# Project Charter

**Project Name** **BC Spatial Phase 2 – Beta Implementation**
**Focus Area** Province of British Columbia
**Product / Process** Parcel data processing and distribution

## Points of Contact

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## Revision History

| Version | Date | Author | Change Description |
|---|---|---|---|
| 1.0 | 01/21/2009 | Barry Logan | Document created using Project Gantt Chart narratives authored prior |
| 1.1 | 01/28/2009 | Barry Logan | Additions to Sections 4.1 & 4.4 |
| 2.0 | 05/14/2009 | Paul van Nieuwkuyk | Updated program approach and definition |
| 2.1 | 06/15/2009 | Paul van Nieuwkuyk | Include review and feedback from Barry and Executive. |
| 2.2 | 06/30/2009 | Paul van Nieuwkuyk | Updates per review from BC Assessment |
| 3.0 | 12/22/2009 | Paul van Nieuwkuyk | 2010 vision, objectives and high-level work plan |
| 3.1 | 12/24/2009 | Paul van Nieuwkuyk | Updates per ICIS Operations review |

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# 1 OVERVIEW

## 1.1 ICIS' Vision

*Collaborative sharing and integration of spatial data for the economic and social benefit of British Columbia*

## 1.2 Problem Statement

The principal challenges to achieving ICIS' vision are:

- Non-standard data submissions (format, structure, content, etc.)
- Unknown or obscured data qualities (currency, completeness, accuracy, etc.).
- Ad hoc member submission habits, sometimes related to an inefficient technical infrastructure for data sharing
- Modest internal resourcing, insufficient to sustainably handle large and increasing data volumes and data integration requirements manually.
- Parallel data sharing initiatives, including *AddressBC*, whose deployment will be supported by the same human and technical resources.

Primary constraints that ICIS operates under include:

- A policy of non-intrusive data manipulation in the sharing of member data (integration activities will be transparent, describable and repeatable); ICIS will not undertake to alter the meaning of the data provided by members.
- An objective to minimize the impacts to data providers in sharing their data. For example, data submission standards and transfer tools may imply member business process adjustment; these must be defensible (traceable directly to core ICIS business requirements) and supported by ICIS-sponsored enablement programs (i.e. CivicSpatial).

## 1.3 Project Description

*BC Spatial is ICIS' initiative to establish integration services for and one-stop access to the best available cadastral data for the province.*

The BC Spatial project seeks to address ICIS' challenges by:

1. Implementing a **spatial data management infrastructure** and related work processes that **integrate parcel data** in reliable, efficient and repeatable ways. Parcel integration efforts will be based upon:
    - Key **data quality indicators** deemed most important to data consumers.
    - An updated member **data submission specification** that describes desired minimum standards for parcel data content and description.
    - The availability of a **province-wide** source for authoritative **parcel attribution** that can provide uniform/standardized non-spatial content.
2. Developing a **data quality assurance program** that:
    - Ensures the **sustainability** of ICIS' data management services,
    - Provides **data quality reporting** to data providers and data consumers.
3. **Working with parcel compilation stakeholders** across all levels of government to ensure that ICIS' services facilitate collaboration in the development and maintenance of standardized parcel data.
4. **Deploying** common end-to-end data sharing and integration process with data providers throughout the province. A beta rollout will be scheduled for deployment throughout the Capital Region in Q1 and Q2, 2010.

## 1.4 Goals and Objectives

The BC Spatial project has adopted a phased approach to implementation. Phase 1 activities were completed in 2009; Phase 2 is proposed for 2010.

### 1.4.1 Phase 1 - Pilot

Phase 1 of the BC Spatial project operated under the following goals and objectives:

- Facilitate one-stop access to a uniform parcel fabric for the province of BC, resolving multiple and redundant data sources where they exist via qualitative selection criteria.
- Formalize, standardize and automate data processing to improve the currency and reduce the latency of data loading and distribution.
- Facilitate data quality improvements by integrating reference data to comment on spatial data quality and currency and by creating and providing standard quality control reports.

The project was constrained to a limited number of data providers, assessment methods and integration concepts and was conducted within a discrete (development) processing infrastructure to insulate existing ICIS operations. The pilot phase proved the viability, sustainability and value of the core project concepts and laid the foundation for a 2010 work plan to align ICIS' operational processes and technology with the BC Spatial processing model.

### 1.4.2 Phase 2 – Beta Implementation

Phase 2 of the BC Spatial project, to be conducted over FY 2010, proposes to leverage the findings of the pilot phase and further improve ICIS' operations by:

- Establishing a best-of-breed **technical infrastructure** to support BC Spatial data sharing processes and AddressBC's processing requirements. Associated infrastructure management processes will be aligned with industry best practices as defined in the 2009 data management audit.

- Formalizing the automated processes that ICIS deploys for data providers, including especially a **standardized implementation program** for accessing member data. The implementation program will be facilitated by ICIS staff and contractors to ensure a high-level adoption rate, low data delivery latencies, and focused data assessment value for data providers.

- Harmonizing the services that ICIS provides to **data consumers**, including the data quality reporting that can inform users of fitness-for-purpose of the data, compilers of potential data deficiencies, and all stakeholders of gaps and barriers to data standardization. Service harmonization includes establishing a common technical framework that supports all ICIS initiatives and a validated design for all service functions (i.e. data browse/query, data download, data reporting, data hosting/sharing, etc.)

- Developing and managing **data specifications** to support data integration requirements, including minimum desired specifications for provincial and local government-based parcel data (spatial and non-spatial). The specifications will address both the data sources (for providers of parcel information) and the data products (for consumers of standardized parcel information).

- Organizing and implementing the deployment of BC Spatial processes with data providers. ICIS will focus first on complete deployment of its programs in the Capital Regional District.

## 1.5 Critical Success Factors

The following are deemed critical to the success of the BC Spatial Beta Phase:

- **Updated technical infrastructure**, configured with best-of-breed applications providing holistic support for all ICIS programs and supporting their upgrade and enhancement.
- Adoption and implementation of best practice recommendations for processes and work flows (as per the Assessment Report of 2009)
- Data sharing **script repository** and accompanying **deployment procedures** – well understood by ICIS staff and ready-to-deploy for ICIS members.
- Concise definition of **ICIS services** and associated **service interfaces**, vetted with respect to ICIS' vision and harmonized across ICIS' programs (BC Spatial, AddressBC and existing ICIS operations).
- **Specifications** for data providers and data consumers, traceable to data integration and data product requirements, endorsed by ICIS operations and integrated with ICIS business processes.
- **Deployed data sharing infrastructure and processes** throughout the CRD.

# 2 PROJECT AUTHORITY AND MILESTONES

## 2.1 Funding Authority

The funding of the BCSpatial project is defined as Product Development (account 5800) in the ICIS 2010 operating budget. An amount of $80,000 has been approved for the fiscal year by the ICIS board of Directors. The amount is considered sufficient for the completion of Phase 2 based on initial superficial estimates. Development is defined as the research and development associated with the design, creation of alpha test segments of BCSpatial. As the project enters staging and production, associated costs transition to other operational budgeted support expenses outside from development.

## 2.2 Oversight and Direction

A dedicated **Project Coordinator** is assigned to the BC Spatial project; the Project Coordinator has responsibility for establishing, maintaining, and reporting on the project work plan as well as for organizing and managing the resources that will carry out its specific activities. The Project Coordinator reports directly to the ICIS General Manager on a day-to-day basis and to the ICIS Board of Directors on a quarterly basis.

Barry Logan, as ICIS General Manager, is the **Program Manager** for BC Spatial. He is responsible for ensuring that the project specification remains aligned with ICIS' vision, is supportable by ICIS' budget, and is coordinated with ICIS' other activities.

The ICIS **Board of Directors**, as representatives both of their individual member organizations and as proxy representatives for the three principal member groups (provincial and municipal governments and private Utilities) are responsible for providing overall program direction, in the form of representative user needs and priorities.

## 2.3 Major Project Milestones

The following table describes major project milestones. Milestones for earlier project phases (grey text) are included for continuity.

| Phase | Activity Track | Milestone/Deliverable | Planned Completion Date | Actual Completion Date |
|---|---|---|---|---|
| 1 | Assessment & Reporting | Data profiles: completeness, maintenance status, spatial alignment, attribute availability and spatial correctness | July 13, 2009 | July 15, 2009 |
| 1 | Design & Pilot | Data Management Framework Design:<br>▪ Integrated cadastral model(s)<br>▪ Quality assurance and reporting model<br>▪ Extract, Transform and Load processes<br>▪ Reporting portal (web) | September 30, 2009 | September 30, 2009 |

| Phase | Activity Track | Milestone/Deliverable | Planned Completion Date | Actual Completion Date |
|---|---|---|---|---|
| 1 | Design and Pilot | Exercise Data Management Framework:<br>▪ Establish pilot infrastructure – dev/test environment for FME Server and ArcGIS Server<br>▪ Implement end-to-end processes and associated reporting. | September 30, 2009 | October 29, 2009 |
| 1 | Plan Rollout | Final report documenting:<br>▪ Database design<br>▪ Process Design<br>▪ Infrastructure Specification<br>▪ Rollout Strategy and Plan | October 30, 2009 | November 17, 2009 |
| 2 | Infrastructure | Transition pilot infrastructure from 3rd party host to ICIS infrastructure. | December 31, 2009 | |
| 2 | Infrastructure | Augment Production infrastructure to accommodate AddressBC and BC Spatial processing requirements | March 31, 2010 | |
| 2 | Infrastructure | Establish Staging environment (Production snapshot) | March 31, 2010 | |
| 2 | Deployment | Standard implementation procedures for member data submission | March 31, 2010 | |
| 2 | Service Integration | (Interim) web map-based data statistics reporting. | January 31, 2010 | |
| 2 | Service Integration | Shared technology plan for web mapping, web editing, data download and reporting services. | February 28, 2010 | |
| 2 | Specifications | Member data submission and data product specifications | June 30 2010 | |
| 2 | Specifications | Alternate data service delivery design (i.e. WMS) | September 30, 2010 | |
| 2 | Rollout | Capital Regional District – automated data delivery and integration | June 30, 2010 | |
| 2 | Rollout | Regional District rollout plan | June 30, 2010 | |
| 2 | Rollout | Utility data auto-delivery implementation | September 30, 2010 | |

## 2.4 Out of Scope

- Correction of identified parcel fabric assessment issues, such as boundary alignment problems, redundant data sources, missing or incomplete fabric, topologically unstructured data, non-standardized attribution, etc.
- Data alignment, such as Utility or BC Assessment data.

## 2.5 Project Estimated Costs & Duration

A 2010 work plan is under development, with items in first two quarters scheduled. See the project Gantt Chart for details.

# 3 PROJECT CONDITIONS

## 3.1 Project Assumptions

- ICIS will work with all parcel data providers, including the Province of British Columbia and local jurisdictions, to encourage and facilitate collaborative development of cadastral information with minimized redundancy and maximum consistency. ICIS will employ multiple tactics, including compilation program planning alignment, standards development and data conversion services, as part of an overall provincial parcel development strategy.
- High-level business requirements for a provincial parcel fabric are fairly well known and can be effectively expressed by such qualities as currency (temporal), completeness (spatial and attribute) and accuracy (positional, relative). The project will continue to emphasize reporting on such qualities via authoritative assessment processes.
- ICIS will work with parcel data as-provided; where deficiencies are identified through the assessment and integration processes, they will be reported back to the data provider; where common deficiencies are identified in sufficient scale, they may be proposed as candidate projects for targeted improvement (CivicSpatial program).
- The Capital Region (CRD) municipalities will constitute the beta rollout of an automated end-to-end data management and integration effort. Beta participants will be identified and engaged and supported by appropriate ICIS resources.
- Authoritative reference datasets, such as the Master Parcel Table, may be used.
- 2010 budget allocation is adequate for BC Spatial Phase 2.

## 3.2 Project Issues

- Broad-based support from the ICIS Board and membership on non-invasive approach to aligning parcel compilation programs.
- Collaboration among parcel data providers
- Appropriate technical infrastructure and software licensing to support data management tasks.

## 3.3 Project Risks

- Inadequate funding for ongoing sustainability
- Inadequate Cooperation and support
- Lack of participation
- Adequate Resources
- Denial of direct access to required data
- Insurmountable or unforeseen technical hurdles
- Insurmountable or unforeseen policy hurdles

## 3.4 Project Constraints

- Resource availability
- RD & Local government buy-in
- 100% ICIS membership

# 4 PROJECT ORGANIZATION

| Project Team Member | Project Team Role |
|---|---|
| Barry Logan | Program Manager |
| Paul van Nieuwkuyk | Project Coordinator |
| Ken Rigler | Technical liaison |
| | Membership participation |
| Steffan Chmuryk | IT strategy |
| Ann Archibald | Civic spatial administration |

# 5 PROJECT REFERENCES

| Milestone | Deliverable |
|---|---|
| Project Charter | BC Spatial Project Charter 1.0<br>BC Spatial Project Charter 2.2<br>BC Spatial Project Charter 3.0 |
| Business requirements | ICIS Member Requirements-template-062008.doc<br>Business Requirements Matrix - Instruction Document.doc<br>Business Requirements Matrix.xls |
| Presentations | BC Spatial – ICIS Annual General Meeting 07 16 2009.ppt<br>BC Spatial – ICIS Board Planning Session 10 29 2009.pptx |
| Project Reports | BC Spatial Pilot Program Report.doc |
| Work Plans | BCSpatial 2009 Work Plan.mpp<br>BCSpatial 2010 Work Plan.mpp |
| BCSpatial Blog | Maintain and update for collaborative communication |

# 6 APPROVALS

Approval of the project charter indicates an understanding of the purpose and content of the project. By signing this document, each individual agrees that work should be initiated on the project and necessary resources should be committed as described.

**Prepared by**

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Barry Logan, Program Director

Paul van Nieuwkuyk, Project Coordinator

**Approved by**

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