



Athabasca Watershed Council State of the Watershed
Report Phase 2 (SOW Ph2)
Stakeholder Survey Report
December 31, 2012

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Executive Summary

The Athabasca Watershed Council Watershed Planning Advisory Council (AWC-WPAC) retained The Human Environment Group (HEG) to develop an on-line survey questionnaire prior to the delivery of four public participation sessions. The on-line survey was intended to identify knowledge gaps from the public in order to provide some areas of focus for the design of the upcoming public participation sessions.

The feedback collected from the pre-session survey was also intended to be used as a baseline of participant knowledge that could be used as a basis for comparison to the exit survey. The comparison of the pre-session survey and exit survey would help determine the level of success achieved in raising public knowledge on watershed health indicators.

Participation rates in the on-line survey questionnaire were very low and therefore, hard copy surveys were used prior to the start of each public participation session. The intent of the survey at this point was to obtain a baseline of knowledge for comparison to the exit survey to determine whether the participants increased their knowledge by the end of the session.

Survey participation can be summarized as follows.

Table 1: Survey Participation Numbers

	Hinton	Westlock	Anzac	Fort McKay	Totals
Pre session surveys on line	10	2	0	0	12
Total pre session surveys completed combined with on line surveys	29	23	5	6	63
Registered attendees on line	39	25	0	0	64
Attendees signed in on site	36	22	8	7	73
Exit surveys collected	24	20	5	5	54

Based on the comparison of pre and post session surveys it appears that the public information sessions were successful in raising awareness of indicators of watershed health and the linkages between land use activities. The pre-session surveys indicated that 71% of participants had heard of the Athabasca Watershed Council but only 48% of the respondents felt they understood

watershed indicators. The exit survey revealed that by the end of the session 92% of the respondents felt they had increased their understanding of watershed indicators.

The comparison between exit and pre-session surveys clearly indicated that participants gained an increase in understanding of watershed health indicators and the effects of various activities on the watershed.

Exit surveys also provided excellent feedback for suggested future phases of the SOW reports by allowing participants to select specifically the parameters that they felt should be considered. It was clear that groundwater, wetlands, riparian areas, and fish should be considered priority areas for future focus as detailed in section 4.0 of this report.

According to the results of the surveys the public sessions were successful in increasing public knowledge and understanding of watershed health indicators. It should be noted, however, that use of on-line surveys was not the most effective method of gaining feedback for the planning of the participation events. The low participation rates may be due to the location of the survey on the AWC-WPAC website or the demographics of the participants.

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1.0 Introduction

The Human Environment Group (HEG) was retained by the Athabasca Watershed Council Watershed Planning Advisory Council (AWC-WPAC) to develop an on-line survey questionnaire prior to the delivery of four public participation sessions in Hinton, Westlock, Anzac, and Fort McKay. These sessions were held in the evenings 5:30-8:30 pm of October 17, November 7, 20, and 21, 2012, respectively. The details and results of the public participation sessions are presented in a separate report.

1.1 Purpose of the On-line Survey

A four page on-line survey questionnaire referred to as the pre-session survey, was developed by HEG in consultation with the AWC-WPAC project manager, the President, and the Communication and Community Engagement Committee. The survey was based on the material in the SOW P2 report and was comprised of questions designed to assess the participant's level of familiarity with watershed health indicators as discussed in the State of the Watershed Phase 2 (SOW P2) report. The on-line survey was intended to identify knowledge gaps from the public in order to provide some areas of focus during the upcoming public participation sessions.

The feedback collected from the pre-session survey was also intended to be used as a baseline of participant knowledge that could be used as a basis for comparison to the exit survey. The comparison of the pre-session survey and exit survey would help determine the level of success achieved in raising public knowledge on watershed health indicators.

1.2 Pre-session On-line Survey Questionnaire

Pre-session surveys were required in order to evaluate the participant's level of awareness of the Athabasca Watershed and the related indicators that would be referenced in the SOW report.

The pre-session survey was developed with eight questions and a map graphic outlining the watershed boundary. Pre-session surveys were required to be made available on line and HEG retained Jedwin Media who used Jotform as a platform for the survey.

The Jotform survey included a question that allowed the respondent to identify the town nearest them so that upon survey completion participants were provided an automated response showing nearest public information session according to their location.

Participation in the on-line survey was very low. For all events there were only twelve surveys completed and most of them were completed prior to the Hinton event. Of the twelve surveys completed the following observations were made.

- Two were completed by HEG testing the form.
- Four were completed by board members.
- Five were completed by employees of board members or individuals who were contacted directly.
- One appears to have been completed by the public.

Due to low participation rates, the pre-session survey was printed out in hard copy form so that unregistered attendees who showed up onsite and those who may have had limited access to internet could complete the survey as well. A hard copy of the pre-session survey is contained in Appendix A.

Possible limitations to on-line survey completion

Since there were so few on-line surveys completed it may be worth considering possible limitations. It appeared that most of the on-line surveys were completed by AWC-WPAC board members or employees. Possible limitations to survey completion may be related to the demographics of the participants such as age, or computer literacy, or may simply be a function of the accessibility of the survey form.

The Jotform survey was made available through a link on the AWC-WPAC website through a blog. It may be that the form would have greater visibility if it was posted on the main home page. Some members of the board had indicated it was difficult to find the blog listing the upcoming events announcement and the related registration and survey link.

In the future, a marketing strategy and related communication plan that focuses on specific target demographics may offer a strategy on the most effective way to reach desirable participants.

Details on the results of the pre-session survey are collectively discussed in section 3.0 of this report. A summary of both the surveys is provided in Appendix C.

2.0 Exit Surveys

Each public participation session was ended at 8:30 promptly. Prior to session completion participants were asked to complete an exit survey. Participants were told that the exit survey was designed to ascertain the level of understanding of indicators participants gained from the session as compared to the pre-session survey.

Participants at the first event in Hinton indicated that the exit survey was too long. There were also comments that the exit survey contained terminology that was too technical and many of the participants required definitions be provided.

Based on HEG's review of both pre and post session surveys, combined with direct feedback from participants, it was necessary to shorten the exit survey after the first event and make some of the questions more concise.

The following modifications to the exit survey were completed after the Hinton session.

Remove the following questions.

1. Did you complete a pre-event survey?
This question was removed because this question was asked at the time of registration and all participants were provided a pre-session survey prior to starting the session.
2. a) Do you have suggestions on how to reach more people for invitation to future events? This question was removed because it is covered in the group discussions.
3. Question 10 – Is this the best time to hold this event?
This question was removed because the dates and time for the next three events have been set and will not be changed. This issue was also discussed in the small group exercises anyway and really did not need to be repeated in the survey.
4. Question 11 – Who was not in attendance that you think would benefit from this information?

This question was removed as it was addressed in the group discussion questions and the responses from the Hinton session demonstrated that people were not truly aware of who was in the room even though introductions occurred at the start. For instance, attendees answers to this question included “more industry” and “more government” even though the bulk of the participants were from Industry and local government. A few people did suggest that there should be “more public” and “less industry”. So it was decided that this question offered little value to the AWC-WPAC toward the objectives of the sessions.

5. Question 12 – The quality of the food was...

This question was removed because participants can offer this feedback in a general comments section at the end of the survey if they like. Also the quality of the food can be ascertained by the AWC-WPAC members in attendance.

6. Question 13 - If I was running this session I would have...

This question was removed because it was determined it could be included in a general comments section added at the end of the survey.

7. Modify question number 7 and re-word it to provide only a few easily understood terms.

Details on the results of the exit surveys are provided in section 4.2. A sample of the Hinton exit survey and the changes to the exit survey are provided in Appendix B.

It should be noted that although there were modifications to the exit survey it did not affect the comparisons of the pre and post session surveys as the key points for evaluation remained in the survey after modifications to streamline the exit survey were made.

3.0 Collect Surveys and Review Feedback

As mentioned previously, participation rates in the on-line surveys were very low. The use of hard copy surveys at each public participation event was required in order to ensure a baseline of participant knowledge gained could be collected.

A summary of the participation in the surveys for each event can be summarized as follows.

Table 1: Survey Participation Numbers

	Hinton	Westlock	Anzac	Fort McKay	Totals
Pre session surveys on line	10	2	0	0	12
Total pre session surveys completed combined with on line surveys	29	23	5	6	63
Registered attendees on line	39	25	0	0	64
Attendees signed in on site	36	22	8	7	73
Exit surveys collected	24	20	5	5	54

The number of pre-session surveys completed (sixty three) does not match the number of exit surveys (fifty four) because in some cases a person left early or in other cases a couple would fill out the exit survey together. Generally however hard copy survey completion rates were very good.

3.1 Pre-session Surveys

Pre-session surveys were collected from a total of sixty three participants from all of the four events.

Pre-session surveys contained the following questions. Data was compiled from a total of 63 Surveys.

Q1 – What is the town or city nearest you? Select from a list provided. This information was obtained in order to direct the online survey participants to the next event nearest to them.

Q2 - Prior to this event have you heard of the Water for Life Strategy?

Yes – 65%

No – 30%

No Response-5%

Q3 - Prior to this event have you heard of the Athabasca Watershed Council?

Yes – 72%

No – 25%

No Response-3%

Q3a – How did you hear about this event?

Media (newspaper, radio, newsletters, posters) –22%

Direct contact or involvement with the AWC – 48%
No Response-30%

Q4 – Do you feel that you know what a watershed is?

Yes – 83%
No – 9%
No Response-8%

Q5 – Do you feel that you are well informed about the current issues in the Athabasca watershed?

Yes -38%
No – 55%
No Response-9%
Two Respondents answered both

Q6 – The Athabasca watershed is subject to various land uses that can cause changes to the ecological setting. What land use activities do you think create the most pressure on the Athabasca watershed?

This question is compared to answers from question 6 of the exit survey and will be part of the comparison table in section 3.3.

Q7 – The State of the Watershed Phase 2 report reviews “indicators” of watershed health. Do you know what indicators are?

Yes –48%
No –37%
No Response-15%

Q8 – How do you rate your knowledge about these activities as indicators that they might have an adverse impact on water, land, air, or wildlife (plants & animals) in the Athabasca watershed? 50% or more of respondents felt they had a moderate to very good understanding of the activities as indicators of watershed health. For more meaningful examination this question is presented in comparison to question 5 of the exit survey in section 3.3.

Percentages are based on the number of direct responses to the question.

3.2 Post Session (Exit) Surveys

In total data was collected from fifty four exit surveys compared to the sixty three pre-session surveys completed. As mentioned previously, the first post session survey had thirteen questions as compared to the pre-session survey which had only 8. Some of the post session surveys were filled out by couples and therefore there were at times less exit surveys collected compared to the pre-session surveys. The highlights of the post session survey revealed the following.

Q1 – How did you hear about this event? Although this was a repeat from the pre-session survey the results were just slightly different.

Media – 20%

Direct contact – 76%

No Response-4%

This serves to confirm that direct contact resulted in generating the majority of participation.

Q2 - The State of the Watershed report provides a summary of watershed health indicators that can be compared across the entire watershed (True or False).

True - 75%

False - 15%

Don't know – 10%

Q3 - Did the presentation improve your understanding of the Athabasca watershed and related health indicators?

Yes - 91%

No - 7%

No Response-2%

Q4 – After the session how do you now rate your knowledge about these activities as indicators that they might have adverse impact on water, land, air, or wildlife (plants & animals) in the Athabasca watershed? This question is reviewed against answers provided in question 8 of the pre-session survey in the comparison table in section 6.3. Q5 – The Athabasca watershed is subject to various land uses that can cause changes to the ecological setting. From what you have seen in the presentation, what land use activities do you think create the most pressure on

the Athabasca watershed? This question is compared to the pre-session survey question 6 and reviewed in the comparison table in 6.3.

Q6 – The State of the Watershed report was completed in order to provide a baseline of current site conditions for future land and water management planning. What areas do you feel should be focus of future reports? Rank the following list from 1 to 5, with 1 as most important.

This question posed a great deal of challenges for participants. Some participants checked off some or ranked them as all 5 or all 1. Due to the challenges in interpreting feedback on this question the summary only shows the total number of surveys that noted any of the parameters listed. This has resulted in more of a voting system for each parameter as opposed to a ranking of priority areas.

The results provided demonstrate how many times each parameter was selected out of the fifty four surveys reviewed. This summary does not identify whether they were ranked 1 or 5 rather how often they were identified as one of the top five issues. It was not possible to provide a percentage evaluation since it was not clear how many participants responded to how many items listed.

20 groundwater
20 wetlands
19 riparian conditions
14 fish
9 amphibians
8 sediment quality
4 aquatic birds
3 traditional land use
2 macro invertebrates
3 mammals
2 rare species

Q7 - The process of gathering feedback was effective for the group.

- | | | |
|----|-------------------|-----|
| a. | Strongly disagree | 2% |
| b. | Disagree | 4% |
| c. | Neutral | 19% |
| d. | Agree | 57% |

e. Strongly Agree 9%

No Response 9%

Q8 - The facilitators were effective in communicating the SOW report findings.

a. Strongly disagree 2%

b. Disagree 9%

c. Neutral 4%

d. Agree 65%

e. Strongly Agree 13%

No Response 7%

3.3 Session Survey Comparisons

Two sets of questions were asked at both the pre and post session surveys in order to enable evaluation of the effectiveness of the sessions in explaining watershed indicators. The objective of the survey comparison as identified in the request for proposal was as follows.

For participants to evaluate their level of understanding of the information presented and to determine whether they were able to increase their knowledge and understanding.

Pre-session question 6

The Athabasca watershed is subject to various land uses that can cause changes to the ecological setting. What land use activities do you think create the most pressure on the Athabasca watershed?

Post-session question 5

The Athabasca watershed is subject to various land uses that can cause changes to the ecological setting. From what you have seen in the presentation, what land use activities do you think create the most pressure on the Athabasca watershed?

The following is a comparison of the combined percentages of moderate to high ratings assigned to various land uses at pre-session survey compared to the exit survey.

Table 2: Comparison of Combined Percentages of Moderate to High Ratings by Landuse Activity (Pre-session Question 6 and Post-session Survey Question 5)

Activity	Pre-session	Total No. of responses	Post-session	Total No. of Responses	Difference
Forestry	88%	59	87%	53	-1%
Conventional oil and gas	86%	60	100%	53	+14%
Recreation and tourism	68%	60	62%	53	-6%
Agriculture	70%	60	96%	53	+26%
In Situ Oil extraction	71%	59	92%	53	+21%
Coal mining	78%	58	81%	53	+3%
Aggregate mining	74%	58	79%	54	+5%
Human population growth	75%	60	90%	51	+15%

This table serves to demonstrate that participants appeared to gain an increased awareness of the land use activities and how they affect the watershed based on the presentation. Most notable within the table is the increased recognition of the effects of agriculture and in situ oil extraction on the watershed as reflected by the 26% and 28% increase (respectively) from the beginning of the session to the end of the session. Also noticeable, is the overall increase in all ratings from the pre-session to the post session with the exception of recreation and tourism which decreased by 9%.

The next table completed involved a comparison of question 8 from the pre-session survey to the same question listed as number 4 in the post session survey.

Pre-session question 8

How do you rate your knowledge about these activities as indicators that they might have adverse impact on water, land, air, or wildlife (plants & animals) in the Athabasca watershed?

Post session question 4

After the session how do you now rate your knowledge about these activities as indicators that they might have adverse impact on water, land, air, or wildlife (plants & animals) in the Athabasca watershed?

Table 3: Comparison of Pre-session Question 8 to Post-session Question 4 (Number of Responses)

	Pre LK	Post LK	Pre MK	Post MK	Pre VG	Post VG	Pre DN	Post DN	Total No. of Respo nses	Total No. of Respon ses
Road density (total length of roads per square kilometer area of a watershed)	18	6	29	23	9	25	4	0	60	54
Seismic, Pipeline, Power Line, & Railroad density (total length of these per square kilometer area of a watershed)	24	7	23	27	9	20	4	0	60	54
Fragmentation of Large Patches of Natural Vegetation (% area of watershed left with large patches)	21	7	22	27	10	20	6	0	59	54
Stream crossing density (# road crossing per square kilometer area of watershed)	24	5	19	27	13	22	4	0	60	54
Human population density (% growth rate)	20	6	23	25	13	22	4	0	60	53
Agriculture land use (% area of watershed)	26	5	19	27	10	20	6	0	61	52

LK = Little Knowledge
VG=Very Good knowledge

MK = Moderate Knowledge
DN = Don't Know

Worthy of note in this comparison table is the following.

- A reduction in the LK column from pre to post session
- An increase in the MK from pre to post session can indicate those who felt they knew little before know a little more now due to the shift from LK to MK

- A noticeable increase in the very good (VG) knowledge column from pre to post session is the most positive outcome overall
- There were only two parameters where don't know (DN) answers were placed in the post survey compared to all parameters having at least one or two DN's in the pre-session column

3.4 Findings of the Survey Comparisons

Although the pre-session surveys indicate that 71% of participants had heard of the Athabasca Watershed Council only 48% of the respondents felt they understood watershed indicators. The exit survey revealed that by the end of the session 92% of the respondents felt they had increased their understanding of watershed indicators.

Based on the comparison of pre and post session surveys it appears that the public information session was successful in raising awareness of indicators of watershed health and likely concerns about land use activities. Table 2 shows that the session appears to have modified people's initial perception of the pressures on the watershed from certain land uses as evidenced by the increased ratings assigned to the land use activities from the start to the end of the session with the exception of the recreational impacts which showed the only decrease in rating. Since the table is a relative comparison of specified activities it is not a definitive reality, however it does reflect the changes in public perception as a result of increased understanding and awareness.

Table 3 provides an overview of the perception of an increased level of knowledge gained by participants as to land use pressures on the watershed. Participants clearly indicated that they felt their level of knowledge increased from the beginning of the session to the end with a significant shift in the moderate knowledge to very good knowledge column. The reduction in don't know answers was also telling.

Additional detailed analysis of the feedback in the surveys could be made, however the focus of the feedback analysis requested in the RFP from HEG was to determine whether or not there was success in helping participants increase their level of knowledge and understanding. According to the results of the surveys the public sessions were successful in increasing public knowledge and understanding of watershed health indicators.

4.0 Conceptual Plan of Action

Based on feedback provided in the exit surveys HEG recommends the list generated as a result of question seven in the exit survey are used as a foundation to prioritize future investigations.

What follows is a list of priority items for future consideration by the AWC. The number provided reflects the amount of times respondents chose this as a priority item.

- 20 groundwater
- 20 wetlands
- 19 riparian conditions
- 14 fish
- 9 amphibians
- 8 sediment quality

At the public participation sessions, participants expressed their ideas and concerns about the top three priority items:

Groundwater

- Quality
- Quantity
- Projected requirements of various users including industrial, agricultural, and domestic
- An evaluation of the potential impacts of shallow groundwater draws and usage on base flows of the river.
- Consideration of the potential impacts of climate change on groundwater availability and quality.

Groundwater was discussed in depth at each session. Participants at all of the events mentioned groundwater as a key area of concern. Fort McKay can no longer drink local groundwater due to contamination and poor quality and participants were particularly concerned about groundwater quality.

Anzac participants indicated that they believed ground water levels were rising in their area along with lake levels.

Hinton and Westlock participants were interested in the groundwater allocations set aside for industrial use compared to availability for agriculture and domestic purposes. In general, there appeared to be concerns regarding the long term sustainability of the groundwater resources.

Wetlands (Health and Availability of Wetlands)

Although wetlands were not discussed at length in the actual sessions they were selected as often as groundwater in question 7 of the exit survey. This may be due in part to prior public recognition of the fact that wetlands are a critical recharge and filtration system for groundwater and surface water.

Riparian Condition

Riparian areas were identified almost as often as groundwater and wetlands and are clearly recognized by the participants as a critical indicator of the watershed health. Investigations related to the riparian areas could consider a focus on existing buffers, and may also include some consideration of gravel extraction and effects on riparian areas.

In addition the group feedback clearly indicated the need to raise the profile of the AWC-WPAC by attending conferences, public events and increased overall communication with grass roots organizations. This can best be achieved through the development of a marketing plan for the organization to better target communication strategies.

5.0 Conclusions and Recommendations

The online survey proved to be of little value in the collection of feedback from the public prior to the public participation events. The low participation in the on-line survey completion meant that it was not possible to develop the public participation in a manner that would address gaps identified in the survey prior to the public events. It was necessary rather to ensure the surveys were completed immediately before each event to obtain some kind of baseline against which to measure the success of the public information session. As discussed in the report it may be possible that the location of the survey form on the AWC website was difficult to access as it was located on a blog rather than on the main page of the website. Low participation rates in the on-line survey form may also be related to the demographics of the participants.

The public participation program successfully met all of the objectives identified at the start of the project. The delivery of the public participation sessions provided education and awareness about watershed health criteria and the related indicators that were evaluated in the SOW report. This fact is supported in the exit surveys by 92% of the participants.

The exit surveys compared to the pre-session questionnaires clearly indicate that participants gained a significant increase in understanding of watershed health indicators and the effects of various activities on the watershed. Exit surveys also provided excellent feedback for suggested future phases of the SOW reports by allowing participants to select specifically the parameters that they felt should be considered. It was clear that groundwater, wetlands, riparian areas, and fish should be considered priority areas for future focus as detailed in section 4.0 of this report.

Based on the surveys there were very few individuals who attended the events due to public advertising; rather, the participants were contacted directly or already had involvement in the AWC-WPAC board, the hall hosting the event or in some cases the catering company. The low turnout from the general public at each of the events serves to demonstrate there is limited public awareness of the AWC-WPAC in general, and media advertising was not effective in generating public interest.

Although 72% of the participants at the events had heard of the AWC-WPAC overall, this is likely due to the fact that the majority of the participants had a direct or personal connection with the AWC-WPAC as board members, employees, or employees of the board members. The organization will need to elevate public awareness of their presence if they hope to generate true public interest in their work within the watershed in the future.

APPENDIX A



State of the Watershed Report: Phase 2 Pre-session Survey Questions

This survey has been designed to help identify the existing level of community awareness with respect to the Athabasca Watershed State of the Watershed Report Phase 2 (SOWPh2). Your participation in this survey will help focus future community awareness events and information distribution.

1. As an orientation for the survey, please circle the town or community nearest you.

Hinton
Whitecourt
High Prairie
Conklin
Lac LaBiche

Edson
Athabasca
Slave Lake
Fort McMurray
Fort Assiniboine

2. Have you heard of the Provincial program “water for life?” Yes / No
3. Prior to this survey have you heard of the Athabasca Watershed Council and the State of the Watershed (SOW) Report? Yes / No
- i) If yes...how did you hear about the SOW report?
- a. I participated in the committee
 - b. Internet
 - c. Local media
 - d. I was contacted directly
 - e. Other _____
4. Do you feel you know what a watershed area is? Yes / No
5. Do you feel that you are well informed about the current issues in the Athabasca watershed?
Yes / No



- a. If you answered **yes** to question 5 above. Please indicate your level of knowledge.

Indicator	Little knowledge	Moderate knowledge	Very good knowledge	Don't know
Road density (total length of roads per square kilometer area of a watershed)				
Seismic, Pipeline, Power Line, & Railroad density (total length of these per square kilometer area of a watershed)				
Fragmentation of Large Patches of Natural Vegetation (% area of watershed left with large patches)				
Stream crossing density (# road crossing per square kilometer area of watershed)				
Human population density (% growth rate)				
Agriculture land use (% area of watershed)				

6. The Athabasca watershed is subject to various land uses that may cause adverse impacts to the environment (water, land, air, and plants, animals and other organisms). What land use activities do you think create the most pressure on the Athabasca watershed?

Factor	Low Impact	Moderate	High Impact	Don't know
Forestry				
Conventional Oil and Gas				
Recreation and tourism				
Agriculture				
In Situ Oil Extraction				
Coal Mining				
Aggregate Mining				
Human Population Growth				

7. The state of the watershed phase 2 report reviews "indicators" of watershed health. Do you know what indicators are? Yes / No

8. How do you rate your knowledge about these activities as indicators that they might have adverse impact on water, land, air, or wildlife (plants & animals) in the Athabasca watershed?

Indicator	Very little knowledge	Moderate knowledge	Very good knowledge	Don't know
Road density (total length of roads per square kilometer area of a watershed)				
Seismic, Pipeline, Power Line, & Railroad density (total length of these per square kilometer area of a watershed)				
Fragmentation of Large Patches of Natural Vegetation (% area of watershed left with large patches)				
Stream crossing density (# road crossing per square kilometer area of watershed)				
Human population density (% growth rate)				
Agriculture land use (% area of watershed)				

Thank you for completing this survey. Your feedback will be kept confidential and will be used only to help identify the level of community awareness related to the health of the Athabasca watershed.

APPENDIX B



State of the Watershed Report: Phase 2 Hinton Session Exit Survey Questions

This survey has been designed to help identify the level of community awareness achieved with respect to the Athabasca Watershed State of the Watershed Report Phase 2 (SOWPh2) Public participation program. Your participation in this survey will help us to evaluate how successful our communication efforts have been as a result of the session.

1. Did you complete the pre-event survey? A. Yes B. No

2. How did you hear about this event? Circle all that apply.

A. Radio

B. Email invitation

C. Newspaper

D. Word of mouth

E. Poster

F. Website

G. Other-Specify _____

Do you have any suggestions on how to reach more people for invitation to future events?

3. The state of the watershed report provides a summary of watershed health indicators that can be compared across the entire watershed. A. True B. False

4. Did the presentation improve your understanding of the Athabasca watershed and related health indicators? Circle. A. Yes B. No If no why not?

5. After the session how do you now rate your knowledge about these activities as indicators that they might have adverse impact on water, land, air, or wildlife (plants & animals) in the Athabasca watershed?

Indicator	Little knowledge	Moderate knowledge	Very good knowledge	Don't know
Road density (total length of roads per square kilometer area of a watershed)				
Seismic, Pipeline, Power Line, & Railroad density (total length of these per square kilometer area of a watershed)				
Fragmentation of Large Patches of Natural Vegetation (% area of watershed left with large patches)				

Stream crossing density (# road crossing per square kilometer area of watershed)				
Human population density (% growth rate)				
Agriculture land use (% area of watershed)				

6. The Athabasca watershed is subject to various land uses that can cause changes to the ecological setting. From what you have seen in the presentation, what land use activities do you think create the most pressure on the Athabasca watershed?

Factor	Low Impact	Moderate	High Impact	Don't know
Forestry				
Conventional Oil and Gas				
Recreation and tourism				
Agriculture				
In Situ Oil Extraction				
Coal Mining				
Aggregate Mining				
Human Population Growth				

7. The state of the watershed report was completed in order to provide a baseline of current site conditions for future land and water management planning. What areas do you feel should be focus of future reports? Rank the following list 1 to 5 with 1 as most important.

Fish community	Aquatic bird community
Amphibian community	Macro invertebrate community
Mammal community	Rare species
Focal habitat condition	Wetland condition and/or rate of loss
Lake trophic status	Riparian Condition
Sediment quality	Water clarity
Acid sensitive lakes	Lentic water availability
Groundwater quality	Changes in climate regime
Surface and sub-surface mining	Traditional land use

8. The process of gathering feedback was effective for the group.

- a. Strongly disagree b. Disagree c. Neutral d. Agree e. Strongly Agree

Comments:

9. The facilitators were effective in communicating the SoW report findings.

- a. Strongly disagree b. Disagree c. Agree d. Strongly agree

Comments:

10. Is this the best time to hold this event? Any suggestions?

11. Who was not in attendance that you think would benefit from attending this type of information session?

12. The quality of the food was...

- b. Poor b. Fair c. Good d. Very good

Comment:

13. If I was running this event I would have.... (If you need more paper just ask).



State of the Watershed Report: Phase 2 Exit Survey Questions

This survey has been designed to help identify the level of community awareness achieved with respect to the Athabasca Watershed State of the Watershed Report Phase 2 (SOWPh2) Public participation program. Your participation in this survey will help us to evaluate how successful our communication efforts have been as a result of the session.

1. How did you hear about this event? Circle all that apply.

- | | |
|---------------------|------------------------|
| A. Radio | E. Poster |
| B. Email invitation | F. Website |
| C. Newspaper | G. Other-Specify _____ |
| D. Word of mouth | |

2. The state of the watershed report provides a summary of watershed health indicators that can be compared across the entire watershed. A. True B. False

3. Did the presentation improve your understanding of the Athabasca watershed and related health indicators? Circle. A. Yes B. No If no why not?

4. After the session how do you now rate your knowledge about these activities as indicators that they might have adverse impact on water, land, air, or wildlife (plants & animals) in the Athabasca watershed?

Indicator	Little knowledge	Moderate knowledge	Very good knowledge	Don't know
Road density (total length of roads per square kilometer area of a watershed)				
Seismic, Pipeline, Power Line, & Railroad density (total length of these per square kilometer area of a watershed)				
Fragmentation of Large Patches of Natural Vegetation (% area of watershed left with large patches)				
Stream crossing density (# road crossing per square kilometer area of watershed)				
Human population density (% growth rate)				

Indicator	Little knowledge	Moderate knowledge	Very good knowledge	Don't know
Agriculture land use (% area of watershed)				

5. The Athabasca watershed is subject to various land uses that can cause changes to the ecological setting. From what you have seen in the presentation, what land use activities do you think create the most pressure on the Athabasca watershed?

Factor	Low Impact	Moderate	High Impact	Don't know
Forestry				
Conventional Oil and Gas				
Recreation and tourism				
Agriculture				
In Situ Oil Extraction				
Coal Mining				
Aggregate Mining				
Human Population Growth				

6. The state of the watershed report was completed in order to provide a baseline of current site conditions for future land and water management planning. What **five** areas do you feel should be focus of future reports? Rank the list using 1 to 5 with 1 as most important. **Only choose FIVE** from the list please.

<input type="checkbox"/>	Fish community	<input type="checkbox"/>	Aquatic (water) bird community
<input type="checkbox"/>	Amphibian community	<input type="checkbox"/>	Mammal community
<input type="checkbox"/>	Sediment quality	<input type="checkbox"/>	Rare species
<input type="checkbox"/>	Groundwater quality	<input type="checkbox"/>	Wetland condition and/or rate of loss
<input type="checkbox"/>	Traditional land use	<input type="checkbox"/>	Riparian (edge of water) Condition

7. The process of gathering feedback was effective for the group.
a. Strongly disagree b. Disagree c. Neutral d. Agree e. Strongly Agree
8. The facilitators were effective in communicating the SoW report findings.
a. Strongly disagree b. Disagree c. Neutral d. Agree e. Strongly agree

APPENDIX C

Athabasca State of the Watershed Phase 2 Report
All Events Pre-meeting Survey Summary

1	As an orientation for the survey, please circle the town or community nearest you.			63 surveys in total were completed			
List how many			list how many	Totals			
	Hinton 23	Edson	6				
	Whitecourt 2	Athabasca	7				
	High Prairie	Slave Lake	1				
	Conklin	Fort McMurray	11				
	Lac LaBiche	Fort Assinaboine	9				
		Total	59		4 No Ans.		
2	Have you heard of the Provincial program “water for life?”	yes	no				
		41	19		3-No ans		
3	Prior to this survey have you heard of the Athabasca Watershed Council and the State of the Watershed (SOW) Report?	yes 45	no 16		2- no ans		
3i	How did you hear about the event						
	a) Participated in the committee	B)internet	c)local media	d) contacted directly	e)Other	No Repsons e	Total
	9	5	9	10	11	19	63
	other						
	Peace River Rec. Conference						
	Westlock Country Council						
	Newsletter						
	Canadian Sphagnum Peat Moss Assoc.						
	Friend						
	Previous session						
	Work						
	Olds College						
	E-mail						
	AUMA-Local Representation						
4	Do you feel you know what a watershed area is?	Yes	No			Total 63	
		52	6			58	5 No Ans.

Athabasca State of the Watershed Phase 2 Report
All Events Pre-meeting Survey Summary

5	Do you feel that you are well informed about the current issues in the Athabasca watershed?							
		Yes	No					
	2 Respondents answered both	24	35		6 No Ans.	Total-63		
			LK	MK	VG	DN	Total surveys	
5	a. If you answered <u>yes</u> to question 5 above. Please indicate your level of knowledge.	Road density (total length of roads per square kilometer area of a watershed)	3	10	10	1	24	
		Seismic, Pipeline, Power Line, & Railroad density (total length of these per square kilometer area of a watershed)	3	10	10	1	24	
		Fragmentation of Large Patches of Natural Vegetation (% area of watershed left with large patches)	3	11	8	2	24	
		Stream crossing density (# road crossing per square kilometer area of watershed)	4	12	8		24	
		Human population density (% growth rate)	4	10	10		24	
		Agriculture land use (% area of watershed)	4	11	9		24	

Athabasca State of the Watershed Phase 2 Report
All Events Pre-meeting Survey Summary

6	The Athabasca watershed is subject to various land uses that can cause changes to the ecological setting. From what you have seen in the presentation, what land use activities do you think create the most pressure on the Athabasca watershed?						Total surveys
		Factor	Low Impact	Moderate	High Impact	Don't know	
4 No Ans.		Forestry	4	24	28	3	59
3 No Ans.		Conventional Oil and Gas	5	14	38	3	60
3 No Ans.		Recreation and tourism	16	27	14	3	60
3 No Ans.		Agriculture	15	16	26	3	60
4 No Ans.		In Situ Oil Extraction	4	16	26	13	59
5 No Ans.		Coal Mining	6	19	26	7	58
5 No Ans.		Aggregate Mining	3	23	20	12	58
3 No Ans.		Human Population Growth	11	27	18	4	60
7	The state of the watershed phase 2 report reviews "indicators" of watershed health. Do you know what indicators are?	yes 30	no 23	10-no ans.			
					Total 63		
		48%	37%	15%			

Athabasca State of the Watershed Phase 2 Report
All Events Pre-meeting Survey Summary

			LK	MK	VG	DN	Total surveys
8	How do you rate your knowledge about these activities as indicators that they might have adverse impact on water, land, air, or wildlife (plants & animals) in the Athabasca watershed? 3 No Ans.	Road density (total length of roads per square kilometer area of a watershed)	18	29	9	4	60
	3-No Ans.	Seismic, Pipeline, Power Line, & Railroad density (total length of these per square kilometer area of a watershed)	24	23	9	4	60
	4-No Ans.	Fragmentation of Large Patches of Natural Vegetation (% area of watershed left with large patches)	21	22	10	6	59
	3-No Ans.	Stream crossing density (# road crossing per square kilometer area of watershed)	24	19	13	4	60
	3-No Ans.	Human population density (% growth rate)	20	23	13	4	60
	2-No Ans.	Agriculture land use (% area of watershed)	26	19	10	6	61

Athabasca State of the Watershed Report Phase 2

All Events Exit Survey Summary

	Total exit surveys collected from all events	54						
1	How did you hear about this event							
a) radio	b) email invitation	c) newspaper	d) word of mouth	e)poster	g) other (personal invites)	Total surveys	No response	
2	20	6	13	3	8	52	2	
Others	Westlock County council							
	News Release							
	Board member							
	Hall booking							
	Can. Sphagnum Peat moss Assoc.							
2	The state of the watershed report provides a summary of watershed health indicators that can be compared across the entire watershed	TRUE	FALSE	Don't know		total		
		41	8	5		54		
3	Did the presentation improve your understanding of the Athabasca watershed and related health indicators	Yes	No	no answer		Total		
		49	4	1		54		
		91%	7%	2%				
			LK	MK	VG	DN	Total surveys	

Athabasca State of the Watershed Report Phase 2

All Events Exit Survey Summary

4	After the session how do you now rate your knowledge about these activities as indicators that they might have adverse impact on water, land, air, or wildlife (plants & animals) in the Athabasca watershed	Road density (total length of roads per square kilometer area of a watershed)	6	23	25		54	
		Seismic, Pipeline, Power Line, & Railroad density (total length of these per square kilometer area of a watershed)	7	27	20		54	
		Fragmentation of Large Patches of Natural Vegetation (% area of watershed left with large patches)	7	27	20		54	
		Stream crossing density (# road crossing per square kilometer area of watershed)	5	27	22		54	
1 No Ans.		Human population density (% growth rate)	6	25	22		53	
2 No Ans.		Agriculture land use (% area of watershed)	5	27	20		52	
5	The Athabasca watershed is subject to various land uses that can cause changes to the ecological setting. From what you have seen in the presentation, what land use activities do you think create the most pressure on the Athabasca watershed?							
		Factor	Low Impact	Moderate	High Impact	Don't know	Total surveys	

Athabasca State of the Watershed Report Phase 2

All Events Exit Survey Summary

1-No Ans.		Forestry	4	21	25	3	53	
1-No Ans.		Conventional Oil and Gas		13	40		53	
1-No Ans.		Recreation and tourism	20	23	10		53	
1-No Ans.		Agriculture	1	20	31	1	53	
1-No Ans.		In Situ Oil Extraction		12	37	4	53	
1-No Ans.		Coal Mining	6	19	24	4	53	
		Aggregate Mining	7	17	26	4	54	
3-No Ans.		Human Population Growth	3	16	30	2	51	
6	The state of the watershed report was completed in order to provide a baseline of current site conditions for future land and water management planning. What areas do you feel should be focus of future reports? Rank the following list 1 to 5 with 1 as most important.	Fish community	14	Aquatic (water) bird community	4			
		Amphibian community	9	Mammal community	3			
		Sediment quality	8	Rare species	2			
		Groundwater	20	Wetland condition and/or rate of loss	20			
		Traditional Land use	3	Riparian areas	19			
7	The process of gathering feedback was effective for the	a. Strongly disagree	1	2%				
		b. Disagree	2	4%				
		c. Neutral	10	19%				

Athabasca State of the Watershed Report Phase 2
All Events Exit Survey Summary

		d. Agree	31	57%				
		e. Strongly Agree	5	9%				
		No Answer	5	9%				
		Total surveys	54	100%				
8	The facilitators were effective in communicating the SoW report findings.	a. Strongly disagree	1	2%				
		b. Disagree	5	9%				
		c. Neutral	2	4%				
		d. Agree	35	65%				
		e. Strongly agree	7	13%				
		No Answer	4	7%				
		Total surveys	54	100%				