

**National workshop on Administrative Boundaries
Framework Data Node of GeoConnections
Crowne Plaza Hotel, Victoria Room, Ottawa
September 28, 2000
9:00am to 4:30pm**

1 Introduction

1.1 Brief presentation

Brian Maloney, Surveyor General, Ontario Ministry of Natural Resources and co-chair of the Framework Data Node of GeoConnections welcomed all participants.

1.1.1 Presentation of participants

All participants briefly introduced themselves.

1.2 Overview of the day

Mr. Maloney explained the objectives of the workshop, which are:

- receiving feedback from the stakeholders;
- defining administrative boundary; and
- defining the avenues and strategies for the administrative boundaries.

1.3 Overview of the Framework Data Definition document

Mr. Maloney presented a brief overview of the Framework Data Definition document. (Please refer to the PowerPoint presentation for details.)

2 Framework Data Node

2.1 GeoConnections, the Program

Mr. Maloney explained the GeoConnections initiative and its link to the Framework Data Node as one of the policy thrusts. (Please refer to the PowerPoint presentation for details.)

2.2 Activities to date

Marc LeMaire, Technical Secretary for the Framework Data Node, gave an overview of all projects retained from the first two requests for proposals. (Please refer to the PowerPoint presentation for details.)

It was also announced that the launch of the Node's next request for proposals is planned for the end of September. It was also mentioned that a second request for proposals pertaining to a joint demonstration project on framework data would be made with Americans.

2.3 Varia

Mr. Maloney mentioned that in defining administrative boundaries, we have to keep the national scope and coverage in mind.

3 Presentations

Listing of PowerPoint presentations given throughout the workshop. We wish to inform you that presentations are available in their original formats only. Translations may be available from the source (or author).

1. Overview of the Framework Data Definition Document, presented by Brian Maloney of the Ontario Ministry of Natural Resources
2. GeoConnections, the Program, presented by Brian Maloney
3. Framework Data Node Activities -- projects retained from the first two requests for proposals, presented by Marc Lemaire of the Framework Data Node
4. Preliminary Analysis for the Integration of Canada Lands Administrative Boundary data into the Canadian Geospatial Data Infrastructure, presented by Paul Egesborg of Natural Resources Canada
5. Administrative Boundaries Model, presented by Réjean Castonguay of Service New Brunswick
6. MGDI and Good Governance in Canada's Offshore, presented by Sue Nichols of the University of New Brunswick
7. The Requirements for Small Scale Mapping, presented by Rupert Brooks of Natural Resources Canada
8. Overview of the Edmonton Workshop presented by Marc LeMaire of Natural Resources Canada

4 Lunch from 12:00noon to 1:30pm

Before lunch, the agenda was reviewed and explanations pertaining to the afternoon session were provided as well as subjects for the discussion sub-groups. Participants were on their own for lunch but discussions on administrative boundaries continued.

5 “The Requirements for Small Scale Mapping”, Rupert Brooks, National Atlas of Canada, NRCan

(Please refer to the PowerPoint presentation.)

6 Tim Werschler, Geography Division, Statistics Canada

- Explained the Census Divisions (CD) and the Census Sub-Divisions (CSD)
- Stated that current information should be prioritized over accurate information
- Expressed his willingness to participate with other organizations for this layer

7 Overview of the *Framework Data Definition* document

The overview was presented during Mr. Maloney's introductory remarks.
(Please refer to the PowerPoint presentation for more details.)

8 Overview of the Edmonton Workshop

(Please refer to the PowerPoint presentation.)

9 Open discussion on Administrative Boundaries

Participants were divided into three sub-groups namely, a sub-group on standards, one on responsibilities and one on policy. The goal was to re-use Edmonton workshop outputs and try to get into an additional level of complexity on administrative boundaries. Each sub-group received a list of topics from which they could choose. The results are as follows:

1- Sub-group on Standards

They discussed metadata.

- a) What do we have to do to make them more useful?
 - educational problem
 - make them more appealing (inviting)
- b) What should be the minimum content?
 - data acquisition scale
 - resolution and accuracy of the raw data
 - methodology of data capture
 - organization who captured the information
 - datum, projection, coordinates system

- source material
- c) Uploading metadata
 - available softwares (ex. metamaker)
 - cost related to uploading metadata is an issue
- d) Metadata issues
 - completeness of metadata
 - levels (general, data producer profile, user profile)
 - feature to feature match for name and attributes (semantic problem)
 - interlayer dependencies
 - unique identifier
- e) In trying to provide possible solution, one concept did arise -- soft and rigid polygon
 - A soft polygon is one where its delineation is not fixed on the ground. It is rather defined by an Order-in-Council for example. The opposite, being the rigid polygon, is the one mostly used.

2- Sub-group on Responsibilities

- a) on maintenance
 - users close to maintenance
 - provide quality control
 - must be in their interest to maintain data
 - distribute update system
 - many custodians
 - CSDs maintained by STC granted from municipality
 - maintenance and update has to be paid for, so that it will happen
- b) on content
 - land survey fabric is "critical"
 - it is the building block for regional/national (use roads?)
 - locations of phone lines relative to fabric
 - province = custodian of lots/concessions
 - municipality = custodian of properties
 - custodian
 - to ensure leadership
 - responsible for maintenance
 - feature level (common ownership/access)
 - alignment level (common ownership/access)
 - start with national datasets
 - absorb, at source, from what is available
 - protocols so that local areas can come on line as they are available
 - approach : here is the framework, add your stuff to it
 - start with road network from STC
 - build infrastructure to allow people to use and update it
 - fundamental framework
 - define core of what is necessary
 - get funding to maintain on a regular basis
 - define who is going to maintain that part of the framework
 - special programs pick up pieces and clean up issues
 - provide global structure from above, by block
 - deliver details from below
 - many data custodians for various views of the data
 - data custodians integrate data into a common structure
 - conceptual boundaries fall through the cracks
- c) on standards
 - government takes a responsibility but identifies how it should be split (who should do what and where)

- defacto example STC CSD.
 - even if systems are put in place, are they robust enough to address needs?
 - municipalities are not equal (put pieces together approach)
 - national : minimum data content standards, look at country and define minimum level of what is required and how to maintain it
 - provincial : next level of standards
 - municipal : highest level of standards
- d) on access/cost
- should not be impediments to the use of the fabric for the country
 - fundamentals should be free and funded by government

3- Sub-group on Policy

This portion of the minutes begins with interventions from participants followed by a diagram showing strategies and avenues for administrative boundaries.

a) On needs:

StatCan CSD: needs good graphical representation of municipal boundaries;
 Provinces record in gazette – reviewed by StatCan;
 The problem is that some legal descriptions may not be gazetted.

StatCan & Elections Can
 Public scrutiny: good principle
 E.g. Community boundary in Cape Breton

Survey General (S/G) Ontario is attempting to clarify municipal boundary;
 A line is a representation not a legal description;
 Cases where a park is defined by X,Y is unusual
 Linkages to topographic features (e.g. River) is sometimes difficult to do
 (e.g. Watershed by elevation)

NRCan Municipal Affairs Dept. as custodian in each province but not necessarily at this time
 On the other hand, Stats Can uses gazettes.

Legal Surveys Over time an interest grows in getting more detailed information.

S/G Ont. Process not yet in place to use best data/integrate data

b) What do we mean by administrative boundaries?

May not be a legal authority (e.g. Unorganized zones)
 What about ecosystem zones?

Prov of Ontario Have municipality information on a scale of 1:1M
 May not be able to apply policy of mutual agreement (e.g. Postal codes).

StatCan Business cases are important
 Separate general public needs from internal government agency need (which one has priority).

Legal Surveys Tiers – national level less detail than lower levels (logical standards to support this)

S/G Disagree with multiple scales for administrative boundaries. It causes problems in integration of data

CCOG collect data once closest to source

StatCan Put boundaries on a scale that meets most needs

Problems with administrative boundaries and their definition (e.g. Watershed)
Focus on administrative boundaries and not on how it is defined
Resolution will be specified to meet needs of administrating agency and be maintained by them
Problem, lack of common standards (e.g. A good common base)

S/G Municipal boundaries in Ontario: update roads, update boundaries (will eventually need to retrofit these with base)

StatCan Ontario is a good example. Agencies take on role because they see enough value. This is important for sustained maintenance (GeoConnections, only 3 years to go!)
Problem: boundaries need to coincide at all levels

S/G Need finest level = parcel

Legal Surveys Building from parcel level up (e.g. 5 parcels for an Indian Reserve while StatCan does not want the parcels but the perimeter)
Policy should encourage parcel level up approach

S/G What about dissemination of data?
What is free – not parcel level, but municipal boundary created by parcels is public good

Legal Surveys Outside boundary of reserves are free; contribution to improve coincidence

S/G Administrative boundaries should be free, it is needed for public review

StatCan KPMG study will probably show that information should be “freer”
Cost-recovery inhibits
There would still be cost for value added data

c) What are the priorities?

- Free (in line with various organizations’ policies)
- Used by many
- One custodian (defines resolution)
- Linked to (or based on) official base
- Policy on use of source data (different accuracy) = need metadata
- Problem: limit zoom-in so it looks Ok if you control application.

d) Level of detail

- need to know if things are not co-incident
- in Ontario this wouldn’t be possible

Legal Surveys see problems, then identify they need to be rectified

Goal should be vertical + horizontal integration, should be coincident
Get it in, get it right

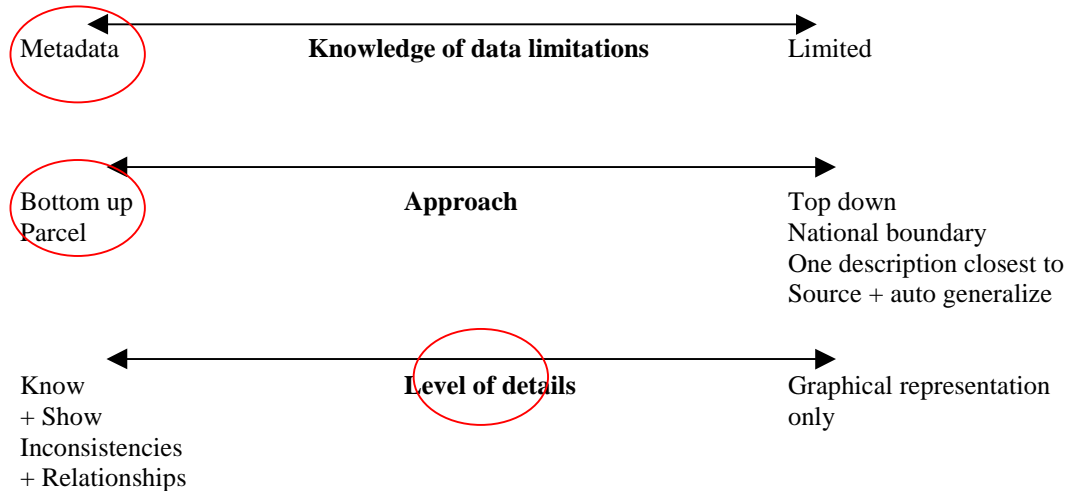
Quality data – accuracy

Parcel level up (logical relationship), one description closest to source of data (auto generalize)

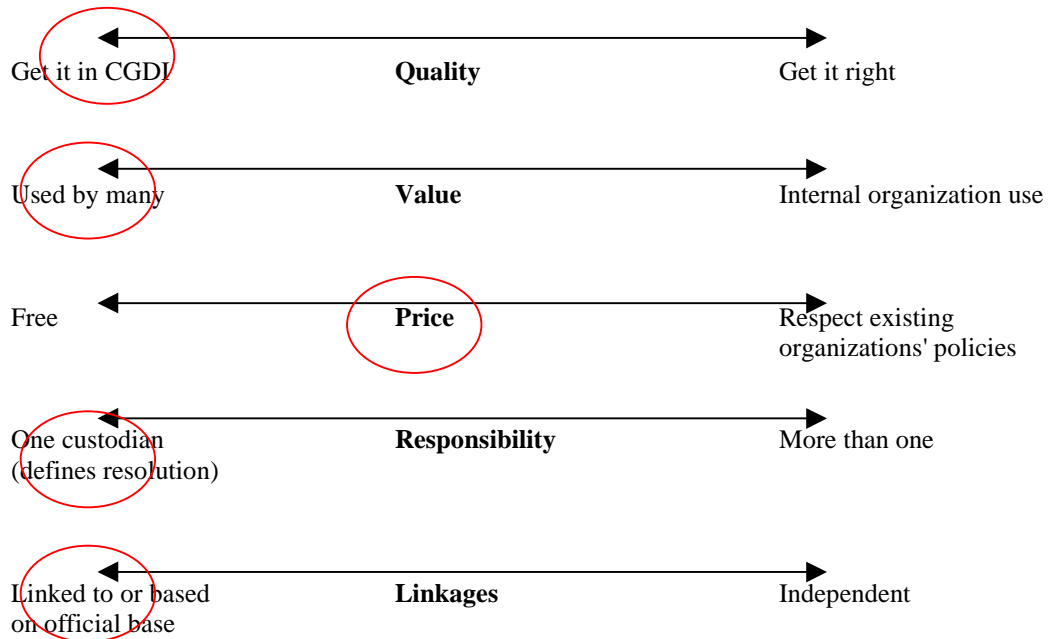
US more discussion on framework
Importance of getting data out and improving over time (e.g. tiger files)

Diagrams:

Note: circles represent the consensus of the sub-group.



Policy level: What are the priorities for including administrative boundaries as part of framework



10 Conclusion

A lot of information was shared during the workshop. The information provided by the sub-groups helped in defining the administrative boundaries of GeoConnections' Framework Data Node. Some clarifications are still required and some questions remain unanswered but all began to see the light at the end of the tunnel.

The Framework Data Node will gather all workshop outputs and summarize them in its *Framework Data Definition Document*. Accordingly, this information will be used as guidelines in future requests for proposals.

10.1 Closing remarks, wrap-up, next steps

Participants had an opportunity to discuss administrative boundary issues and to provide avenues and solutions. Mr. Maloney also mentioned that such a workshop is a good place to meet potential proposal partners and data custodians. He mentioned that most of the workshop objectives were met and thanked everyone for their participation.

11 Participants (35):

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|----------------------|--|
| Jacques Trencia, PhD | Canadian Forest Service, NRCan |
| Robin Quenet | Canadian Forest Service, NRCan |
| Claude Faucher | CANMET Energy Technology Centre (CETC), NRCan |
| Gilles Auger | Mapping Services Branch, NRCan |
| Nancy Pierce | Mapping Services Branch, NRCan |
| Jean Poitevin | Parks Canada |
| Jean-Claude Tétrault | Association of Canada Land Surveyors |
| Gordon Garrard | Geodetic Survey Division, NRCan |
| Pierre Lermusieaux | Electoral Geography Division, Elections Canada |
| John Sky | Kahnawake |
| Len Worrell | Lands and Trust Services, Indian Affairs and Northern Development Canada |
| Peter Schut | Agriculture and Agri-Food Canada |
| Ian B. Marshall | Ecosystem Science Directorate, Indicators and Assessment Office |
| Marie Lapierre | Information géographique, Ministère des Ressources naturelles du Québec |
| Janet Honig | Queen's University GIS laboratory |
| Ron Glenn | Provincial Planning & Environmental Services, Ont. Municipal Affairs & Housing |
| Shawn Kelleher | Natural Resource Information Branch, Ontario Ministry of Natural Resources |
| Steve Spezzaferro | Provincial Planning & Environmental Services, Ont. Municipal Affairs & Housing |
| Allan Kovacs | Results Management Consulting |
| Tim Werschler | Geography Division, Statistics Canada |
| Henry Puderer | Geographic Areas Section, Geography Division, Statistics Canada |
| Danny Wall | Geographic Areas Section, Geography Division, Statistics Canada |
| Robert Mendelson | Geographic Areas Section, Geography Division, Statistics Canada |
| Peter Murphy | Geographic Areas Section, Geography Division, Statistics Canada |
| Leslie Keyser | GIS, Noetix Research Inc. |
| Jean Yves Noël | Intélec Géomatique inc. |
| Peter Wilson | Information Systems, Nunavut Planning Commission |
| Denis Genest | Centre for Topographic Information Sherbrooke, NRCan |
| Sue Nichols | Department of Geodesy and Geomatics Engineering, University of New Brunswick |
| Rupert Brooks | National Atlas of Canada, NRCan |
| Réjean Castonguay | Service New Brunswick |
| Dave Monahan | Canadian Hydrographic Service Special Projects, Fisheries and Oceans Canada |
| Milo Robinson | Federal Geographic Data Committee, USA |
| Marc LeMaire | GeoConnections' Framework Data Node, Mapping Services Branch, NRCan |
| Brian Maloney | Surveyor General, Ontario Ministry of Natural Resources |