

## AWG Workshop #1

10:30 am to 2:00 pm PDT, September 19, 2018

Vancouver, Victoria, + others

### **Meeting Notes** *(scribe: W. Johnstone)*

- Opening - BG:
- Structure of the AWG / Agenda; Intros
- Housekeeping:
- Terms of Reference (TOR) – minimal feedback over the summer. Assent? No additional comments. Now final.
- **Action1 – AWG Team: Add the final TOR to portal. - Done**
- Travel Justification write-up? Yes, of interest for some participants.
- How much travel required? We'll try to keep it to Vancouver & Victoria. Let's see how today works. We anticipate folks from the Interior will need to justify, e.g. folks from Penticton, Kitimat.
- No action required: will do one-on-one as required.
- Collaboration Portal - Irshad:
- Basecamp intro.
- **Action2 – Irshad will send out invites to participants to set up their accounts. - Done**
  
- ParcelMap BC Adoption Uptake:
- Q – what is the updated accuracy? BG: better than 1m is good. Some out by 140 m. There is a schema to describe it. This will be discussed later.
- Q: PMBC Updates available via ICI? A: Yes, but you need to request this from ICI. If you have direct access, you can get the updates every day.
- Q: update process to input historic data. A: being addressed.
  
- Continual Improvement:
  - Control point improvements of ISAs → networks good, but the geopositioning was “D” class. Want to do better absolute positioning. Result? Any point with static GPS will be an A, other points transformed but not GPSed will probably be a C.
  - Control point improvements of local cadastral ties → done one at a time with each muni.
  - Q from GeoBC: will the process to improve positional quality be formalized as a program? There are a few smaller munis who would be interestd. A – no. the current FY focus is the ISA's. If we hear we need to focus on that and commit budget,

LTSA/Landsure will consider it. Far from being defined at this point. But certainly open to discuss.

- Other enhancements:
  - 20,000 Crown SRWs → actively working on this.
  - Absolute Fee Book Titles → ~7,000 titles to add, some one to many, sometimes SG & LTO support is needed
  - Highway & roads tenure → in discovery phase. Public roads & highways, a single repository with an integrated shape, a big issue in the Province, how did that piece of ground become road? Plan to complete in November.
  - Pre-reg/planned parcels in PMBC → project ACE, nexgen filing, how to align processes to allow early parcels to show up in PMBC as pending or ??? type parcels early on. Many stakeholders' work is more driven pre-confirmation, so how can LTSA support that with PMBC?
- PMBC Update → Steve Mark
  - 111 jurisdictions have the PMBC adoption package
  - In addition to the hardcopy certificate, suggestion to create some kind of digital label/icon ("Supported by ParcelMap BC", "We use ParcelMap BC as the ...") that each muni/RD/gov't agency can put on their GIS / websites to signal/show their adoption to their own stakeholders (e.g., citizens, landowners, businesses, utilities, etc.)
- Working Session #1 – 3<sup>rd</sup> Party Data Alignment Dependencies
- Adoption = good, but what about my other dependencies?
- We need a status of where everyone is with minimal disruption
- Discussion of findings slides:
- DataBC – Colin Newall added some dependencies (ask Steve Mark for the list).
- Penticton → 1) Federal Lands, mostly IRs. 2) community planning, zoning, and others
- Other datasets internal to muni's and utilities – e.g., planning, zoning, internal utilities (water, sewer, gas) are left to the planning department / asset owner to deal with. These other datasets are not "3<sup>rd</sup> party datasets" as described here.

- What are the non-cadastral datasets you are very reliant on?

	ICF	BC Assessment	ALR	ICI Society	Tempest	Tantalus	AddressBC	PMBC	ITN
Local Governments	✓✓	✓✓	✓	✓✓✓	✓	✓	✓	✓✓	
Provincial Governments	✓			✓		✓			✓
Utilities	✓✓	✓		✓✓		✓	✓		



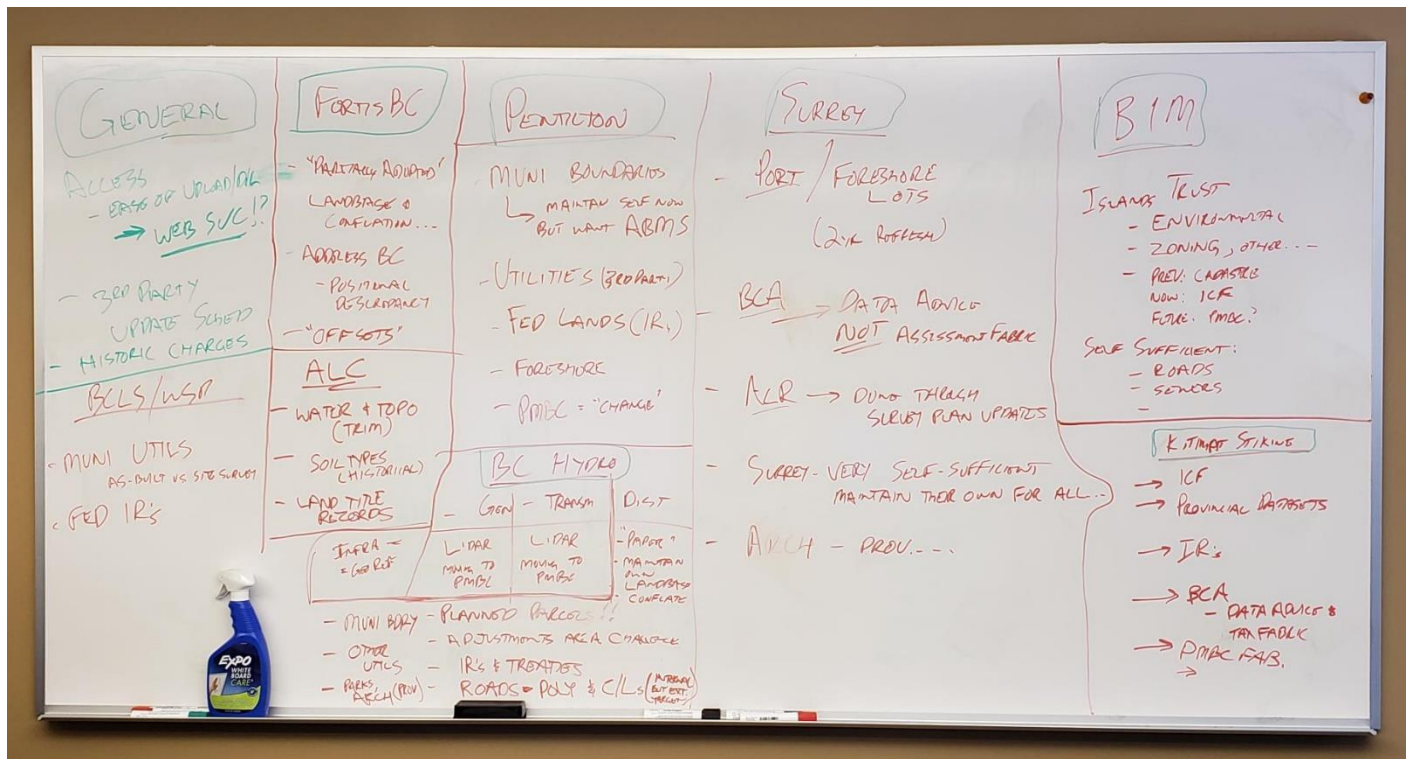
- For a small local government that is not very technical, understand what you have, what you have got, the terminology (even today) can get complex → this will be a problem for “all of the little guys”.
- Penticton
  - Municipal boundaries – would like a single source of truth. If PMBC changes, so should the dependent datasets such as ABMS.
  - 3<sup>rd</sup> party – Shaw, Telus, etc. Lots of quality problems, but can get there. They are highly dependent on the parcels for their locates
  - Fed lands (IRs)
  - Foreshore Lots
  - Many muni’s maintain their own views of multiple datasets so that everything overlays correctly → need to get the other dependent datasets properly aligned as well.
- BC Hydro – Evan Schwab
  - Generation
    - Move to PMBC
    - LiDAR
  - Transmission
    - Move to PMBC
    - LiDAR
  - Distribution
    - Paper source
    - Now doing conflation, 70% there
  - BCH doesn’t want to be in the parcel mtcce business. Only update nightly what is required.
  - BCH needs the data early in the development process.
  - Will eventually as-built with GPS
  - Aboriginal lands
  - IRs and Treaties
  - Roads → BCH maintains some road polygons. → BCH shows both boundaries and also centerlines for road names, etc.
  - Maintained by Distribution
  - Lots of muni boundaries → BCH does not want to interact with all muni’s.
  - Longer-term goal: relate BCH to other utilities
  - Archaeological sites, parks -> anything relevant to the utility planning process.
  - BCH spends a lot of time talking to muni’s and digitizing if it relevant.
  - Moving to allow users to enter their own data.
  - Sidewalks from City of Vancouver → don’t put power poles there.
  - Given bulk updates from ICI → they adjust themselves.
- Fortis BC
  - Want to minimize upload / adjustments
  - It may not simply be a matter of simply downloading the data and putting it into GIS.
  - PMBC could be streamed over a service, there is no need for transformation. Evan: yes but they MUST have their own copy as a fabric. BG: maybe a hybrid approach? → update nightly but keep a snapshot once a week?

- Fortis did adopt PMBC in the current fiscal. Did find a few issues:
  - They expected everything to line up
  - They are finding in smaller communities, after swapping out the landbase, the datasets don't all line up. Presents a challenge to Fortis.
  - They will have to keep a certain depth of knowledge in-house to understand the data and to make their own adjustments.
  - If PMBC aligns with most of the other data (road, civic address) then they can finally use PMBC for mission-critical tasks.
  - Property data is mission-critical.
  - Evan: BCH does not digitize its buried infrastructure using an offset dimension. It is mapped in absolute terms.
- General
  - Discussion of cascading effects of parcel shifts on downstream datasets
  - A 140 m adjustment can create the need to adjust many different downstream datasets. The full process can take three months' time.
- BCLS / WSP:
  - Muni utils → as-built vs. site survey
  - Fed IRs
- ALC:
  - Adjustments to TRIM? Water and topo.
  - Soils (historical)
  - Land Title Records
- Post Lunch
- Victoria Priorities:
  1. Local Government Zoning
  2. Federal Government Data → BG: there have been some discussions with NRCAN.
  3. ALR
  4. BCA and Address BC
- Vancouver:
  1. Add foreshore → lots, etc.
  2. Self-maintained admin boundaries, just keeping the various boundaries in alignment (not a new problem, some self-maintain).
  3. Utilities
- Issue: a permission with no defined shape. A new charge to Crown Land requires a geometry. Older parcels in TANTALIS might not have a geometry.
- Issue: historic charges and ROWs → a big opportunity. Some maintain their own versions.
- Issue: Colin N → there will always be parcels, titles, etc. that are out of date, not fully linked / synced / WIP →
- Not all RDs/munis are folio-based → some don't do this. Need for education? BG: from a land admin view province-wide, there is no way to uniquely identify a land parcel (PIDs, PINs, roads, etc.). If we are going to describe land in an integrated manner, how do we tie it all together? Need for a system-level integration. **Park a unique parcel-identifier issue to a future session.**

- Working Session #1 – 3<sup>rd</sup> Party Data Alignment Dependencies Next Steps?
    - Revisit Federal Lands Who: BG - LTSA.
    - Sort out how zoning is managed (Colin N).
    - Address challenges around alignment with ALR
    - BCA – look more into the process that use assessment data (with & without parcels), use of the Data Advice vs. fabric representation - how much of each gets used? What is the workflow? Some do not look at the fabric at all whereas others use both. E.g., Surrey use Tempest so they only use the Data Advice. Discussion of JUROLL (many to many, parcels to JUROLLs, 90 to 95% are 1:1 ties to PIDs, and the remainder will not tie easily or at all, greatest problem is tying mobile homes to parcels). A: LTSA and BCA to address the gaps wrt JUROLLs. BCA feels they can soon deliver a fabric properly linked to titles. CSF for adoption: Kitimat-Stikine → it must be obvious how to make this work, and at the moment it is not clear.
    - Address BC – relationship with BC Digital Road Atlas? (DRA)
  - Working Session #2 – Spatial Improvement to ParcelMap BC
  - Least Squares Adjustment / single-multivariate spatial adjustment / data recompilation = scalpel / steak knife / chainsaw
  - Candidate areas: 440 different areas to consider, average of 1k to 2k # of parcels to adjust in each.
  - Dependent upon MASCOT improvements
  - Web app: how good is the data? How ready are we to adjust it? What are the top 5/6 areas?
  - Key point: LTSA is looking for areas for major improvements. We won't see constant small adjustments everywhere. The goal is to address the areas with larger quality issues first.
  - Kitimat-Stikine: a nearby peer (Terrace) feel they have created and maintain their own fabric to the quality level they already want. Otherwise, they will just stay with their own and not adopt. Suggestion: there should be a process to help the muni's like Terrace adopt?
  - Discussion about ideas such as showing the 3<sup>rd</sup> party content that might help to inform/determine priorities for improvement: e.g., 3<sup>rd</sup> party data (ALR, IRs, ROWs etc.), highway realignment, major pipeline/powerline work
  - Question about the arrow: this is a comparison using survey data.
  - Initial build: 12k to 13k cadastral ties, have 19000 survey datasets.
  - 20 million parcel points (all have an assessed accuracy, some are quite regional)
  - End of BG intro to improvements / adjustment vectors
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- BCA: for their process, they are doing a change analysis → good to hear that big changes won't come through. The fact is will be incremental is good

- Fortis: went to similar places in their own assessment. This won't be a one-time deal for utilities. It will help them adopt PMBC faster. They will have a handle on the order of the movements, they can decide when to do their own asset adjustments.
- For Fortis, the landbase is becoming increasingly important to their business, but they will not be in the landbase business.
- Adjustment vectors are provided for every parcel point.
- User need: It would be good to see a proposed timeline on when the adjustment might be implemented. BG: not there now.
- Concern: a muni is busy adjusting to an existing fabric and then finds out an adjustment has been scheduled. The muni would need to think about the current quality level and whether there could be larger adjustments coming down the line for their area.
  
- A new subdivision may cause some minor adjustments to nearby parcels. The change vectors will still be provided in those cases.
  
- Value of the viewer: provides some confidence / ability for the muni to see the schedule for adjustment.
- Is it possible to tell the munis which ones will definitely need major adjustments?
  
- The webpage will be good for ICF users. Strong support it will help users to adopt. Adding more granularity of production plans will help even more. Provides a basis for adoption. (Dale Sparrow)
  
- Do we know of areas where we don't have good control? BG: yes, but we cannot assess the current accuracy in those areas.
  
- Jason: Control network in BC: there is work going on all of the time, it is improving the fabric. How does this come into the system? BG: yes the fabric gets regular MASCOT updates.
  
- Q for Surrey: does each survey point have a primary key? Could Surrey then compare new adjusted to their locally/manually adjusted points and then estimate the degree of adjustments required to adjust his "3<sup>rd</sup> party" datasets? E.g., pipes, catch basins, sidewalks, etc.
  
- Future Workshops:
  - Third Wednesday of every month?
  - Oct 17<sup>th</sup> web conference
  - 3<sup>rd</sup> Wednesday of November
  
- Open Discussion:
  - No time.

Photo of Vancouver Whiteboard scribed by BG:



## General Observations

- Data Access – ease of uploading and downloading datasets from PMBC
- Possibility of offering PMBC as a data streaming services will save stakeholders having to transform from one coordinate system to another. Automation recommended.
- Third party datasets update schedule should be synced in a way that there is no lag time in datasets being update. Eva brought this up: she asked what other parties schedule for alignment with PMBC data?
- Historic charges
- Attribution and understanding of terminology (Metadata) – Eva brought this up when she stated that the terms used for attributes in the fabric are unclear.
- Hybrid fabric – feedback on is it in sync? Refresh rate etc?
- Parcel Unique Identifier workshop in the future

## District of Sooke

- Municipal boundary from Provincial datasets. There seem to be a few versions/vintages that have different locations for a municipal boundary when compared to the boundary shown on a registered survey plan.

## Fortis BC



# ParcelMapBC

- Partially adopted PMBC as their landbase
- Landbase and conflation- Identified areas for conflation and the fact that PMBC is providing visibility of proposed areas for spatial improvement, Fortis can wait until the PMBC adjustments have been made prior to making the conflation.
- Need data early in the process.
- Address BC - Positional Discrepancy. Challenge is road alignment (Civic address) with PMBC, then Fortis can adapt.
- Offsets – some features captured as offsets.

## **Surrey**

- Port/Foreshore Lots would be useful to have in PMBC. Currently a 2 year refresh is being made.
- Relies more on the Data Advice not Assessment Fabric from BCA.
- ALR – Done through survey plan/title updates.
- Very self-sufficient maintaining datasets for all.
- Also use Archaeology dataset from the Provincial database.

## **Penticton**

- Municipality boundaries are being self-maintained but would like to ABMS
- Utilities (3rd Party)
- Federal Lands (IRs)
- Foreshore lots
- PMBC changes

## **Bowen Island**

- Relies on Islands Trust for Environmental, Zoning and other datasets.
- Previously Islands Trust cadaster, now ICF, PMBC in the future.
- Self-maintained road and sewer datasets.
- Roads & utilities are GPS'ed

## **Agricultural Land Commission (ALC)**

- Use of water and Topographical datasets (TRIM)
- Soil types (Historical)
- Land title records
- Regional districts dataset

## **British Columbia Land Surveyors (BCLS) and WSP specifically**

- Municipal utilities As Built vs Site Survey
- Federal IR's need to match PMBC boundaries when the parcels are adjusted.

## **Regional District of Kitimat-Stikine**

- Using ICF provincial datasets
- IR's have provided ties to ICF
- Use BCA Data Advice & Tax Fabric
- PMBC Fabric

## **BC Hydro**

- Using INFRA – Geo ref
- Generation division using - LIDAR – moving to PMBC
- Transmission division also using- LIDAR – moving to PMBC
- Distribution division is "Paper based", they maintain own landbase and perform conflation
- Municipal boundary – Planned parcels!!
- Other utilities- adjustment area is a challenge
- Parks, archaeology (Provincial)
- IR's & Treaties
- Roads - both polygon & centre lines (INTERNAL BUR EXTERNAL TARGETS)

## **Victoria White Board**

- ICF - MoTI
- ICI – BCA
- Utilities
- Provincial data
- ALR – challenge for BCA and District of Sooke.
- Foreshore lots – BCA and Sooke.
- FED – MoTI and Sooke
- PMBC – issue with spatial adjustment
- Address BC
- Service boundaries – BCA
- Zoning
- DRA
- OGC- BCA

**AWG Workshop – Sept 19, 2018**

**Breakout Session - Victoria**

**General Discussion**

PMBC assurance of accuracy is the overriding issue (what does this mean? - an issue for adopters?)

## Top 3 dataset dependencies for PMBC Adoption

1. Zoning - Municipalities to align this critical dataset to PMBC (part of the adoption process in LGs)
2. Federal Lands - (NRCAN)
3. ALR - alignment

Sooke and BCA - ALR might be very challenging for LG - ALR boundaries must stop moving

First Nations parcel representation - those not represented in PMBC - difference between federal data and treaty data - complexity of land title within IR - BCA has some taxable parcels in IRs

GeoBC's phased approach

Phase 1: ICF plus (LG maintained)

Phase 2: Dual maintained areas (LG and ICF)

Phase 3: areas under active maintenance

GeoBC is phasing out but does not have a clear path for adoption due to attributional differences between ICF and PMBC

GeoBC timeline is dependent by PMBC's spatial adjustment timeline - a regional and phased approach is desirable - suggest start on the island and move around the Province

PMBC's Spatial adjustment schedule (ICF) must be settled to facilitate successful adoption by LG ICF clients.

<b>Breakout Session #1 "Dependencies"</b>	
<b>Datasets</b>	
ICF	✓
ICI <u>Cadastre</u>	✓
Utilities	✓
Provincial Data	✓
ALR	✓ ✓ ✓
BCA	✓ ✓
Federal Lands	✓ ✓ ✓ ✓
PMBC	✓
AddressBC	✓ ✓
DRA	✓
OGC	✓
<b>Desired Datasets</b>	
Zoning (dataset desired)	✓ ✓ ✓ ✓
Municipal Boundaries/Regional Districts	✓ ✓

How is zoning managed at the LG level? Survey the membership?

Other areas of interest: Community planning, water, sewer gas

There is a need for the ALR dataset to align - ALR is a challenge for Sooke and BCA

## **Breakout Session – Vancouver Feedback**

There is a need for Foreshore (federal and provincial leases) to be part of PMBC. Not currently in PMBC

Ease of access was an issue expressed by some in the Vancouver session

BCA - 99% mapped in the assessment fabric but not all PIDs

BCA requires a daily update

No unique identifier for survey parcels without a PID or PIN. Ex. Road, common property etc.

Priority Third Party Dependency datasets:

- Federal Lands
- Assessment alignment
- Zoning
- Foreshore
- ALR

## **Spatial Improvement**

Spatial improvement assessment tool (software) was a big hit and provides an opportunity for LGs to understand what changes are planned to inform users looking to adopt PMBC

There was a request to flag when an adjustment is going to be made (1 week, 1 month, 1 year) so munis can plan to work on them when they are adjusted - LTSA and LG to open a communication line to schedule changes

LTSA will work on the most in need areas first

LTSA should notify affected areas when a section has been aligned

How does one use alignment vectors? Availability of change vectors?