



LESSER SLAVE INTEGRATED WATERSHED
MANAGEMENT PLAN
COMMUNICATION AND ENGAGEMENT STRATEGY

Prepared for: Lesser Slave Watershed Council
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Introduction

Background

The Lesser Slave Watershed Council (LSWC) was formally recognized by Alberta Environment and Sustainable Resource Development (ESRD) as the Watershed Planning and Advisory Council (WPAC, 2007) for the Lesser Slave Watershed, under the *Water for Life* strategy (Government of Alberta, 2003). With support from ESRD and participation from engaged stakeholders and individuals, the LSWC is leading the development of an Integrated Watershed Management Plan (IWMP) for the Lesser Slave Watershed.

As a precursor to the IWMP, the LSWC gathered “input from a broad cross-section of people living and working in the watershed to identify their interests, needs, issues and priorities, and to better understand the perceived risks associated with managing growth and development in the watershed” (Issues and Priorities in the Lesser Slave Watershed, 2013). The table below lists the concerns and issues identified through the engagement project.

Table 1: Summary from Issues and Priorities in the Lesser Slave Watershed (2013).

Approach	Participants	Main Issues Found	Overall Outlook
In person interviews	Agriculture, fishing, landowners, tourism, municipalities, oil & gas, forestry, non-government organizations (NGO’s) education and youth (23 participants).	Stressed the need to enforce and improve existing regulations: to improve monitoring, data collection and reporting; and to begin working collaboratively with all parties involved.	70% said they have significant concerns about the future of their watershed
Public on-line survey	Open to general public (53 participants).	Using fresh water in oil and gas extraction, fertilizer and pesticide use, and cattle in water.	Most respondents considered all of the issues to have a substantial or somewhat negative impact on the watershed.
Meetings and public open houses	First Nations, high school students, and LSWC Board of Directors (76 participants).	Water quality, water quantity, aquatic ecosystem health, groundwater, and watershed planning	“What will keep our kids here when the oil and gas is gone? The lake and the watershed will become our most important resource.”

Project Purpose

This communication and engagement strategy is intended to guide the process by which the LSWC will involve local governments, stakeholders and individuals of the Lesser Slave Watershed in the development of the IWMP. The strategy was designed to accompany the IWMP Terms of Reference and it is meant to be used in the development of specific tasks and timelines for the IWMP project plan.

Project Approach

This project was accomplished through discussions that occurred during three working sessions with the IWMP Steering Committee.

Session 1: Creation of list of issues and risk statements

Prior to the first session, a list of watershed management issues was created, based on review of the LSWC's State of the Watershed Report and Abells Henry (2013). During Session 1, this list of issues was presented and refined, and risk statements were drafted with the Steering Committee.

Session 2: Ranking of watershed risks

At Session 2, a risk assessment process was conducted with the Steering Committee. Prior to Session 2, risk statements developed in Session 1 were individually scored, on a scale of 1 to 5, for level of impact (1="insignificant"; 5="Extreme") and likelihood (1="rare"; 5="almost certain"). Through a risk matrix, the product of the scores for level of impact and likelihood was calculated as a risk score for each risk statement. During Session 2, risk scores were presented to the Steering Committee. Risk scores were confirmed and, based on these, issues were prioritized. Risk statements are presented in Appendix B.

Session 3: Review draft communication and engagement strategy

Based on issues identified in Session 2, a list of stakeholders was created. This list was used to create the first draft of the communication and engagement strategy and accompanying information material. Comments were solicited through email and a second draft of all material was created. These draft documents were presented and refined during Session 3 and a final draft was subsequently produced. The target audience for the information materials is all stakeholders for the IWMP. The intent of the information materials is to generate interest and involvement in the IWMP.

Purpose and Outcomes for Engagement

The desired outcome of the IWMP is a shared vision for the watershed to be developed with the collaborative actions of stakeholders and individuals who have a role in the management of water resources within the Lesser Slave Watershed. By collaborating with all levels of government, key stakeholders and the public from the early stages, overall support for the development of the IWMP will increase, leading to a better understanding of the goals and objectives, and support for implementation of recommendations.

The overall objectives of the IWMP Communication and Engagement Strategy are to:

- ensure that all those interested are given the knowledge base to understand the issues, and the recommendations being considered;
- provide a variety of opportunities to involve the public, stakeholders and local governments throughout the development of the IWMP;
- enable participants in planning process to have an active role in shaping the kind of engagement that is meaningful to them;
- consider the type of engagement needed to address the unique phases of the planning process; and
- consider all feedback from the public and stakeholders in the continued development of the IWMP.

Principles for Engagement

Principles of mutual respect and trust are fundamental for effective stakeholder engagement. The IWMP Terms of Reference effectively ensures these principles are met, not only through the Structured Decision Making Process (IWMP ToR Section 2.1), but also through the Guiding principles (IWMP ToR Section 1.1.3). The Structured Decision Making Process (SDM) assures that the solutions are inclusive and transparent, while the guiding principles ensure that they are guided to be accountable. In turn, the LSWC expects its stakeholders to be open, transparent, trustworthy and respectful in all engagement processes.

It is recognized that by facilitating collaborative efforts with stakeholders, some issues and challenges will arise. Careful consideration will be required if such issues as legitimacy, level of intent and collaboration or conflict come about (Chevalier, 2004). It is suggested that throughout the planning process these dynamics be assessed and the engagement strategies be adjusted accordingly. Throughout the process, questions, such as below, should be asked and addressed accordingly:

- What is the state of **collaboration** and/or **conflict** between stakeholders? Could this be used constructively to impact the project plan?
- Can other parties recognize the **legitimacy** of stakeholders? What are their rights and resolve in relation to the plan?

- What is the stakeholder's **level of interest** in various risks involved in this project?

Refer to Section 5.2.2 of the IWMP Steering Committee Terms of Reference with respect to the decision-making process.

Who to Engage

The LSWC perceives stakeholders to include all those who may affect or be affected by watershed management actions. They can include, but are not limited to members of the public, agencies, associations, groups, businesses, and other organizations. All levels of government (federal, provincial, municipal), and Aboriginal groups will be included in the engagement process. The following is a list of identified stakeholders and governments in the Lesser Slave Watershed that will be approached for involvement in the IWMP. Appendix A describes the initial level of engagement for each stakeholder; levels of engagement will change as the planning process is implemented. Appendix B matches key stakeholders to risk assessment issues, which indicates which key stakeholders should be engaged for feedback on particular issues. This is meant as a starting point; the LSWC is open to additional stakeholders and individuals.

Federal Government

- Health Canada (First Nations & Inuit)

Provincial Government/Regulators

- Alberta Energy Regulator (AER)
- Alberta Environment and Sustainable Resource Development (ESRD), which now includes Alberta Parks
- Alberta Geological Survey (AGS)
- Alberta Health Services (AHS)

Municipal Government

- Big Lakes County
- MD of Greenview
- MD of Lesser Slave River
- MD of Smoky River
- Northern Sunrise County
- Town of High Prairie
- Town of Slave Lake

Provincial/Regional Associations

- Alberta Trappers Association
- Alberta Sand and Gravel Association (ASGA)
- Canadian Association of Petroleum Producers (CAPP)
- Commercial Fisherman Association
- Municipal Agricultural Service Board
- Northern Alberta Development Council
- Peace Country Beef and Forage Association (PCBFA)
- Peace Region Economic Development Association
- Regional Environmental Action Committee (REAC)
- Slave Lake Regional Tri-Council Economic Development
- Smoky Applied Research and Demonstration Association (SARDA)
- Trans Canada Trail Society

Local Associations

- Boreal Center for Bird Conservation
- Grouard Trail Network Society
- High Prairie Agricultural Society
- High Prairie Fish & Game Association
- High Prairie Kinsmen Club
- High Prairie Oilmen's Association
- Jousard Community Association
- Kinuso Agricultural Society
- Lakeshore Motor Sports Association
- Lesser Slave Forest Education Society
- Lesser Slave Lake Economic Alliance (LSLEA)

- Nine Mile Recreation Society
- Prairie River Feeder Co-op
- Slave Lake Oilmen's Association
- Slave Lake Petroleum Association
- Slave Lake Kayak Club
- Swan Hills Snow Goers Association

Industry

- CN Rail
- Forestry Forest Management Agreement (FMA) and Quota holders
- Regional Oil & Gas Companies
- Tourism Industry
- Utility Providers

First Nations

- Lesser Slave Lake Indian Regional Council, consisting of
 - Driftpile Cree Nation
 - Kapawe'no First Nation
 - Sawridge Band
 - Sucker Creek First Nation
 - Swan River First Nation

Métis Settlements

- Métis Settlements General Council
- Peavine Métis Settlement
- East Prairie Métis Settlement
- Gift Lake Métis Settlement
- Region 5 Métis

Table 2 describes how stakeholders may be involved in different planning activities.

Table 2: Possible types of stakeholder interactions by planning activity.

Activity	Who has a role?	How?
Defining Shared Outcomes and Prioritizing Goals	Steering Committee and feedback from other key stakeholders.	See Step 8 in the Guide to Watershed Planning in Alberta (2015)
Identification and Analysis of Management Options	Steering Committee; Technical Committee; Agencies responsible for implementation; Other key stakeholders that will be directly affected.	See Step 9 in the Guide to Watershed Planning in Alberta (2015)
Facilitating partnerships and commitments for implementation	Executive Director & Steering Committee (or Implementation Committee) Representatives; Other agencies responsible for implementation.	Section 6 in the Guide to Watershed Planning in Alberta (2015)
Monitoring/Evaluating performance	Executive Director who reports to the Steering Committee	Refer to Evaluation of the Engagement Process section in this document and Table 5.

Engagement

Levels of Engagement

All stakeholders that participate in this dynamic project are unique; unique in that they have different needs and interests, each requiring careful consideration. Depending on the management action, different groups will be engaged at different levels and may change from time to time. To account and properly engage all stakeholders, several levels of engagement were incorporated (Table 3). The task is to address the many needs of all stakeholders in order to provide a worthy and publicly-backed plan.

At this stage in planning, all Steering Committee member organizations and other key stakeholders identified by the Steering Committee will be considered at the collaborate level of engagement. Other stakeholders will be regarded on the inform level. This will be the case until the engagement activities are under way, thus allowing the Steering Committee to determine if the stakeholder should be at a differing level of engagement to more effectively participate in the project. Levels of engagement are identified in Appendix A.

Engagement Stages

Table 4 describes the stages of developing the IWMP, which also guides the timing of engagement. These stages will overlap, but they can be loosely described as four separate

planning stages. The timeline is color-coded to show which engagement activities fall in each of the stages (Table 5).

Engagement Strategies & Activities

This strategy outlines activities that will provide a variety of forums to engage all levels of interest for all stakeholders and interested public. Table 5 suggests ways to engage stakeholders according to the engagement levels. All activities outlined include an overview of the engagement activity, specific details on communication, methods for documentation, monitoring and adaptation, as well as how feedback will be provided. Engagement activities can be selected from this table and populated into the IWMP project plan. There is no one right engagement method and a number of different activities may be chosen at different stages of the project process. Selecting the appropriate method of engagement and the relevant tools and techniques to facilitate the engagement process can vary according to the situation, time, skills, and budget.

Table 3: Description of the levels of engagement used in this strategy.

Levels of Engagement	Purpose	Activity Example
Inform	This level tends to be a one sided conversation. Providing information to the interested party as per their request or merely making the information available for all.	Community affairs/events, Print & electronic media (brochures, fact sheets, newsletters, etc.), site tours /field trips, Radio, websites and other internet tools (e.g. Facebook, an App).
Exchange	To provide a platform to hear stakeholder input and feedback on the project.	Surveys (web, mail), focus groups, public meetings.
Involve	To work directly with the stakeholder by providing them the opportunity for dialogue and interaction throughout the process.	Roundtables, workshops, small group meetings.
Collaborate	Provide opportunity for partnering and/or working jointly to resolve issues or to make recommendations about certain aspects of this project.	Advisory groups, consensus building techniques, study circles, task group, shared projects.

Table 4: High-level stages in the development of the IWMP.

Preparation	Gathering and Assessing of Information	Draft Plan	Final Plan
This stage includes development of the IWMP Terms of Reference (ToR) and Communication and Engagement Strategy.	Gathering and assessing required data and identifying data gaps.	First Draft of IWMP. Review and evaluate all information.	Make adjustments and produce Final Draft.

Table 5: Description of engagement activities, applicable IWMP stage, and instructions.

















ACTIVITY	Community Events/Fairs	Site Tours/Field Trips	Social Media	Open House
Level of Engagement	<i>Inform</i>	<i>Inform</i>	<i>Inform</i>	<i>Inform</i>
What is it?	A communal event with multiple activities to provide information or raise awareness of a project.	Opportunities for interested parties to join a field trip /tour, to locations to learn about the watershed.	A facet to reach a broad general audience via Facebook, twitter, Website.	Informal sessions where exhibits are displayed about the LSWC. Allows people to go through the info and discuss topics.
Target Audience	General Public.	Aboriginal tour, lake shore development, riparian/wetland, rural/urban site tours.	Reach people over large geographic areas and who cannot attend other activities.	General public, interested stakeholders.
Objective(s)	To encourage the sharing of informal knowledge and increase general awareness.	Provide interested parties with understanding of the project. Develop positive relationships; understand issues and concerns.	To effectively present and inform people anytime and anywhere.	To improve the understanding of the IWMP. To receive some general comments and concerns about the plan.
Timing	High Prairie Gun and Sportsman show; Slave Lake Chamber of Commerce Trade Show.	Preferably when it is weather suitable for particular locations and when the guide or expert is available.	These should be implemented as soon as possible.	Likely have 2 to 3 open houses to allow people to know what is occurring throughout this process.
Applicable IWMP Stage (see Table 3)				
Communication & Planning	Get in contact with venue to book a booth. Decide who will be managing booth. Make materials. Ex. posters, take away materials. Remember to make the information informative, but yet simple and fun.	Time to inform individuals. Find suitable committee and guide(s). Discuss suitable areas and topics. Plan transportation. Verify the logistics (contingency plans). Photograph and record to post on social media.	Social media is logical and easily navigable and the writing and presentation are simple and in an understandable format. Make sure to promote the sites at other activities suggested in this plan. Ensure that these platforms are continually updated and followed.	Advertise dates and location: social media, newspaper, radio Greeters welcome people and explain the format. Have knowledgeable people guide parties through exhibits. Prepare materials. Provide a meal / snack to boost attendance.
Document, Monitor & Adapt	Provide a short survey with their name, number and email for a draw (gift card). Record number of people stopped at the booth. Record feedback about the booth and project. Use these to alter and adapt issues or concerns for next time.	A question and concern sheet for attendees to fill out (during and at the end). Provide an answer and question period. Have the guide observe level of engagement and adjust accordingly.	Monitor the number of people who like Facebook page or who follow twitter. Offer opportunities for feedback. Monitor feedback for all social media facets and adjust accordingly.	Sign-in sheet for documentation and to build the mailing list. Provide response forms to collect feedback. Monitor the types of questions and comments (establish base line knowledge, address concerns).
Feedback	Inform that this is about spreading the word about the IWMP and the activities that will be available. Provide pamphlets and any take away materials that provide this information.	Provide summary of the trip including concerns and comments that were discussed and how the committee plans to address them.	Delegate an individual to comment on posting and report back to the committee on comment and concerns. Adapt logistics of social media as they come up.	Provide summary of the open house including concerns and comments that were discussed and how the committee plans to address them.

Table 5 (continued)

<u>ACTIVITY</u>	Newspaper / Radio	Newsletters / Pamphlets / Information Sheets	Focus Groups / Sharing Circles	Workshops / Information sessions	Task Group
Level of Engagement	<i>Inform</i>	<i>Inform</i>	<i>Exchange</i>	<i>Involve</i>	<i>Collaborate</i>
What is it?	Using Radio and newspapers to reach a broad audience.	Written material that can be distributed to any interested parties.	A carefully selected group that is used to gauge public opinion.	A public meeting where people work in small group on specific assignments.	A small group that will meet to discuss critical issues.
Target Audience	Wide range general audience.	All interested parties.	Aboriginal groups and stakeholders that want input.	Stakeholders who want more influence on decision making.	By invite only. (Ranges from 8-20 people typically).
Objective(s)	Present information to a broad audience. Give credibility to information presented and stimulate media to cover project in more depth.	To inform public about the IWMP, provide contact information and all upcoming activities.	Provide an opportunity for underrepresented individuals to provide input.	To foster one-on-one communication and advance public ownership in defining issues and problem solving.	Provide a chance for greater understanding, dialogue and provide an equal opportunity to be heard and contribute.
Timing	For announcing events or news announcements concerning the project.	Periodically (ex. quarterly).	Plan one at the beginning and towards the end of the plan.	Organize at mid stage planning. Allow for input and consensus of what direction to take it.	Anytime it is required.
Applicable IWMP Stage (see Table 3)	 	  	 	 	  
Communication & Planning	Slave Lake: Slave Lake Lakeside Leader, Slave Lake Scope, 92.7 Lake FM. High Level: South Peace News, 93.5 Prairie FM. May offer to speak with media to clarify or add information.	Information should be straightforward, unbiased, short, and visually appealing. Contain any contact information or links to social media.	Use open ended questions to engage dialogue. Ensure representative is skilled and well prepared. Recruit participants with broad interests.	Extensive preparation and organization required. Need several facilitators. Define tasks and objectives for the groups. Give briefings on technical issues. Design in a way to motive and achieve objectives.	Require skilled facilitator. Participants represent a broad cross section. Provide information prior to the meeting. Have both written and visual materials to help aid discussions.
Document, Monitor & Adapt	Ask at other activities how they heard about events or information. Ensure this forum is effective.	Circulate these in popular places in town. Continually update and observe how many are being taken.	Summarize comments and concerns. Apply to plan.	Record input for all of the issues addressed. Adapt plan with these in mind.	Facilitator will document advised changes or adaptations that are suggested.
Feedback	Allow us to see how effective the newspapers and radios are.	Only used to inform. Not usually to gather information.	Record their insights, perspectives and preferences.	Take input and re-evaluate part of the plan that was discussed.	They will see edits in final drafts.

Engagement Process Evaluation

Stakeholder engagement is vital for the IWMP. Accordingly, there is a need to assess the effectiveness of how to engage and learn from those experiences. Table 6 lists evaluation questions, which can be used as a guide for the evaluation of any engagement activity.

Table 6: Evaluation of Engagement Activity

Engagement Activity Stage	Evaluation Questions
Planning	What planning processes worked well? What could have been done differently? Were there adequate resources? Were there any missing stakeholders? Was the group representative?
Engagement	What methods worked well? What could have been done differently? Were there adequate resources? Did we adequately manage logistics? Were the stakeholders adequately engaged? Were the numbers of stakeholders sufficient?
Outcomes	How has the IWMP improved? How has the commitment to the IWMP changed? How has the relationship with stakeholders changed? How many people were involved / attended?

Methods to address these questions can include interviews, observations, online surveys, feedback sheets, focus groups, and data collection. The evaluation should be completed as soon as possible, preferably within a week after the event. Once the evaluation has been completed, the key learnings should be reviewed and shared.

Concluding Remarks

The communication and engagement strategy is intended to engage all levels of interest from a broad spectrum of individuals, stakeholders and governments. The aim is to ensure an open and balanced process with the hopes of working towards strengthening the quality and integrity of the IWMP. With knowledge and participation from all stakeholders the complete IWMP will represent the social, economic, and environmental values of the watershed and the recommendations made will reflect the shared vision of a healthy and sustainable watershed.

Contact Information

Implementation of the communication and engagement strategy will be led by the Executive Director, with support from the IWMP Steering Committee and the Board of Directors.

Task	Designated Person(s)	Contact Information
Project Spokesperson	LSWC Executive Director	780-523-9800

References

The following list of references includes referenced material in this report.

Abells Henry. 2013. Issues and Priorities in the Lesser Slave Watershed. 2012-2013 IWMP Project. Final Report. Prepared for: Lesser Slave Watershed Council. Prepared by: Abells and Henry Public Affairs. March 15, 2013. 53pp.

Alberta Environment. 2003. Water for life: Alberta's strategy for sustainability. Alberta Government, Alberta. 31pp.

Chevalier, JM. 2004. The Social Analysis System. Carleton University Ottawa. Retrieved from http://www.sas-pm.com/pdfs/Social_analysis_CLIP.pdf.

Government of Canada. Canadian Environmental Assessment Agency. 2012. Canadian Environmental Assessment Act. Retrieved from <https://www.ceaa-acee.gc.ca/default.asp?lang=Eng=&n=F1F30EEF-1>.

Appendix A –Starting Level of Engagement for Stakeholders

Collaborate Level - Stakeholders:

Stakeholder	Level of Engagement	Stakeholder	Level of Engagement
Alberta Energy Regulator	<i>Collaborate</i>	MD of Greenview	<i>Collaborate</i>
Alberta Geological Survey	<i>Collaborate</i>	MD of Lesser Slave River	<i>Collaborate</i>
Big Lakes County	<i>Collaborate</i>	MD of Smoky River	<i>Collaborate</i>
Boreal Center for Bird Conservation	<i>Collaborate</i>	Northern Sunrise County	<i>Collaborate</i>
CN Rail	<i>Collaborate</i>	PCBFA	<i>Collaborate</i>
ESRD	<i>Collaborate</i>	REAC	<i>Collaborate</i>
Forestry FMA and Quota Holders	<i>Collaborate</i>	Regional upstream oil & gas companies	<i>Collaborate</i>
Lesser Slave Forest Education Society	<i>Collaborate</i>	Town of High Prairie	<i>Collaborate</i>
		Town of Slave Lake	<i>Collaborate</i>

Inform Level - Stakeholders:

Stakeholder	Level of Engagement	Stakeholder	Level of Engagement
Alberta Health Services	<i>Inform</i>	Municipal Agricultural Service Board	<i>Inform</i>
Alberta Parks	<i>Inform</i>	Nine Mile Recreation Society	<i>Inform</i>
Alberta Trappers Association	<i>Inform</i>	Northern Alberta Development Council	<i>Inform</i>
Alberta Sand and Gravel Association	<i>Inform</i>	Peace Region Economic Development Association	<i>Inform</i>
Atco Electric	<i>Inform</i>	Prairie River Feeder Co-op	<i>Inform</i>
CAPP	<i>Inform</i>	SARDA	<i>Inform</i>
Commercial Fisherman Association	<i>Inform</i>	Slave Lake Kayak Club	<i>Inform</i>
Grouard Trail Network Society	<i>Inform</i>	Slave Lake Oilmen's Association	<i>Inform</i>
Health Canada (First Nations & Inuit)	<i>Inform</i>	Slave Lake Petroleum Association	<i>Inform</i>
High Prairie Agricultural Society	<i>Inform</i>	Swan Hills Snow Goers	<i>Inform</i>
High Prairie Fish & Game Association	<i>Inform</i>	Tourism Industry	<i>Inform</i>
High Prairie Kinsmen Club	<i>Inform</i>	Joussard Community Association	<i>Inform</i>
High Prairie Oilmen's Association	<i>Inform</i>	Jr. Forest Wardens in Slave Lake	<i>Inform</i>

Stakeholder	Level of Engagement	Stakeholder	Level of Engagement
Kinuso Agricultural Society	<i>Inform</i>	Tri Council Economic Development	<i>Inform</i>
LSLEA	<i>Inform</i>	Utility Providers	<i>Inform</i>

Collaborate Level - First Nations:

First Nations	Level of Engagement	First Nations	Level of Engagement
Driftpile Cree Nation	<i>Collaborate</i>	Sucker Creek First Nation	<i>Collaborate</i>
Kapawe'no First Nation	<i>Collaborate</i>	Swan River First Nation	<i>Collaborate</i>
Sawridge Band	<i>Collaborate</i>	Whitefish Lake First Nation	<i>Collaborate</i>

Collaborate Level - Métis Settlements:

Métis Settlements	Level of Engagement	Métis Settlements	Level of Engagement
Métis Settlements General Council	<i>Collaborate</i>	Region 5 Métis	<i>Collaborate</i>
Peavine Métis Settlement	<i>Collaborate</i>	Gift Lake Métis Settlement	<i>Collaborate</i>
East Prairie Métis Settlement	<i>Collaborate</i>		

Appendix B – Risk Assessment and Initial Collaborating Stakeholders

RISK STATEMENT	Average Likely-hood	Average Impact Significance	Average Inherent Risk	Risk	Initial Collaborating Stakeholders
Theme 1: SURFACE AND GROUND WATER QUALITY					
Lack of natural buffers on settled land (White zone) may result in accelerated run-off, erosion of river banks and increased deposition of sedimentation.	5	4	20	EXTREME	<ul style="list-style-type: none"> • Canadian Association of Petroleum Producers (CAPP) • ESRD • Individual First Nations • Lesser Slave Forest Education Society • Big Lakes County • MD of Greenview • MD of Lesser Slave River • MD of Smoky River • Northern Sunrise County • Town of High Prairie • Town of Slave Lake • PCBFA • Upstream Oil and Gas
Lack of stream crossing inventory and enforcement may cause negative impacts to watershed quality.	5	4	20	EXTREME	
Increased access development will result in increased run-off and sedimentation (linear disturbance).	4	3	12	HIGH	
Increased agricultural production will result in more waste-related release to rivers and lakes. This will have implications to the continued health of the lakes and rivers and the overall watershed.	3	4	12	HIGH	
Fracking may cause fissures up to nearby aquifers allowing contaminants to enter the aquifer or water leaving the aquifer.	2	5	10	HIGH	
Significant population growth will result in more treated and untreated wastewater release to rivers and lakes. This will have implications to the continued health of the lakes and rivers and the overall watershed.	3	3	9	MODERATE	
Lack of crossing enforcement may result in livestock crossing directly through wetlands and water courses causing damage to the streams and increased waste deposited to streams/ivers.	3	3	9	MODERATE	
Increased forest removal (for other land uses) will increase open land base and may result in increased run-off and sedimentation.	3	3	9	MODERATE	
Due to inadequate regulations and enforcement regarding septic systems, unsafe levels of harmful bacteria may increase in the watershed.	3	2	6	MODERATE	
Due to inadequate regulations and enforcement regarding illegal dumping of wastewater (treated/untreated), unsafe levels of harmful bacteria may increase in the watershed.	3	2	6	MODERATE	
Increased recreation will result in more treated and untreated wastewater release to rivers and lakes. This will have implications to the continued health of the lakes and rivers and the overall watershed.	3	2	6	MODERATE	
As a result of the lack of data for the watershed, increased nutrient levels in the water may go undetected resulting in lower water quality for the watershed.	2	2	4	LOW	
Due to inadequate regulations and incentives to encourage the collaborative discharge of treated wastewater, unsafe levels of harmful bacteria may increase in the watershed.	1	3	3	LOW	

RISK STATEMENT	Average Likely-hood	Average Impact Significance	Average Inherent Risk	Risk	Initial Collaborating Stakeholders
The lack of enforcement for the timely reclamation of gravel pits may leave large parcels of the watershed barren expediting the flow of water and the sediment carried in the water.	3	1	3	LOW	
Lack of a Best Management Practices for water crossings for Agriculture may cause irreparable damage to the streams and increased waste deposited to streams/ivers.	1	2	2	LOW	
Theme 2: SURFACE AND GROUND WATER QUANTITY					
Lack of knowledge regarding up-to-date cumulative water withdrawal locations and volumes may result in over use.	4	4	16	HIGH	<ul style="list-style-type: none"> • AER • Alberta Geological Survey • Big Lakes County • ESRD • MD of Greenview • MD of Lesser Slave River • MD of Smoky River • Northern Sunrise County • Town of High Prairie • Town of Slave Lake
The use of fresh water for Industrial (fracking) may result in over use.	3	4	12	HIGH	
Lack of infrastructure to mitigate flooding during high flows.	3	3	9	MODERATE	
Lack of knowledge regarding ground water quantity and use may lead to over usage	2	2	4	LOW	
Lack of infrastructure in place may lead to water scarcity during droughts.	2	2	4	LOW	
Theme 3: BIODIVERSITY AND WILDLIFE					
Lack of stream crossing inventory and enforcement may cause negative impacts to fish movement and populations.	5	4	20	EXTREME	<ul style="list-style-type: none"> • Alberta Trappers Association • Boreal Center for Bird Conservation • ESRD • Jr. Forest Wardens in Slave Lake • Big Lakes County • MD of Greenview • MD of Lesser Slave River • MD of Smoky River • Northern Sunrise County • Town of High Prairie • Town of Slave Lake • REAC
Development through dry tributaries may diminish natural drainage and loss of wetlands resulting in habitat loss for many species at risk.	4	4	16	HIGH	
An unhealthy fish habitat may result in reduced fish diversity and negative impacts on the fishery.	4	4	13	HIGH	
Loss of riparian and wetland habitats may adversely affect biodiversity.	3	4	12	HIGH	
Loss of forested areas due to insect infestations may negatively impact the watershed.	3	3	9	MODERATE	
Lack of Adaptive Management Strategies to address climate change may result in the deterioration of the biodiversity of the watershed.	3	2	6	MODERATE	
Theme 4: HUMAN AND ANIMAL HEALTH					
An increase in blue green algae within lakes of the watershed will result in increased health risks to humans.	4	4	16	HIGH	<ul style="list-style-type: none"> • AHS • Big Lakes County • ESRD • MD of Greenview • MD of Lesser Slave River • MD of Smoky River • Northern Sunrise County • Town of High Prairie • Town of Slave Lake
An increase in blue green algae within lakes of the watershed will cause lower oxygen levels and cyano toxins in the water, resulting in increased health risks to wildlife and aquatic animals.	4	4	12	HIGH	
An increase in blue green algae within lakes of the watershed will cause lower oxygen levels and cyano toxins in the water, resulting in increased health risks to livestock.	4	4	12	HIGH	
A higher level of nutrients in the water may cause increased algal blooms resulting in increased health risks to humans.	4	2	8	MODERATE	

RISK STATEMENT	Average Likely-hood	Average Impact Significance	Average Inherent Risk	Risk	Initial Collaborating Stakeholders	
As a result of the lack of data for the watershed, trace concentrations of pharmaceuticals may go undetected in the watershed thus posing potential human health risks from exposure to very low levels of pharmaceuticals in drinking-water.	4	2	8	MODERATE		
A higher level of nutrients in the water may cause increased algal blooms resulting in increased health risks to wildlife and aquatic animals.	3	2	6	MODERATE		
A higher level of nutrients in the water may cause increased algal blooms resulting in increased health risks to livestock.	3	2	6	MODERATE		
As a result of the lack of data, an increased level of harmful bacteria may go undetected, resulting in impacts to recreational users (human health).	2	2	4	LOW		
Theme 5: SOCIAL AND ECONOMIC						
An increase in algae within lakes of the watershed will cause lower oxygen levels and higher nutrient levels in the water, resulting in increased costs associated with water treatment.	4	3	12	HIGH	<ul style="list-style-type: none"> • LSLEA • Big Lakes County • ESRD • MD of Greenview • MD of Lesser Slave River • MD of Smoky River • Northern Sunrise County • Town of High Prairie • Town of Slave Lake • Tourism Operators 	
An increase in blue green algae within lakes of the watershed will cause lower oxygen levels and cyano toxins in the water, resulting in lower recreational opportunities.	4	3	12	HIGH		
A higher level of nutrients in the water may cause increased algal blooms and aquatic weeds resulting in lower recreational opportunities.	3	4	12	HIGH		
Lack of a proper stewardship program will cause the watershed to stay the same or decrease in all aspects.	3	4	12	HIGH		
Lack of programming to educate stakeholders about water quantity may result in adverse effects on future development approvals.	3	4	12	HIGH		
Increased sedimentation may result in lower recreational activities and higher costs associated with frequent dredging around water intakes.	3	3	9	MODERATE		
An unhealthy fish habitat may decrease the capability of sustaining the Traditional Use of fisheries	2	4	8	MODERATE		
An unhealthy fish habitat will negatively impact recreation and commercial tourism.	2	4	8	MODERATE		
Theme 6: RIPARIAN LANDS						
Lack of monitoring shoreline development may result in over-development and lower than optimal shoreline intactness.	5	4	20	EXTREME		<ul style="list-style-type: none"> • Same as Theme one
Alteration of shoreline aquatic vegetation removal and armoring for shoreline stabilization	5	4	18	HIGH		
Lack of Guidelines to manage shoreline development may result in over-development of surrounding shorelines.	4	4	16	HIGH		
Use of riparian areas and wetlands by livestock cause damage to riparian areas and aquatic systems.	4	4	16	HIGH		

RISK STATEMENT	Average Likelihood	Average Impact Significance	Average Inherent Risk	Risk	Initial Collaborating Stakeholders
Lack of enforceable standards around shoreline development	4	4	14	HIGH	
Elimination of riparian buffers along water courses	3	4	12	HIGH	