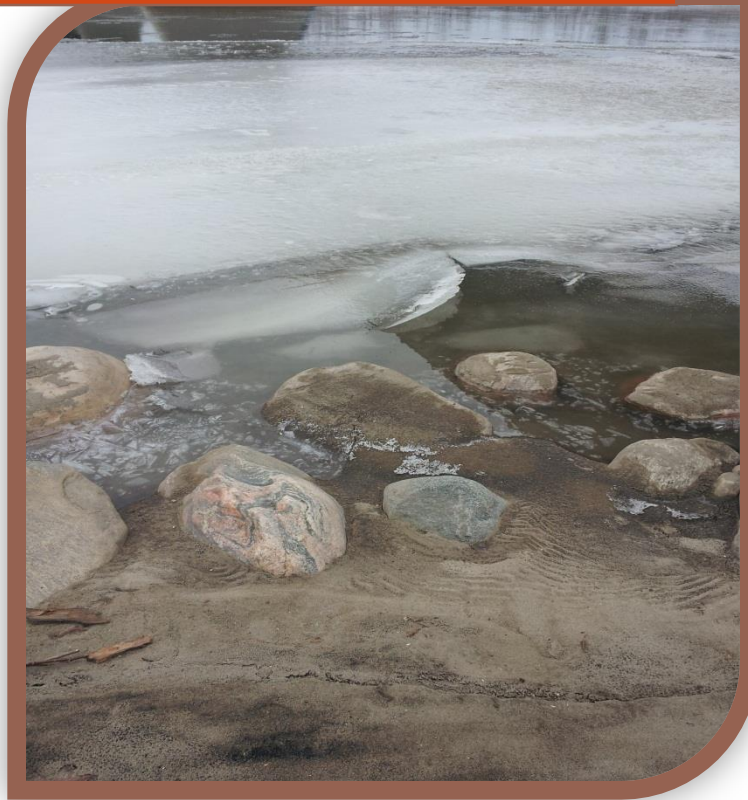


Mighty Peace Open Houses



Mighty Peace Watershed Alliance Public Engagement Forums Report

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Executive Summary

The Mighty Peace Watershed Alliance (MPWA) is a multi-stakeholder, broad-based, not-for-profit organization concerned with water and watershed issues in the Peace River and Slave River watersheds of Alberta. It is also the officially designated Watershed and Planning Advisory Council for this region. Thus, the MPWA has been given a mandate of watershed management planning in the Peace watershed and 2 important deliverables for this are the production of a State of the Watershed Report and an Integrated Watershed Management Plan.

A key component of these two deliverables is public consultation to gather local information about



Little Smoky River valley.

the watershed and assess the concerns and priorities of the users of the watershed. To do this a series of open house and tradeshow events were undertaken by the MPWA. A total of 22 events in 21 communities were completed with the intention of reaching a broad cross-section of the populace.

An extensive advertising campaign was the first step, not only because the MPWA is a new organization, but also to maximize the effectiveness of the effort made to be on location across the watershed. The effort necessary for travel to these locations across the watershed is only worthwhile and effective when people attend the events. We experienced attendance ranging from 0 (1 event) to 50 people (1 event), the median attendance was 9 and the average attendance was 12.

A wide range of issues were raised at these events and covered all facets of watershed management from legislation, through ecosystem health, industry needs and personal use to

water security. The three most common issues raised were the availability and/or security of drinking water - often from a municipality or provider perspective, ecosystem health, and industrial use of water. There is wide-spread recognition in the Peace watershed of (high quality) water as an ecosystem good and the need to manage our activities to maintain the ecosystem's capability to provide that good. Other commonly voiced issues were questions about the safety of fish consumption, concerns about the impact of dams on the Peace, agricultural runoff, forestry practices and treatment of industry effluent.

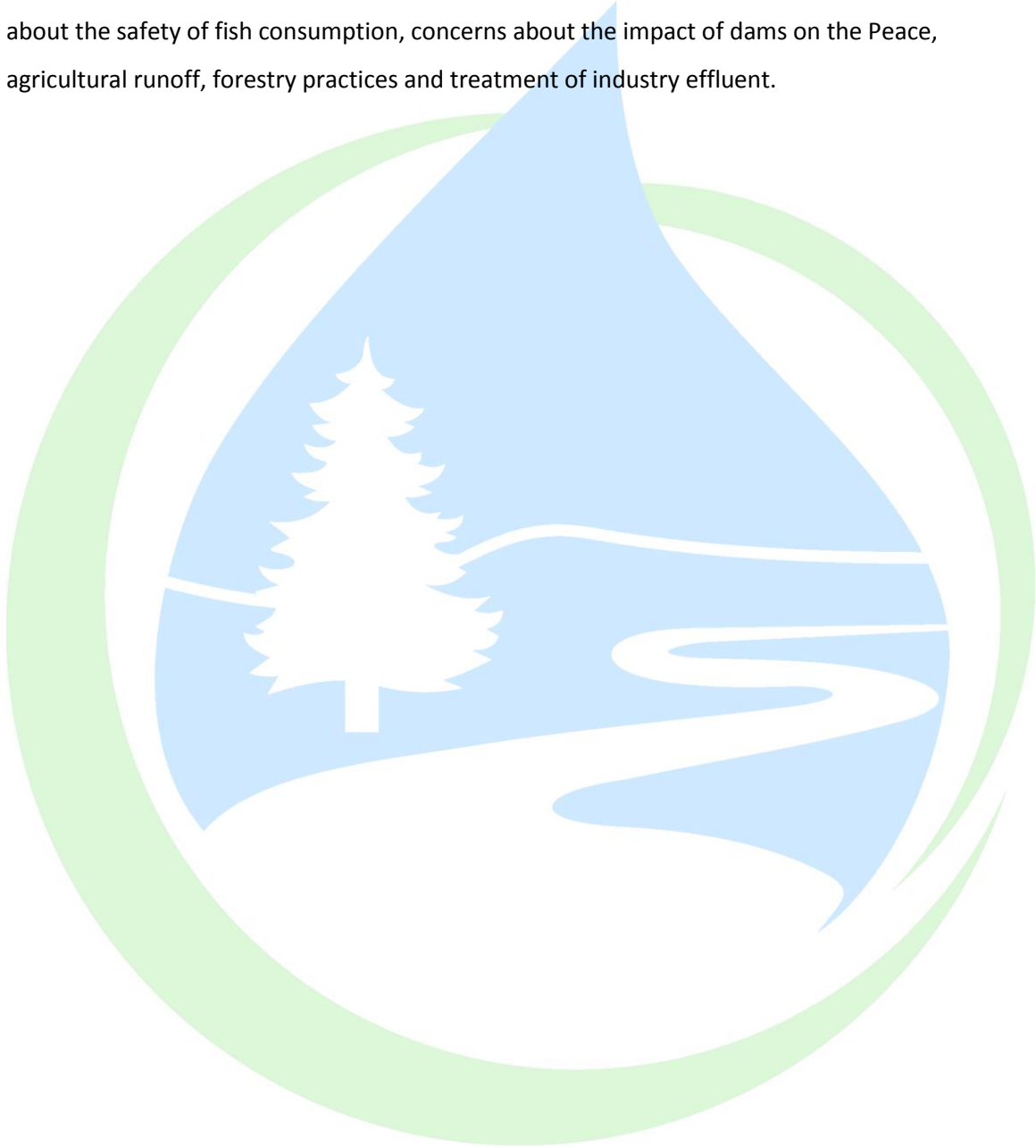


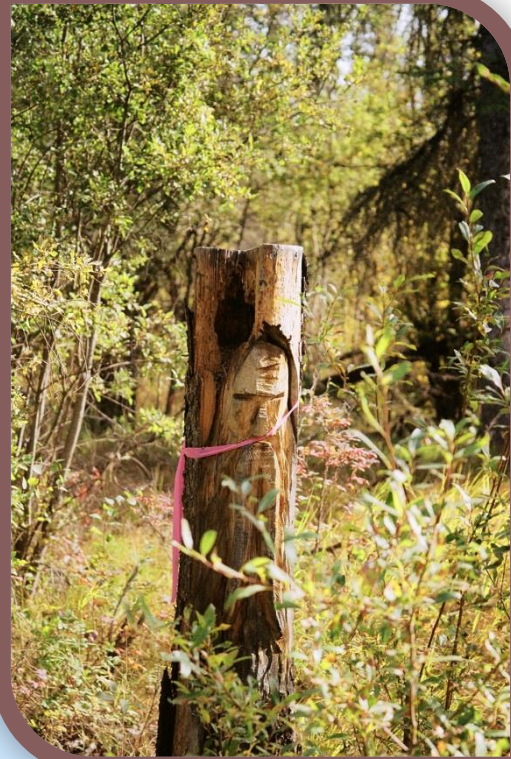
Table of Contents

EXECUTIVE SUMMARY	I
TABLE OF CONTENTS.....	III
INTRODUCTION.....	1
THE TOUR	1
THE NUMBERS	5
THIS REPORT	6
WHAT WE HEARD	7
SLAVE RIVER SUB-BASIN	7
<i>Fort Chipewyan</i>	7
LOWER PEACE SUB-BASIN	9
<i>Garden River</i>	9
<i>High Level</i>	11
<i>Fort Vermilion</i>	13
WABASCA SUB-BASIN	15
<i>La Crete</i>	15
<i>Red Earth Creek</i>	16
<i>Wabasca/Desmarais</i>	17
CENTRAL PEACE SUB-BASIN	19
<i>Manning</i>	19
<i>Paddle Prairie</i>	21
<i>Nampa</i>	22
<i>Peace River</i>	23
UPPER PEACE SUB-BASIN	25
<i>Eureka River</i>	25
<i>Fairview</i>	27
<i>Grimshaw</i>	29
<i>Spirit River</i>	31
SMOKY-WAPITI SUB-BASIN	33
<i>Beaverlodge</i>	33
<i>Falher</i>	35
<i>Fox Creek</i>	37
<i>Grande Cache</i>	39
<i>Grande Prairie</i>	40
<i>Valleyview</i>	42
WHAT OUR WATERSHED SAID	44
PUBLIC ENGAGEMENT LEARNINGS.....	45
AND NOW... ..	47

Introduction

This report is a collection of the learnings gleaned from a series of Public Engagement Forums held by the Mighty Peace Watershed Alliance (MPWA) from the end of August 2012 through the middle of January 2013. The purpose of this project was two-fold. First, as a new organization the MPWA wanted to raise its profile within the watershed and make itself known to the people of the Peace watershed. Second, this was the first round of public in a series of public engagement forums that will be undertaken in fulfillment of the MPWA's mandate as a Watershed Planning and Advisory Council.

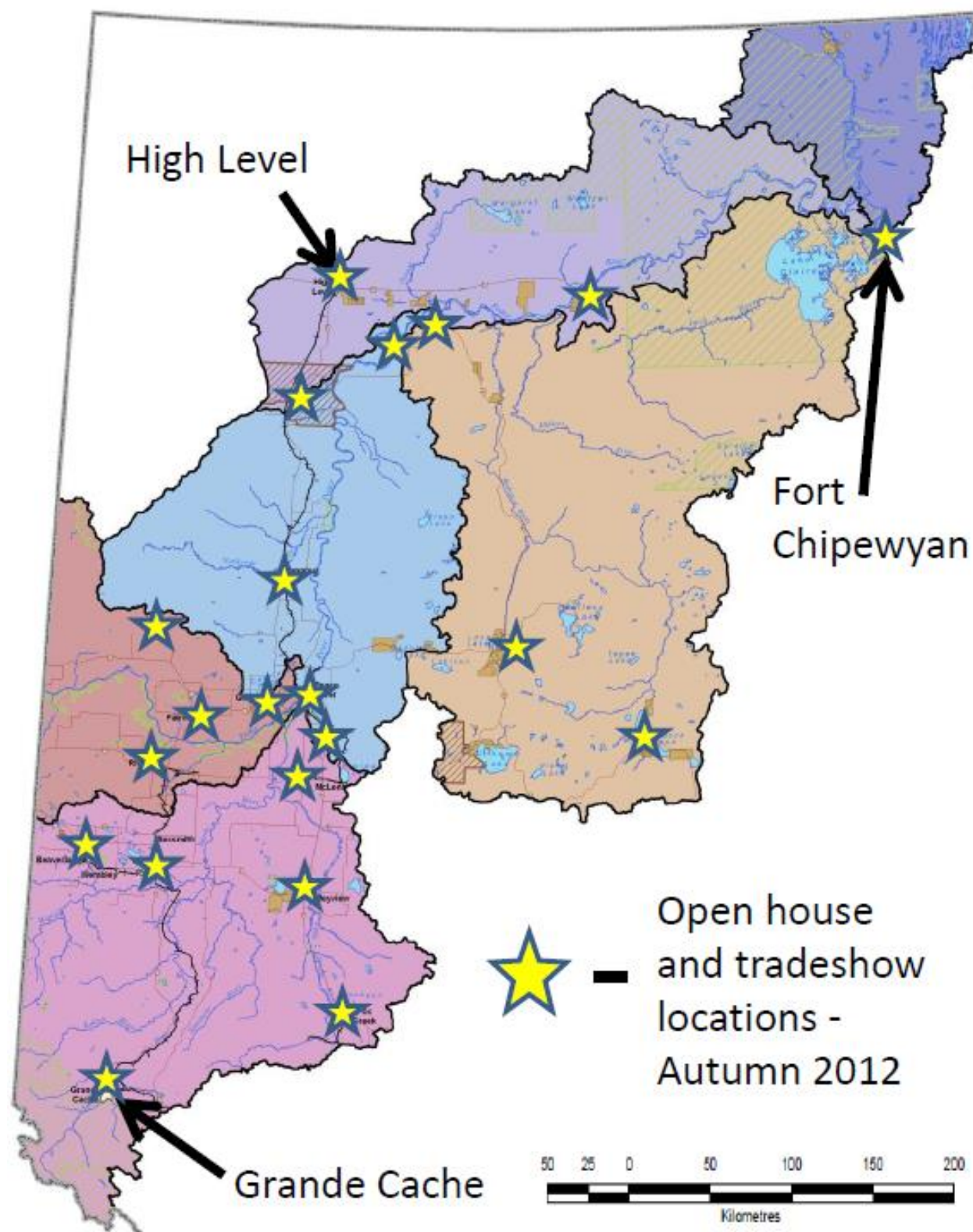
This mandate is to engage governments, stakeholders, Aboriginal communities and the public in watershed management planning. Two of the milestones set for the fulfillment of this mandate are the production of a State of the Watershed Report and an Integrated Watershed Management Plan. The purpose of these public engagement forums is for the MPWA to gather local knowledge and concerns with a view to fostering watershed management planning and developing these reports. Furthermore, a better grasp of the concerns and issues throughout the Peace watershed was desired so that the efforts of the MPWA can be effectively focused to meet the needs of the people of the Peace.



Carving along the road east of John D'Or Prairie.

The Tour

An attempt was made to provide effective coverage for the 182,000 km² watershed that extends from Jasper National Park to the North West Territories. Each sub-basin was visited and the major centers within each sub-basin were visited. The Public Engagement Forums were rolled out in two phases, the first one mostly in early autumn and the second one mostly in early winter, so that each area was visited in both phases to accommodate those who could not attend one event or the other.



A map of the Peace River and Slave River watersheds in Alberta, with the six assigned sub-basins demarcated. The locations of public engagement forum events are indicated.

The MPWA Watershed Coordinator Adam Norris was responsible for the project logistics and as such was present at every event. Rhonda Clarke-Gauthier, MPWA Executive Director, attended many of the events and Paula Griffin, MPWA administrative assistant, attended two events. Otherwise the Board of Directors endeavored to provide representation at every event. Only one event, the Red Earth Creek open house, proceeded without any Directors.

In order to engage as many people of the Peace as possible, an extensive advertising campaign was undertaken. The first objective of the campaign was to make the Mighty Peace Watershed Alliance name an identifiable one and the second objective was to let people know about our purpose generally and about our Public Engagement Forums specifically. A direct invitation was issued in these ads that ran online, on radio and in print. Additional effort to draw people to the events was made by directly calling or emailing people known to have a direct interest or concern with the watershed. For instance, this included different municipalities, stewardship groups, industries, community groups and those who had already contacted the MPWA.



Display set up at High Level Trade Show –
September 12th, 2012

Materials to explain MPWA as an organization and the role of a Watershed Planning and Advisory Council were set up at each event. The displays provided visual support to help in the explanation of the general concepts surrounding the *Water for Life* Strategy and particulars about the organization. Two visuals that were most often used were the large map of the watershed (see above map) and a graphic depicting the direction of MPWA and its major milestones, including a State of the Watershed Report and Integrated Watershed Management Plan (see graphic below). A rotating slideshow often brought comments of “Where was that picture taken?” or “That’s beautiful - where is that?” It is a large watershed and people at one end of the watershed are often not familiar with some of the prominent landmark features in other parts of the watershed. Executive summaries of MPWA’s completed projects were distributed and some people signed up to receive the full reports. In this way a sense of MPWA’s



Roadmap graphic developed for public engagement forums to help explain our process and milestones.

purpose, efforts and scope were communicated.

Efforts were made to tie this project to another MPWA project that was running concurrently. The Issues Scoping and Project Synthesis project (ISPS) is a project that aimed to synthesize the 4 projects already completed by MPWA and to identify gaps in our knowledge. Part of this project was an online survey and it was this component that was used to complement the Public Engagement Forums. We encouraged people to complete the online survey and if they did not have adequate internet access we provided them with a hard copy of the survey.

We attended 3 tradeshow: one in Grande Prairie, one in High Level and one in La Crete. Our open houses were held in 19 locations: Grande Prairie, Grande Cache, Peace River, Red Earth Creek, Fairview, Fox Creek, Fort Vermilion, Beaverlodge, Falher, Valleyview, Spirit River, Manning, Eureka River, Manning, Nampa, Garden River, Wabasca, Fort Chipewyan and Paddle Prairie (see map page

3). Attendance by the public varied from zero to almost fifty, the median attendance was 9 and the average attendance was 12.

In-kind support was received from varied sources including several municipalities, a stewardship group, different governments and corporations. The hamlet of Red Earth Creek provided us with a hall, as did the MD of Opportunity and the Town of Valleyview. The City of Grande Prairie provided funding for a director to attend 3 open houses. The Town of Peace River sent a director to 2 open houses. In Fort Vermilion the Agricultural Society not only provided us with a hall, but refreshments and publicity. Likewise the Grimshaw Gravel Aquifers covered the hall and refreshment costs for the Eureka River, Grimshaw and Manning events. Smoky Agricultural Research and Development Association provided support for a director to attend 3 events. Alberta Agriculture contributed the time and travel costs for a director to attend 7 open houses. Clear Hills Watershed Initiative provided for a director to attend 1 open house. Little Red River First Nation provided support for 2 directors to attend 1 open house. Penn West provided support for directors to attend 5 events. Weyerhaeuser provided for a director to attend 2 events, DMI provided in-kind support for a director to attend 1 event as did Aquatera. Paddle Prairie Metis Settlement provided a venue for one event as well as sending a director to one event. As attendance at these events often required hundreds of kilometers of travel, food costs, sometimes lodging and of course the time itself invested, this is no insignificant contribution and very much appreciated.

The Numbers

19 open houses and **3** trade shows were part of this public engagement forum project in **21** communities throughout the Peace River watershed. Travel to attend these events by staff and directors covered **40,793** kilometers. In all, the MPWA directors made themselves available to public for over **185** hours and the staff did so for a total of **130** hours. Over **230** people participated in the open house events and around **3000** people saw our booth at the trade shows. Advertising to encourage people to come out to the events included **166** pages of print ads in **16** different publications, notices on many websites, newsletters and community calendars. There were also **7650** seconds of radio ads on **6** different stations. Beyond this there were interviews given and articles written about the Public Engagement Forums. We issued over **191** addressed invitations to the events. Promotion of our survey at these events helped us receive **122** completed surveys regarding watershed issues (the survey was part of our Issues Scoping and Project Synthesis project).

This report

The report is structured like a journal or a notebook for the Public Engagement Forums. Sub-watersheds are used as the organizational structure and events in that sub-watershed are listed under that heading alphabetically. Select comments from participants are listed as they were recorded on the flip chart, in our sign-in book or in follow-up correspondence directed to us after the event. These statements and/or questions were made by individuals and do not necessarily reflect the position or understanding of the Mighty Peace Watershed Alliance. A synopsis of each event and the main issues raised is provided after the comments. A photograph accompanies each event as well as highlighted comment that captures the tenor or spirit of that particular event. This compilation of local opinion, thought and knowledge, along with scientific understanding will be used to develop an understanding of the watershed and potential management options.



What we heard

Slave River Sub-basin

Fort Chipewyan

January 15, 2013

- Backwater snyes (cross channels between rivers) frozen to bottombeavers forced to main river
 - connectivity of habitat is affected
- Muskrats have trouble when water rises after ice is formed
- Before 1967 the Peace River could raise Lake Athabasca water levels
- Vegetation changing from to willows from prairie vegetation (grasses, sedges)
- Fish kills in Lake Claire 5-6 years ago
- Every species affected by fish kill in Mamawi Lake this year
 - kill also occurred in rivers throughout delta
 - happened province wide despite lots of water
- Weekly community monitoring – dissolved oxygen, ice thickness, water level between rivers
- Traditional knowledge fights for respect with western science
- Knowledge goes out but never comes back
- Concerned about plans for dam on river – both Peace River and Slave River
- Allison Reserve uses well water – there has been contamination of water by *E.coli*
 - other reserves in area get Fort Chip treated water via pipelines
- Dams and effect on river flows and responses – effect on delta, river, etc.
 - there are lower water levels now
- NWT has legislated water as a human right
- Be aware of Treaty 8
- Convention on biological diversity is applicable in this region
- Hydrological regime affects availability of medicinal plants



Old fire truck at Fort Chipewyan museum.

- Bill C-45 has removed the protection for the river, fish and treaty rights, what is the future protection?
- I would like to see more First Nation/Metis representation on your Board. Who are the Stakeholders?
- We are very concerned about the cumulative impacts of industrial development and municipal water use along the upper Peace that combines with those of the Athabasca River system and enters the Slave River
- Concerned about loss of riparian habitat (bank erosion/destabilization by water regulation)
- Would like to raise weirs to original height (an increase of 2-3 feet)
- Can remember delta cycles (very dry years) before dam
- Would like MPWA to come to Smith Landing
- Muskrat population has dropped because of toxicity
- How do we reduce pollution from oil sands?
- Fish consumption is controlled. Why?
 - How do we turn this around?
- Concerned about toxicity of water and impacts on fish – there are lesions and deformities, are they edible?
- Lower water levels
 - Loss of flooding because of dam

Our time in Fort Chipewyan was very rewarding and unique. It was the first time that MPWA had visited the community and the response was great. There were many questions about who we are, what are going to do, what do we want from the residents there and MPWA's organization and goals. The participants were very glad to be able to express their concerns about the Peace River (the Athabasca River currently receives the lion's share of attention in the delta region) and had much to say. History along the river, its levels, flows and biota were communicated to us as well as how the people there had been involved with the river and what the current situation is. There was a strong desire expressed for continued communication and a feedback loop that would ensure a bi-directional flow of information.

Knowledge goes out, but it never comes back.

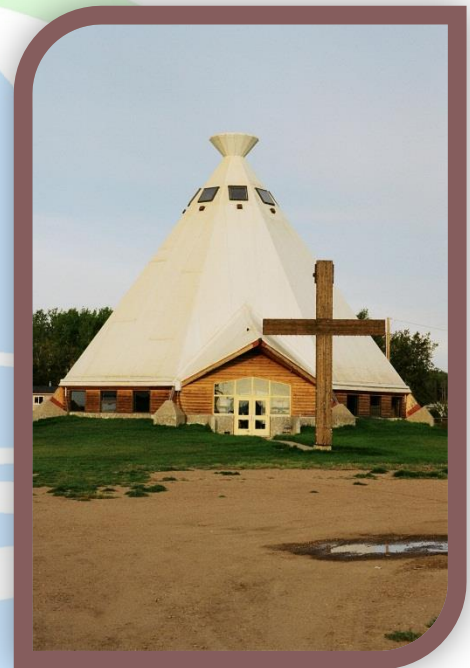
19 OPEN HOUSES

Lower Peace sub-basin

Garden River

November 27, 2012

- Water quality samples of tributaries
- Ice quality is poorer now
- Not confident in water quality now – 60 years ago I was
- Concerned about discharge from town of Peace River and DMI
- Poor drinking water quality (municipal)
 - water drawn from Peace for Garden River
- Reduced/altered flows due to dam
- Concerned about potential flood – it has already happened 2 times
- Concerns about bioaccumulation in fish and their edibility
- Transportation challenges due to changing river morphology/changed hydrograph
- Altered muskrat & rabbit populations (cycles)
- Loss of wetlands and lower water levels
- Sediment contamination and transport downstream
- Flow manipulation – it should pattern natural river flows/volumes as much as possible



Church at John D'Or Prairie

The muskrat and rabbit population cycles are changing.

Garden River is situated directly on the banks of the Peace River and this characteristic is shared with just two other communities – Fort Vermilion and the town of Peace River. The people here have an immediate connection to the river and are very aware of the cycles present in the ecosystems around and how they are changing. The main concerns centered on the changing availability

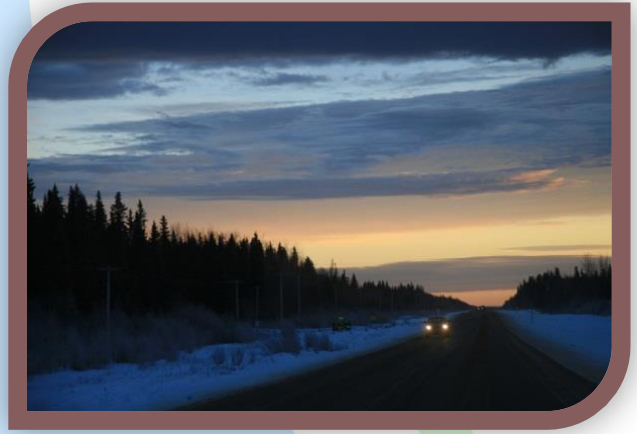
of foods (e.g., due to toxic bio-accumulation in fish and reduction in numbers of muskrat and rabbits) as well as the changed hydrology of the Peace River and its effect on transportation and the wetlands.



High Level

September 12, 2012

- Water quality issues (rural resident with stained laundry – due to magnesium)
- Corrosion of mill pumps (occurs in less than 5 years)
 - mill only started reporting water use in 2011, using online mechanism
 - don't know how much water is being used (ground water from well)
 - concerns about water quality (bunging up fire equipment)
- General questions about WPACs and watersheds
- Concerns about water export
- Concerns about safe water
- Desire for recreational water bodies
- Interest in forest education and water use
- Economic development (the council has interest in water and potential opportunities)
- Tolko public advisory committee meets monthly and Tolko plans discussion about watersheds
- Drilling is not allowed on water and muskegs are classified as a water body, yet drilling occurs there
- Concerns about irresponsible recreational use of water bodies, e.g., improper quadding



Highway 35 south of High Level.

We don't know how much water is being used.

The town of High Level draws its municipal supply from Footner Lake, a lake which is actually in the Hay River watershed. There is talk about extending the pipeline so that water can be drawn from a lake that would provide a more secure water supply. Tolko is a major user of water and has just begun reporting online in the provincial

database as they were unaware of the need to do it nor was there any indication from the government about the need for it. Those we talked to wondered how much of a concerted effort there is to ensure accurate and consistent reporting of water usage in Alberta. The oil and

gas industry is very present west of town and there were comments ranging from complaints about onerous water protection regulations to the failure of companies to respect the watershed. Most comments were centered on the issue of adequate water supply. We heard several people express concern about the state of water bodies that are used recreationally, particularly with respect to concern about their degradation through misuse.



Fort Vermilion

October 30, 2012

- The town of La Crete city uses ground water
 - farmers/rural residents haul water from the town
 - well level tied to Peace River levels
- The town of Fort Vermilion uses surface water
- Industrial regulations to protect water crossings – Is there a better means to the end?
- Wadlin Lake was overfished and still needs to recover
- Is the agricultural drainage excessive and/or creating negative impacts?
- Concerned about loss of windrows
- Use of trees/role of trees in agriculture
- Navigable Waters Act – is the Peace included?
- Water table has dropped 6-8 feet
- Drainage water should be directed to dugout or wetlands
- Concerns about the release of Crown Land for agriculture
- Concerns about the commodification of water
- Fish kill in Boyer River in summer of 2012
- Replacement of bridges with culverts near Boyer River

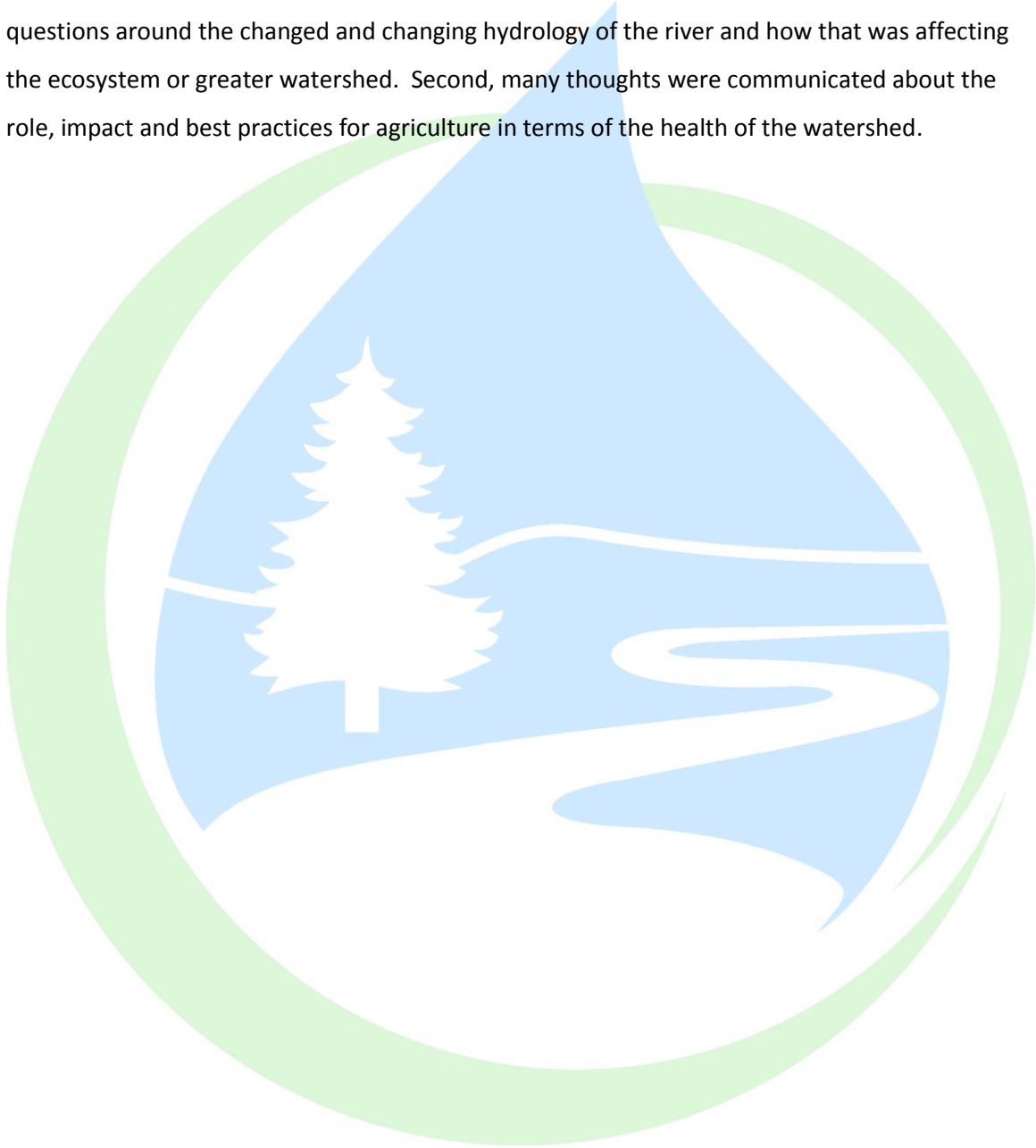


View from bridge over the Peace River west of Fort Vermilion.

Fort Vermilion provided the best turnout for our Public Engagement Forums. The community was passionate, knowledgeable and concerned about their watershed. Due to the

*Run the drainage
water from fields in
to dugouts.*

large number of participants and the richness of conversations it is not possible to list the topics of concern that came up. Suffice it to say, almost all possible topics concerning water and watersheds were touched upon. The two most commonly touched upon subjects were probably the following. First, there was a lot of concern and many questions around the changed and changing hydrology of the river and how that was affecting the ecosystem or greater watershed. Second, many thoughts were communicated about the role, impact and best practices for agriculture in terms of the health of the watershed.



Wabasca sub-basin

La Crete

September 14, 2012

- Issues with drinking water
 - dugouts and wells are often poor quality water - e.g., stain laundry
- Most haul water from town
 - cost of connecting to pipeline (it draws from Peace)
- Hunting or fishing was always a point of connection
- Could we develop a matrix for drinking water options?
 - pumping, reservoirs
 - direct withdrawal from the Peace River



South of La Crete looking towards the Blue Hills.

Each region has its own connection to the watershed and its own set of issues that are

It is just so expensive to connect to the water pipeline, but who wants to haul water at -40.

foremost in people's minds. Here, we encountered a willingness to talk about hunting and where they got their household water from. There are very few wells in the area and they tend to be a poor quality with a high mineral or salt content. Hauling is the norm for rural residents,

though a new water pipeline is changing that for some people. Comments about the pipeline were both positive and negative, and a common topic was the price of connection to the pipeline.

3 TRADESHOWS

Red Earth Creek

September 10, 2012

- Red Earth treats water drawn from Red Earth Creek, a small creek and withdrawals are almost at capacity
 - Red Earth sells water to oilfield companies and there are concerns about the amount of water and the cost of treatment
 - concerns about the use of treated water for fracking
- Only half of town has piped water and sewage, the other half is serviced by hauling
 - marginal drinking water at present
- Consideration of pipeline to bring water from Loon Lake; MD already rejected joining NEW Water Ltd.
 - there are funding issues surrounding the pipeline
- Recreational pressure is low
- Sloughs and muskegs have been drier recently



Aerial view of boreal forest typical of the Red Earth Creek area.

We can't afford to subsidize industry with our treated water when half our residents have to have water hauled.

There were only 2 participants at this event and a repeated comment or concern was indifference within the community towards issues of this nature. The biggest concern in Red Earth is the security of its municipal water supply. There is almost no room for increased

water usage due to the limited quantity of water available in Red Earth Creek. As well, the water quality is low, that is it has a high sediment load, thus treatment is costly. Industry presently purchases treated water from the municipality and much discussion surrounds whether this should occur and if so what should the price of water be.

Wabasca/Desmarais

January 8, 2013

- Paddled from South Wabasca Lake to Fort Resolve in 41 days.....304 hours
 - saw garbage in river in remote places
- Presently there are sewage tanks at Sandy Lake – going to upgrade to sewage mains
- Wabasca Lake Shore is filling in with bull rushes
 - due to lack of grazing
- Fish populations are stable
- Wetlands are stable
- Caught pickerel in Wabasca River with Peace River Fish & Game tag
- Disturbance (linear) of muskeg
- What is the effect of drilling?
- Concern about lagoons on reserve and discharge into river
- Student awareness – potential for positive impact and careers
- Concerns about medicinal herb security
- Concerned about lack of attendance at open house – band issues not being voiced



Sunset over South Wabasca Lake.

The fish populations and the wetlands are stable.

This was the only event during the whole project where participants did not indicate that declines in water bodies or aquatic ecosystems were occurring. The only comment heard in this vein, was some concern about the Wabasca Lake Shore filling with

bulrushes and later we heard that the lake level (in both the North and South Wabasca Lakes) had dropped. People here live on the lakes, used them for recreation, for sustenance and for their water supplies. Every day the lakes, which comprise their immediate watershed, are

directly in front of their doors. Concerns about the future impacts of expanding industrial activity were the greatest concern in this area.



Central Peace sub-basin

Manning

November 8, 2012

- Well water quality is a concern
- There isn't proper investment in Notikewin Park
 - no water or no wood available
- The county is looking at shutting down rural water points (e.g., Carcajou) – citizens are concerned
- Low-level maintenance of parks
- Concerned about water quality (especially down-stream of mills)
 - impacts on fish quality and edibility
- Concerned about employment
- Dugout water quality is a concern
- The town of Manning has to borrow water plant operators from Peace River
- Use dugout water for non-potable – haul drinking water
- Concerned about nuclear power
 - emissions
 - water use
- Do not want to export our fresh water to the USA
- Concerned about pulp mill effluent
- Issues of mercury in water
- There are no more fish in Buchanan Creek
 - there used to be Walleye
 - have noticed a lot of foam on water
- Concerned about logging operations
 - waste management
 - oil disposal
 - runoff from cutblocks



Substation north of Manning.

- Industry drawing water from dugouts without permission
- Seismic activity is altering the land
- Worried about the spraying of roads & run-off into dugout
- Septic sediment tanks are discharged into creek
- Near North Star – the truck disposal sometimes gets flooded and sewage and chemical containers are stored there
- Insufficient dugouts for livestock
 - funding for dugouts would be good

What is going to be the effect of all our industrial activities on the water available to us?

Manning is in the Central Peace sub-basin and is the hub for the County of Northern Lights. The participants who came were well-informed and understood a lot about their watershed and were in the process of assessing solutions to the problems. Potentially, this was the event where the most discussion about practical solutions to already identified local problems took place. Residents informed us about the issues with runoff and runoff contamination, as well as regarding solutions they thought were plausible. The most common issue centered on runoff, whether it was oil and gas, municipal, agricultural, forestry, personal or recreational in nature.

Paddle Prairie

February 25, 2013

- Too many beaver dams now
- Concerns about Boyer River as municipal water source
 - applying for grant to build water pipeline from Chinchaga River
- People don't fish much in Peace River anymore
 - no more fish, toxins in water
- Boyer Creek is need of clean-up
 - What funding is available?
- Do we have an aquifers map?
- People go to beach on Chinchaga River, to the Peace at Carcajou or to Twin Lakes for recreation
- The watershed contains history of Alberta – history of Canada
- Lack of water plant operators, security of plant operation at Paddle Prairie
 - need more high school students receiving diplomas so that they can pursue operator's training
- It had been dry, more snow this year
- Concerns about flooding – house is in a low spot
- A lot of people in community are not on water line and must haul waste



Paddle Prairie Metis Settlement welcome sign at the south end of the settlement.

Watershed concerns? Our municipal water supply is our biggest concern.

The most prominent concern for the people of Paddle Prairie is their drinking water supply. Water is drawn from the Boyer River and the available water is presently just sufficient, furthermore it is inconsistent in its availability.

Like other small communities there are the challenges of training, maintaining and finding qualified staff to operate the water treatment plant. The desire to clean up the Boyer River by removing garbage and restoring the riparian was voiced and reflects the importance of this water body to the community.

Nampa

November 21, 2012

- Contamination of waterways – by cattle, septic systems, spraying
- Concerned about effects of logging on snow pack
- What is incentive for farmers to maintain riparian zone?
- Weed control issues
- How we can be sustainable?
- Water use in fracing is a concern
- Loss of shelterbelts – quicker drying



Autumn fields in the Peace Country.

What incentive do farmers have to protect the riparian zone for society?

Most concerns heard at the Nampa event centered on agriculture and some of the discussion then moved to broader societal issues that affect the watershed. Issues such as agricultural runoff and the removal of riparian zones were raised, along with the

question of how to promote beneficial management practices within the changing agricultural industry. Declining water availability for crops was an issues and it was suggested that two drivers of this could by a loss of shelterbelts and the change in snowpack due to forestry and land clearing.

**40,793 KILOMETERS
TRAVELLED**

Peace River

September 6, 2012

- Maintaining water quality and availability for residents, industry, and recreation is important
- Impact on groundwater of industrial waste going to East Peace landfill
- Impact of massive industrial/energy sector development on our water resources
- What does the MPWA do? What is its end goal? How is it organized? What is MPWA's process? How does MPWA deal with trans-boundary issues?
- What is a watershed? What is the Peace River Watershed in particular? How does the Peace-Athabasca Delta fit into the Watershed? What is the relationship of the Peace to Slave Lake?
- Has the MPWA made any recommendations on the Site C Bennett Dam? Is BC Hydro helping to finance MPWA studies to finance the impact of the Site C Dam?
- Concerned about fracking by Oil & Gas, especially taking fresh water out of the hydrological cycle.
- Protection of aquifers is important – i.e. Grimshaw Gravels Aquifers
- Help citizens understand what questions to ask to ensure the important issues are addressed by local/provincial regulators and industry?
- How do I get on the water Co-op? How do I go about drilling a water well to secure my water supply? (Blue Sky area)
- Rural water supply – avoid using Aquifers use abundant, (safely) treated water; more wells in the Aquifer, greater chance of contamination



Descending into the Peace River Valley at the town of Peace River.

- How will the MPWA prevent government policies from working at cross-purposes to each other? Example, nutrient run-off in pristine waters (e.g. Slave Lake) from agricultural policies
- Concerned about Aquifers and Oil & Gas activity. (How does the aquifer work?)

Who or what is the MPWA and how are you going to work in the context of the organizations and government already out there?

The conversations in Peace River, although broad in spectrum, hinged a lot on projects and how they would impact water resources. The proposal by Bruce Power to build a nuclear power plant had put the issues of water quality and quantity foremost in the minds of the residents. The current expansion project planned by Hydro BC, Site C Dam, has raised questions about the potentials floods and the lack of consultation by Hydro BC. Both fracing and thermal in-situ operations are occurring and increasing in the region, which prompted both questions and concerns about the techniques and impacts. This reinforced the utility of MPWA acting as clearinghouse of information to engender good watershed management planning.

Upper Peace sub-basin

Eureka River

November 14, 2012

- Concerned about aerial spraying by forestry and the long term health impacts (e.g. , cancer)
- Difficult to put in a dugout to water cattle – (license) dirt has to be 20 ft. from dugout
- Get drinking water from Whitelaw spring, 109 km Distant, twice a month
- Dugouts are the main source for drinking water
- Pipeline leaks are a concern
- Some use dugout water for non-potable and haul potable water
- Concern with wasted water
- Look long term from now as a starting point
 - leave past alonefocus on the future
- Fence out creeks – compensate farmers
- Don't think buffers are good idea
- Concerns about the entrance of pharmaceuticals into water (PPCPs)
- There are potentially sick beavers
- Flooding concerns
- Industrial use of treated water
- Too many shelter belts being taken down – water coming off land too fast
- Amount of logging – concerns about erosion
- Concerns about leaking dugouts
- Discharge of Hines Creek waste water into creek (no notice)
 - concern from residents who fill dugout from creek



Clear Hills Watershed Initiative meeting at Eureka River Hall.

Everyone uses dugouts here so of course we are concerned about water.

The open house event was held before a Clear Hills Watershed Initiative meeting and so the participants at this event were engaged in watershed issues. Most of the concerns centered around the effects of forestry and large-scale agriculture on water quality. In areas like this where dugouts are a main source of water, people are quite aware of what affects their water quality and the role and implications of runoff. There were diverse opinions in this group as the causes of effects being seen and the best approach to resolve them. It was encouraging to hear of the successful projects undertaken by the Clear Hills Watershed Initiative, which is a very active stewardship group.



**185 HOURS OF
DIRECTOR
AVAILABILITY**

- Site C doesn't consider effects into Alberta
 - trans-boundary issues
- The ice was often 6' thick before dam
- Fort Vermilion on north bank was destroyed by ice jam flooding before dam
- Loss of delta flooding since dam
- Loss of BC farmland since dam construction
- Issue of dam safety
- Safety of drinking water (mercury) concerns
- Controversy about fluoride in drinking water
- Cummings Lake has seen reduced water levels and a loss of fish
- A reliable water supply for drinking water is needed
 - water level and quality
- Concerns about turbidity of river water for town water supply
- Concerns about having to implement the impending wastewater guidelines
 - challenging for small communities
- Concerns about what expectations are for the municipalities and funding the watershed alliance
- Lack of communication with municipalities by the MPWA
- Is there agricultural runoff data (baselines)?
- Suggests info sessions for municipalities (urban and rural together)
- Water quality concerns



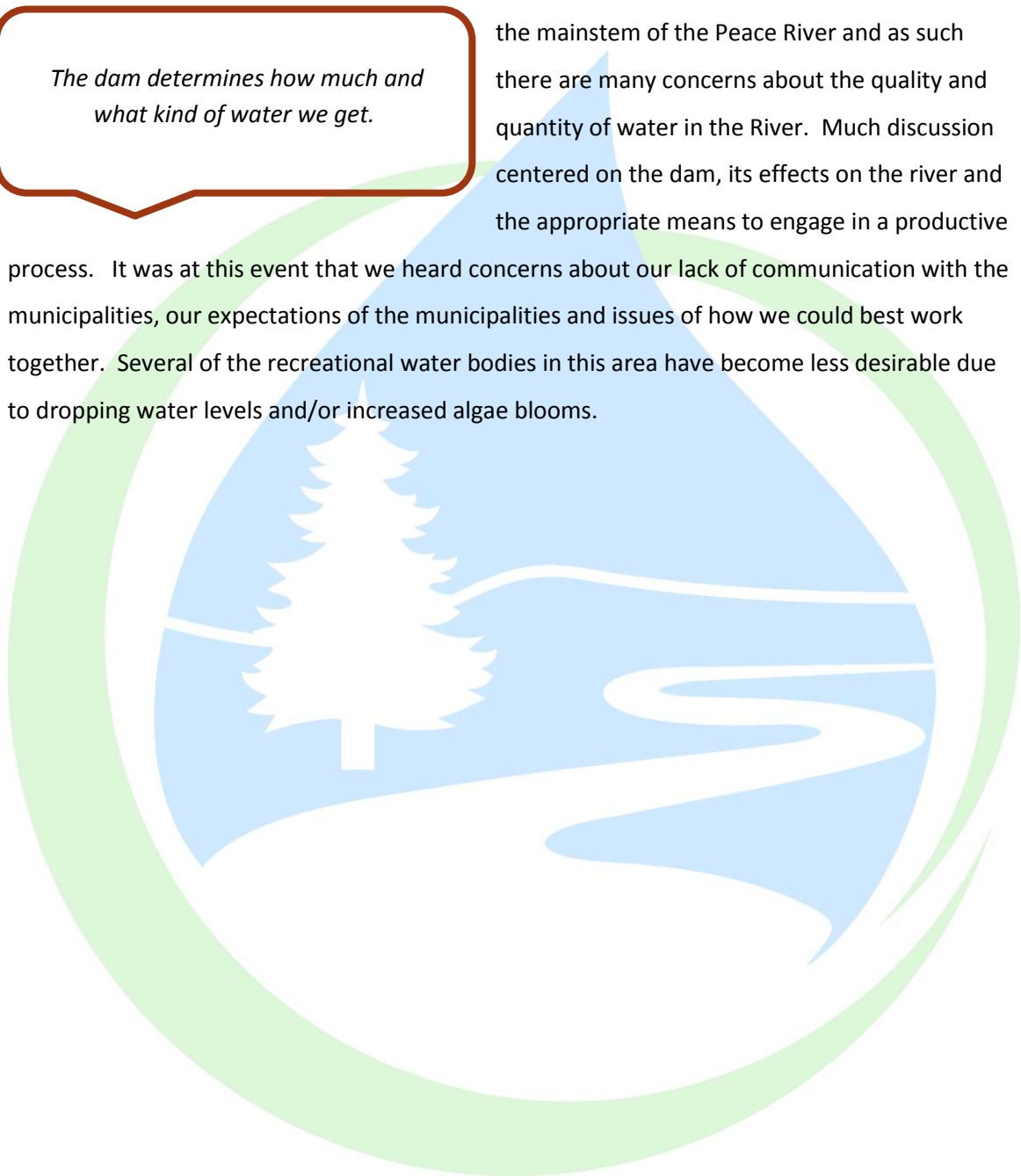
Sunset over Figure 8 Lake.

- blue-green algae on lakes
- Problems with recreational use reducing water quality
- Doesn't want water export

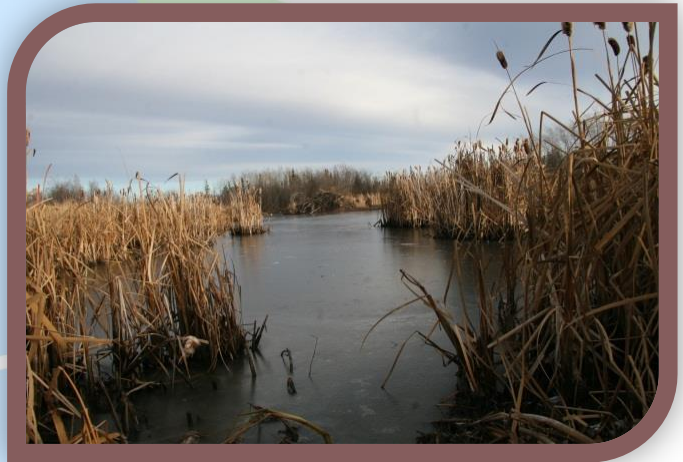
The dam determines how much and what kind of water we get.

The town of Fairview draws its water from the mainstem of the Peace River and as such there are many concerns about the quality and quantity of water in the River. Much discussion centered on the dam, its effects on the river and the appropriate means to engage in a productive

process. It was at this event that we heard concerns about our lack of communication with the municipalities, our expectations of the municipalities and issues of how we could best work together. Several of the recreational water bodies in this area have become less desirable due to dropping water levels and/or increased algae blooms.



- Fracing
 - concerned about effects on aquifer and the use of fresh water down hole
- There are open abandoned wells
- There used to be sticklebacks & suckers in Lac Cardinal
- Fluoride in water
- Increased spring runoff after logging
- Loss of creek flows and lake levels due to drawing water from muskegs
- Concerns about the impact of Oil & Gas development on water wells
- East Prairie & South Cadotte – Trap line Water Test in 2007 potable well (oil company had indicated non potable water in area but)
- Protection of healthy water is necessary - muskegs, lakes, creeks, rivers
- We should use borrow pit water first and then look to other water resources
- Companies drawing down water reserves – are there limits to the water being drawn from muskegs, sloughs and creeks?
- Noticed a decrease in precipitation in the last few decades
- No operator at Berwyn – comes from Grimshaw
- Grimshaw & Fairview are installing water meters for residences
- In gravel aquifers, farmers have drained wetlands by pushing pipe through to aquifer
- Concerns about maintaining Lac Cardinal – impacts of industrial consumption
- Are septic systems contaminating aquifer
 - same concern about cattle operations
- Concerns about oil spills
- What are the effects of fracing and extraction on geology?



A Beaverlodge seen through cattails outside of Grimshaw.

- Human consumption (should be) is the primary use for water
- Concerned about water export
- Waste water treatment may become an issue
- Decommissioning water wells – government funding to help with this is needed
- Regional landfill (North Grimshaw) does monitoring – 13 sites

The Grimshaw Gravel aquifers are unique and valuable. They need to be protected.

The town of Grimshaw has one of the best sources of water in Alberta because its wells access the Grimshaw Gravel Aquifers. Much was heard about this unique part of the watershed, concerns about how it could be negatively impacted and thoughts about protecting it. Another prominent

issue was the use of water by the Oil & Gas industry, as well as the impacts of its activities on the watershed. Urgency was common in the suggestions to protect the safety and security of water supply by properly managing our activities in the watershed.

**7650 SECONDS OF
RADIO ADS**

Spirit River

November 13, 2012

- Soil erosion from Saddle Rivers
- Dugout water for drinking water
- Both Town of Rycroft and Spirit River draw from Spirit River
- There is more bottled water use now
- Issues of hauling when town water points closed
- Industrial use of municipal water is a concern
- Irregular rains (agriculture)
 - 14"-20"/year
- Moonshine Lake has summer and winter fish kills
- Peace River is getting narrower because there are no longer flash floods
- Landlocked fish due to sudden drops and rises in river levels
- Regional pipeline is looked upon favourably
- Erosion in ditches/culverts
- What is the total cost of water management in the peace?
 - pricing of water
- Issue of federal fisheries having jurisdiction over minor waterways
 - they shouldn't have any jurisdiction on small waterways
- Industrial use of municipal water
- Concerns about water export to southern Alberta or beyond
- Water waste issues
- Security of drinking water/dugout licenses
- Siltation limiting the availability of water
- Cost of roads across Peace



Director John Zylstra talking with participant at Spirit River open house.

- Peace Region is not completely geologically stable – 4 earthquakes in Spirit River area in the last 12 years or so
- Trans-boundary community-based training for water quality and hydrometric monitoring is needed
- Water management – culverts, fish gates, highway wash out
- No disclosure of chemicals used in fracing
- Quality of wastewater concerns
- We should re-use waste water
- Hythe aquifer starts at Blueberry Mountain
- Spring on Belloy Road (Birch Hills – 4 miles south of Highway) used as source for drinking water
- Should prevent field drainage ditches that erode creeks banks

*What is the **total** cost of water management in the Peace country?*

Many of the issues raised at this open house were similar to those heard throughout the Watershed. This included issues such as concerns about water export, industrial use of waters, the challenges of ensuring adequate municipal supply and the effects of the dam. One area of discussion that arose here was unique and that was concerning the cost of water management. This issue has been raised across the watershed in terms of the costs of municipal water or waste water treatment, but the discussion here examined the landscape level. For instance, what is the cost of water management in terms of maintaining roads? – think culvert maintenance, road repair, water treatment costs associated with elevated silt levels from the fields. These challenging topics will require partnerships to tackle them.

Smoky-Wapiti sub-basin

Beaverlodge

November 1, 2012

- Loss of wells due to gravel mining
- Concerns about water sales
- No Environmental Impact Assessment required for gravel pits
- Red Willow River has lower levels now
- Concerned about drinking water – iron
- How will well drinking water quality be monitored? Concerns that it will be excessive
- Loss of well water quality after nearby drilling activity
- Concerns about water levels in Saskatoon Lake
 - cattle in riparian zone
 - would like to see a pipeline from the Wapiti to maintain water level
- Cutbank Lake is also low
- Concern about the imposition of onerous regulations on well owners, i.e. well shocking with chlorine
- Need to map the aquifers
- Maintain water quality by promoting stewardship of land above the aquifer
- Community sewer treatment discharges to small streams
- Concerns about water export out of basin
 - security of water
- Adequacy of source to meet demand?



Planting trees in the riparian zone along the Beaverlodge River.
Source - Redwillow Watershed: An Overview of the History and Present Status of Fish Populations and Fish Habitat and Recommendations for Restoration

February 28, 2013

- Impacts of water storage for a year (municipal raw water)
 - heat causes water quality problems
 - alternative sources to decrease retention time/quality concerns
- Fracing –What is it? – What are the dangers?
- Town of Beaverlodge is doing a willow trial for nutrient removal from wastewater
- Riparian management is important
- DU weirs
 - this is management for birds not fish
- Stream crossing maintenance
- There should be intergovernmental cooperation
- Navigational water courses have barriers (fences) that impair canoe/kayak travel on the Beaverlodge River
- Spraying on the steep banks of the Wapiti River and Smoky River kills the willows and aspen creating a fast runoff
- The proposed Beaverlodge Motocross racetrack to be located on the Beaverlodge River close to the Beaverlodge Airport
- Dead cows in the rivers

The Beaverlodge sub-watershed is considered to be the most degraded in the Peace River Watershed and there are both quantity and quality issues associated with the Beaverlodge River and its tributaries. Although the problems are complex and multi-faceted, there is a growing sense of how to tackle it and most importantly a growing will to tackle it. Such measures include the efforts to restore riparian zones along the Beaverlodge River and improving grazing practices. The West County Watershed Society has been very active in these as well as educational activities. An innovative project that is currently running is the use of willows to perform nutrient removal from Beaverlodge's municipal wastewater.

Maintain water quality by promoting stewardship of the land.

**OVER 120 SURVEYS
COMPLETED**

February 28, 2013

- Smoky Water Commission
 - license is 500,000 m³
 - supplies Falher, Girouxville, Jean Cote, Donnelly, MD of Smoky River, Guy, and water co-op
- Concern about focus on other water needs besides domestic
- Worried about water export
- Industrial competition for domestic water (fracing)
- Domestic and industrial fees are the same
- Funding model – MD, town, regional fund sharing
- Winagami, Peavine Canal built in the 50's
 - it has been straightened
 - there is still a spring spate
 - sometimes it floods
- 0.5 % decline in population in the MD over 5 years
- Only 2 water plants operators
- 4 levels of water operator's certificate
- Reservoir new in 2007
 - Smoky Water Commission
- Wells are few
- Illegal dumping in dugouts is a problem
- Got sick from dugout water – it was filtered
- After 10 years in dugout carp selectively feed & there is a reduction in water quality
- Heart River Watershed has fly over data for riparian zones



View down gravel road.

- NPARA has riparian data for Whitemud River
- Restrict industrial development on Little Smoky it is a fragile river
- Increased tannin levels downstream of Valleyview
- Heart River dam low in 2011
- Little Smoky aquifer
 - does it come from Slave Lake?
- Loss of water quality & quantity in Winagami Lake
- Concern about loss of freshwater to down hole operations

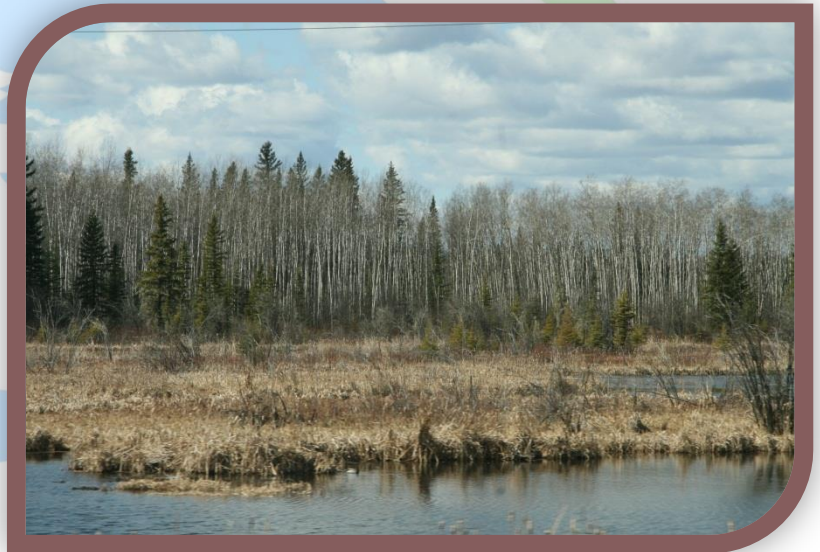
The Little Smoky is a fragile river.

The communities and rural residents around Falher depend on the Little Smoky River for their water, but the water that they can draw is limited. There are presently instream flow needs (AESRD desk top method) that restrict the amount of water that can be diverted and the timing of those diversions. Much concern present regarding the security of their water supplies and the impact lower quality water is having on their treatment costs. Similarly there are challenges in getting operators for the water distribution systems.

Fox Creek

September 20, 2012

- People don't think beyond drinking water to consider other aspects of water
- Concerns about fracking and coal bed methane
- Water restrictions in town although water is being sold to industry
- Town is drilling new well and just finished installing water meters
- Need for education
 - basic knowledge regarding water, watershed, connections - industry, non-governmental, other stakeholders
 - local leaders and officials - council, chamber, those who make decisions
- Impacts of commercial fishing on recreational fishing
- Issues with sulfur from sour gas operations
- Flooding outside of town (2011)
- Transport of water outside of watershed by truck
- Domestic water wells issues due to oil field activity
- There used to be a local stewardship group that undertook projects (Fish & Game)
- There is a seasonal change in town water quality including smells
- Water is pink after system has been cleaned
- Concern about heavy metal concentrations in water bodies
- Concerns with aerial spraying
- Town water doesn't meet AB health requirements
 - they are measuring total chlorine not free chlorine
 - chlorine peaks Tuesday and bottoms Saturday
 - inconsistent throughout town



Wetland outside of Fox Creek.

- High sodium and calcium, both soft and hard water
- Town water is drawn from different wells
- Background heavy metals in drinking water (ppb)
- Town water has higher turbidity in spring
- Old spills still affect Smoke Lake
- Town sewage goes into Fox Creek and then into Iosegun Lake
 - blue-green algae in Iosegun Lake
- No release for runoff pond in town, collects everything from industrial area
 - fountain reduces smells
- Increased turbidity in water bodies due to runoff down linear disturbances
- Industry is drawing from same aquifer as Town of Fox Creek
 - concerns about backflow and contamination
 - one is selling water as potable without treatment
- Security of aquifer supply
- Tanks are sometimes flushed into water bodies before drawing industrial supplies
- Lack of understanding about hydrological cycle and water connections
- The need for the education of town council

The participants at this event were very

knowledgeable and shared a common concern of

increasing education surrounding water and watershed issues. There are issues surrounding the security of municipal water supplies and the cost of treating water. Industrial use of water compounds, concerns about the security of supply and many issues surrounding quality were raised. The Town of Fox Creek seems poised for a growth spurt and there is a real need to address how water will be obtained, treated and distributed.

There is a real need for education about the hydrological cycle and water issues.

**OVER 191 ADDRESSED
INVITATIONS**

Grande Cache

August 29, 2012



View west from Grande Cache towards the Rocky Mountains.

When are coming to Grande Cache again?

Nobody from Grande Cache attended the open house that we held there, however, since then there has been interest expressed in being involved with our organization or in having us comeback.

Grande Prairie

August 25 & 26, 2012

- Reservoir- storm water pond
 - Bear Creek below is an engineered waterway
- Ferguson Lake - what are the agricultural impacts on it?
- Questions about process
 - who are we?
 - what do we do?
 - where does this process go?
- Effluent concerns
- Wapiti Corridor – recreation is important
- Town of Beaverlodge - bad water taste in summer
- Changed flows in Beaverlodge River
- Fracing concerns
- Concerns about mining in B.C.
- Changing water course (Wapiti Gardens)
- The current health of the watershed is extremely important; wetlands are essential to the health of the ecosystem
- There is a lack of knowledge or apathy about where (safe?) drinking water comes from or to where waste water goes or is stored
- Lakes in the area are being polluted/impacted by nutrients, and this is resulting in algae blooms which make the lakes undesirable



Director Brian Gilliland and Executive-Director Rhonda Clarke-Gauthier at trade show in Grande Prairie.

- People think drinking water should be FREE
- Water conservation, creating and maintaining wetlands, storing water during wet periods to sustain us through dry periods
- Eliminating toxins from the environment - citizens need to take an informed active role in showing responsibility and monitoring aspects of the ecosystem
- Integration of the land use framework initiative and the Water for Life initiatives would make sense

People think drinking water should be FREE.

Explaining who we are, what we do and how we do it was a large part of what took place at the Grande Prairie events – there was both an open house and a tradeshow event.

There was a recognition of the Wapiti Corridor Planning Society and questions concerning if we were different than how so. A lot of landscape concerns were raised at these two events. Industrial use of water in fracing, agricultural runoff and concerns about toxins entering water bodies were all issues that came up. The importance of water in terms of providing recreational and social values was reiterated by most participants.

**130 HOURS OF
STAFF
AVAILABILITY TO
THE PUBLIC**

- Concerned about Little Smoky, source of Valleyview water supply
- License volume is 660 m³/year
 - use about 400 m³/year
- Instream flow needs and causes need for diversion licenses
- Concerns about water quality
 - standards
 - influence of cattle/livestock
 - testing
- Valleyview pumps water about 150-160 days/year
- Waste water discharged to Sturgeon Creek
- Potential to use waste water for fracing (after treatment)
- Town would like 2 dams/reservoirs on Little Smoky to increase security of water supply
- Shock chlorination – is it recommended or not?
- Concerned about Sturgeon Lake water quantity & quality
- Well water quality concerns
- Regional landfill seepage - 13 loads hauled to lagoon at Little Smoky
- Concerns about water overuse/export
- Slumping at West Bay around shot holes
 - there has been a flowing hole problem since about 2000
 - new holes started appearing 10 years ago



Peace Country sky filled with clouds.

There are conflicts between instream flow needs and licenses that have been granted.

There was a really strong turnout from the Town of Valleyview leadership. We heard a lot about the water needs of the Town and municipality, supply constraints, the costs of treatment and some emerging ideas about resolving these issues.

Generally, people understood about the integrating nature of watersheds and provided us a lot of information concerning the upstream influences.



What our watershed said

Probably the most common concern that we heard centered on drinking water. Even in the Peace River watershed where most of the surface water in Alberta is found, this concern kept popping up. The first goal of the *Water for Life* strategy is safe, reliable drinking water and this resonates with the people our watershed. Specific concerns ranged from supply, to contamination through to treatment costs and sustainability. Once people begin thinking about water, the immediacy of drinking water becomes apparent.

Drinking water concerns were heard throughout the watershed as were the following two concerns which were also voiced consistently. One was the concern about the health of streams, rivers, lakes and wetlands in our watershed. There were a lot questions and much concern about the ecological health of these water bodies, as well as how they are impacted by human activities and what the implications are of changes in their condition. The other topic commonly raised was the industrial use of fresh water and what the use of that water means for the water cycle. Fracing and its recent increase in use have been the source of a lot of questions concerning the nature of fracing and what the implications of this practice are.

Otherwise, there are sub-watershed or regional differences that resulted in the same topics being raised at events within these parts of the watershed. Everything from animal population cycles to agricultural runoff to dams to water export were issues that were raised in one of the sub-watersheds. However, all appreciated us coming to them to hear their concerns and meet them. Personal interaction is highly valued by the residents of the Peace Watershed, but this is so challenging on account of the sheer size of the area.

Public Engagement Learnings

Open houses are fickle creatures that can render the best laid plans useless. Regardless of how much we advertised, we inevitably received calls or comments later on that if only they had known about the open house they would have come. Trade shows were useful in the larger centers to raise our profile and to introduce the general watershed concept. Each trade show yielded several conversations of greater depth and content. The people whose interest had been piqued were willing to talk and thus provided us with a sense of the local mood, concerns and conditions. Fort Chipewyan and Garden River were well attended and probably owes some of that to provision of food beyond refreshments. In following the advice of those who had held open houses in these locations before, we elected to provide a light meal to ensure a better turnout. There were several reasons for this: 1) the remoteness of the communities would make a no-show a very concerning matter; 2) the need to reach the locals in these locations and the heretofore difficulty in establishing a relationship, and; 3) previous industry events and government consultations have defined a culture of public engagement in these areas.

The many demands for people's time and consideration necessitate repeated visits to capture the most input possible. The two phase approach that we took proved useful and it is beneficial that further rounds of public engagement forums will be taking place (State of the Watershed Report and Integrated Watershed Management Plan). Without a hot-button issues or crisis people, excluding the very engaged or passionate, do not make attending open houses a priority. Attendance alone, if there are several events this becomes more reliable, indicates a level of concern and interest in the community.



Chairman Bob Cameron unpacking vehicle after returning from open house event.

Local promoters are many times more effective than any advertising campaign, networking efforts or personal invitations from afar. Wherever possible we need to enlist a local member to do the promoting of the event and get people out. As a new organization do an initial tour, we did not yet have these connections throughout our large watershed. Our most successful events, in terms of numbers, involved those associated with MPWA promoting the event in their own community.



And now...

The wrap-up of this tour is in no way a goodbye, but rather a see you later or until the next time. The MPWA will be returning repeatedly to communities and events across the entire watershed as we fulfill our mandate of engaging stakeholders, governments, Aboriginal communities and residents in collaborative watershed management. We were often made aware of the importance of

continued opportunities for feedback and input. This is something that we are more than happy to pursue. The people of the Peace need to have their concerns, knowledge and ideas about their watershed incorporated into a management plan that serves them well. The MPWA has been tasked with facilitating this and we look forward to continued interaction with those throughout the watershed. Please do not hesitate to contact us if you have ideas, concerns, questions or knowledge about the Peace watershed. So long, till the next time we meet...



Dock at Young's Point on Sturgeon Lake

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