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# Surveyor General Branch

*Beyond Boundaries*

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## ANNUAL REVIEW 2012-13

**Theme: Land Claims**

Canada

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# Surveyor General Branch

Natural Resources Canada

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**ANNUAL REVIEW**  
2012–2013

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## 1 Purpose<sup>1</sup>

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This is the third Annual Review of the Surveyor General Branch (SGB) of the Earth Sciences Sector of Natural Resources Canada. This Review focuses on SGB's role in supporting land claim agreements and modern treaty implementation over the last 20+ years. It is an opportune time to herald the surveying of the many parcels defined in agreements and treaties, because the Nunavut Agreement parcels have been entirely surveyed and the Yukon Agreement parcels are 99% surveyed. As per usual, SGB's significant projects going forward are described, and the metrics demonstrating the volume of work between April 1, 2012 and March 31, 2013 are set out.

## 2 SGB's role within NRCan strategic outcomes

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A key NRCan strategic outcome in the 2012-2013 Program Activity Architecture is safety, security and stewardship, predicated on natural resource knowledge and management systems that strengthen the safety and security of Canadians and the stewardship of Canada's natural resources and lands. Such knowledge systems are supported by essential geographic information, including Canada's legal boundaries.

## 3 SGB delivers Canada's legal boundaries

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### i. Canada's survey registry

SGB issues instructions for surveys, reviews plans of survey and registers these surveys to allow parcels to be created on Canada Lands and on fee simple parcels of land in Yukon, Northwest Territories and Nunavut. In 2012-2013, over 1,000 survey instructions were issued and some 1,400 plans were registered in the Canada Lands Survey Records (CLSR). This public repository – created pursuant to legislation – contains over 103,573 records dating to pre-Confederation Canada.

### ii. Canada's survey program

SGB manages boundary surveys on Aboriginal settlement lands to meet Canada's obligations in land claim settlement agreements and legislation, and administers boundary surveys required by other departments across the Government of Canada (e.g. Aboriginal Affairs and Northern Development Canada).

### iii. Canada – United States International Boundary Commission

Embedded within SGB is the Canadian section of the International Boundary Commission (IBC). The Surveyor General is appointed by Order in Council as the Canadian Commissioner to the IBC with the mandate of maintaining the boundary between Canada and the United States for certainty in jurisdictional extent.<sup>2</sup>

### iv. Alberta - British Columbia Boundary Commission

The Surveyor General is also appointed by Order in Council to the Alberta-British Columbia Boundary Commission. The Commission meets on a semi-annual basis to set policy for boundary maintenance, to issue contracts for re-surveying and inspecting monuments and to engage in ad-hoc repairs of damaged monuments.

<sup>1</sup> Cover: A stunning, albeit oblique, view of Behchoko, a community in the Tl'cho settlement area, NWT

<sup>2</sup> The IBC reports annually, so the IBC's 2012-2013 exploits will not be duplicated in this Annual Review.

## 4 A retrospective: Land claims surveys across Canada

### i. YUKON

This is the 20th anniversary of the 1993 *Umbrella Final Agreement* between the Governments of Canada and Yukon and the Council for Yukon Indians. The umbrella agreement serves as a template and signifies the mutual intention of all parties to negotiate individual final agreements for the 14 First Nations in Yukon. To date, final agreement has been reached with 11 First Nations.

A provision in the agreements is that the settlement lands will be surveyed. For instance, the *Carcross/Tagish First Nation Final Agreement* specifies that “boundaries of Settlement Land shall be surveyed in accordance with the instructions of the Surveyor General and dealt with by an official plan confirmed pursuant to the *Canada Lands Surveys Act*”. Since 1994, SGB has administered surveys on over 2,200 Yukon settlement land parcels - comprising some 20,700 km of boundary enclosing some 3.15 million ha. These parcels provide certainty as to the spatial extent of lands and resources in the Yukon; and administrative clarity to Yukon First Nations and the Governments of Yukon and Canada.

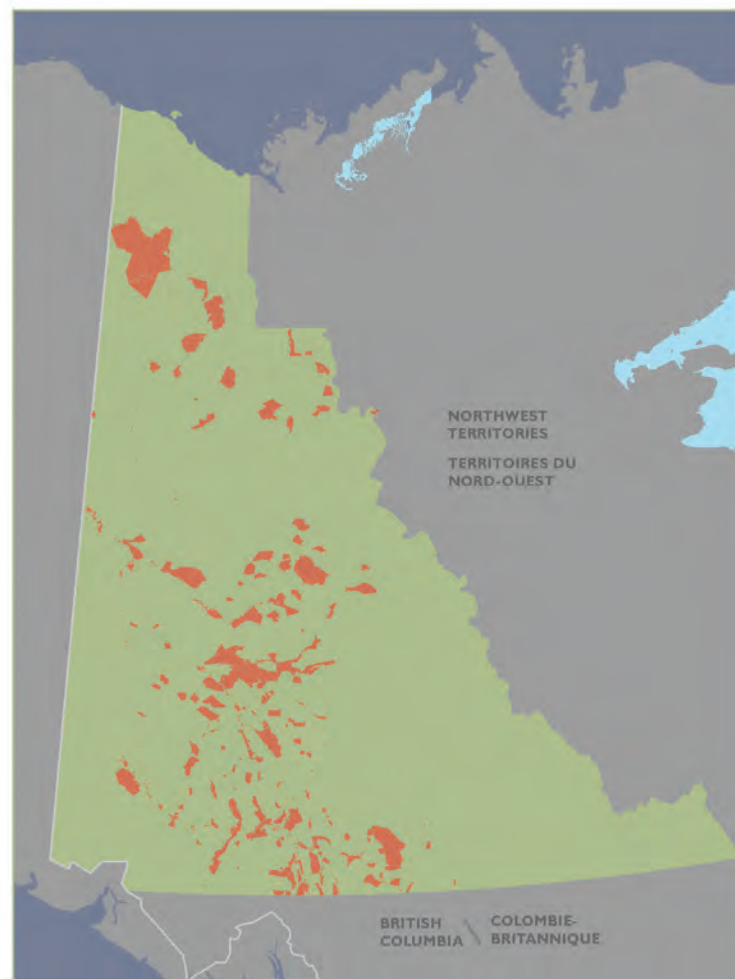


Figure 1 – 3.1 million ha of surveyed settlement land in Yukon (orange)



## ii. Northwest Territories

The settlement of land claims in the Northwest Territories began with the *Inuvialuit Final Agreement* in 1984, followed by the Gwich'in Agreement in 1992, the Sahtu Dene and Metis agreement in 1993 and finally the Tlicho agreement in 2003 (the claims of the Dehcho, Akaitcho, and Northwest Territory Metis await settlement). The four agreements cover an area of some 20 million ha. These lands were described on maps, and if deemed necessary were surveyed under the instructions of the Surveyor General. To date, 273 land claim parcels have been surveyed with a combined boundary length of over 8,500 km.

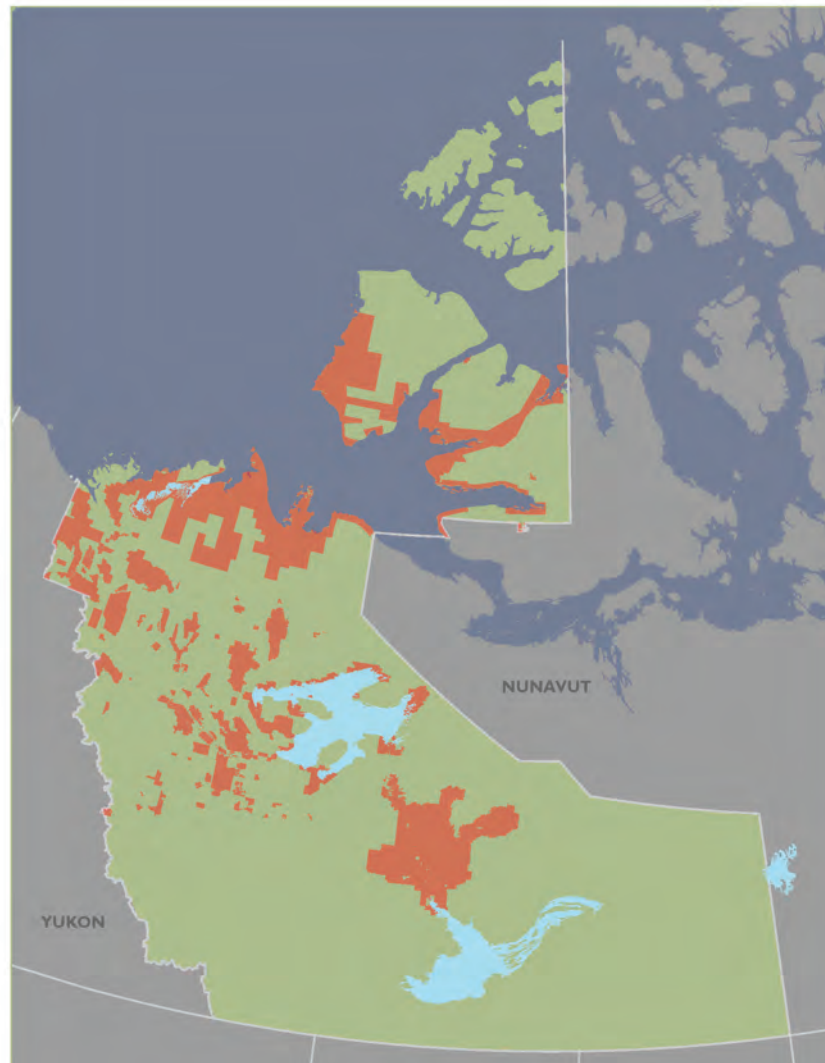


Figure 2 – 8,500 km of boundaries of surveyed settlement land in NWT (orange)

### iii. Nunavut

The *Nunavut Final Agreement* in 1993 was the largest comprehensive land claim in Canadian history. It covered some 190 million ha, of which, title to some 55 million ha vested in the Inuit of Nunavut. Most Inuit Owned Lands in Nunavut have Descriptive Map Plans showing in detail the boundaries of each parcel of land. In most cases, field surveys were at the discretion of either the Government of Canada or Nunavut; however, field surveys were required for specific parcels as listed in the agreement and for all Inuit Owned Land within municipalities. Nearly 1,200 parcels have been subject to a field survey with a combined boundary length of 18,653 km.

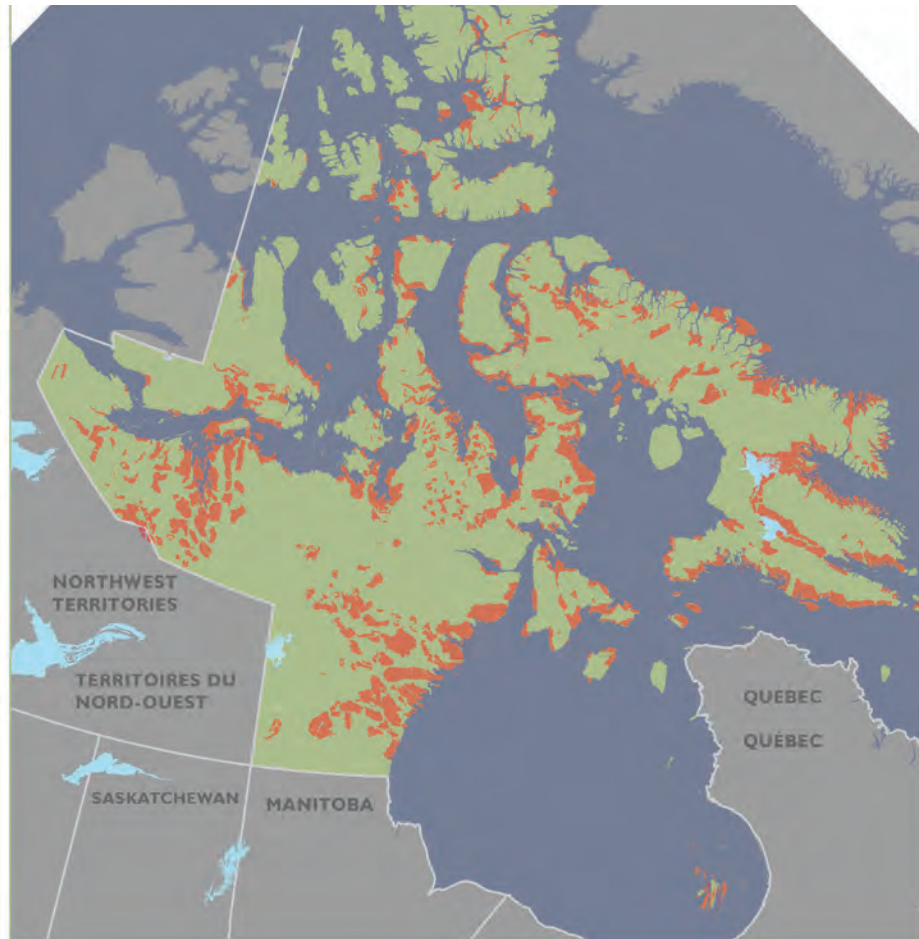


Figure 3 – 18,653 km of boundaries of Inuit Owned Land (orange) in Nunavut

### iv. Elsewhere in the North

Four exclusion parcels were surveyed under the *Nunavik Inuit Land Claim Agreement* in 2010 and a single exclusion parcel under the *Eeyou Marine Region Comprehensive Land Claim Agreement* in 2012.



## v. Additions to First Nation Reserves

Additions to Reserves in the Provinces fall into two general categories: Treaty Land Entitlement (TLE) and Community Additions. Manitoba and Saskatchewan are dominated by (TLE), meaning that Canada has an unfulfilled treaty obligation to add land. Atlantic Canada, Québec and British Columbia are dominated by community additions to Reserves, to accommodate population growth and economic development. Ontario and Alberta have a mix of TLE and community additions.<sup>3</sup>

SGB's involvement in Additions to Reserves varies by the region, the existing survey fabric, and the wishes of Aboriginal Affairs and Northern Development Canada. On the one hand, most TLE lands in Saskatchewan are not re-surveyed before they are added to Reserve. Instead, SGB drafts land descriptions using the original township surveys conducted in the late 1800s and early 1900s to transfer the land. On the other hand, most TLE lands in Manitoba are on un-surveyed provincial Crown land and require surveys to adequately set out the parcel boundaries. The surveys for Manitoba TLE additions are a coordinated effort between SGB, AANDC the First Nation, the contracted land surveyor and the Provincial government. In British Columbia, additions to Reserve are typically surveyed fee simple parcels, for which SGB reviews the existing survey and historic information and then inspects the site, to confirm that the survey reflects the reality on the ground. For 50% of the parcels, SGB recommends that a new survey be done so as to resolve issues with travelled roads, shifts in riparian bounds and encroachments.

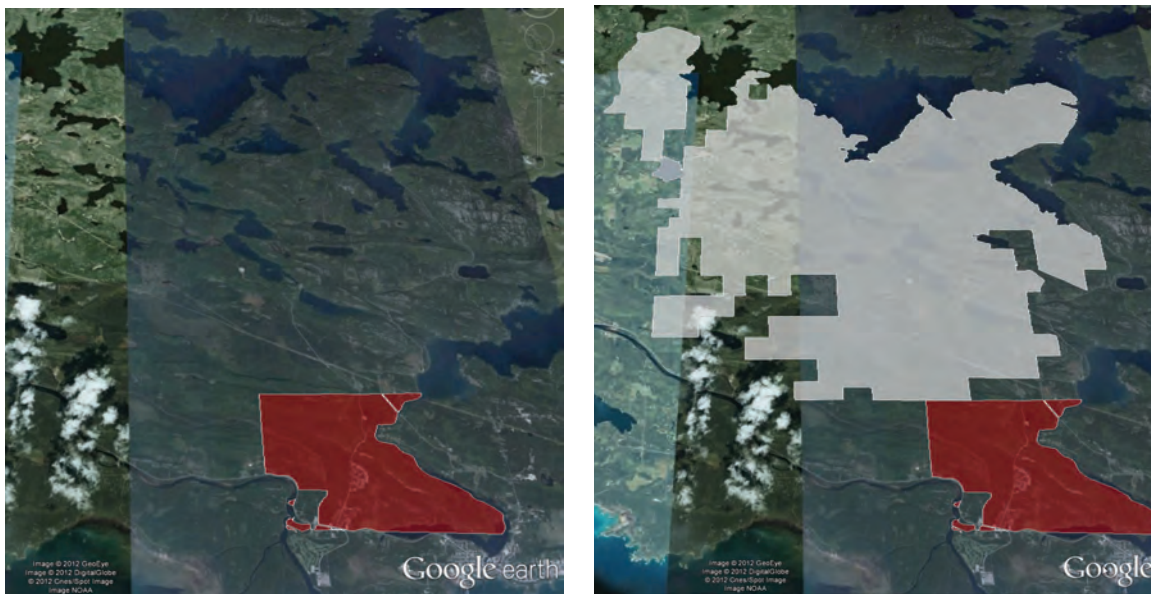


Figure 4 – A 16,000 ha addition (grey) to the Mississagi Indian Reserve (red) in Ontario

<sup>3</sup> All regions, however, can have additions to Reserves owing to the settlement of Specific Land Claims.

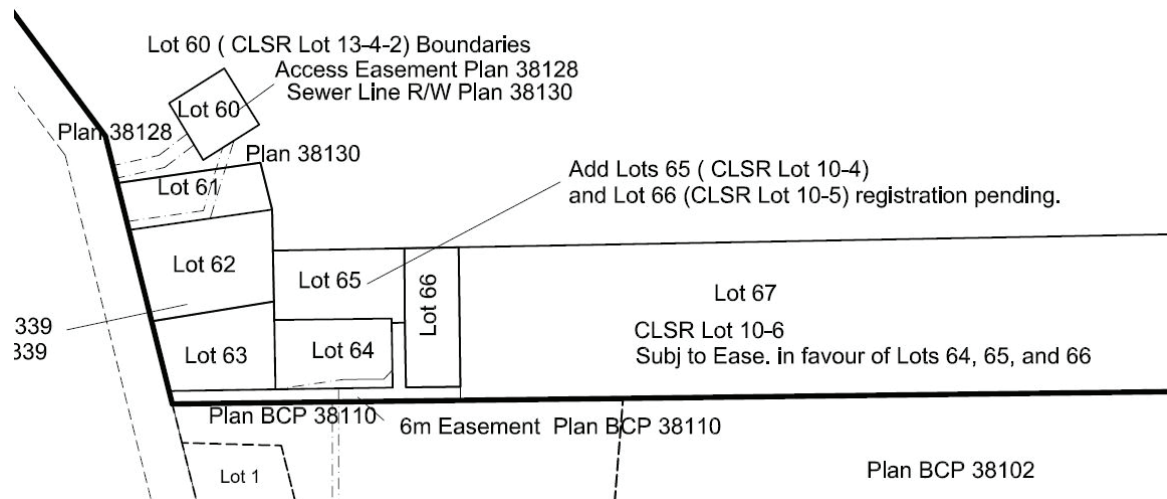
Between 2005 and 2012, 2,200 parcels to be added to Reserve have been described (and, in some cases surveyed), with a total area of some 312,000 hectares:

Region	Descriptions/Surveys	Area (hectares)	Area (acres)
Atlantic	31	2,717	6,711
Quebec	33	547	1,351
Ontario	64	39,903	98,560
Manitoba	131	126,141	311,568
Saskatchewan	1,880	112,057	276,900
Alberta	11	22,768	56,237
British Columbia	50	8,150	20,131
<b>Totals</b>	<b>2,200</b>	<b>312,283</b>	<b>771,339</b>

**vi. Tsawwassen Final Agreement (2009)**

The *Tsawwassen Final Agreement* was the first urban treaty in British Columbia and the first modern treaty concluded using the British Columbia Treaty Commission process. The agreement included 662 hectares of land in fee simple over which the Tsawwassen First Nation has law-making authority. An additional 62 hectares (Boundary Bay and Fraser River parcels) were included for the Tsawwassen First Nation, but this area remains under the jurisdiction of the Corporation of Delta. It was the wish of the Tsawwassen First Nation that all lands in the agreement be registered in the British Columbia land titles system.

To achieve this goal, the provincial *Land Title Act* was amended to accommodate the registration of title by a treaty First Nation, and surveys on Tsawwassen land were prepared in a format required by the province. SGB administered 53 surveys on Tsawwassen land to replace existing parcels held under leaseholds or certificates of possession, 19 surveys to satisfy lenders in mortgage documents, and one survey of the exterior boundary of the Tsawwassen lands to give certainty to all parties as to what was being transferred.



**Figure 5 – Preliminary layout indentifying existing Tsawwassen parcels (excerpt)**

## vii. Maa-nulth Final Agreement (2011)

In April 2011, the *Maa-nulth Final Agreement* transferred some 25,000 hectares of land to five Maa-nulth First Nations. This included 22,342 hectares of provincial Crown Land, 2,064 hectares of former First Nation Reserve lands, and 92 hectares of private lands purchased from willing sellers. There is no requirement to record lands in the British Columbia land titles system, although the Maa-nulth First Nations retain the option of using the provincial system. Unlike Tsawwassen, there are few internal parcels to register.

SGB was responsible for the survey of the Reserve lands which, although already surveyed, weren't in a format required by the province. New surveys were exorbitant in cost, and in some instances would not enhance boundary certainty. What was required was a survey approach acceptable to the First Nation, Canada and the Province of British Columbia. After 18 months of negotiations, a survey plan was agreed upon. Such negotiations were fruitful: They halved the survey costs; allowed for surveys to be done expediently; provided certainty to the First Nations; and did not delay the 2011 implementation date. Given the success of the negotiations, the Maa-nulth model will serve as the standard approach to surveying former Reserve lands in future Final Agreements in British Columbia.



Figure 6 – Survey of the shorelines in the *Maa-nulth Final Agreement*

## 5 External publications

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- Towards a marine cadastre for the integrated management of Canada's oceans. Workshop – International Centre for Research on Environmental Issues. Aix-en-Provence, France. 20 pp. April 2012 (M'Bala & Gagnon).
- Ascertaining First Nations communities for optimum fabric renewal: Parcels as enablers. Annual Conference on Land and Poverty - World Bank. Washington, DC. 25 pp. April 2012 (Ballantyne & Rogers).
- The case for a marine cadastre to help affirm Canada's sovereignty in the Arctic. Canadian Hydrographic Conference. Niagara Falls. 16 pp. May 2012 (M'Bala, Tetreault & Gagnon).
- A fabric of moderate bulk: Tenure reform, jurisdictional bounds & parcel renewal on First Nations' lands. Geomatica. v66-n3. pp. 195-206. 2012 (Ballantyne, Rogers & Sullivan).
- Demarcating the boundary between the mining districts of Nunavut and Northwest territories. Geomatica. v39-n2. pp.11-17. 2012 (Rochette).
- A flex(ible) Power Legend. Arc User – esri.com. pp. 30-33. Winter 2013 (Langden).
- Debunking 13 fallacies of riparian bounds – Version 2.0. Seminar - Association of Ontario Land Surveyors. Toronto. 9pp. February 2013 (Ballantyne)

## 6 Five significant initiatives on a go-forward basis

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### i. Revising the Manual of Instructions for the Survey of Canada Lands

The Manual contains the instructions of the Surveyor General of Canada Lands. Any surveyor undertaking a boundary survey on Canada Lands, or on fee simple lands in the North, must carry out the work in accordance with the Manual. It dates to 1871, with the First Edition of the Manual of Instructions for the survey of Dominion Lands (the lands acquired in 1869 that became much of Manitoba, Saskatchewan and Alberta) and it was revised many times. By 1961, it had morphed into the First Edition of the Manual of Instructions for the survey of Canada Lands. Since 1961, it has been revised twice – most recently in 1993.

Keeping with the SGB priority of “modernizing survey standards”<sup>4</sup> the standards are being revised along three themes:

- the number and complexity of plan types will be significantly reduced;
- four issues (geo-referencing, condominiums, oil/gas and coordinated survey areas) will be addressed exhaustively;
- the definition of “water boundary” will be expanded (and OHWM expunged on non-tidal watercourses) to reflect provincial standards, distinctions between non-tidal and tidal watercourses, and local custom.

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<sup>4</sup> Surveyor General Branch Annual Review 2011-12, pg. 8



The goals of the revision are to improve the on-line utility of the Manual; integrate it with related applications (e.g. MyCLSS); and make it meaningful to others involved in land administration (e.g. First Nations, First Nations organizations, territorial governments, northern municipalities and other federal government departments).

The proposed changes include adding one new chapter, revising four chapters, and deleting 12 chapters (relevant portions of the deleted chapters will be amalgamated into the revised chapters). The new structure will avoid duplication (both within the Manual and with other publications<sup>5</sup>) and will be user-friendly. The first draft of the revised Manual will be completed by mid-2013; after consultation with stakeholders (primarily the Association of Canada Lands Surveyors) the final version will be published in March 2014.

## ii. Other modernizing initiatives

e-Recording is being embraced, by ensuring that the *Personal Information and Protection of Electronic Documents Act* (PIPEDA) is followed and that it is feasible to use secure electronic signatures (i.e. that surveyors can use such signatures and that SGB can process the resulting plans).

## iii. First Nation Land Management Act

The *First Nation Land Management Act* (FNLMA) allows First Nations to opt out of 34 land-related sections of the Indian Act and assume such responsibility themselves. Critical to First Nations assuming this responsibility is an accurate description of the lands they are going to manage. Since 1999, SGB has provided 209 land descriptions (with an accompanying graphic illustration) of the lands a First Nation will manage. Some 40% of the descriptions have required a legal survey.

The demand for entry into the FNLMA (and thus for legal descriptions) has grown. Both the 2012 and 2013 federal budgets have explicitly mentioned FNLMA. The 2012 federal government Budget reallocated “\$20 million over two years to respond to the growing interest from First Nations leaders to participate,” and on January 23, 2012, it was announced that 18 First Nations will enter the process. The 2013 federal government budget included another \$9 million over two years for 33 additional First Nations to enter the FNLMA process.

## iv. Merger with the Geodetic Survey Division (GSD)

Within Earth Sciences Sector, SGB will align with Geodetic Survey Division (GSD), in keeping with the anticipated merger of the mapping and remote sensing branches. The SGB-GSD merger will ensure strategic linkages to emerging science, tactical synergies and meta-collaboration in measuring the location and spatial extent of parcels of Canada Lands in a three-dimensional and multi-temporal capacity.

<sup>5</sup> Such as the *Surveys, parcels and tenure on Canada Hands handbook* (2010), now into its second printing.

#### **v. Publishing**

The NRCan Publications Policy took effect on March 1, 2013; it sets out that SGB must publish more and that publications must go through the PPI (publication process integration) system. The policy captures journal and magazine articles; abstracts (such as those submitted to conferences); books, and book chapters; conference and workshop proceedings. The salient parts of the policy are:

- a plain-language abstract, which will be available across NRCan on a SharePoint site.
- a summary of the implications for NRCan policy or regulation.

The policy serves two purposes. First, it means that NRCan will be aware of forthcoming publications and able to count the numbers of publications from SGB. Second, it allows SGB to communicate our activities and relevance to a wider audience and to invite critique (and generate debate) about what we're doing and how we're doing it.



## 7 Results and performance measures 2012–2013

Output	2010–2011	2011–2012	2012–2013
Parcels created in cadastral dataset	5,480	6,339	9,469 <sup>7</sup>
Documents registered	2,206	2,480	2,036
Instructions issued	958	1,033	1,256
Plans deposited/registered	1,297	1,780	1,473
<b>Saskatchewan treaty land entitlement</b>			
Area of parcels described	8,803 ha	10,657 ha	14,135 ha
Progress <sup>8</sup>	53%	55%	57%
<b>Manitoba treaty land entitlement</b>			
Area surveyed	10,313 ha	4,009 ha	18,593 ha
Progress <sup>9</sup>	46%	47%	50%
<b>Tlicho land claim agreement</b>			
Boundary surveyed	300 km	96 km	7 km
Progress	90%	99%	100%
<b>Yukon land claims agreements</b>			
Boundaries surveyed	400 km	427 km	700 km
Parcels created	29	14	- <sup>10</sup>
Progress	97%	99%	99.7%
<b>FNLMA</b>			
Legal descriptions	40	10	10
Research reports	-	-	56 <sup>11</sup>
<b>Inter-departmental letters of agreement</b>			
Number	40	40	36
Value	\$8.7M	\$7.4M	\$5.3M
<b>Survey contracts to the private sector</b>			
Number	306	249	140
Value	\$13.8M	\$9.5M	\$3.9M

<sup>7</sup>This is somewhat inflated, owing to 3,200 parcels created in Mingan National Park.

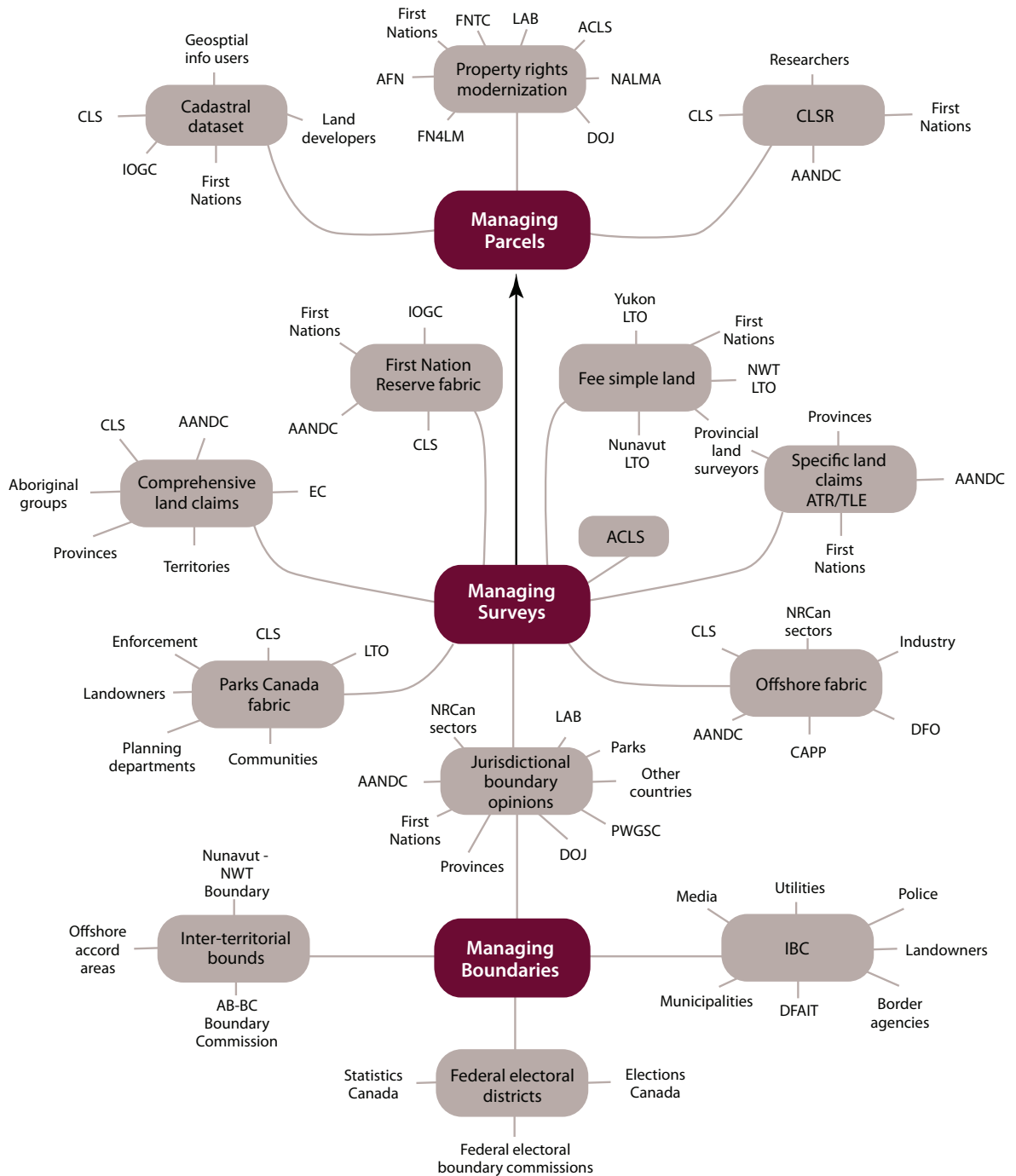
<sup>8</sup>Progress refers to the proportion of the total shortfall of 859,000 ha that has been described by SGB.

<sup>9</sup>Progress refers to the proportion of the total obligation of 577,000 ha that has been surveyed.

<sup>10</sup>The boundaries created parcels which were counted in previous years

<sup>11</sup>The process changed in 2012-2013; research reports now supplement land descriptions.

## Appendix - SGB web of relationships



### Acronyms:

AANDC	Department of Aboriginal Affairs and Northern Development Canada <sup>11</sup>
ACLS	Association of Canada Lands Surveyors
AFN	Assembly of First Nations
ATR	Additions to Reserves
CAPP	Canadian Association of Petroleum Producers
CLS	Canada Lands Surveyor
CLSR	Canada Lands Surveys Records
DFAIT	Department of Foreign Affairs and International Trade Canada
DFO	Department of Fisheries and Oceans Canada
DOJ	Department of Justice Canada
EC	Department of Environment Canada
FN	First Nations
FN4LM	First Nations for Land Management
FNCIDA	First Nations Commercial and Industrial Development Act
FNLMA	First Nations Land Management Act
FNTC	First Nation Tax Commission
IBC	International Boundary Commission
INAC	Department of Indian and Northern Affairs Canada
IOGC	Indian Oil and Gas Canada
LAB	Lands Advisory Board (to implement FNLMA)
LDR	Legal description reports (pursuant to FNLMA)
LTO	Land Titles Office (Nunavut, NWT and Yukon)
NALMA	National Aboriginal Lands Managers Association
PAA	Program Activity Architecture (Government of Canada)
PWGSC	Department of Public Works and Government Services Canada
SG	Surveyor General
SGB	Surveyor General Branch, Earth Sciences Sector, NRCan
TC	Department of Transport Canada
TLE	Treaty Land Entitlement

<sup>11</sup> As used since since June 9, 2011

