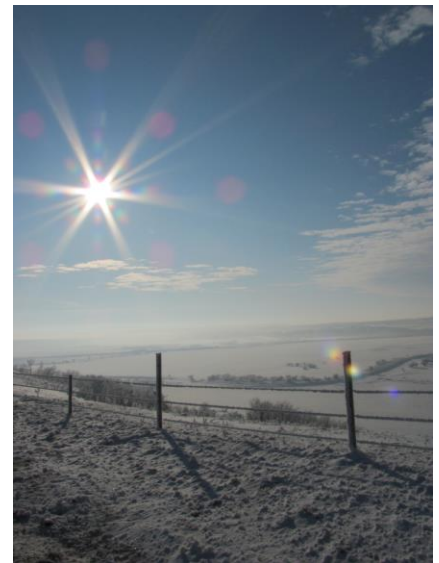


What We Heard

CONSULTATION ON THE DRAFT APPROVED WATER
MANAGEMENT PLAN FOR THE BATTLE RIVER BASIN

January to April 2013



Alberta

Environment and Sustainable
Resource Development

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Introduction

From January to April 2013, Alberta Environment and Sustainable Resource Development invited watershed residents, decision-makers and other stakeholders to provide feedback on the *Approved Water Management Plan for the Battle River Basin: Draft for Discussion*.

Four municipal forums, three public workshops and a number of presentations to individual stakeholder groups were held throughout the Battle River watershed. The purpose of these gatherings was to provide an opportunity for people to learn more about the principal recommendations of the draft plan and provide their comments.

Municipal forums were held in the following communities:

Wetaskiwin	January 18	[for municipalities in western portion of watershed]
Wainwright	February 1	[for municipalities in eastern portion of watershed]
Forestburg	February 8	[for municipalities in central portion of watershed]
Lacombe	February 26	[additional forum requested for western municipalities]

Public workshops were held in the following communities:

Wainwright	March 5
Camrose	March 7
Wetaskiwin	March 12

Presentations were also given to the following groups:

Battle River Watershed Alliance Board of Directors	January 17
Pigeon Lake Watershed Association	
<i>Watershed Management Plan Steering Committee</i>	January 25
<i>Board of Directors and Association of Pigeon Lake Municipalities</i>	February 12
Alberta Drainage Council	January 28
ATCO Power	February 5
Canadian Forces Base Wainwright	February 6
Agri-Environmental Partnership of Alberta	March 12
Battle Lake Synergy Group	April 4
Canadian Association of Petroleum Producers	April 22

These public engagement efforts were organized and hosted by the Battle River Watershed Alliance (BRWA). Invitations to the municipal forums were sent to all municipalities within the Battle River watershed. The public workshops were advertised through local area newspapers and newsletters, as well as through personal invitations and the BRWA website.

The following key documents were distributed at all meetings and made available on the BRWA website:

- *Approved Water Management Plan for the Battle River Basin: Draft for Discussion*
- *Highlights* document, which outlines the principal recommendations of the draft plan
- *Response Form*, which was used to collecting comments on the draft plan

The above documents are available here: www.battleriverwatershed.ca/WMP-phase-1.

All stakeholders were invited to provide comments on the draft plan through the response form provided, or through other written or digital submissions. Digital and written responses were accepted until May 1, 2013.

This report summarizes the results of the above public engagement efforts, taking into account discussions that took place at the meetings, comments received through the response forms, and other written submissions received.

General Meeting Format

Every meeting began with a presentation from Greg Nelson, planner with Alberta Environment and Sustainable Resource Development. This presentation covered the following key points:

- the history of water and watershed management planning in the Battle River watershed,
- the process used to develop the draft plan,
- the recommendations proposed by the Stakeholder Advisory Group, and
- the recommendations contained within the draft *Approved Water Management Plan for the Battle River Basin*.

The PowerPoint presentation used at all of the above-listed meetings is available here: www.battleriverwatershed.ca/WMP-phase-1.

Following the presentation, the response forms were used as a guide for discussion on each of the principal recommendations of the draft plan. Detailed information was presented on each of the recommendations, followed by an opportunity for discussion and time to provide comments in the response form.

Who attended?

A total of 165 people attended the various engagement opportunities described above (see page 3). 60 people attended the municipal forums, 36 attended the public workshops, and 82 attended the various additional stakeholder meetings. *Due to the fact that several people attended more than one event, the total number of unique participants is 165 (rather than 178, as the above numbers suggest).*

12 of the 13 municipal districts within the Battle River watershed were represented through attendance at these engagement efforts. Representatives from three cities, five towns, four villages and five summer villages within the watershed were also present. Watershed residents from each of the Battle River’s 5 subwatersheds were in attendance at the public workshops.

Who provided feedback?

A total of 65 response forms were submitted. All but 6 of these response forms were completed at one of the above listed meetings (see page 3). Respondents represented various sectors, including municipal and federal governments, agricultural producers, business/industry and environmental organizations. The response form asked respondents to identify: **Which of the following groups or sectors do you represent?** Respondents could select their choice(s) from a list of options, or use the “other” option to identify another sector. Table 1 outlines the number and percentage of responses received from various sectors within the Battle River watershed.

Table 1. Number and percentage of responses received from various sectors within the Battle River watershed

<i>Sector</i>	<i>Number of Responses by Sector (n)</i>	<i>Percentage of Responses by Sector (%)</i>
Agricultural Producer	17	23.0
Business/Industry	2	2.7
Environmental Organization	3	4.0
Federal Government	4	5.4
Municipal Government	35	47.3
Other	4	5.4
Did Not Respond	9	12.2
TOTAL	74*	100

* This number is great than the number of response forms submitted because respondents were allowed to select more than one sector.

Respondents were also asked to identify: **In which subbasin do you reside?** They could select from the five subwatersheds of the Battle River watershed, or select “outside watershed” if they did not live within the watershed. Table 2 outlines the number and percentage of responses received from each subwatershed and from outside the watershed, as well as those who did not respond. It also compares these numbers to population distribution by subwatershed (that is, the percentage of the Battle River watershed’s population located in each subwatershed).

Table 2. Percentage of responses received from each subwatershed of the Battle River watershed, compared to the percentage of the Battle River watershed’s population located in each subwatershed

<i>Subwatershed</i>	<i>Responses by Subwatershed (n)</i>	<i>Responses by Subwatershed (%)</i>	<i>Population Distribution by Subwatershed (%)</i>
Bigstone	28	39.4	66.8
Iron Creek	10	14.1	9.8
Blackfoot	5	7.0	9.0
Paintearth	6	8.5	10.6
Ribstone	8	11.3	3.8
Outside Watershed	4	5.6	N/A
Did Not Respond	10	14.1	N/A
TOTAL	71*	100	100

* Two respondents selected two subwatersheds and one respondent selected all five subwatersheds.

What We Heard

This section provides a summary of the responses received through the response forms. See Appendix A to read the word-for-word comments received. Various questions and comments also arose through the informal discussions that took place at the meetings. These are included in Appendix B.

Establish a Water Allocation Limit

The Government of Alberta acknowledges that we are approaching the limits for water allocations in the Battle River Basin. The draft plan recommends that Alberta Environment and Sustainable Resource Development continue to accept applications for new water allocations until a water allocation limit, set at 57,500 dam³ of licenced water use, is reached, and that once this limit has been reached, the Battle River Basin be closed to new water allocations.

The question posed to stakeholders was as follows:

Do you agree with the recommendation to establish a water allocation limit of 57,500 dam³ of licenced water use and to stop accepting applications for new water allocations in the Battle River Basin once this limit has been reached?

<i>Response</i>	<i>Number of Responses</i>	<i>Percentage of Responses</i>
Yes	46	73.0
No	6	9.5
Unsure	11	17.5

Two stakeholders did not select a response, but provided some comments. One agreed that an allocation limit must be set based on the best available numbers, and that 57,500 dam³ may be that number. This person also felt that water licences should be reviewed to ensure that they are appropriate for the current and future needs of licence holders. They also felt that all licences designated for similar purposes should be subject to the same conditions/restrictions, regardless of seniority. The other agreed to establishing a water allocation limit but not to closing the basin to new licences once the limit is reached. This person felt that applications for new licences should continue to be received, in addition to a regular review of existing senior licences.

Several other comments were received. Those who responded “yes” were in general agreement with the recommendation, but provided some additional questions and comments. One stakeholder wondered about the extent to which groundwater licencing is affected by this plan. Others felt that they would not be significantly impacted by the recommendation, as residents in their area rely primarily on groundwater wells or water lines from the Red Deer River. Several stakeholders stated the importance of conducting regular reviews of existing licences to assess whether or not these are in good standing, and whether excess/unused water exists within these licences that could be utilized for new licence holders. They also noted that record keeping is essential to have a good understanding of actual water use, and that water conservation measures are an essential component of the wise use of water. One specific suggestion for limiting water use in low flow years was that temporary junior licences could be regulated up and down from year

to year depending on flow rates. Concerns were voiced about how water will be allocated if the annual flow of the river is less than 57,500 dam³; flows lower than this have been experienced in the Battle River in the past.

Comments received from people who responded “no” were varied. One person suggested that if First Nations choose not to utilize the additional 3729 dam³ made available to them through the draft plan, this amount should be added on to the allocation limit for use by others. Another person described their desire to allow allocations to increase further in some areas of the watershed where economic growth is needed. One other comment was that it is important that senior licence holders share the water resource with others.

Comments received from people who were “unsure” included hesitancy to make a decision until an agreement is reached with First Nations (as this will affect the final water allocation limit). Concerns were also voiced that very low flows are already experienced in the Battle River under current water-use conditions.

Enable Water Allocation Transfers

Given the relative level of water security when using a new (junior) licence, Alberta Environment and Sustainable Resource Development is recommending that transfers be enabled to allow for those requiring a greater level of water security to consider this option. Water eligible for transfer is that portion of an existing water licence that is defined as licenced (consumptive) use.

The question posed to stakeholders was as follows:

Do you agree with the recommendation to enable transfers of water from existing water licences in the Battle River Basin, subject to sections 81, 82 and 83 of the *Water Act*, keeping in mind that only that portion of a licence deemed licenced use is eligible for transfer?

<i>Response</i>	<i>Number of Responses</i>	<i>Percentage of Responses</i>
Yes	47	73.4
No	6	9.4
Unsure	11	17.2

One stakeholder did not select a response or provide any comments.

Several comments were received. Those who responded “yes” agreed that transferring unused portions of licences to new licence holders makes sense as a means of fully utilizing water already allocated for use, rather than increasing water allocations through new licences. They emphasized that these transfers should be voluntary and not “sold” or based on monetary gain. They also recommended that a part of the unused portion of a licence should remain with the original licence holder to ensure that they have a “safety net” for future growth or for periods of higher water demand. They also agreed with the recommendation to amend the *Water Act* to allow part of a water licence to be cancelled; this would allow for unused portions of licences to be made available to new water users or left in the river for the health of the aquatic ecosystem. Some agreed that the priority and conditions of the senior licence should be transferred to the new licence holder, while others thought that this “grandfathering” should not take place. Rather, they felt that the

most current licence requirements (for example, the requirement to meet the Instream Objective) should be applied to the transferred portion of the licence.

Those who responded “no” raised concerns that water use will increase if unused portions of licences are transferred to new junior licence holders. One person suggested that unused portions of licences should not be transferred to new water users, but should remain in the river to support increased flow rates and the health of the aquatic ecosystem. This person was also uneasy about planning future water use based on maximizing economic development. Another respondent was concerned that water allocations are already too high and that water conservation efforts and water quality conditions must be improved before transfers are allowed. Climate change was also mentioned as a factor that may impact future water availability.

Those who were “unsure” were uncomfortable with the potential for an economic value to be attached to water transfers – that is, for water licences to be “bought” or “sold”. They reiterated the sentiment that the Government of Alberta should allow for the cancellation of a portion of a water licence, and that the cancellation of unused portions of licences could then enable more water to be made available to new water users without increasing the water allocation limit. One respondent recommended that the water licence transfer system be monitored by Alberta Environment and Sustainable Development to ensure transfers are legitimate and not undertaken as a means of economic gain.

Establish Water Conservation Holdbacks

In an effort to restore flows in the Battle River, Alberta Environment and Sustainable Resource Development is recommending to protect the aquatic environment and implement a Water Conservation Objective by enabling water conservation holdbacks of up to 10 percent of the volume of a transferred allocation.

The questions posed to stakeholders were as follows:

Do you agree with the recommendation to enable water conservation holdbacks of up to 10 percent to restore flows in the Battle River?

<i>Response</i>	<i>Number of Responses</i>	<i>Percentage of Responses</i>
Yes	54	83.1
No	6	9.2
Unsure	5	7.7

Do you agree with the recommendation that water withheld from a transfer be secured through either a Water Conservation Objective licence (with the priority of its original licence) or a crown reservation?

<i>Response</i>	<i>Number of Responses</i>	<i>Percentage of Responses</i>
Yes	49	77.8
No	6	9.5
Unsure	8	12.7

Two stakeholders did not select a response for the second question. However, one of these respondents commented that water withheld from a transfer should be secured through a Water Conservation Objective, not through a crown reservation. This comment was echoed by a number of other stakeholders. There was general agreement that a Water Conservation Objective licence was the preferred method of securing water withheld from a transfer.

Some additional comments were received. Of those who agreed to both of the above questions, the comments highlighted the importance of water conservation holdbacks as one means of supporting the health of the aquatic ecosystem. One respondent suggested that progress towards achieving the Water Conservation Objective should be monitored on an ongoing basis. Another thought that holdbacks should only be enabled in years of lower flows. One other comment was that water conservation holdbacks should be no less than 3%.

Some stakeholders responded no or unsure to the above questions. Some felt that holdbacks of 10% may be too high, suggesting that between 5-8% might be better. Others thought that holdbacks are not enough, and that other means should be used to reduce the total volume of water allocations.

Establish a Water Conservation Objective

The draft plan recommends that a Water Conservation Objective (WCO) be applied to both named and unnamed tributaries, as well as those water bodies occurring in the gross drainage basin. The recommended WCO is intended to be a management target, the achievement of which will improve the health of the aquatic ecosystem, and is defined as:

A rate of flow that is 85% of the natural flow that is to be left in the watercourse; and during those times when natural flow approaches the lowest quintile (20%) flow reductions shall be applied based on the greater of either:

- a) 15% instantaneous reduction from natural flow or;
- b) The lesser of either the natural flow or the 80% exceedance natural flow based on available time step data.

It is also recommended that the WCO be applied only to new (junior) licences stemming from applications received on or after January 1, 2005. Licences subject to the WCO are not permitted to withdraw water when the rate of flow defined in the WCO is not met.

The questions posed to stakeholders were as follows:

Is the proposed WCO for the Battle River acceptable?

<i>Response</i>	<i>Number of Responses</i>	<i>Percentage of Responses</i>
Yes	58	89.2
No	2	3.1
Unsure	5	7.7

Do you agree that junior licences stemming from applications received on or after January 1, 2005, should be given conditions for a WCO?

<i>Response</i>	<i>Number of Responses</i>	<i>Percentage of Responses</i>
Yes	48	73.8
No	10	15.4
Unsure	7	10.8

There was general agreement that the proposed Water Conservation Objective is acceptable. Of those who disagreed with the proposed WCO, only one respondent provided comments, stating that due to the current unhealthy state of the aquatic ecosystem, the WCO should be more stringent, allowing for even greater flows to remain in the Battle River. On the other hand, one person commented that the proposed WCO is too stringent.

The main point of divergence was with regards to which licences should be given conditions for a WCO. Of those who commented, several believed that all licences currently subject to the instream objective should now be given conditions for a WCO (i.e. licences going back to 1992). Several people felt that all licences, regardless of seniority, should be subject to the WCO, while others thought that the WCO should be applied only to new licences received on or after the date the plan is approved. Still others thought that the 2005 date was sufficient, while others felt that they did not have enough information to determine the date for applying the WCO.

Recommended Watershed Management Strategies

The draft plan recommends that the Government of Alberta and water users should pursue watershed management strategies to help ensure a healthy aquatic ecosystem, reliable water supplies and a sustainable economy. Strategies being considered include flow restoration, riparian areas management, site specific water quality objectives, and improvements to water management administration.

The question posed to stakeholders was as follows:

Do you agree with the recommendation that the following watershed management strategies should be developed?

- a) Flow restoration strategy
- b) Riparian areas monitoring and restoration strategy
- c) Site-specific water quality objectives
- d) Improvements to water management administration

- a) Flow restoration strategy

<i>Response</i>	<i>Number of Responses</i>	<i>Percentage of Responses</i>
Yes	59	90.8
No		
Unsure	6	9.2

b) Riparian areas monitoring and restoration strategy

<i>Response</i>	<i>Number of Responses</i>	<i>Percentage of Responses</i>
Yes	65	100
No		
Unsure		

c) Site-specific water quality objectives

<i>Response</i>	<i>Number of Responses</i>	<i>Percentage of Responses</i>
Yes	61	93.8
No		
Unsure	4	6.2

d) Improvements to water management administration

<i>Response</i>	<i>Number of Responses</i>	<i>Percentage of Responses</i>
Yes	60	93.8
No		
Unsure	4	6.2

*One stakeholder did not select a response for d) or provide any comments.

A large majority of respondents agreed that these four watershed management strategies should be developed, seeing them as vital components of watershed management in the Battle River basin. In particular, the importance of improving river water quality and the health of riparian areas was highlighted. Some people had questions about what a flow restoration strategy would entail and how participation in such a strategy would be encouraged; they felt that cooperation on the part of all licence holders would be essential to the successful implementation of such a strategy (especially related to voluntary flow restrictions).

Respondents also emphasized the importance of education, involvement, and support from local individuals and communities to implement these strategies. They also pointed to the central role of these strategies in developing a long-term plan to address these key issues. Ongoing research, monitoring and evaluation were highlighted as essential components of any strategy developed. A few respondents also emphasized that these initiatives should be provincially funded so as not to present a financial burden to municipal governments.

Additional Comments

Stakeholders were also invited to provide additional comments not covered in the above topic areas. Additional comments received included: suggestions to build reservoirs to increase water storage capacity; questions about the feasibility of increasing water availability through diversions from the North Saskatchewan River; concerns about particular sections of the draft plan; inquiries about the degree to which the draft plan addresses issues such as wetlands management, biodiversity, water quality, and development pressures; and appreciation for the breadth of economic and social issues covered in the draft plan. People were also grateful for the opportunity to learn more

about the draft plan and appreciated the information covered. These comments are included in full in Appendix A.

Next Steps

Comments received through these public engagement efforts will be taken into consideration as the draft plan is finalized. The plan must then be approved by the Lieutenant Governor in Council in order to be put into effect as the *Approved Water Management Plan for the Battle River Basin (Alberta)*.

Appendix A: Response Form Comments

Comments on Establishing a Water Allocation Limit

“Yes” Responses

Agree with limit but not with stopping accepting applications for new licences once this limit is reached

Agree with first part (57,500 dam³ limit): Rain/snow/weather variable each year: should also be a factor when making decisions/reviews of water licences.

Village of Bawlf is in agreement with this initiative but feel Bawlf will not be significantly impacted – our water is currently from wells but will be included in the Red Deer River pipeline diversion through the Shirley McClellan system.

Study was 2004. Climate change not part of plan. Does water for wells detract from this volume? Will it affect groundwater?

This is a lot more important to all of our citizens than most people will admit to. We must be a lot more proactive especially looking ahead 25 years. How do we impact other basins as well? Are there going to be requests from other basins to take from ours? What is the impact? New type of studies are really big. Please do not allow this to take another hiatus.

Reviews of existing licences should occur more frequently, thereby knowing what actual use is known.

Statistically speaking, numbers and models used seem to be in line with the amount of flow. Stopping the limit allows for immediate action to saving the flow. Allows for future planning without hurting the current licences.

But current licences should be reviewed to determine necessary usage. Perhaps some more room for new licences could be realized.

I agree as long as licence allocations are not being hoarded and not used. As was stated, a regular review process should be used to release existing permits not being used.

Depending on flow rates, temporary junior licences can be regulated up and down from year to year.

As long as a review of existing licences is completed prior to stopping applications. This should provide for any unused quantities to be reallocated to other areas of need.

Addressing conditions of surrounding areas to be taken into consideration prior to limiting applications.

Water allocation should be subject to periodic review

I think this is a good starting point. But make sure that all licence agreements are up to date. We must take a very good look at new practices that have been done already (eg. livestock affect watering, riparian areas). Make very sure the science is used, not only political will. And make sure that you are using 2012 numbers not 2005. Lots of things change over time.

This number seems to be defensible and belays the use of water. I disagree with the allocation for First Nations. They should need to protect their growth by applying for water as everyone else does! (not likely to ever happen)

I feel the transfer of allocation either temporary or permanent is acceptable to enable growth

I would assume that you will continuously review water licences and have unused licences surrender their licences

To protect our requirements and environment while maintaining development, it is a good plan.

I simply concur with the considerable study information provided. Water management is and will become critical and strategic with respect to public use.

Yes, somewhat. As time enrolls, population density may shift, or lower, or rise dramatically so ongoing studies should provide the science to keep allocation at present levels.

The math that was presented made sense and is acceptable to me. Allowing for adequate flow to maintain the river in a relatively health state is important.

Check existing allocations that are not in good standing and see if they are, or can be, transferable. It may be that some of the allocations were and never will be used. Speaker suggested that Battle River watershed is 273% over allocated. This is not good to such a finite flow of water.

Government needs to look at forcing ATCO to reduce their water consumption and upgrade their cooling system. The effect of their antiquated system of dumping hot water into a watershed is environmentally irresponsible.

I am confused as to how the water is allocated if the river flow is less than the 57,500 dam³

The study and information gathered appear to set this number as the best for all concerns being balanced.

Water used by energy companies (oil) should be reduced so the water can be used and reused many times.

The Battle River Watershed Alliance (BRWA) would like to have the definition and criteria listed for "significant" and "adverse". These words are used throughout the Matters and Factors table on page 50 and 51 of the draft plan. Our concern is that the river is already "at the bottom line" and no additional adverse effects are acceptable. The focus needs to be on improving the health of the aquatic ecosystem. BRWA is also interested in knowing how potential adverse effects will be monitored and by whom. We recognize this will be determined after the draft plan is approved.

“No” Responses

Disagree with second part (to stop accepting applications for new water allocations once the limit is reached): I think new applications should be considered, along with review of existing senior licences, on a regular type basis

The resource would need to be shared from senior licence holders, i.e. ATCO, to allow for economic/population growth.

I would like to see allocations allowed to increase in some areas where economic growth is needed.

I believe that the health of the Battle River will still be acceptable should the First Nations at Hobbema use ~3700 dam³ over and above the 57500 dam³. Therefore should they NOT prefer to have BR allocation, that upper allowable limit should remain for other new licences (allocation limit of 61200 dam³) $57500+3700=61200$

True riparian IFN are a requirement in the models. Seasonal IFN is also a consideration for the evaluation of minimal required flows. Due to the prevalence of springs geographically distributed the microscale IFN effects. In addition, this allocation should be dependent on water quality of reaches of the drainage area, i.e. higher levels of contamination locally should have a reduction in licenced withdrawals. It would “force” residents/users to consider non-point source pollution as well as allow for dilution of these contaminants. In conclusion, there is every likelihood that riparian needs and water quality issues have made this number too high.

“Unsure” Responses

I agree an allocation limit needs to be set based on best numbers. 57000 dam³ may be that number. In turn, all licenced agreements should be subjected to review based on current needs and future optimization. I.e. similar agreements (1950 or 2012) should have the same restrictions in favor of protecting the water source

First Nations need to be considered

Agreement with First Nations should be reached. Concerned the volume would change with regards to First Nations.

The river still seems to be drying up

The current regulatory regime is an obstacle to establishing a Water Allocation Limit. The problem is that AESRD presently issues TDLs which are short term. Industry is currently working with AESRD to determine the best route for compliation and submission of long term water licence applications. Based on the current TDL system however, licenced water use is highly transient. A water allocation limit based on this system is a real risk to water security and the sustainability of development plays. It would therefore be preferable to wait until the single regulator emerges with provision for term licences to provide more certainty around water availability over a longer planning horizon than present.

ATCO has answered 'unsure' to this question due to the uncertainty of future regulatory requirements that may impact water use and operations. Future federal or provincial

environmental regulations could require technology that would consume water, by putting a limit on the licenced water use this could result in ATCO not being able to meet future regulatory requirements.

ATCO has provincially mandated contractual obligations in the Power Purchase Arrangements (PPA's) that require the site to maintain operations in all future conditions including situations where water consuming technology is required to meet regulatory requirements. Air emission control technology including scrubbers consume a large volume of water and if mandated will be required to be used in all flow conditions, even low flow.

The Battle River site has a long term fuel supply and grid connections, additional development may be considered on this site. Clean coal technologies are very water consumptive; much more than the current technology. If older units on site were retired and that generation replaced by clean coal or other technology, a cap on water licences may restrict or completely inhibit the development or the replacement of the retired generation.

Power generation is supplied to the electrical grid at the price that was previously bid into the grid for each unit. If the bid price is too high the generator will not run and will not recover any costs. Any mandated technology change or cap on resource availability has the potential to increase the economic cost of a generator and to alter the competitive balance between generators. This will create economic hardship for some generators.

Comments on Enabling Water Allocation Transfers

“Yes” Responses

Especially the provision that only that portion of a licence deemed licenced use is eligible for transfer

Need to remove licences from those not using them. And the larger licences should have a more realistic maximum allocation

It is necessary to utilize the current licences efficiently. Transfers of unused capacity is both necessary and sensible.

Water is a right to life and needs to be shared. But should not be used for only the eligible portion.

Businesses that need more water for an economic benefit should be allowed to apply for more water consumption. Those who use less water should be able to give up any excess water. The fact that no one is forced to give up their water rights seems fair. Important that total water consumed does not exceed the total allowed amount. Seems fair.

Willingness to transfer should be voluntary, however private transfers should not be “sold” or based on monetary gain. Recommendation to amend the Water Act to allow the cancellation of a portion of a water licence

Do not know how to make extra allocation available to someone else. Get licence holders to build off-stream storage to meet water demand in dry years.

As long as a percentage remains for use in high periods of use. A safety net, as you will, to ensure the holder is not in conflict with approval during high use periods or years. Historical data of 10 years should be used to determine what the use has been and to determine what the safety net should be.

I think a missing part of this is we need to see the Water Act. Section 81, 82, and 83 should accompany these questions so we can make good decisions.

This provides for an efficient growth potential and preserves the idea of “first in time first in right”

I don't agree that grandfathering of the rules from 60+ years ago going forward with the transfer to the new licence holder. I.e. I think that the recipient of the transfer should play by the new rules.

But the new requirements for water return should be imposed on the new water user.

This will mitigate the interference of elected people lobbying for the transfers if such were not allowed

This helps future development. It is like recycling.

As long as the 57500 is not exceeded

This is the only option for growth while maintaining necessary flow rates in the river.

I believe that transfers of water allocation be used rather than create new allocation levels!

future landowners (cattle, etc.) changing existing land use.

To allow for new junior licences in the population and industrial growth scenarios (5.6%)

Provided that no part or whole of an existing licence may be sold for monetary gain

However, it is those unused portions of licences that should be re-secured by the crown. Water licences are being used as a leveraged commodity that can affect economic growth, population growth, and riparian/ecosystem health. First Nations allocations need to be identified and secured as a treaty right.

As stated previously, BRWA has an issue with the use of the word “significant” in the Matters and Factors table 5.1-2. Also, BRWA believes water security can be achieved through water conservation efforts. Thus, there needs to be increased efforts for water conservation.

Based on the recommendation to close the basin to new licences once the 57,500dam³. One suggestion would be that licences are re-examined after a period of non-use (e.g. 3-5 years), to mitigate a FIT-FIR problem of honoring priority only, and not beneficial water use.

“No” Responses

This could stop economic growth in an area. Some areas need some economic growth to stay viable and this could put some regions at risk.

I'm afraid water use will increase if unused portions are transferred to junior licence holders

If there is an excess of water over and above the required amount it is probably better to increase the flow of the river for the health of the river. I am nervous of making estimations of future water flows to maximize economic development without fully understanding future impacts of climate change. Once economic development is allowed there is no going back.

Water allocations are too high; water volume and water quality has to be improved before usage or transfers. With potential climate changes and droughts giving away more water is risky and dangerous to the health of the Battle River.

“Unsure” Responses

There should be no opportunity to “buy” or “sell” this reallocation. Water should never be for sale.

Are losses by flow and evaporation considered when ESRD decides to allocate water to another area?

Not really comfortable with the information, but I believe the information speaks for itself.

Does this open the door to abuse by heavy water users? Also will there become an economic value to those transfers? i.e. I will pay you X amount for your water, therefore, do these transfers go to the highest bidder or to the one who needs it the most?

This could lead to the ‘selling of licences’ – highly undesirable where a senior licence holder effectively ‘owns’ the water to sell as he pleases. The ability to partially cancel licences would be better.

I do not want water to be bought and sold. The right to use water may be an option but needs to regulate the cost or price for access to water. Don't sell water. Government must have ability to remove or cancel unused licenced water from a licenced holder if required. Government can't let there be a financial fee for all when reallocating water.

Security of supply is important

What is to stop me from obtaining a licence simply to sell? I agree with transfers provided they are legitimate and monitored by ESRD.

ATCO agrees with this in concept, but if large volumes of water were to be transferred from downstream of the Forestburg Reservoir to upstream of the reservoir it may impact operations at ATCO's Battle River facility by reducing the site's ability to generate electricity and potentially limiting ATCO's ability to meet the obligations within the provincially mandated Power Purchase Arrangements and future agreements.

Another concern would be if the current method of determining water use seniority were changed, transfers upstream could then have an even bigger impact on site operations.

The current method of determining water user seniority must be maintained. FITFIR underpins the ability/certainty of all existing and future users that have invested or plan to invest in the watershed and it is critical to ensure economic, policy and social (municipal/local community) stability in the watershed.

There could be significant economic and therefore social stability concerns in the Battle River Watershed, especially in the eastern portion of the watershed, if FITFIR were changed.

Comments on Establishing Water Conservation Holdbacks

“Yes” Responses

Important to improve health of aquatic ecosystem

4) Priority 1 – WCO, Priority 2 – Crown Reservation (*i.e. WCO licence more desirable than crown reservation*)

Must be set up to eliminate politicizing the process – keep it based on good science

Targets are not realistic. How do we get the importance of priorities to increase?

3) I agree with a conservation holdback. 4) *Did not select a response but stated: Water withheld is to be secured through a WCO licence NOT the Crown!*

3) Important that holdbacks be in place in order to restore the normal flow. Allows for long-term planning. 4) Crown Reservations should be used to save water during droughts or else to help a large economical venture.

As long as it is reviewed every few years to determine if the WCO is or has been achieved.

I agree with recommendation, but water held back should not have interference from political objectives (more likely with crown reservation; minister’s discretion, potential political interference; WCO licence not subject to transfer for other use)

3) Only in years of decreased flows. 4) Unsure as to how this is all going to be monitored

Crown reservations are fine if removed from politics

No crown reservation. The WCO [licence] is a good buffer in case of emergencies

Definitely not to allow the Crown to hold the authority of transferring the licence

4) There needs to be some method of tracking and control. This [holdback secured through WCO licence or crown reservation] would provide this.

There should be a limit vs. max flow amount with this rede. In other words there should be a max on the WCO.

It seems like a way to keep control with “little steps” that could make a big difference eventually. I think that the 10% is a great idea. I don’t think that the 10% would have a huge effect on each licence holder.

I am not sure as to the practicality of this, yet it is an initiatory effort to correct a longstanding problem. Perhaps agricultural chemical controls and livestock operation controls would be far more effective in achieving improved water control

3) This is a small trade-off for safekeeping of this river.

Stipulate how water allocation is to be used and if they are using it for consumption or economic use – have stringent regulation on the used water for return to the watershed!

4) Yes, but: No crown reservation!

Through a WCO, not to a crown reservation.

Use a Water Conservation Objective [licence]. Why not hold back all licence renewals until the WCO is met?

Please no crown reservation. Keep the government's meddling out (e.g. Getty?)

4) Not sure if I completely understand this recommendation.

I think the water withheld should be retained in WCO. Perhaps a larger percentage should be retained from large licences.

I believe the conservation holdbacks should be up to 10% but no less than 3%

What if greater than 10% is needed? When population growth via birth and immigration meets climate change (drought and glacial flow reductions), then the estimations of the 25 year plan may prove inadequate.

“No” Responses

The Province already has the power if required to enact a holdback. Leave it open and use if needed.

No to crown reservation. Holdbacks of up to 10% may be too high. It's possible 7-8% would be more acceptable.

My original premise is that volume allocations need to be reduced/restricted. So, holding back 10% of the transferred allocation is not enough. Reduce allocations. Increase holdbacks. I am skeptical of future allocations especially to oil companies for fracking. Their economic growth is not beneficial for Alberta.

3) 15% is what I have read in the literature and even that is watershed specific. Has this percentage been assessed based upon groundwater flows adjacent to a river as well? What is the scientific number for this holdback? This number sounds arbitrary.

4) ATCO answered 'no' to this question. Once the Water Conservation Objective is achieved any holdback should be able to be reallocated as water licences in the basin, this may sustain or reduce the possibility of negative growth in the basin.

“Unsure” Responses

3) ATCO agrees in concept to the holdbacks, but once the water allocation limit is reached holdbacks could create negative growth in the basin. Lack of industrial and commercial activity has an impact on economic and social stability locally.

Keeping in mind human consumption

Need more information (or time) to fully understand the implications of a crown reservation

Minor consumption should be using a WCO, major consumption (licence) should have the influence of the crown reservation. Increased monitoring to be put in place. Who foots the bill? If a municipality is, then a municipality should have more say in allocations and transfers.

Maybe 5% is a better number. 10% seems like a lot considering we have maintained the river flow at the old numbers. 5% holdbacks would still improve level of flow.

The recommendation for a 10% holdback should only be enacted when the need to restore flow is prevalent. The water that is withheld should be in the form of a water conservation objective licence that allows the licence holder the option of use at a later date when the river flows are restored.

Comments on Establishing a Water Conservation Objective

“Yes” Responses

Senior licences? Should WCO apply to senior licences? Debate this.

WCOs are critical for stream environment sustainability

5.a) May have to go back to 1992 in the future to realistically manage the Battle River watershed

Crown Reservation – set aside for Minister to decide its use. How do you improve the quality of water in lakes? Why are fish dying? Recreational water use is important (socially, economically) and needs to be pristine. Who are the water stewards for our streams, lakes and rivers?

We really are shocked by the poor position we are in. The analogy of an 18 year old is only 49% healthy is pretty graphic.

I agree regarding junior licences being given conditions for a WCO. But I also feel that if extreme conditions ever arose that the senior licences are also required to help address the concerns as well in some manner.

WCO is appropriate “at this present time”, but may be reviewed at a future point. Junior licences and also senior should be given conditions for WCO (everyone plays fair). Supporting of current stakeholders interests and striking a balance of all values (economic and environmental) without unjustly penalizing farmers and agricultural producers (easy target). Farmers are acutely aware of environment and sustainability.

This work will be futile if not applied to the entire basin including unnamed tributaries

5) Yes, according to what was presented and speculated for results.

The date has not a great impact so pick a date.

Using the 10% holdback should improve things.

Junior licences should be scaled to determine priority and what scale of a junior licence should be given the WCO condition

I agree with the Jan. 1, 2005 date, not 1992 or any earlier

By doing this, it will control the highs and lows, especially the low flow rate in the drought years!

Need to start somewhere. And this does fit with current thinking.

We have to start somewhere

Maybe we should start from 2012. We cannot change what has happened. Go forward with the proper science with the economic impact of the area.

This seems like a very reasonable approach to recovering flow rates and biotic health of the Battle River.

This is very difficult for a lay person to understand in spite of the excellent explanation

No licence should exist in perpetuity. All licences should have an end date.

Reality is junior licences are paying a price for senior. Senior licences need a blanket WCO that considers a greater than 10% holdback. Politically not a great conversation, however every basin in southern Alberta can be seen as an example of what not to do. Review all existing licences as you have proposed. Retrofit older licences. You might as well do it now because in 25 years you will have to do it anyways.

BRWA recommends 85% flow rate should be the minimum flow. BRWA also encourages AESRD to establish a process to have water license holders prior to 2005 voluntarily establish and adopt a water conservation objective. This voluntary social license could make it more likely that junior license holders receive sufficient water.

“No” Responses

The date should be changed to 1992

5.a) No. All licences need to have WCO conditions based on their uses.

All licences should have WCO conditions

Why would the WCO be applied to all?

The WCO should be applied to all licences, even those received before 2005. This would help ensure water quality and quantity can be increased.

Looking at the “fish quantity/quality” survey leads me to believe the WCO must be more stringent; the natural flow percentage must be increased.

“Unsure” Responses

Need more time to fully understand

I think the WCO proposed is too high at the present time

WCO implementation can already be done through ministerial order. Leave this out.

Senior licence holders should also be subject to the WCO whenever renewals, expansions or lapses in licencing occur.

Should reach back to earlier junior licences (1992?)

Not enough info to determine date for grandfathering

5.a) They should be allowed enough water to maintain basic operations and not lose their ability to survive a dry spell. The risk of a drought should be shared by everyone. New licences could have conditions of water quality improvement put on them to offset their increase in consumption.

Since IFN values are derived (i.e. typically a desktop study using a regional hydrology study) the logical next step is to permit modifications to derived IFN values based on actual flow monitoring. This can become very important, especially when we operate in unnamed streams that may be hydrologically distant from the regional stations that were used to derive flows. Therefore an adaptive management process should be built into the IFN values (e.g. a prorating curve) as well as the water conservation targets so that derived flows can be adjusted over the range of flows. It is suggested that there be a mechanism developed to encourage voluntary participation of senior licence holders to incorporate WCOs.

ATCO agrees that WCO's should not be applied to current licences.

Based on the information provided junior licence holders would only receive their water volume 3 out of every 10 years. It would be very difficult for any water user to plan or make capital investments based on this likelihood. Therefore some would apply for a large licenced volume to maintain off stream storage reserves in low flow years. Times when this could be a concern to ATCO is if there are a number of consecutive low flow years which were followed by a median flow year, when junior licence holders could possibly draw a large volume of water upstream of the site. The low flow years would result in a decrease in volume in the Forestburg Reservoir, if on the median flow year junior licence holders were drawing their licenced volumes to replenish their storage reserves, this could result in less flow to the Forestburg Reservoir. This could reduce the site's ability to generate electricity and potentially reduce ATCO's ability to meet the obligations in the provincially mandated Power Purchase Arrangements and future agreements.

The WCO could be implemented once the Water Management Plan is approved. However, it would be prudent to accurately model the water flow outcomes and the impacts on the water users for the given growth scenarios to determine if the WCO provides an optimal outcome for the Battle River reservoir, or if there are improvements that should be made to the WCO that would maintain or improve the health of the aquatic ecosystem and the security of supply for water users.

Comments on Watershed Management Strategies

“Yes” Responses

Need support of community

People/communities need to be educated and encouraged to implement these objectives

Glad to see that quality initiatives are going to be implemented and not just quantity initiatives.

Something needs to be done over the long term. Changes will not happen overnight, but the support of landowners and farmers will help. However, with the number of First Nation landowners there may be some long term issues.

Battle River is not “scoring well”. We “must” legislate; all farmers not be able to have any animals within ¼ mile or more. Same for any developments of residential that impact riverways

b) riparian restoration is very important! Strategies need to be in place in order to keep the ecosystem healthy. d) Managing administrative structure is important for efficiency and long-term goals being achieved.

All above is good as long as it is done in conjunction with users in a responsible manner. Water management and water quality objectives need to be improved, more research and monitoring to gain more knowledge (don't rely totally on modelling – must ground truth info and data)

b) Wetland agencies should be involved

Too far gone as far as water quality and quantity

I think that these are very important factors to be considered before we can go ahead with this whole plan. I think we should make sure what sections in the Water Act all this pertains to. Base all this on facts and science. I think you need to focus more on the whole problem not just agriculture but all industry including recreation.

It is very important to keep these strategies provincially funded and not to download any responsibilities to the municipalities

Riparian areas are a vital key

I think the storing of data (water quality and water quantity) should be in one location so Alberta Environment has it at their control!

Bringing the river back to its original health should take precedence over economic development.

Any one of these strategies, if left out, would decrease the effectiveness of the plan.

Would like to see these [site-specific water quality objectives] addressed more specifically vis-a-vis nutrients

Wow. Good work. Thank you.

Aim high rather than low! Do not settle for adequate! Voluntary flow restriction and/or restoration are a joke! Profits always come first, second and third!

b) Support, in alignment with current industry BMPs for reclamation and remedial activities associated with oil and gas resource development.

c) This aligns with the GoA direction for regional plans. Will need a management system in place to assist in meeting site specific water quality objectives. A management response system will need to be implemented to assess when the WQO are being exceeded.

d) Support increased data management and public information release to ensure public has confidence in the management systems that are set-up. Development of any new

management system and criteria for any adverse impacts should be done through consultation with stakeholders.

Water is our most important resource! Wars will be fought (in the future) due to lack of water for an ever-increasing population. Voluntary flow restrictions may have to become MANDATORY if objectives aren't achieved by senior licence holders. How do you enforce regulations on First Nations? Has the effect of beavers on water flow been studied?

6. b) and c) Improving the riparian areas and quality of water flowing into the river are crucial. Starting with good clean water will do the most to improve the river. Flow can be controlled through licences to small degree, but it still depends largely on snow and rain.

#1 priority: Do these and then revisit models. Again as earlier commented. A poor water quality reach/tributary should have no withdrawals. Promotes peer pressure to increase best practice and watershed protection. B) is critical as I am concerned that the riparian needs calculation has not been modeled. The statistics presented are not acceptable. Releasing fecal coliform into the ecosystem should be considered a punishable offence. Voluntary involvement has worked (love Cows and Fish), however it has not progressed quickly enough. C) Data is unacceptable. Conserving water is of no ecological use unless it is good quality water.

“Unsure” Responses

a) Flow restoration strategy too high. b) c) and d) yes if costs are not downloaded to municipalities

a) Unsure of existing reservoir operation plans; would be supportive of increased focus on water storage as a means of managing IFNs, particularly for low flow periods.

6.a) Unsure. How can you manage flow strategy without guarantee of a commitment from all licence holders? I think that would fail.

ATCO would participate in the strategy discussion. We believe that the principles underlying the flow restoration strategy are important. The Battle River reservoir has physical limitations on outflow and low flow years would make this very difficult. Also, ATCO must consider the impact on site's ability to generate electricity and our ability to meet the obligations in the provincially mandated Power Purchase Arrangements and future agreements.

Additional water quality objectives could impact the site's approval requirements. Raw water quality at the river water intakes impact the ability to meet water quality objectives on the outflow. In the past the site has struggled with maintaining outflow quality strictly as a result of inflow quality. How would the water quality objectives accommodate this issue and what would the implications be? If the site was forced to reduce or stop electricity production due to water quality objectives, it would have an impact on ATCO's ability to satisfy the obligations in the provincially mandate Power Purchase Arrangements and future agreements.

Additional Comments

This is a very complex issue. Use of water is very controversial. May need more information.

Pigeon Lake loses 65 billion litres of water per year through evaporation. A group of very well connected individuals are pushing senior Alberta Government officials to drill into the Paskapoo aquifer and inject water into Pigeon Lake. Any percentage of 65 billion litres is a huge number. This will significantly affect the groundwater, water wells, other lakes, wetlands, etc. If their request is approved this will significantly jeopardize the “sustainable balance” that the plan is striving for.

I agree to a degree. Costs need to be covered by the provincial government and the flow restoration strategy can be flexible. Uses of chemicals on farm lands within a certain distance of the river should be restricted.

The process is very slow! It’s hard to be excited about something that takes years. How do you/we better educate people about their responsibilities? If this is a priority (which it should be), where are the funds?

Need to have Greg and Sarah out to a combined Blackfalds, Lacombe, Lacombe County meeting to discuss components we can do!

Page 19, Table 4.1-3: Forecasts are a concern to me. I believe the livestock watering increase to be way too high

Greg Nelson covers information quickly however does a good job of having information presented well. Greg and Sarah did a good job at meeting – for information being covered, kept audience engaged. Sarah Skinner has meeting prepared well (attendees comfortable, have meeting supplies organized (notepads and pens, and refreshments available)

Page 44 – channel “109” missed for scenario 8.5 (2nd paragraph)

Page 49 – last paragraph: use of “2000 dam³” maybe should be “2500”

Presentation was well done!!

I believe the true way to look at improving water flow and allow for economic expansion of eastern part of Alberta that depends on the Battle River is inter-basin transfer from the North Saskatchewan along with the other strategies that you have come up with

I think we need a fair amount of more impact on this from the grassroots/people that are most affected

It may be feasible to divert water (by gravity through a concrete-lined channel) from the North Saskatchewan River to Pigeon Lake and Battle Lake, buffered by wetlands upslope of those water bodies. In light of the water volume and water quality constraints in the Battle River, diverting 30,000 dam³/yr in that manner could be highly favorable on many dimensions.

Generally speaking those people who were there agreed with your recommendations, and approach. There has been much consideration for the various complexities, and generally

we believe that you've landed on the best combination of recommendations, within the scope you had to work within.

When transfers are granted there should be a requirement to operate under current rules.

I was very pleased the plan takes into account for future growth and economic and social issues. Very wide scope not just a narrow spotlight of issues.

How does the BRWMP address wetland management to ensure 1) no net loss; 2) healthy riparian areas; 3) water quality is maintained or improved. How does the BRWMP address biodiversity and ensure diverse fisheries and wildlife? Establish temperature gauges at existing key water monitoring gauges.

In test areas where water quality is fair to poor – monitor closely to find where the problems lie. We need to correct this now if we project more growth in the Battle River watershed area!

I would think that the Alliance should be concerned with developments near the Battle River concerning fields and the possibility of seepage into the Battle River.

Don't want water to become a commodity that is traded through speculation or to have a dollar value attached such as a quota system in the supply managed agriculture sectors that originally was free when the system was started. Is there a plan as to what the human population limit is that the watershed can support? At some time in the future growth will have to be curtailed.

It is important that the river basin's health be at the least maintained and bettered if possible.

Will we be made aware of the approval of Final Plan?

Slowly but surely build water reservoirs to collect/capture spring runoff to then be released to maintain a steady flow throughout the year. Increase the water fees for oil industry use of the water. More monitoring of chemical/toxic levels of the water. Can we drink the water? Use this as a guide for future regulations and utilization.

What is the extent of our knowledge of groundwater resources in the Battle River watershed?

This is a good first step or an improvement over existing policies pre 2005. Remain flexible. Thank you.

Indicators of Hydrologic Alteration modeling may assist. I am concerned about IFN and seasonal fluctuations and limnological models related to water quality (including temperature)

ATCO Power is subject to contractual arrangements imposed by Alberta Government with the Power Purchase Arrangement buyers. These Arrangements obligate ATCO Power to operate the site at certain capacities throughout the year and maintain availability to generate power when required. Conditions that would reduce this ability will result in ATCO Power not being able to meet these requirements and then being held legally responsible and penalized for the lost generation. As such ATCO Power cannot agree to any conditions that would reduce the water quantity or flow in the Forestburg Reservoir.

Grid reliability and security of supply are also factors to consider. Generation in different areas of the province is required to support the load and maintain grid stability. The Alberta Electric System Operator may require the site to generate power to maintain adequate supply of power to the grid. There are social and economic consequences for failure to supply.

ATCO Powers Battle River Generating Station is a major stakeholder in the basin and has been involved in the development of the Battle River Watershed Alliance (BRWA) and currently holds a board of directors position with that group. BRGS has been involved in the water management planning discussions for a number of years and understand this is an important topic, however, the current obligations to the PPA holders, shareholders and employees make agreement to some of the proposed conditions difficult.

Future development of this site is being considered to maintain the current active commercial status of the site.

Other comments:

The wording in section 4.1.1 in the paragraph after table 4.1-1 could be clarified.

Table 4.1-8 Forestburg Reservoir

- after the drought from 2002-2004 we installed a bubbler system which keeps the area in front of the 2 foot tall extension gates in the spillway ice free, therefore we no longer open the gates in the fall,
- the dam physically can't release any more than the siphon unless water is spilling over the spillway. There is no other method to release water downstream other than the siphon or the fixed spillway.

Figure 4.2-1 Annual Flow Volumes

- there are many multi-year low flows below the mean value. Multi-year low flows have resulted in very low water levels in the Forestburg Reservoir, and the spring flow may not refill the reservoir on these low flow years.

4.3 Instream Flow Needs Determination

4.3.2 IFN Determination downstream of Forestburg Reservoir

- note Forestburg is spelled incorrectly.
- The paragraph below Figure 4.3-2 discusses flow curves downstream of Forestburg Reservoir. There is always flow maintained downstream of the Forestburg Reservoir. Further clarification on how those curves were developed, the consequences of the curves, or the relationship to the IFN and the WCO would be valuable.

Recommendation 5.2.1 Flow Restoration

- It will be very difficult for ATCO to undertake flow restoration measures during low flow periods. This will be the time the site needs the water the most and there may not be water for restoration flows.

BRWA appreciates the outstanding amount of work AESRD staff have done to complete a Draft Approved Water Management Plan for the Battle River and we look forward to working with AESRD to develop further aspects of the plan. BRWA recognizes the need to shift thinking about water management to working within the carry capacity of the river as outlined in Alberta's Water for Life Strategy. The river should be first in right as it was here first in time. Work needs to continue to address First Nations water rights and a mechanism should be developed to have their water rights set up in accordance with their needs.

Appendix B: Questions and Comments from Meetings

Various questions and comments arose out of the discussions that took place during the Water Management Plan meetings. These are summarized below. All these questions received responses during the meetings or through follow-up conversations.

Water Allocation Limit

- How much unlicensed water use takes place in the watershed?
- How often does a licence review occur? This may be an opportunity to gain additional water.
- With reservoirs currently in place on the Battle River, is it possible to maintain “natural” flows?
- Flow rates differ from year to year. Can you base licences on year-to-year flows?
- If the licence holder is no longer using their licence, could it be subject to cancellation?
- Is there “extra water” in the river in low flow years to accommodate this allocation limit?
- Have there been years when the Battle River’s natural flow is less than 57,500 dam³? How do you supply water to licence holders during such a year?
- Climate change considerations: Does the water allocation limit assume that average natural flows will remain constant into the future? Will there be less water available in the future?
- How does groundwater influence water availability?
- Are groundwater licences subject to this limit? Has there been an assessment to determine the hydrological connection between surface water and existing groundwater wells?
- Are temporary diversion licences included in this limit, or in addition to the limit?
- Is 57,500 dam³ an annual number (meaning 57,500 dam³ of water may be used on an annual basis)?
- Page 17 of the draft plan, first paragraph, third line from the bottom: the number should be 13,741 dam³.
- How is actual water use determined?
- If ATCO were to no longer operate the Battle River Generating Station, what happens to the associated water licence?
- If the recommended water allocation limit is 57,500 dam³, why is this limit allowed to be exceeded in the event that First Nations want to use an additional 3,729 dam³? Shouldn’t the 3,729 dam³ be included in the water allocation limit, not in addition to it?
- If the Battle River is over-allocated, why even make it an option for First Nations to withdraw water from the Battle River when Red Deer River water is available through the water line?
- Considering the nature of the Battle River’s natural flow data set, it would be valuable to consider the median rather than the mean natural flow when determining an appropriate water allocation limit

- Are there any recommendations to complete another traditional agricultural water use registration process? Potential risk to the water security of unregistered agricultural water users (could potentially be many unregistered)
 - Does switching from watering cattle out of the river to using off-site watering require a licence? Extra hassle and risks to implement BMP of off-site watering without having a traditional agricultural registration (could need a new junior licence or temporary diversion licence – risks associated with this – or initiate another agricultural registration)

Water Allocation Transfers

- Is the 10% holdback the only mechanism to keep the basin open?
- Can you sell your water licence?
- When you transfer you shouldn't be able to sell/charge for that water.
- Is there a way to ensure that transfers don't become all about dollars/pricing of water? Licence holders don't own the water, they just have the right to use that water.
- Page 44: “channels 106, 107, 108, and 110” – why is channel 109 not included here?
- Are transfers permanent, or can there be both short-term and long-term transfers?
- “Only that portion deemed licenced use is eligible for transfer” is an important consideration for ATCO.
- Some people voiced concerns that water allocation transfers will cause water use to increase, since licence holders will be able to transfer the portion of their licence that they're not using to people who will use it.
- Are there any guidelines or rules around how a water allocation transfer should be conducted?
- Does the geographic location of a transfer matter? (transferring from Point A to Point B within the watershed)
- Can transfers only take place within the basin? (no inter-basin transfers?)
- One person thought that when a water licence transfer takes place, current regulations (such as the Water Conservation Objective) should be applied to the transferred amount, rather than having the older regulations transferred from the old licence.
- Does ESRD have to approve transfers?
- Does the basin have to be closed to enable transfers?
- How many licence holders will be interested in transferring unused portions of their licences?
- Without transfers, growth in the Battle Rive region would be restricted

Water Conservation Holdbacks

- What are the implications of a Water Conservation Objective licence versus a crown reservation? Do both ensure that water that is set aside remains in the river?
- Are there monitoring requirements to ensure the 10% holdback is adhered to?

- Is the 10% holdback the only mechanism to keep the river basin open?
- If a crown reservation is not the recommended means of securing the water conservation holdback, the wording on page 56 of the draft plan should be modified to reflect this (i.e. the words “or through a crown reservation” should be removed).

Water Conservation Objective

- Important to consider implications for licences that have an “end date”. For example, if a 2004 licence were to expire in 2013 and the licence holder wanted to renew the licence, would the WCO then be applied to the renewed licence?
- One person commented that in the North Saskatchewan watershed they have abandoned the use of Instream Flow Needs because of the existence of on-stream structures. Does it make sense to harmonize the approaches of the North Saskatchewan and Battle River watersheds?
- Various water diversions do not take place on the mainstem of the river. Flow rate stations may be geographically and hydrologically distant from actual points of diversion. There was a suggestion that the WCO may be more effectively determined at the local scale through the use of flow measurements on tributary streams, and that a strategy should be developed to incorporate this into the Water Management Plan.
- Do Battle River flow measurements take into account waste water that is added to the system from Lacombe, Ponoka, and other communities who receive their water from the Red Deer River?
- Why can the WCO not be applied to all licences?
- What is the water security for licence holders under the proposed WCO?
- There was a question about why some indicators (such as the IBI study) indicate that river health is better downstream, while Tables 4.3-1 and 4.3-2 in the draft plan indicate that river health is worse downstream.
- What is the technical definition of a “senior” vs. “junior” licence?
- If you’re serious about water conservation, shouldn’t the Water Conservation Objective apply to everyone?
- Will this WCO encourage municipalities to undertake water conservation efforts?
- What would happen if the WCO kicked in at the lowest quartile rather than quintile?
- What would be the political outfall from retrofitting licences with the WCO further back than 2005? (ex. back to 1992)

Recommended Watershed Management Strategies

- 2 year time limit to complete certain actions: Not a bad thing to propose a timeline. Go for it and work to accomplish it.
- How will population growth impact riparian areas and water quality, specifically related to community waste water treatment and discharge? How many community waste water systems discharge into the Battle River watershed?
- Suggestion to include wetlands in the riparian areas restoration strategy

- The flow restoration strategy puts ATCO in a tough spot if everyone else (especially upstream water licence holders) is making changes to restore flows (voluntary flow restrictions), and ATCO is not in a position to do the same. How much pressure would be placed on ATCO to take these measures? Low flow times are when ATCO is least able to undertake flow restoration measures, which is incongruent with the recommendation on page 59 of the draft plan.
- If you want to improve riparian areas, there will have to be incentives for people to undertake these actions.
- Drainage ditches are potentially a significant source of non-point source pollution. Drainage districts could be involved in the work of limiting pollution from this source.
- Would these strategies be funded by ESRD? Some people thought that municipalities should not be responsible to fund these initiatives.
- Off-stream vs. on-stream water storage as a means of balancing low and high river flows

Additional Comments

- Is there any advantage or disadvantage to postponing this Water Management Plan until the single regulator is fully functional in Alberta?
- Is there information on when the river is “healthiest”, especially as it relates to flow rates from year to year and month to month?
- How much water does the Battle Lake watershed contribute to the flow of the Battle River? Have any studies been done related to water quality and quantity in Battle Lake?
- Will First Nations be interested in using river water (Battle River or Red Deer River), considering they just upgraded their well system?
- How is water being supplied to the proposed Cargill plant near Camrose?
- City of Wetaskiwin has issues with water availability from Coal Lake, having to put water restrictions in place on a regular basis. Would raising the weir at Coal Lake alleviate these issues? There is also a local perception that drawing down the Coal Lake reservoir recently to provide ATCO with additional water had a minimal impact. This is linked to broader comments about FITFIR and the implications of having to send water downstream to ATCO.
- People mentioned issues related to flow restrictions caused by beaver dams. Are there any recommendations related to this?
- What are the implications of allowing part of a water licence to be cancelled?
- There has been no conversation to-date about the potential role of drainage districts to help fulfill Water Management Plan recommendations (especially related to how much water drainage districts release or hold back through their water systems)
- On page 16 of the draft plan, it is mentioned that water licences in the Battle River Basin are equivalent to 269% of the Battle River’s mean annual flow. There was a suggestion to add a disclaimer to this statement related to licenced and actual water use (which is a much smaller percentage of the Battle River’s mean annual flow).

- There is a number discrepancy on page 49 of the draft plan: in the first paragraph of section 5.1.1, the number 2,500 dam³ is used. At the bottom of the page, the number 2,000 dam³ is used. These numbers should be the same.
- Water quality objectives: Will there be a focus on potential pollution from municipal waste water systems?
- One person made a comment that they thought it was essential to allow for the cancellation of a portion of a water licence.
- Related to the potential for inter-basin transfers in times of water shortages: Is there currently a significant flow of water from the Red Deer River to the Battle River through the regional water lines?
- How does groundwater play into discussions about water use and availability? What is the extent of our knowledge of groundwater resources in the Battle River Basin?
- Do apportionment obligations trump the rights of Alberta's water licence holders?
- Does a licence remain forever if it is attenuated to the land?