures participants indicated they could support:**

**Groundwater**

- Identify & protect aquifer recharge areas.
- NEED WAY MORE INFORMATION about /monitoring of groundwater.
- Needs to be better integration of monitoring activities with good information sharing.
- Key need for sewage and surface water risk assessment to groundwater resources.
- Education & workshops for well owners, municipalities, etc.
- Technological improvements need to be widely adopted.

**Oil & Gas and groundwater**

- We need better planning. For example, drilling for gas – there needs to be more minimal impact drilling on the surface. For oil wells, there needs to be better planning for selecting well sites.
- Down-hole technology is pretty good. Seismic is very different now than it was. Much lighter charges are used to prevent cracking.
- Identify and manage abandoned water and oil & gas wells that have not been properly reclaimed.
- Liabilities of old sites need to be better managed.
- Better study of ground water and the effect of oil and gas drilling on domestic water wells of land owners and farmers.
- Protective policies need to be in place for preventing contamination due to oil & gas activity.
- Support policies discouraging use of fresh water in oil well injection.
- What are the risks of seismic activity? May be increasing now?

**Practice of spreading manure on the land**

- Monitoring effects of manure spreading, i.e. Residual antibiotics entering water.

**Summary of measures participants indicated they could NOT support**

- oil and gas activities which are carried out without long-term planning
- not willing to support complete limitations on development

**Long term Goal #4:**

Maintain mainstem hydrological function (water quantity and flow) so uses are protected.

**Questions**

If we do more to maintain mainstem hydrological function, what could this mean to the way you currently live and do business?

7. What could you support or live with?
8. What would you not be able to support?

**Summary of comments**

- We need emphasis placed on protecting the public good for the future.
- What is the status of longer-term agreements?
- Should there be monitored and have more conditions on renewal?
- Key for plan preparation is to not rush the process, have lots of thought, input and discussion with all stakeholders.

**Summary of measures participants indicated they could support:**

**Monitoring**

- Need good monitoring of water use in basin, better than current monitoring.

**Instream Flow Needs**

- Would support policies that would maintain flow as close as possible to natural flows.
- Would support comprehensive instream flow needs study to establish flow objectives (expensive!)

**Water allocation and use**

- We need to look at potential for future dams
- Support a policy to have water licences more realistic in terms of water allocated and water needed.
- More realistic allocation in relation to actual need/use.
- Have adequate quantity and flow of water in rivers for municipal water purposes.
- Have adequate water for aquatic ecosystem as an identified use.
- Have to rationalize all uses of water in the river so as to protect uses satisfactorily during years of very low flow

**Risk assessment approach:**

- Stakeholders to prioritize all uses of water, and design criteria for rationing water use before crisis arise.
- We need a strategy/plan for managing a crisis situation – a plan for how we manage the lowest-flow. How we are going to ration water so we are prepared for the worst-case scenario?

**Summary of measures participants indicated they could NOT support**

- Would not support selling one's water use / share / portion to others. This increases actual use.
- Would not support inter basin transfer beyond North Saskatchewan River Basin.

*Question:* how are we to deal with major new uses (i.e. Irrigation)?



<b>Appendix 3: NSWA Cross Sectoral Engagement Work Plan: December 2009 to March 2011</b>																							
<b>(As appended to Abells Henry Public Affairs: Report from December 2009)</b>																							
Task	Participation Opportunity	Communications products	Decision Making Framework	Key Mileposts	Timeline	Nov - 09	Dec - 09	Jan - 10	Feb - 10	Mar - 10	Apr - 10	May - 10	Jun - 10	Jul - 10	Aug - 10	Sep - 10	Oct - 10	Nov - 10	Dec - 10	Jan - 11	Feb - 11	Mar - 11	
<b>Rural municipal Round Table – Dec 10, 2009</b>	Invitation to Rural Municipal Councillors, planners, ag services, NSWA staff, Board and Steering Committee members	Agenda; Sask. River Basin (SRB) Report; Beaver Hills Initiative Newsletter; Table Discussion Questions	NSWA to approve budget and expenditures; NSWA to act on next steps suggested by forum participants	Inform participants about SRB vulnerabilities; Discuss local impacts of these vulnerabilities; watershed issue identification	Dec 10, 2009																		
Assessment of Current Consultation Strategy	Discussion with NSWA staff and Communications Committee	Report to the NSWA Board	NSWA to approve engagement strategy	Assessment Report	Dec 16, 2009																		
<b>NSWA Presentations for Trade shows and Conferences</b>	Opportunities for the public to meet with NSWA staff and learn about the organization and its activities, including the IWMP collaborative planning process.	Information, reports, and maps	NSWA Board, SC, staff and consultants prepare presentations for the general public and the members	<ul style="list-style-type: none"> <li>Promote the NSWA to a wider audience</li> <li>Introduce NSWA’s role as a WPAC</li> <li>Build a sense of place and community around the NSR watershed</li> <li>Inform a wider audience of the importance of the IWMP and how they can become engaged in developing and supporting IWMP recommendations as active participants in a collaborative planning process.</li> </ul>	Feb 27, 2010																		
<b>Atlases for North Saskatchewan; Vermilion and Sturgeon Rivers</b>	Opportunity for the public to receive maps and learn about the NSWA and the NSR watershed.	Maps from the Atlas project																					
<b>February 2010 NSWA Members Meeting – To update members on NSWA activities and upcoming collaborative Planning Forums</b>	Invitation sent to all 181 NSWA members (86 organizations and 95 individual members)	PPT presentations: - NSWA update - IWMP update - Abells Henry: Collaborative Planning Strategy - demonstration on new interactive NSWA website feature																					

Task	Participation Opportunity	Communications products	Decision Making Framework	Key Mileposts	Timeline	Nov -09	Dec -09	Jan -10	Feb -10	Mar -10	Apr -10	May -10	Jun -10	Jul -10	Aug -10	Sep -10	Oct -10	Nov -10	Dec -10	Jan -11	Feb -11	Mar -11	
<b>March 2010 Watershed Planning Forums -</b> Planning for NSWA Engagement Forums - one in each subregion	<ul style="list-style-type: none"> <li>Identify co-host(s)</li> <li>Task board and SC members in each sub-region to identify and invite community leaders that represent sectors identified in Dec 10 rural municipalities forum in each sub-region</li> </ul>	Stakeholders/website visitors encouraged to review and provide further input to posted final and summary reports from the Dec 10 09 rural municipalities forum	NSWA staff/board/SC and to review and approve invitation list	Invitations to community leaders	Jan 15, 2010																		
Development of Communications Products for March 2010 forums	<ul style="list-style-type: none"> <li>Discussion with NSWA staff, Board and IWMP Steering Committee (SC) regarding strategy for presentation of IWMP information at March forum.</li> <li>Review of information needs from Dec 10 Round Table</li> <li>Develop products that respond to information needs and offer opportunities for feedback</li> </ul>	Reports for Dec 10 roundtable: <ul style="list-style-type: none"> <li>Annotated Agenda</li> <li>Reports and presentations (5)</li> <li>Summary reports of table discussions (3)</li> <li>Coffee shop discussion papers (5)</li> <li>Edit (shorten and simplify) the Water Quality Objectives and post it on the NSWA website</li> </ul>	NSWA staff/Board/SC to approve communications products	<ul style="list-style-type: none"> <li>Website design to enable feedback from website visitors</li> <li>Uploading of all reports and presentations</li> <li>Completion of Coffee Shop Papers</li> </ul>	Jan 15 - Feb 15, 2010																		
Implementation of March Cross sectoral NSWA Watershed Planning Forums	<ul style="list-style-type: none"> <li>Community leaders representing all sectors interested in/ impacted by watershed planning within the sub-region of the NSR</li> <li>Two meetings with Capital Region Board (CRB) to inform them about IWMP.</li> </ul>	As posted on NSWA website	As approved by the NSWA Board and SC	<ul style="list-style-type: none"> <li>One-day forum held in Headwaters and Downstream regions</li> <li>Meetings held with CRB to develop Central Region forum</li> <li>Consideration of IWMP Assumptions and Goals</li> </ul>	Mar 4-10, 2010																		
Final Reports on 3 Forms	NSWA staff and consultants to prepare annotated agendas and reports from table discussions	Final Report	To be accepted by NSWA Executive Director	Completion of Final Report regarding March forums	Mar-30-2010																		

Task	Participation Opportunity	Communications products	Decision Making Framework	Key Mileposts	Timeline	Nov - 09	Dec - 09	Jan - 10	Feb - 10	Mar - 10	Apr - 10	May - 10	Jun - 10	Jul - 10	Aug - 10	Sep - 10	Oct - 10	Nov - 10	Dec - 10	Jan - 11	Feb - 11	Mar - 11	
<b>June 2010 Watershed Planning Forums</b> Planning for NSWA Engagement Forums - one in each subregion	<ul style="list-style-type: none"> <li>Identify co-host(s)</li> <li>Task board and SC members in each sub-region to review stakeholder list and ensure all sectors potentially impacted by watershed planning are invited to attend</li> <li>Presentations to 2 Capital Region Board (CRB) committees and finalize Central IWMP Engagement Forum</li> </ul>	Reports from March forums <ul style="list-style-type: none"> <li>Annotated Agendas</li> <li>Reports and presentations</li> <li>Summary reports of table discussions</li> <li>Presentations to Capital Region Board Committees</li> <li>Develop draft of the IWMP report, reviewing draft recommendations with IWMP engagement forums</li> </ul>	NSWA staff/board/SC and approve stakeholder invitation list and review feedback from March forums	<ul style="list-style-type: none"> <li>Invitations to community leaders in Headwaters and Downstream to attend June forums</li> <li>Development of Central Region forum with CRB and other key stakeholders in Central sub-region</li> </ul>	April 15, 2010																		
Development of Communications Products for June series of forums	<ul style="list-style-type: none"> <li>Review information needs from March forums</li> <li>Develop products that respond to information needs and offer opportunities for feedback</li> <li>Develop social networking strategy to promote NSWA watershed planning process and to drive interested people to the website to provide feedback.</li> </ul>	<ul style="list-style-type: none"> <li>Development of Coffee Shop Discussion Papers (2 to 3 brief papers 1-2 pages long)</li> <li>Review and consolidate web-based feedback and make it available on the website for public review</li> </ul>	NSWA staff/Board/ SC to approve communications products	<ul style="list-style-type: none"> <li>Uploading of all reports and presentations from March forums</li> <li>Completion of Coffee Shop Papers for June forums</li> </ul>	Apr 15 - May 15, 2010																		
Implementation of 3 cross sectoral NSWA Watershed Planning Forums	Community leaders representing all sectors interested in/ impacted by watershed planning within the sub-region of the NSR	As posted on NSWA website	As approved by NSWA Executive Director	<ul style="list-style-type: none"> <li>One-day forum held in each region</li> <li>Water Quality Objectives considered</li> <li>Objectives/Actions related to IWMP Goal #1 considered</li> </ul>	June 1 - 15, 2010																		

Task	Participation Opportunity	Communications products	Decision Making Framework	Key Mileposts	Timeline	Nov - 09	Dec - 09	Jan - 10	Feb - 10	Mar - 10	Apr - 10	May - 10	Jun - 10	Jul - 10	Aug - 10	Sep - 10	Oct - 10	Nov - 10	Dec - 10	Jan - 11	Feb - 11	Mar - 11
Final Reports on 3 Forms	NSWA staff and consultants to prepare annotated agendas and reports from table discussions	Final Report	To be accepted by NSWA Executive Director	Completion of Final Report regarding June forums	June 30, 2010																	
<b>September 2010 Watershed Planning Forums</b> Planning for NSWA Engagement Forums - one in each subregion	<ul style="list-style-type: none"> <li>Identify co-host(s)</li> <li>Task board and SC members in each sub-region to review stakeholder list and ensure all sectors potentially impacted by watershed planning are invited to attend</li> </ul>	Reports from June forums <ul style="list-style-type: none"> <li>Annotated Agendas</li> <li>Reports and presentations</li> <li>Summary reports of table discussions</li> <li>Updated IWMP recommendations, as necessary</li> </ul>	NSWA staff/board/SC to approve invitation list and review feedback from June forums	Invitations to community leaders to attend September forums	July 15, 2010																	
Development of Communications Products for September series of forums	<ul style="list-style-type: none"> <li>Review information needs from June forums</li> <li>Develop products that respond to information needs and offer opportunities for feedback</li> <li>Develop social networking strategy to promote NSWA watershed planning process and to drive interested people to the website to provide feedback</li> </ul>	<ul style="list-style-type: none"> <li>Development of Coffee Shop Discussion Papers (2 to 3 brief papers 1-2 pages long)</li> </ul>	NSWA staff/board/SC to approve content of communications products	<ul style="list-style-type: none"> <li>Uploading of all reports and presentations from June forums</li> <li>Completion of Coffee Shop Papers for September forums</li> </ul>	July 15 – August 15, 2010																	
Implementation of 3 cross sectoral NSWA Watershed Planning Forums	Community leaders representing all sectors interested in/ impacted by watershed planning within the sub-region of the NSR	As posted on NSWA website	As approved by Executive Director	<ul style="list-style-type: none"> <li>One-day forum held in each region</li> <li>Objectives/Actions related to IWMP Goal #2 considered</li> </ul>	Sept 1-15, 2010																	
Final Reports on 3 Forms	NSWA staff and consultants to prepare annotated agendas and reports from table discussions	Final Report	To be accepted by NSWA Executive Director	Completion of Final Report regarding September forums	Sept 30, 2010																	



Task	Participation Opportunity	Communications products	Decision Making Framework	Key Mileposts	Timeline	Nov - 09	Dec - 09	Jan - 10	Feb - 10	Mar - 10	Apr - 10	May - 10	Jun - 10	Jul - 10	Aug - 10	Sep - 10	Oct - 10	Nov - 10	Dec - 10	Jan - 11	Feb - 11	Mar - 11	
<b>December 2010 Watershed Planning Forums</b> Planning for NSWA Engagement Forums - one in each subregion	<ul style="list-style-type: none"> <li>Identify co-host(s)</li> <li>Task board and SC members in each sub-region to review stakeholder list and ensure all sectors potentially impacted by watershed planning are invited to attend</li> </ul>	Reports from September forums <ul style="list-style-type: none"> <li>Annotated Agendas</li> <li>Reports and presentations</li> <li>Summary reports of table discussions</li> <li>Updated IWMP recommendations as necessary</li> </ul>	NSWA staff/board/SC to approve invitation list and review feedback from September forums	Invitations to community leaders to attend December forums	Oct 15, 2010																		
Development of Communications Products for September series of forums	<ul style="list-style-type: none"> <li>Review information needs from September forums</li> <li>Develop products that respond to information needs and offer opportunities for feedback</li> <li>Develop social networking strategy to promote NSWA watershed planning process and to drive interested people to the website to provide feedback</li> </ul>	<ul style="list-style-type: none"> <li>Development of Coffee Shop Discussion Papers (2 to 3 brief papers 1-2 pages long)</li> </ul>	NSWA staff/board/SC to approve content of communications products	<ul style="list-style-type: none"> <li>Uploading of all reports and presentations from September forums</li> <li>Completion of Coffee Shop Papers for December forums</li> </ul>	Oct 15 – Nov 15, 2010																		
Implementation of 3 cross sectoral NSWA Watershed Planning Forums	Community leaders representing all sectors interested in/ impacted by watershed planning within the sub-region of the NSR	As posted on NSWA website	As approved by Executive Director	<ul style="list-style-type: none"> <li>One-day forum held in each region</li> <li>Objectives/Actions related to IWMP Goals #3 and #4 considered</li> </ul>	Dec 1-15, 2010																		
Final Reports on 3 Forms	NSWA staff and consultants to prepare annotated agendas and reports from table discussions	Final Report	To be accepted by NSWA Executive Director	Completion of Final Report regarding December forums	Dec 30, 2010																		

Task	Participation Opportunity	Communications products	Decision Making Framework	Key Mileposts	Timeline	Nov - 09	Dec - 09	Jan - 10	Feb - 10	Mar - 10	Apr - 10	May - 10	Jun - 10	Jul - 10	Aug - 10	Sep - 10	Oct - 10	Nov - 10	Dec - 10	Jan - 11	Feb - 11	Mar - 11	
<b>March 2011 Watershed Planning Forums</b> Planning for NSWA Engagement Forums - one in each subregion	<ul style="list-style-type: none"> <li>Identify co-host(s)</li> <li>Task board and SC members in each sub-region to review stakeholder list and ensure all sectors potentially impacted by watershed planning are invited to attend</li> </ul>	Reports from December forums <ul style="list-style-type: none"> <li>Annotated Agendas</li> <li>Reports and presentations</li> <li>Summary reports of table discussions</li> <li>Updated IWMP recommendations, as necessary</li> </ul>	NSWA staff/board/SC to approve invitation list and review feedback from December forums	Invitations to community leaders to attend March forums	Jan 15, 2011																		
Development of Communications Products for March series of forums	<ul style="list-style-type: none"> <li>Review information needs from December forums</li> <li>Develop products that respond to information needs and offer opportunities for feedback</li> <li>Develop social networking strategy to promote NSWA watershed planning process and to drive interested people to the website to provide feedback</li> </ul>	<ul style="list-style-type: none"> <li>Development of Coffee Shop Discussion Papers (2 to 3 brief papers 1-2 pages long)</li> </ul>	NSWA staff/board/SC to approve content of communications products	<ul style="list-style-type: none"> <li>Uploading of all reports and presentations</li> <li>Completion of Coffee Shop Papers for March forums</li> </ul>	Jan 15 – Feb 15, 2011																		
Implementation of 3 cross sectoral NSWA Watershed Planning Forums	Community leaders representing all sectors interested in/ impacted by watershed planning within the sub-region of the NSR	As posted on NSWA website	As approved by Executive Director	<ul style="list-style-type: none"> <li>One-day forum held in each region</li> <li>Review of IWMP draft plan</li> </ul>	March 1-15, 2011																		
Final Reports on 3 Forums	NSWA staff and consultants to prepare annotated agendas and reports from table discussions	Final Report	To be accepted by NSWA Executive Director	Completion of Final Report for the March series of forums	March 30, 2011																		
Final Report on the NSWA Collaborative Planning Process	NSWA staff and consultants to review the collaborative planning process (December 10, 2009 to March 31, 2011) and make recommendations for future planning processes	Final Report	To be accepted by NSWA Executive Director	Completion of Final Report on the NSWA Collaborative Planning Process.	March 30, 2011																		
Final Report on the IWMP	Board to approve final draft of IWMP	Final report	NSWA Board to present report and final recommendation to the Alberta Government	Completion of the IWMP with Final recommendations made to the Government of Alberta																			