

Stakeholder Needs Assessment

10 YEAR SCIENCE AND PROGRAM REVIEW



Stakeholder Needs Assessment Workshop Summary

ENGOS and WPACs

October 3rd, 2017

Evergreen Room, Lister Centre, University of Alberta



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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 surveys workshops were held 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 (SEC) and Stakeholder Advisory Group (SAG), 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.

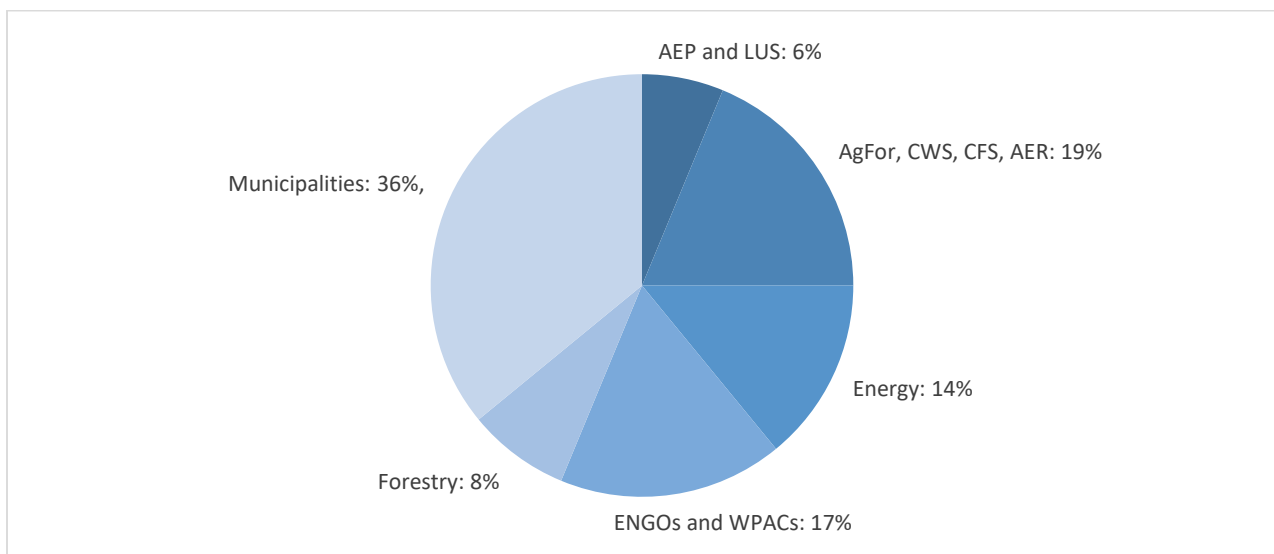


Figure 2 Percentage representation of which sectors responded to the pre-workshop survey out of a total of 64 respondents

3.2 Results

Eleven WPAC and ENGO respondents completed an average of 91% of the survey in twenty-nine minutes. Feedback suggested general information about land cover, human footprint and species abundance to all be between “moderately” to “very” important, and species specific information to be “moderately important.” Despite this, only 40% of respondents currently use ABMI HFI in their work activities (Figure 3), 27% access ABMI raw data, 30 % use ABMI LCI (Figure 4), and 0% use ABMI BII (Figure 5).

ENGO/WPAC Respondents

What is the general value of human footprint information to your work activities?

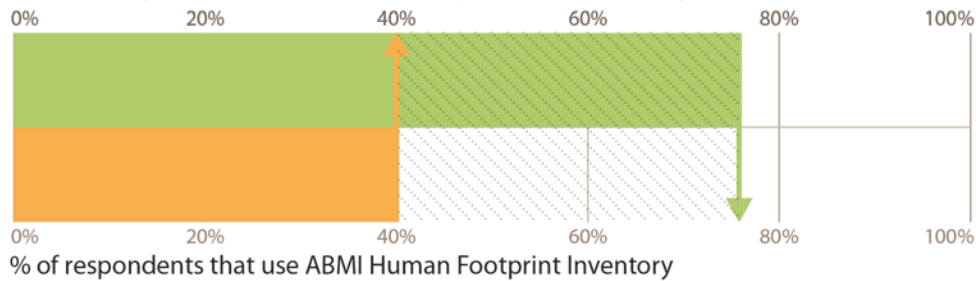


Figure 2. Value of general human footprint information compared to the % of respondents that use ABMI Human Footprint Inventory

ENGO/WPAC Respondents

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

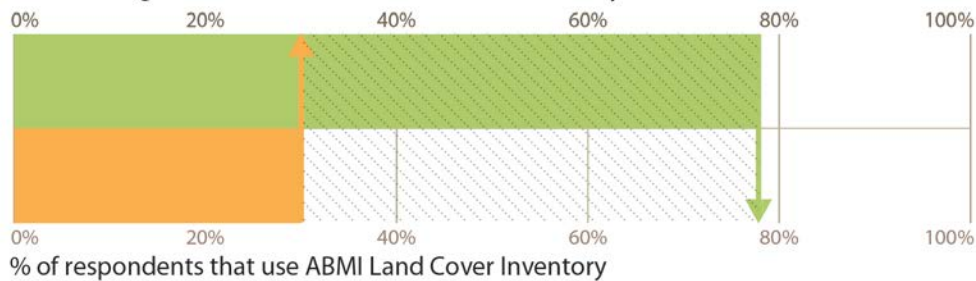


Figure 3. Value of general land cover information compared to the % of respondents that use ABMI Land Cover Inventory

ENGO/WPAC Respondents

% of respondents who don't use ABMI Biodiversity Intactness Index who were aware of its existence

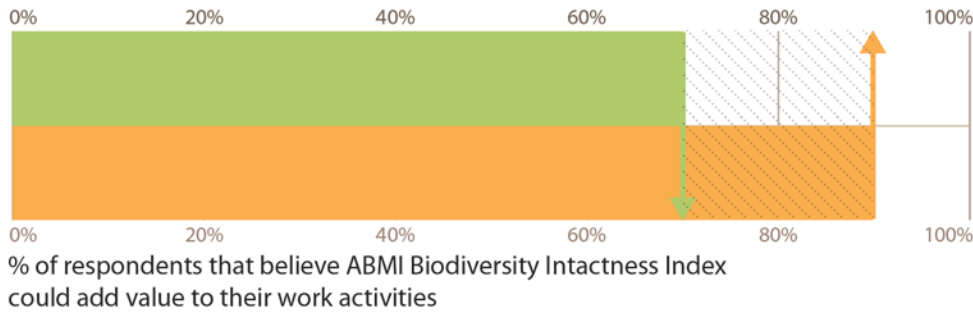


Figure 4. Value of general species abundance information compared to the % of respondents that use ABMI Biodiversity Intactness Index

Of the individuals that do not use ABMI HFI, LCI, or BII, there was varying levels of awareness of the products. 57% of respondents were aware of the HFI, 43% were aware of the LCI, and 70% 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 would add value (Figure 6), 86% the LCI would add value (Figure 7), and 90% the BII would add value (Figure 8).

ENGO/WPAC Respondents

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

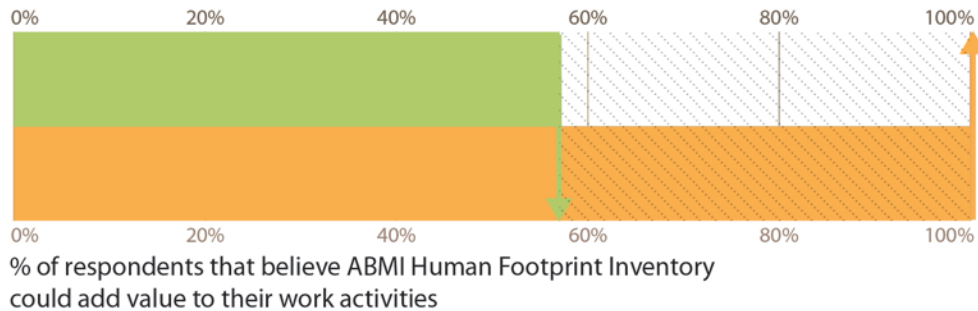


Figure 5. % of respondents not using ABMI Human Footprint Inventory compared to the % of respondents who believe it could add value to their work activities

ENGO/WPAC Respondents

% of respondents who don't use ABMI Land Cover Inventory who were aware of its existence

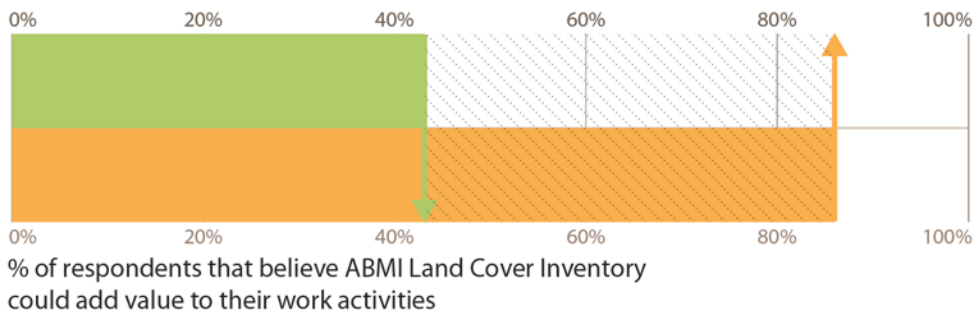


Figure 6. % of respondents not using ABMI Human Land Cover Inventory compared to the % of respondents who believe it could add value to their work activities

ENGO/WPAC Respondents

Importance of species abundance information for work activities

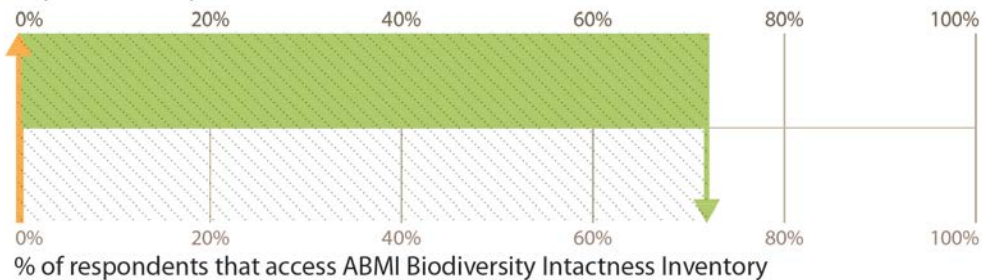


Figure 7. % of respondents not using ABMI Human Biodiversity Intactness Index compared to the % of respondents who believe it could add value to their work activities

4.0 Stakeholder Needs Assessment workshops

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. Workshop invites were sent to individuals based on recommendations from the SAG and the Steering Committee, and augmented with recommendations from ABMI staff based on existing working relationships with specific individuals. In total, nine facilitated workshops were held over the fall of 2017.

The objectives for the 9 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. Workshop methods

This facilitated 5-hour session included:

- 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 and World Café

4.1 What did this workshop 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

Key results from the survey suggested:

- there is awareness of ABMI products, but low uptake;
- there is a lack of awareness of other ABMI products which could provide value; and
- there is concern about data quality, particularly in southern Alberta (i.e., agriculture footprint and land cover information).

Following a presentation of these key results, participants were invited to contribute to 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 are your chief concerns regarding ABMI data- this could include quality, scope, coverage?

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 – World Café

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* – Tara Narwani
- *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

After the presentations, participants were invited to visit associated stations set up in the foyer outside the room. Each station was marked by a poster reminding participants of products introduced in each presentation, and a knowledgeable ABMI staff member 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.

E) 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.

5.0 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).

5.1 Needs

The “Needs” identified during the workshop fell into three broad themes:

- knowledge sharing;

- GIS and monitoring information; and
- capacity support and collaboration.

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

Knowledge sharing

Workshop attendees repeatedly mentioned a need for increased knowledge sharing efforts by the ABMI. Participants suggested that because of low in-house capacity, they are not able to spend time researching newly released biodiversity information products. Participants asked for increased efforts to keep them up to date on information that could be beneficial to them.

GIS and monitoring information

Participants identified various specific GIS information layers and other biodiversity information that would be useful to them in their daily work activities. Many of these data and information products were related to riparian areas, and wetland and aquatic species.

Capacity support and collaboration

Lack of in-house capacity was repeatedly mentioned by workshop attendees. Various ways for the ABMI to support the continuing work of the ENGOs and WPACs in the room were suggested; in particular, clarifying which staff are able to be contacted regarding various information requests.

Participants also suggested that the ABMI's information can assist them in various parts of their operations, such as grant application, communication with their stakeholders, and assisting municipalities in their land management decision making. This highlights the importance of closer collaboration between the ABMI and ENGOs and WPACs to better understand their operation and management systems.

5.2 Challenges

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

- capacity;
- “unknown unknowns”; and
- privacy.

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

Capacity

Lack of in-house capacity was discussed at several points during the day. Workshop participants noted that typically they either only have a few staff with minimal GIS experience, or they use volunteers or externally hired experts to perform GIS analyses for them. Tools that can be used by individuals without GIS experience were highlighted as extremely valuable to this group.

“Unknown unknowns”

“We don't know what we don't know”.

This challenge highlighted the reason some of the participants do not use the ABMI's products. They do not know that these products can be helpful to them. Participants indicated that they would benefit from

more active education by the ABMI about the availability and relevance of various biodiversity information products and tools to their work activities. Educational workshops, lunch-and-learns, fact sheets, and presentations were just some of the possible methods discussed.

“It would be helpful to have the ability to bounce ideas off of ABMI staff for different projects.”

Privacy

Private property rights were raised several times during discussions. Participants brought up barriers to land access and data sharing as possibly preventing them from being able to use some emerging ABMI products and services.

5.3 ABMI emerging products – Innovation

Participants provided feedback on six new and emerging products in the World Café. Below, we have categorized these for each product:

1. Enhancing Regional Monitoring: WildTrax

Participants felt that this tool will be useful in monitoring key sites in watersheds, or restoration sites. They cautioned, however, that respecting private property rights and ease of use are two important issues to consider.

“[WildTrax] Could be a useful monitoring tool for restoration sites”

2. From Citizens to Institutions: Building a Biodiversity Network

NatureLynx was regarded as very useful for WPAC education and outreach activities, as well as for volunteer engagement. There were some improvements recommended, including providing capability to upload short videos; however, most participants indicated they will first have to use the product in order to provide better feedback. Cellphone coverage and protection of private property rights were the only barriers to use for this product listed.

“I see this being incorporated into our Education and Outreach programs for all ages.”

3. Geospatial Innovations

Most organizations commented on a lack of in-house capacity for GIS work, and thus were excited to learn about the innovations the ABMI is working on, and will be providing publicly. Time and ease of access/use were the main concerns for these products.

“WPACs don’t have capability to do landscape or watershed modelling. [The ABMI’s geospatial innovations] would support planning and restoration efforts.”

4. Knowledge Translation

Participants were particularly excited to learn about the various functions of the Mapping Portal. Lack of in-house capacity to generate maps and products led to an interest in the ease of exploring data on the portal. The ability to explore data at a scale relevant to each organization was a key concern, e.g., at the watershed level. One organization suggested benefit in the ability to create their own URL on the mapping portal to be able to tailor maps to their region, and share directly with their stakeholders.

“[The Mapping Portal] could be valuable in helping show data and trends to public or stakeholders.”

5. Science for Caribou Recovery

Only one workshop participant left a comment card at this station, and indicated that evaluation and prioritization of restoration efforts would be especially helpful for wetlands and riparian areas.

“Yes, evaluating restoration efforts and prioritizing them would be very helpful, especially for wetlands and riparian areas.”

6. Ecosystem Services Assessment

Commenters at this station suggested this is a very useful modelling technique, particularly for riparian management. An interest in evaluating phosphorous loading at both smaller and larger scales was indicated.

“Improve spatial resolution to allow for analyses at finer spatial scale.”

6.0 Moving Forward

Throughout the session, our conversations highlighted areas where the ABMI can invest effort to continue to meet the needs of ENGOs and WPACs in Alberta. Results of the 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
<p>Knowledge Transfer</p>	<p>Interactive tools and maps*; "One-stop shop" for GIS products*; Derived data products; Timely and easy access to data; Producer-specific missions; Assistance with land management decision making.</p>
<p>GIS and Monitoring Information</p>	<p>Information about critical habitat areas for keystone species*; Species at Risk habitat data and maps*; Invasive species information*; Spatial data for wetlands*; Higher resolution data*; Riparian areas information*; Historical DEMs; Stream data; Information on occurrences pre and post disturbance; Integration with other measures of effects (i.e. air quality); Ecosystem services assessments; Information on drained wetlands; Historical drainage (irrigation and drainage tiles); Comparable data across jurisdictions; Integration of new technologies into GIS information; Fish data; Completion of green zone sampling.</p>
<p>Capacity Support</p>	<p>Provision of education about products (i.e. workshops, factsheets, presentations, case studies, etc.)*; ABMI expertise and support*; Collaboration with WPAC science communications; Dedicated ABMI point of contact; Consistent relationship over time Information to support grant applications; Organization-specific URL on Mapping Portal.</p>

Table 1 Summary of needs

Theme	Data
Capacity	Lack of in-house capacity*; No access to ArcGIS software*; Lack of GOA support*;
Privacy	Access to private property*; Data sharing restrictions*; Respecting private property rights*; Building strong stakeholder relationships.
Unknown-Unknown	Currently there are multiple sources for data*; Lack of a central repository for data* Trade-offs between data sets* Limited access to non-ABMI data;

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