

STANDARD OPERATING PROCEDURE

MINISTRY OF SUSTAINABLE RESOURCE MANAGEMENT

Appendix A

Base Mapping (TRIM) and Resources Inventories Mapping Task Force (TF)

Terms of Reference (TOR)

Task Force for Base Mapping (TRIM) and Resource Inventories Mapping Terms of Reference

Revision date: February 11, 2002

1 Purpose:

The purpose of the Task Force is to develop a Standard Operating Procedure (SOP) related to the procurement or production of "base mapping", as defined in the Base Mapping Business Review reports. Resource inventories mapping is identified as it is directly related to base mapping and often makes use of the same input products which fall within the proposed SOP.

2 Background:

There is a requirement for coordination within MSRM (RRID and BISD) on the delivery of resource inventory and "base mapping" products and services. The issues centre on integration of data from different sources, avoiding duplication, ensuring the use of corporate standards, and effective utilization of business area expertise. The Task Force objective is to ensure, where it pertains to "base mapping", that RRID and BISD work in a collaborative manner to accomplish delivery of the Ministry of Sustainable Resource Management Goal 3 objectives as defined in the MSRM Service Plan.

GOAL 3: Effective delivery of integrated, science-based land, resource and geographic information to support a range of decision-makers, business, industry, academia and the public.

Solutions are definitely achievable through the deliverables from this Task Force. The Task Force will develop a SOP Document to be implemented by MSRM, which BMGS will maintain. The SOP will clearly define roles, responsibilities, standards and procedures for the procurement, delivery, maintenance and update of "base mapping" and address areas of overlap with base mapping related resource inventories (e.g. VRI, TEM, and Other Mapping Projects). This will ensure the products delivered will contribute to the maintenance and update of base mapping and that other resource inventory mapping projects are in keeping with the Ministry's CORE mandate and annual Service Plans. These products are deemed to be corporate in nature, they will conform to corporate standards.

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While this Task Force will complete its mandate of producing a SOP addressing “base mapping”, within three months, consideration may be given by executive to extend the delivery of SOPs into other parts of the Ministry’s programs.

3 Mandate:

The principle mandate of this Task Force is:

- To develop and implement a standard operating procedure document that ensures compliance with the CORE mandate of the Ministry and the accountabilities of the Divisions, Branches and clients.

In fulfilling its mandate the Task Force will endeavour:

- To improve communication.
- To provide a forum to discuss product needs.
- To provide a forum to discuss operational issues.
- To improve response to clients.
- To establish controls and metrics to guide the change process.
- To affirm custodial responsibilities as defined in the Base Mapping Business Review.
- To ensure effective delivery of common operational functions and projects.

4 Deliverables:

The Task Force will deliver a **Standard Operating Procedures Document** that will address the following operational procedures/activities related to delivery, maintenance and update of “base mapping”:

- Clearly define roles and responsibilities.
- Ensure the on going update of the TRIM base from resource inventory data (e.g. VRI, TEM,) and other sources.
- Ensure all “base mapping” conforms to corporate standards and are properly archived in the corporate archive and accessible for ongoing use.
- Provide operational procedures for the coordination of procurement and delivery of “base mapping”; particularly as they relate to resource inventory (e.g. VRI, TEM, and Other Mapping Projects).

5 Co-Chairs:

- Roger Balser - A/Director, Base Mapping and Geomatic Services Branch, BISS
- Jeff Monty, Manager Resources Strategy

6 Membership:

The Task Force will be composed of the following members:

- Barry Carman Mike Connor Bob Gray Mark Ismay
- Olga Kopriva Ann Morrison Paul Quackenbush
- Marc Rousseau Al Spring John Wakelin

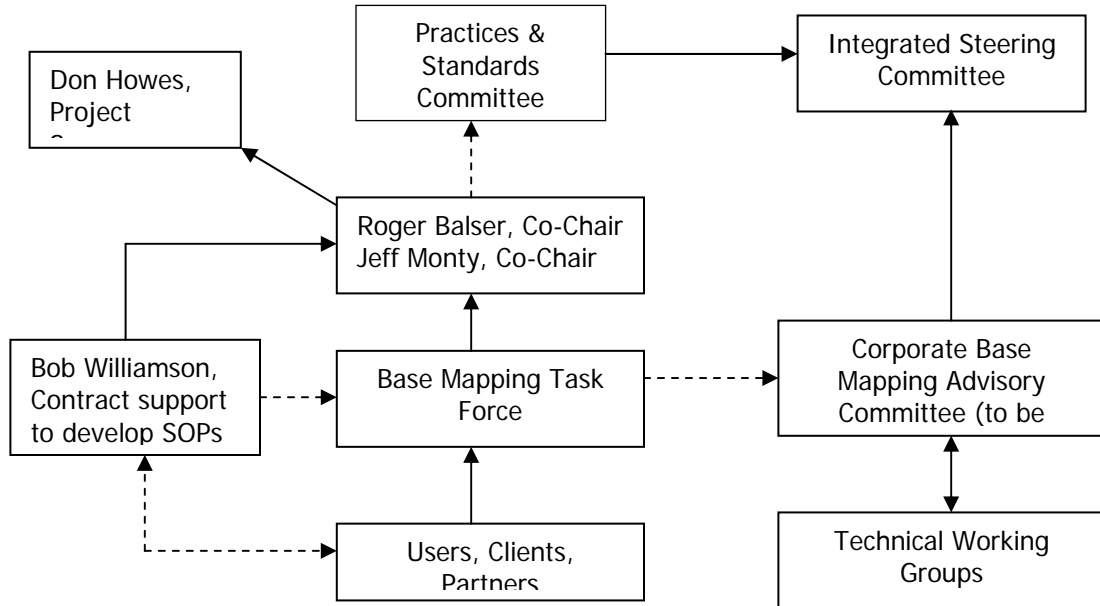
Bob Williamson, contract support, will attend all meetings.

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7 Accountability:

This Task Force reports through the Co-Chairs to the Practices and Standards Committee.



8 Governance:

The following describes how the Task Force shall function.

- The Task Force Co-Chairs will prepare the agenda, with input from members, and will circulate proposed agenda prior to the meeting
- Decisions will be based on input from all members and will be consensus based when possible.
- Items which generate significant discussion, or which require further analysis, will be tabled for a future meeting. Where appropriate, or outside of the scope of the Task Force, the issue will be taken to the P&SC or the Corporate Base Mapping Advisory Committee (CBMAC to be established) through a Decision Note submitted by the Task Force through the Task Force Co-Chairs, for review and subsequent advice and/or direction.
- Decisions made at the meeting will be documented in the minutes. The minutes will be circulated to the Task Force members within two working days of the completion of each meeting. Members are aware that if they do not attend meetings they may not have the opportunity to provide input into decisions or correction and clarification of items in the minutes.
- Documents requiring signoff will be signed by all Task Force Members.
- The Task Force will provide updates, through the Task Force Co-Chairs, to the P&SC.

9 Duration:

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The Task Force will submit a Standard Operating Procedures Document within 3 months of start up. Upon completion, this Task Force will be dissolved unless its term and mandate is renewed or expanded by the P&SC.

10 Meetings:

- The first meeting will be held in early January and subsequent meetings to be as called by co-chairs.

11 Definitions:

11.1 Base Mapping:

"Base mapping" consists of the physical base maps and the mapped features (1:250,000, TRIM, 1:10,000, 1:5,000 and other scales as produced by or through BMGS), contours and Digital Elevation Models (DEMs) and which includes the following:

11.1.1 Aerial photography

Traditionally, aerial photography refers to the process of capturing photographic images in the visible light spectrum from airborne platforms and to the products of this procedure (diapositives and paper prints).

- Specifications for Aerial Photography – June 2000
- Specifications for Aerial Photography Products – June 2000
- Specifications for Aerial Photography Indexing – June 2000
- Specifications for Aerial Photography Database Files – June 2000

http://home.gdbc.gov.bc.ca/airphoto/Air_Photo_Specifications.htm

11.1.2 Scanning and Scanned Images

Scanning is a procedure that employs a computer controlled scanning device to convert a hardcopy image or document into a pixellated digital file.

Specifications for Scanning Aerial Negatives – August 2001

http://home.gdbc.gov.bc.ca/airphoto/Air_Photo_Specifications.htm

<http://home.gdbc.gov.bc.ca/TRIM/trim/SCANSPEC1.html>

11.1.3 Aerial Triangulation

The main objective of aerial triangulation is to "extend" the density of ground control points to ensure the accurate orientation of the stereo models necessary for compiling orthophotos or line mapping in digital or analogue form. This is achieved by using a bridging instrument to measure the positions of all control points, both surveyed ground control and pre-selected photogrammetric points, within each stereo model space of a project.

An adjustment program is then used compute ground control values for the photogrammetric points by mathematically linking all of the readings previously made and performing a best fit to the known values of the ground control points.

<http://home.gdbc.gov.bc.ca/TRIM/trim/atspecs98.htm>

11.1.4 Pre-set stereo models

Pre-set stereo models are overlapping image pairs that have been pre-oriented, by incorporating control points, or bundle parameters, derived from aerial triangulation. A

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desktop mapping system, such as DIAP Viewer, is able to use these images to view 3-dimensional geo-spatial information.

http://home.gdbc.gov.bc.ca/TRIM/Preset_Model_Specs.pdf

11.1.5 Orthophotos

An orthophoto is an image that has been rectified to remove the relief shifts and camera tilt present in standard perspective photography. This conversion can be controlled by the use of a raster Digital Elevation Model and image rectification algorithms. Included in this category is remotely sensed imagery.

<http://home.gdbc.gov.bc.ca/TRIM/trim/orthospe.htm>

11.2 Other Mapping (OM) projects:

These are considered to be other inventories or derived products that are fundamentally connected to the base map (TRIM) and involve some aspect of aerial photography, remotely sensed data, scanning and scanned images, aerial triangulation, pre-set stereo models, orthophotos. These are to be identified as they may be subject to the SOP.

OM could be in two categories:

- Mapping which produces data that would complement or would be appropriate for inclusion in the Provincial Corporate Base Map (TRIM).
- Mapping which requires the use of existing base mapping data, TRIM, during its production or incorporation into the OM.

It would be expected that the production of such maps would require the acquisition of new source data e.g. aerial photography or other remotely sensed data, and would not simply be the reformatting, registration or re packaging of existing data. For the SOP to be applicable to this OM category, the map compilation would include any features typically included in the TRIM specifications. Descriptive examples of OM include but are not limited to the following:

- A map procured for use in highway route location or other transportation or utility corridor route location.
- A map procured for water management purposes e.g. to track and analyse ground water.
- A map procured to identify local geology i.e. not regional geology.
- Terrain stability mapping.
- A map procured for the purposes of inventory resource calculation e.g. vegetation resource inventory (VRI), wildlife habitat evaluation.
- A map procured to identify rivers, streams, and lakes for hydrological or similar purposes.

11.3 Vegetation Resources Inventory (VRI):

Vegetation Resources Inventory photo interpretation (Phase 1) consists of estimating vegetation polygon characteristics from aerial photographs (hardcopy or softcopy) and mapping these features. The current Ministry standard is 1:20,000 scale.

<http://www.for.gov.bc.ca/resinv/Veginv/Publications.htm>

11.4 Terrestrial Ecosystem Mapping (TEM)

Ecosystem mapping is the stratification of a landscape into map units, according to a combination of ecological features, primarily climate, physiography, surficial material, bedrock geology, soil, and vegetation. Common scales of ecological mapping are 1:20 000 to 1:50

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000, though larger scales-such as 1:10 000 or 1:5000-may be carried out to support specific interpretations.

<http://www.for.gov.bc.ca/ric/pubs/teecolo/tem/indextem.htm>

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12 Approvals:

Project Sponsor (Don Howes) _____ Date

Task Force Co-Chair Signature Name (printed) Date

Task Force Co-Chair Signature Name (printed) Date

Task Force Member Signature Name (printed) Date

Task Force Member Signature Name (printed) Date

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