



Local Health Area Profiles (via Story Maps and WAB Apps)

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Organization Overview

- I work for GeoBC!
- A branch within the BC government Ministry of Forests, Lands, and Natural Resource Operations (MFLNRO):
<http://www.geobc.gov.bc.ca/>
- GeoBC, creates and manages geospatial information and products, as well as provides consultation services to other provincial government agencies.
- 95% of staff are located in Victoria (Surrey, Terrace, Nanaimo)
- 60+ Employees... using Esri products since ??? 2000 ???
...began using ArcGIS Online in 2014

Project Description

- Overview
 - GeoBC took on this project on behalf of Island Health

Island Health - LHA profiles **DRAFT** [Edit](#)

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Island Health provides health care to more than 765,000 people on Vancouver Island, the islands of the Georgia Strait, and in the mainland communities north of Powell River and south of Rivers Inlet.

Island Health has fourteen local health areas (LHAs) – these are geographic areas defined by the Ministry of Health. The LHA Profiles provide information on things like demographics, population health and health service use over time.

These profiles are intended to shed light on community health, including *social determinants of health*– these are things like economic status, early childhood development, education, housing, justice and social support that can contribute to or detract from our health and wellbeing. Partnerships with communities and across organizations and governments play an essential role in our ability to impact these factors and improve the health and wellbeing of our communities.

These profiles are not intended to be used for detailed planning or analysis. As they are updated annually from numerous sources, more current may be available from any one source.

For questions, past profiles or if you notice a discrepancy, please contact Melanie Rusch (Melanie.Rusch@viha.ca).

Use the tabs across the top to access comparisons of Local Health Area data, individual Local Health Area Profiles, Contact information, FAQs, and Links to associated resources.

Pacific Ocean

Seattle
Vancouver

ESRI

OVERVIEW MAP

Project Description (Cont'd)

- Overview (cont'd)
 - The goal of this project was to reconfigure information presented in 14 Local Health Area (LHA) profiles from static PDFs into a “more user-friendly, geo-enabled and interactive experience.”
- How?
 - Present the LHA profile information using an **Esri Story Map Series App** with additional embedded Esri apps
 - [Island Health LHA profiles Story Map](#)

Project Description (Cont'd)

- The details of How:
 1. Get the Data Ready
 - Compile and **prepare the spatial data** for Island Health's region and its LHA boundaries
 - Compile and normalize tabular data for 3 LHA profile indicators (of about 28)
 - Generate hosted feature and tile services (join the tabular to the spatial, export to a new dataset, then publish) for each of the 3 indicators.
 - You'll also need to compile images, web page URLs, reports, story context, videos and any other resources that you want to include in your project

Prepare the spatial data (Simplify Polygons – geoprocessing tool)















		Datasets		
Compare	LHA Name	IH_LHAs2013	IH_LHAs2013 Simplify 50m	IH_LHAs2013 Simplify 100m
# of Vertices in polygons	61 - Greater Victoria	2312	1197	867
	62 - Sooke	3741	1737	1180
	63 - Saanich	2221	1073	772
	64 - Gulf Islands	6096	2755	1835
	65 - Cowichan	1370	666	469
	66 - Lake Cowichan	1297	832	602
	67 - Ladysmith	2948	1625	1156
	68 - Nanaimo	3203	1826	1314
	69 - Qualicum	4490	2379	1740
	70 - Alberni	33329	16586	11954
	71 - Courtenay	2158	1019	715
	72 - Campbell River	30978	13971	9045
	84 - Vancouver Island West	33849	17631	13452
	85 - Vancouver Island North	83448	41677	30024
HFS drawspeed		VERY slow (some polys don't draw)	Fast	Fast
HFS size		16 MB	2 MB	2 MB
Conclusions		High precision (unnecessary for use in web map visualization)	Reduced precision of data acceptable for visualization purpose in web map (better than 100m)	Reduced precision of data acceptable for visualization purpose in web map (better than 100m)
		Too Slow - Users would abandon	acceptable drawspeed - fast	acceptable drawspeed - fast
		700% more storage requirements than 50m or 100m simplified datasets	acceptable size	acceptable size

Project Description (Cont'd)

- The details of How (cont'd):
 2. Design the layout of the Story Map with embedded Apps
 - Embedding Apps in Story maps **can get confusing!!!**
 - Use a naming convention for web maps, and web apps
 - make it easier to navigate all the pieces when you need to make edits or changes.
 - Document your methods
 - Make it easy for you or someone else to update your project at some point down the road

Embedding Apps can get confusing

How do you remember which app is embedded in which app if you need to make a change or edits? Find a system and stick to it!

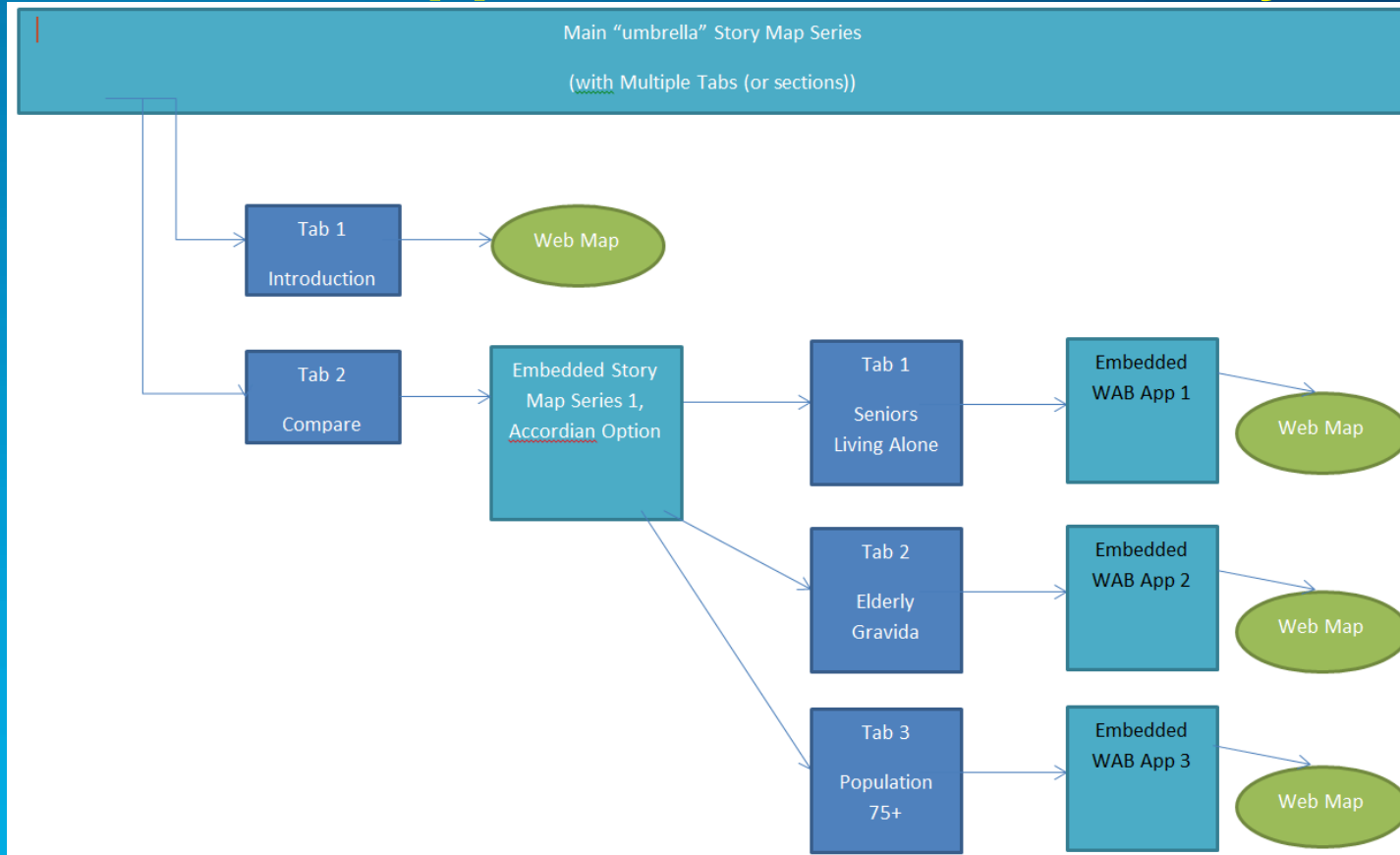
▲ Title	Type
 IH_main_StoryMapSeries	 Web Mapping Application
 IH_population_timeAware	 Web Mapping Application
 IH_population_timeAware - SingleLHAs Victoria	 Web Mapping Application
 IH_WABapp_LHA_61-Greater Victoria	 Web Mapping Application
 LHA_61_GreaterVictoria	 Web Mapping Application
 LHA_compare_data	 Web Mapping Application
 LHA_main_StoryMapSeries	 Web Mapping Application

Project Description (Cont'd)

3. The pieces:

- **A main “Umbrella” Story Map Series App**
 - A main Web Map (for the introduction tab)
 - Additional Story Map Series for embedding in the Umbrella App tabs
 - Additional Apps (WAB and Time Aware) to display the 3 indicators
 - May need additional Web Maps for each App ☺

Schematic of Apps embedded in a Story Map



Project Description (Cont'd)

- The details of How (cont'd):
 4. Why embed apps within apps?
 - “Mashing” the apps together gives the client all the power of the widgets in the Web App Builder (and other ArcGIS Online Apps) with the context of the story all in a single app.
 5. How do you embed an App within a Story Map?
 - Easy peasy...(thx to an Esri blog I came across last summer)
 - <http://blogs.esri.com/esri/arcgis/2015/04/21/embed-story-map-in-story-map/>

Project Description (Cont'd)

- **How long did it take?**
 - **Approx 1 day to build a demo/draft version**
 - **We are still in the process of fine-tuning layout of App**
 - **We are still researching best ways to apply updates on annual basis**
 - **We have only included 3 sample indicators in the draft. Adding the rest of the indicators will take some time.**
- **Training**
 - **Island Health would like to be able to take over the annual updates in the future**
 - **GeoBC will be able to provide documentation and assistance to Island Health to enable them to do this**

System Environment

- **Software**
 - **ArcGIS Online to build the web maps and apps**
 - **ArcMap to build and publish the hosted feature services and tile services**
- **Data (source/create)**
 - **Spatial and Tabular Data compiled by Island Health**

Benefits

- **ArcGIS Online**
 - **Canned App Templates are awesome - No coding required! Means that they will be easier for more people to build, use, and maintain.**
 - **Presenting the LHA profiles via Story maps with embedded apps provides a robust interactive gateway to as much information as Island Health wants to provide. There is opportunity for better understanding of health information as it relates to geographic location**

Lesson Learned

- **What would you do differently?**
 - **More testing at the outset to maximize App performance by**
 - **Using tile services where possible**
 - **Simplify Polygons where possible (esp for Large datasets)**
- **Positive recommendations for others?**
 - **Be organized**
 - **Document methodology**
 - **Share learnings with peers**
 - **Remember the technique.... URL + “&embed”**
 - **Keep your eye on the ESRI Blogs for more tips 😊**

Future Plans

- **Next steps for this project?**
 - Demo the LHA app to Island Health to show how the Story map with embedded WAB apps can meet their needs
 - Solicit feedback from IH, make adjustments as necessary (add remaining indicators)
 - Share a final version with the public
- **How will GeoBC leverage the success of this project?**
 - We'll very likely be doing more projects for more clients using Esri Story maps with embedded apps as a platform.
 - Apply learnings from this project to future projects
 - Share tips and tricks with GIS peers

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