EBMWG Project Close-Out Report

Project #: DS-01

Project Title: DATA MANAGEMENT PLANNING TO SUPPORT EBM IMPLEMENTATION

Steering Committee Members: John Sunde, David Flood, Glenn Farenholtz, Audrey Roburn, Jody Holmes, Wally Eamer, Dennis Crockford.

1.0 FUNDING

The estimated total cost of the project is $13,000. Final invoice has been received and approved. Project will be completed within budget.

2.0 EXTENT TO WHICH PROJECT OBJECTIVES WERE ACHIEVED

Objective	Description	Evaluation (Text)	Summary*
1	Interviews with EBM WG project personnel to determine high level data needs, seek input into issues and challenges related to data capture, use and storage and seek recommendations for EBM data management over the long term.	Consultant sought steering committee feedback on interview questions and list of interviewees, then carried out interviews with EBMWG members and consultants.	Fully met
2	Review of EBMWG reports to identify data management priorities in the short and long term.	The final report lists several key data issues and proposed solutions related to datasets needed for EBM implementation.	Fully met
3	Interviews with data management personnel and data providers (primarily industry, provincial government) with regard to - data available now; projected for future (i.e. VRI, TEM), and how this might change current product developed in support of EBM; - challenges re data acquisition, warehousing and sharing; and - recommendations for data management for EBM implementation (including adaptive management) for the long term.	Consultant sought steering committee feedback on interview questions, then carried out interviews with data management personnel, providers, and users.	Full met
4	Discussion with the adaptive management framework team, experimental watersheds team, and HWB baseline team regarding long-term needs re data and data management to ensure consistency with the AM framework.	The final report cross-references these projects and addresses their data needs where those were clear.	Fully met
5	A review of information on data management	Final report includes a	Fully met

	systems, existing data management systems for data needed for EBM implementation, and review of different models of data management.	detailed review of current data management approach, a comprehensive listing of data needs (and current sources and issues) for EBM implementation, and considers different models for data management.	
6	Preparation of recommendations for data management for EBM implementation, based on all of the above information.	Report contains 39 recommendations for data management for EBM implementation.	Fully met

* Use: Fully met (100%), Substantially met (75%-100%), Partially met (50-75%), Marginally met (25%-50%), Not met (0% - 25%)

3.0 MAJOR TASKS COMPLETED

Task	Description	Date
1	Develop list of interviewees and interview questions for steering committee review	Sept 22, 2008
2	List of interviewees and interview questions finalized based on steering committee feedback.	Oct 8, 2008, interviewees conducted thereafter
3	Meeting with FSP collaboration group	Oct 9, 2008
4	Joint call with northwest data sharing network	Nov 5, 2008
5	Phase 1 interview summary draft completed and updated based on steering committee input	Nov 13, 2008
6	Preliminary draft data management report provided to Steering Committee for review	Feb 10, 2009
7	Final data management report, incorporating steering committee comments, provided to EBMWG	Feb 23, 2009

4.0 KEY PRODUCTS

As per deliverables in Major Tasks Completed. The main product is the final report, with an associated spreadsheet file that lists key types of data needed for EBM implementation, custodians, coverage extent, current access, and data limitations, which will be useful for developing management for EBM data.

The final report details the sources and uses of EBM data, and outlines issues related to key datasets. It describes the strengths and weaknesses of the current approach to EBM data management, and provides 39 recommendations on data management, specific to nine categories:

- the structure and function of an EBM data management system

- data governance
- data sharing
- technical work
- data work
- human well-being data
- data support for coastal communities
- communication
- information management

The report also provides a draft workplan, estimated resource needs, and a number of useful appendices including a summary of data sources, a sample metadata template, and a list of tasks for a data governance/oversight body.

5.0 PEER REVIEW

The project report was reviewed by the steering committee for the project but did not receive an external peer review. The rationale for this approach is:
(1) the project is largely interview-based and extremely context-specific, and as such is not a project that lends itself easily to external peer-review.
(2) the key areas of expertise needed to review the project were incorporated through the interview process.
(3) uncertainty regarding the institutional and funding framework would reduce the ability of reviewers to comment effectively.

6.0 MAJOR FINDINGS: Summary of key consultant recommendations[1]

R1-R8: Structure and function of an EBM data management system

Establish a web-based EBM data centre that is the main hub for EBM implementation data. This centre would be supported by data server and a cataloguing system to manage data and associated supporting information. The centre would link users to data housed in various agencies and organizations (e.g. provincial corporate data) and would hold new data generated through site-level surveys, adaptive management projects, monitoring, and inventory. Two options are presented for the server location (external or within ILMB coast region), but it is recommended that it not be centralized (e.g. with GeoBC).

Dedicate long-term resourcing to the EBM data centre (minimum 5 years), including one dedicated person to manage the EBM data centre, along with a process to safeguard institutional memory in the event that this EBM data centre manager has to leave their post. This person would report directly to an independent, collaborative governance body (see below).

R9-R17: Data governance, including data sharing

Establish a governance structure for the EBM data centre in the form of a collaborative governance body made up of representatives of First Nations, provincial line agencies, forest industry, environmental non-governmental organizations, and other non-governmental organizations. Representatives should have the knowledge and authority to make decisions regarding data and its use, independent of the workings of the LRFs. The governance body may be linked to the AM program and should be supported by a technical committee.

[1] See final report pp. 26-37 for full consultant recommendations.

The governance body and/or associated technical committee would develop a collaborative protocol for data sharing (via a workshop), and standard operating procedures for EBM data centre that include:

- data access/security protocols, supported by data sharing agreements (possibly one umbrella agreement to access provincial government data)
- data standards, including metadata, data structure, and data dictionary requirements, to be applied by data custodians

R18-25: Technical work

As a priority, undertake local data administration, including assessment of available data and metadata and identification and resolution of data issues e.g., spatial data overlaps, gaps in data and metadata. Work with data custodians to promote consistency with standards for data and metadata. Data should not be posted on the Data Centre server until it is GIS-ready and fully documented in metadata and data dictionaries.

Where possible, consolidate datasets into a single regional or sub-regional layer. Work with data custodians to promote consistency of structure for data from different sources. Establish a consistent process for reducing the size or complexity of datasets that would otherwise be difficult to use.

Set up a system to allow voluntary uploading of site level data to create a 'data legacy' e.g., aquatic habitats, red and blue-listed plant communities, stand level attributes. This process should be easy to use and based on existing programs e.g., entering polygons directly into VRI files using RESULTS.

R26-30: Specific datasets

Clean up, consolidate, and apply agreed-to fixes to the site series surrogate (SSS) representation layer to result in a single authoritative SSS dataset housed in the EBM data centre and managed by a single data custodian.

Prepare a strategic plan that sets priorities for completion of Vegetation Resources Inventory (VRI) and terrestrial ecosystem mapping (TEM), and undertake quality assurance testing of terrestrial ecosystem mapping (TEM) for the Coast.

Adopt recommendations on HWB data outlined in EBMWG human well-being baseline report, including working with data providers to obtain needed data at the appropriate scale of aggregation.

R31-R34: Data and coastal communities

Dedicate funding to support one full or half-time First Nations Data Liaison person to engage in outreach with First Nations communities e.g., with resource practitioners and members of the Coastal Guardian Watchmen Network. The person hired for this position should have an awareness of the various data in the EBM Data Centre; be able to assist communities with accessing data in the Data Centre or from other locations; and can assist communities with ensuring that information gathered by communities is entered into the system.

Create a Coastal Communities Data Repository as part of the Coastal EBM Implementation Library. Build the Data Repository as a collaborative exercise with coastal communities. As a priority, complete a catalogue of available data and communicate this to the data user community.

Develop and implement a process for ongoing cataloguing of new and updated versions of data on a continual basis. Ensure that the most up-to-date version of the catalogue is accessible to all data users e.g., through web-based live updates.

R35-R39: Communication and Information Library

Immediately notify all data users of updates to key datasets, and of new datasets. Hold a regular forum (every 1 – 2 years) where all users come together and discuss data issues.

Where possible, involve data managers and analysts in planning sessions so that they know the context of requests for data and analysis.

Develop an interactive web-based information repository (a 'Coastal EBM Information Library') to allow the various participants in EBM implementation to post reports, data, audio-visual resources and other information on an ongoing basis.

Develop a web-based map viewing tool that lets data users view and overlay map products on-line.

7.0 STEERING COMMITTEE RECOMMENDATIONS

The steering committee recommends that the full report be forwarded to the LRFs[2] and encourages the LRF collaborative technical committee to consider it in developing an EBM data management framework.

8.0 RELEVANCE/SIGNIFICANCE FOR EBM IMPLEMENTATION

Data is a critical requirement for EBM implementation. The LRF definition of the full implementation of EBM includes an independent data management system.

The report provides essential advice to provide high-quality, accessible data as a key foundation of EBM implementation.

[2] For further information on the Land and Resource Forums and the role they play in implementing EBM in the Central and North Coast, visit http://ilmbwww.gov.bc.ca/slrp/lrmp/nanaimo/central_north_coast/plan/forums.html