Stakeholder Needs Assessment Workshop

AEP and LUS

October 10th, 2017

Aurora Room, Lister Centre, University of Alberta

Table of Contents

1.0 Background

In 2017, the Alberta Biodiversity Monitoring Institute entered its 10th year of formal operations. Over the past decade, the ABMI has developed valuable baseline data on biodiversity and land cover to support natural resource management in Alberta. Initial decisions about the ABMI's scope and direction were based on stakeholder feedback gathered between 2002 and 2006—a time when Alberta lacked a comprehensive biodiversity monitoring program. Ten years later, as part of the ABMI 10-year Science and Program Review, a series of stakeholder needs assessment workshops are being run again to collect feedback on the performance of the Institute to date and gather input on a range of emerging initiatives. This stakeholder input will inform decision-making on ABMI operations going forward.

2.0 Introduction

To formally engage its stakeholders across a range of sectors, this past spring the ABMI launched a 10-year Science and Program Review. The Review has two components: 1) a Science Review to evaluate the Institute's scientific framework and the extent to which it has delivered on its initial scientific objectives; and 2) a Stakeholder Needs Assessment to evaluate the range of products and services provided by the ABMI and how they meet stakeholder needs. The Stakeholder Needs Assessment primarily comprises a series of facilitated workshops, with a survey administered before each.

The Science Review and Stakeholder Needs Assessment receive strategic oversight from the Science Expert Committee and Stakeholder Advisory Group, respectively. Each committee is responsible for assessing the results of their respective review processes and developing a final report, which is then submitted to the Steering Committee overseeing the whole process. The Steering Committee will submit recommendations to the Board of Directors by March 31, 2018. The Board of Directors will then assess and prioritize those recommendations to guide future operations.

Figure 1 ABMI 10-year Science and Program Review process visualization

3.0 Pre-workshop survey

3.1 Summary

In the past ten years, most ABMI operations have focused on monitoring and reporting on the status and trend of Alberta's species, habitats, and human footprint across the province. The key output of this activity is the largest publicly available collection of environmental monitoring data in Alberta. We currently provide province-wide information on human footprint and land cover, and a range of data products, such as species abundance, on hundreds of Alberta's plants and animals. The pre-workshop survey was designed to assess the value and uptake by stakeholders of these particular data products.

The pre-workshop survey was distributed to six of nine stakeholder and partner groups engaged during the evaluation process prior to their workshops to support the workshop design process. The questions in the survey focused on the following ABMI products:

- Access to raw data
- ABMI Human Footprint Inventory (HFI)
- ABMI Land Cover Inventory (LCI)
- ABMI Biodiversity Intactness Index (BII)
- ABMI Species' Profiles

The questions were designed to first assess the general level of interest and/or need for the five product areas for work activities, regardless of where this information is accessed. The questions then tried to glean the level awareness of ABMI products, whether respondents utilize ABMI products to meet work activity needs, and why or why not.

The survey was completed by sixty-four individuals across six groupings arranged by the date of their workshop. Average time spent on the survey across sectors was sixteen minutes, and there was an average completion rate of 79%. The survey was only distributed to workshop invitees and, as a result, findings do not reflect the broad cross-sectoral needs of each group. These results will not be submitted to the 10-Year Review Steering Committee to use during their final evaluation and prioritization exercise.
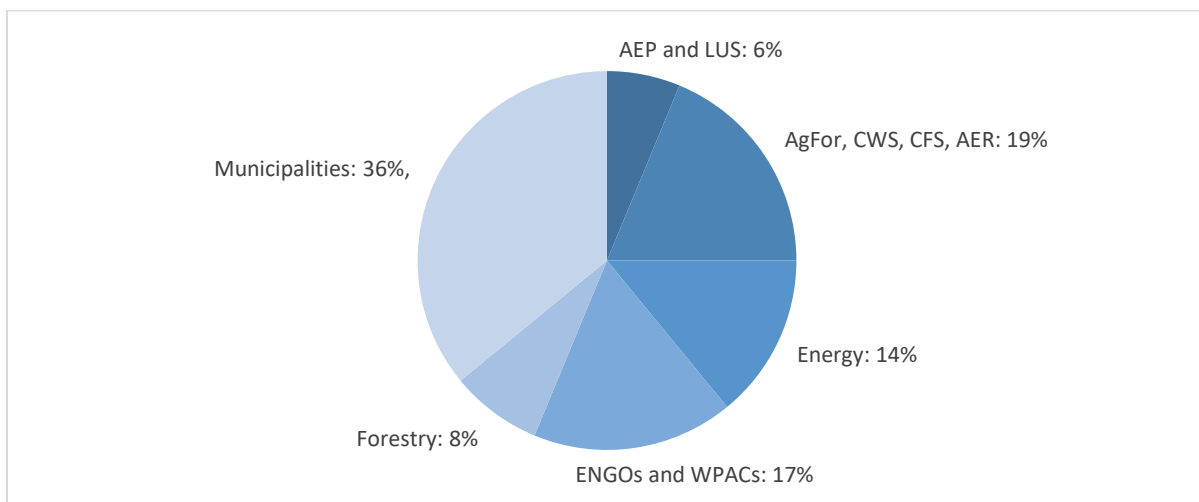

Figure 2 Percentage representation of which sectors responded to the pre-workshop survey out of a total of 64 respondents

3.2 Results

Four AEP and LUS respondents completed an average of 75% of the survey in five minutes. Feedback suggested general information about human footprint to be "moderately important," and information about land cover, species abundance and species-specific information to be "very important" to work activities. Despite this, only 50% of respondents currently use ABMI HFI, LCI and BII in their work activities (Figure 3, Figure 4, and Figure 5).
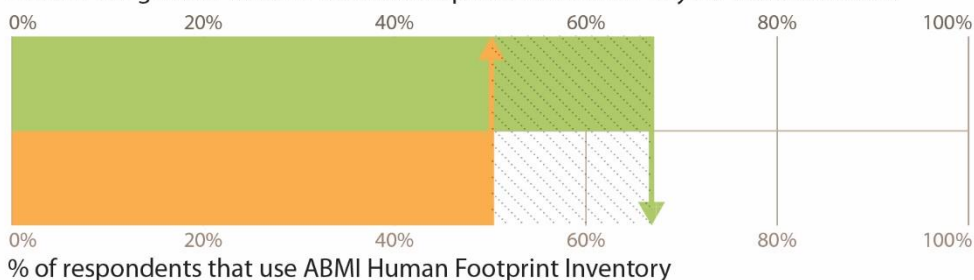

Figure 3. Value of general human footprint information compared to the % of respondents that use ABMI Human Footprint Inventory

Figure 4. Value of general land cover information compared to the % of respondents that use ABMI Land Cover Inventory

Figure 5. Value of general species abundance information compared to the % of respondents that use ABMI Biodiversity Intactness Index

Of the individuals that do not use ABMI HFI, LCI, or BII, there was varying levels of awareness of the products. 0% of respondents were aware of the HFI, 100% were aware of the LCI, and 0% were aware of the BII. Respondents were also asked to indicate whether or not, based on the brief information provided by the products in the survey, they now believed the product would add value to their future work activities. 100% of respondents believed the HFI and LCI would add value (Figure 6 and Figure 7), and 0% the BII would add value (Figure 8).

AEP and LUS Respondents

% of respondents who don't use ABMI Human Footprint Inventory
who were aware of its existence

% of respondents that believe ABMI Human Footprint Inventory
could add value to their work activities

Figure 6. % of respondents not using ABMI Human Footprint Inventory compared to the % of respondents who believe it could add value to their work activities

AEP and LUS Respondents

What is the general value of land cover information to your work activities?

% of respondents that use ABMI Land Cover Inventory

Figure 7. % of respondents not using ABMI Human Land Cover Inventory compared to the % of respondents who believe it could add value to their work activities

AEP & LUS Respondents

Importance of species abundance information for work activities

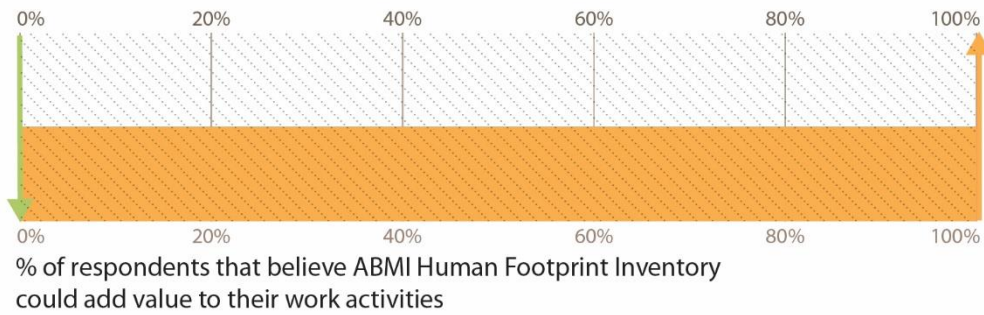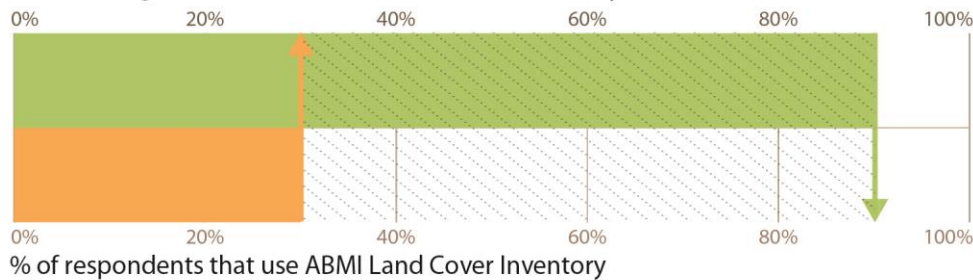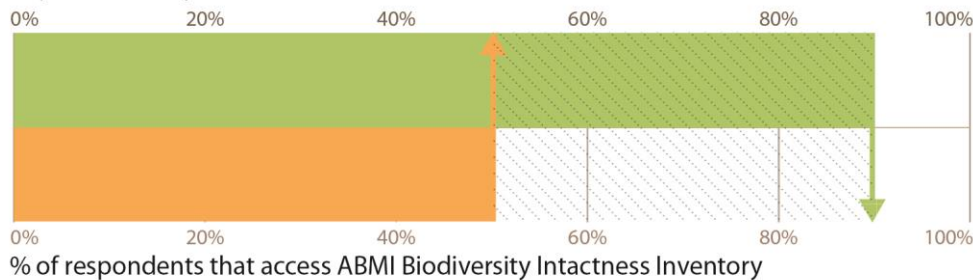% of respondents that access ABMI Biodiversity Intactness Inventory

Figure 8. % of respondents not using ABMI Human Biodiversity Intactness Index compared to the % of respondents who believe it could add value to their work activities

4.0 Stakeholder Needs Assessment workshops

As a first step in developing the stakeholder needs assessment workshops, the ABMI identified various stakeholder groups to engage. These include groups with a historical relationship with the ABMI, as well as additional groups that would likely be interested in using ABMI data to meet their own strategic priorities. Representatives of each of these stakeholder groups were invited to join the Stakeholder Advisory Group (SAG) that oversees the Stakeholder Needs Assessment process. In turn, the SAG membership nominated specific individuals to participate in the workshop process. In total, 10 facilitated workshops were held over the fall of 2017.

4.1   Workshop objectives

The objectives for the nine facilitated workshops were to:

- assess the ABMI's range of products and services, and the extent to which they meet stakeholder needs;
- understand stakeholders' current and emerging biodiversity information needs; and
- solicit feedback on the ABMI's products under development and how they address stakeholders' needs.

The workshops were designed to assess the value and limitations of the ABMI's core monitoring program, as well as emerging ABMI products and services, and the extent to which they fulfill stakeholder biodiversity information needs now and into the future. The objectives were also partially achieved by distributing a pre-workshop survey with specific questions designed to assess the value and uptake by stakeholders of ABMI's core status and trend monitoring products (province-wide information on human footprint and land cover, and a range of data products, such as species abundance, species responses to human footprint, species habitat associations, and more, on hundreds of Alberta's plants and animals).

5.0 Workshop methods

The workshop incorporated a combination of presentations and engaging activities to achieve the objectives:

- Part 1 – Background presentations
- Part 2 – Pre-workshop survey results review followed by question and answer period
- Part 3 – Needs and challenges roundtable discussion
- Part 4 – ABMI innovation presentations
- Part 5 - World Café: questions and comments on ABMI innovation products

5.1   Who was there?

ABMI Stakeholder Needs Assessment workshops were targeted, sector-specific sessions. One of the goals of the workshops was to engage with as broad a cross-section of the sector as possible. The October 10th session's participants comprised 10 representatives from Alberta Environment and Parks and the Land Use Secretariat. Several participants had to excuse themselves before the conclusion of the workshop.

5.2   What did the different sessions look like?

A) Background presentations

There were four presentations delivered by three ABMI staff:

- *Welcome and introduction to the review process* – Tara Narwani
- *ABMI structure, governance and evolution* – Tara Narwani
- *Species monitoring and outcomes* – Jim Schieck
- *Land surface monitoring and outcomes* – Jahan Kariyeva

The presentations were designed to provide a background and rationale for the ABMI's 10-Year Science and Program Review, in addition to providing a synopsis of the ABMI's core monitoring and science activities to date.

B) Survey results review followed by question and answer period

Prior to the workshop, participants were asked to fill out a survey administered online through SurveyMonkey designed to assess the value and uptake by stakeholders of ABMI's core status and trend monitoring products.

Key results from the survey suggested:

- There is some awareness of ABMI products, but variable uptake;
- There is interest in more supporting information, e.g. comparisons between products, more upfront presentation of limitations.

Following a presentation of these key results, participants were invited to provide more detailed clarification through facilitated discussions and a question and answer session. The ABMI posed the following questions to workshop participants in response to the survey results:

- How can we increase the awareness and/or uptake of ABMI data and information products?
- What would be the best way to provide additional contextual information and/or information on updates to ABMI's data products?

The discussion lasted approximately 40 minutes, during which facilitators encouraged feedback from a broad range of participants. Facilitators recorded feedback throughout to ensure no feedback was missed.

C) Needs and challenges roundtable discussion

Participants were divided into two groups, based on pre-assigned coloured dots on their nametags. Once arriving in their breakout groups, they were invited to discuss:

- current and future biodiversity information needs;
- current and future barriers/challenges to accessing the required biodiversity information.

Each group was provided four sheets of paper (one each for current needs, future needs, current challenges, and future challenges), and self-appointed a scribe to record feedback on each. Discussions lasted about 30 minutes.

Following their discussions, each group shared their comments with all participants for the final 20 minutes of this segment, and facilitators took notes.

D) ABMI innovation presentations

Following the Round Table discussions, participants were asked to gather for a series of presentations regarding emerging ABMI products and services. The five ten-minute presentations were:

- *Science for caribou recovery* – Melanie Dickie
- *Ecosystem services assessments* – Tom Habib
- *Knowledge translation* – Tara Narwani
- *Enhancing regional monitoring: WildTrax* – Corrina Copp
- *Creating a biodiversity network: from citizens to institutions* – Joelle Chille-Cale

E) World Café – Questions and Comments on ABMI's innovation products

After the presentations, participants were invited to visit associated stations with each of the innovation presentations set up in the foyer outside the room. Each station was marked by a poster reminding participants of products introduced in the previous session, and a knowledgeable ABMI staff was present to answer questions. Workshop participants were invited to visit each station to provide feedback on the specific questions posed at each by recording information on a sheet of paper. The objective of the World Café session was to gather feedback from participants on each emerging ABMI product through the following questions:

- Is this tool useful to you and your work activities? (i.e., will it address the needs and challenges mentioned in the previous activity?)
- How could we tweak/modify this product/tool to better meet your biodiversity information needs?
- What do you see as the primary barrier to using this product/tool?

Feedback was recorded by participants on sheets of coloured paper, with a different colour representing each different station. The World Café session lasted about 50 minutes, and facilitators gathered the papers at the end of the session to ensure no responses were lost.

F) Closing

For the final moments of the workshop, ABMI staff thanked participants for their engaged attendance. Facilitators announced that pre-workshop survey results and a workshop summary would be shared as soon as completed.

6.0 Workshop Summary

Feedback from each of the participant activities was synthesized and evaluated to draw out common themes under the banners of "Needs" and "Challenges."

In addition, feedback on new and emerging ABMI products was tabulated (see below).

6.1 Needs

The needs that were identified during the workshop fell into three themes, derived from the responses captured throughout the day, including:

- Knowledge transfer
- GIS and monitoring information

- Data quality assessment and assurance

The data that makes up these themes has been provided in brief in Table 1 – Summary of Needs. An * has been included for those statements that were repeated in the data.

Knowledge transfer

Workshop attendees repeatedly mentioned a need for increased knowledge sharing efforts by the ABMI. Participants asked for increased efforts to keep them up to date on the information that could be beneficial to them.

GIS and monitoring information

Participants identified a series of specific GIS information layers and other biodiversity information that would be useful to them in their daily work activities. A large portion of these data and information products were related to riparian areas, wetland and aquatic species, data deficient species, endangered and rare species.

Data quality assessment and assurance

Participants expressed a need for the ABMI to share information about how its data is externally audited, in addition to the explicitly stating the limitations to any of its available data and products.

6.1 Challenges

Responses from participants lead to two themes for the challenges they are facing in meeting their biodiversity needs. These themes are:

- Resources
- ABMI + GOA product compatibility

The data that makes up these themes has been provided in brief in Table 2 – Summary of Challenges. An * has been included for those statements that were repeated in the data.

Resources

Limited resources create need to prioritize efforts strategically. In addition, a lack of in-house specialty in some areas (i.e. aquatic invertebrates) were noted.

ABMI + GOA product compatibility

Participants noted that in order to be able to utilize ABMI products, they need to become more adaptive and compatible with GOA products and interfaces.

6.2 ABMI emerging products - innovation

The participants provided feedback on 6 new and emerging products in the World Café. Participants were presented with 3 questions to provide a guideline for providing feedback.

Questions Posed

    a. Is this product/tool useful to your work activities?
    b. How could we tweak/modify this product so that it can be more useful to your work activities?
    c. What barriers/challenges do you anticipate to using this product/tool?

Below, we have categorized these for each product:

1. **Enhancing regional monitoring**

Only 1 participant provided feedback on WildTrax during this session. The participant indicated that the tool is not directly related to their work activities, but had a personal interest. They questioned whether this could be tied into other inventories and if when looking for other inventories, you will have to add multiple sources? The main barriers they anticipated were technological, issues with data download and upload, search ability of data, and methods for summarize and reporting on data.

2. **From citizens to institutions: building a biodiversity network**

Participants indicated both personal and professional interest in NatureLynx. One participant indicated that this tool has the power to generate presence/absence information on a wide variety of species. In addition, this tool will be useful for parks and other monitoring. It was indicated that in order for this product to serve their needs, location information and ability to download data into an excel spreadsheet format will be key. Anticipated challenges for this tool are; data usage issues, uploading and downloading challenges, long term quality control, incorporation of aquatic species, and community based monitoring by Indigenous Groups/trappers, etc.

3. **Geospatial innovations**

Participants indicated that the geospatial innovation products will be useful. In order to be able to use this data, participants requested metadata information about the accuracy of the dataset. In addition, curiosity about the ability to download vector products derived from this dataset was expressed (i.e. wetlands, riparian areas, predicted flooding).

4. **Knowledge translation**

Participants only request from this station was that Geodatabase and Aquatic layers (i.e. water quality) be added to the mapping portal.

5. **Science for caribou recovery**

The participant who provided feedback at this station stated that this tool is not directly applicable to their work, however that it could be useful in evaluating policy scenarios by incorporating connectivity and other factors. The main barrier to use this product is mentioned to be the lack of buy-in from Indigenous Peoples and other stakeholder groups.

6. **Ecosystem services assessment**

No feedback was left at this station; however, the following question was posed: "What business cases/decision processes can these models inform?"

7.0 Moving forward

Throughout the session, our conversations highlighted areas where the ABMI can invest effort to continue to meet the needs of municipalities in Alberta. Results of this workshop will be incorporated into the Stakeholder Needs Assessment Report, and used by the 10-year Review Steering Committee to develop a series of recommendations for the ABMI Board of Directors. The Board of Directors will use these recommendations to make decisions about ABMI operations going forward. Your feedback is invaluable in helping to shape the ABMI's next ten years of operations. Thank you

Theme	Data
Knowledge Transfer	Communicate key changes in data to stakeholders; Communicate how changes affect end-users; Make meta-data more user-friendly to understand.
Data Quality Assessment and Assurance	Frequent external audits; Communicate external audit results; Communicate limitations of data and products.
GIS and Monitoring Information	Species at Risk habitat data and maps*; Riparian areas information*; Wetlands mapped*; Provide data to GOA on their information platform*; Public facing data vs. GOA leveraged* Invasive species information (i.e., trend)*; Date stamps on species profiles; Species specific request: olive-sided flycatcher, rusty blackbird, Eastern kingbird; Expand aquatic biodiversity taxa; Access to recovery assessment information.

Table 1 Summary of needs

Theme	Data
ABMI and GOA Product Compatibility	Metadata requirements are not met*; Lack of collaboration*; Value neutral products need to be more adaptive*; Data uploading complications; Data manipulation complications; Data not compatible with GOA interface; Lack of decision support; Lack of internal utilization.
Resources	Limited resources; Lack of in-house taxa expertise; Fewer resources will be available in the future.

Table 2 Summary of challenges

Appendix 1 – Workshop attendees

Appendix 2 – Workshop notes

Appendix 3 – Workshop evaluation forms

Appendix 4 – Pre-workshop survey results

Appendix 5 – Workshop presentations

Appendix 6 – Workshop information package