

ParcelMap BC

Collaborative development of the first current, complete, and trusted visual representation of land information throughout British Columbia.

WHO IS THE LTSA?

Launched in 2005, the Land Title and Survey Authority of British Columbia (LTSA) is a publicly accountable, statutory corporation independent from government responsible for administering BC's land title and survey systems. These systems are an essential underpinning to BC's private property market and the civil justice system, and support civic governance, taxation and Crown land management frameworks.

RECOGNIZING THE OPPORTUNITY TO SERVE

BC competes in a global economic environment in which fast and easy access to land information is a crucial component for commerce. In 2012, the LTSA found itself in an environment where electronic commerce and online mapping had become the norm, yet there was no complete and trusted source for visually-displayed land information in BC.

Stakeholder and customer demand for an easy, efficient means of accessing accurate province-wide land title and survey information had continued to mount for years. Several organizations had attempted to build a province-wide parcel fabric, but none were successful. While many of these early solutions were good attempts, they lacked critical information, real-world accuracy, or were otherwise incomplete.

The LTSA recognized that compiling and maintaining a province-wide parcel fabric had become a necessity of land information management. Seeing the opportunity to better serve its customers, the LTSA took the lead on a 5-year multi-stakeholder collaborative effort to develop ParcelMap BC.

LEADING THE PROJECT

The LTSA was in a unique position to lead the ParcelMap BC project. It saw the need and identified the opportunity to serve customers, and the organization was well-positioned to make the investment. The LTSA's Land Title Division is responsible for maintaining the land title register of approximately 2.1 million private property titles in BC, while the Surveyor General Division is responsible for maintaining the integrity of the province's survey structure.

In addition to internal project teams, the LTSA brought together four primary stakeholders:

- Province of BC, working with 3 different Ministries;
- Integrated Cadastral Information Society (ICI Society), representing 189 local governments and utilities;
- Association of BC Land Surveyors (ABCLS); and
- BC Assessment Authority (BCA)

These groups provided access to vital information required for the construction of a single cadastral fabric for BC. The Province provided access to Crown land information; the ICI Society provided access to local government fabrics; and BCA provided access to certain attribute information, as well as the linkage between civic address and unique parcel identifiers.

In addition, the LTSA engaged with other advisory groups and formed an internal operations team that was supported by external expertise from other leading organizations in Canada.

DEFINING PROJECT GOALS

The LTSA's goal for ParcelMap BC was to create and develop an operational model for a single, complete, trusted and sustainable online visual representation of lands within a given parcel and its relationship to adjacent parcels:

- Single: Includes parcel fabrics for all 189 local governments including municipalities, rural areas, and all surveyed parcels of provincial Crown lands.
- Complete: Includes all surveyed parcels in the provincial Crown land registry and all parcels with active titles in the LTSA's land title register.
- Trusted: The parcel fabric adheres to standards for parcel attribution, topology, currency, auditability, and spatial accuracy. New surveys will adhere to spatial accuracy standards and, as a result, the quality of the entire parcel fabric will improve over time.
- Sustainable: The parcel fabric and operational framework is financially sustainable and will be maintained and enhanced over time.

The initial project charter was developed in 2012 and the LTSA spent approximately 22 months working with stakeholders to develop the project definition and complete procurement. The budget was set at CDN \$22 million and development began in July 2014. The rollout was organized into 14 delivery cycles and split into 18 geographic increments. On June 29, 2017, the last increment, marking province-wide coverage, went live in the ParcelMap BC fabric.

SOLVING PROJECT CHALLENGES

BC covers a large area, at more than 944,000 square kilometres and a population of 4.63 million, representing 9.9% of Canada's land mass and 13% of its population. Approximately 93% of the land mass remains provincial Crown land. The topography is complex, with hundreds of kilometres of ambulatory water boundaries, including ocean coast lines, river, stream and lake boundaries.

Some challenges and risks included: building a georeferenced parcel fabric to a known level of quality; linking each parcel to the land title register and/or the Crown land registry; and creating a technology infrastructure to house the information.

SUSTAINING PARCELMAP BC

To ensure that the data integrity in ParcelMap BC is maintained, the LTSA established processes to integrate new survey plans so that the fabric is constantly improving parcel accuracy. The ABCLS adopted mandatory geo-referencing of surveys, such that all surveys conducted are now accurately located.

The LTSA also knew it had to ensure the information contained in ParcelMap BC delivers value to its stakeholders and can be easily used. A data extraction capability was created to allow the Province, BCA,

ICI Society and ABCLS members to extract spatial information and limited parcel attributes from ParcelMap BC.

Finally, to ensure all British Columbians could benefit from ParcelMap BC, multiple viewer gateways were developed for property owners and other members of the general public to navigate ParcelMap BC and find land title and survey-related information.

ACHIEVING PROJECT GOALS

The LTSA completed the initial build of ParcelMap BC on time and on budget. The organization succeeded in leading the 5-year, \$22 million, multi-stakeholder and collaborative effort to build the first current, complete and trusted visual representation of land information throughout BC. It offers an easy-to-use and reliable source of extensive spatial infrastructure data that enables land professionals and other stakeholders to quickly view information about a given parcel of land and its relationship to adjacent parcels. Province-wide layers of information can now be overlaid onto the ParcelMap BC foundation base map. ParcelMap BC and the LTSA will continue to support BC in the years to come.