

# **Open Data 101**

## **What does Open Data mean for Parkland County?**

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### WHAT IS OPEN DATA?

The Government of Canada defines open data as structured data that is machine readable, freely shared, used and built on without restrictions. Data must be available to download over the internet and available in a convenient and modifiable form. Data must be provided under terms that permit reuse and redistribution including the intermixing with other datasets. And finally there should be no discrimination or restriction of use for certain purposes.

What this means for Parkland County is that we would allow the public to download County data from a website, referred to as an open data portal, for whatever purpose they choose. Up until the development of the open data portal, the only way for the public to gain access to Parkland County data was to purchase the data from a data vendor, or they would need to complete a data sharing agreement referencing a contract.

### WHY WOULD ANYONE WANT TO DOWNLOAD AND USE PARKLAND COUNTY DATA?

The GIS Department receives data requests continuously from various groups including University students, consultants, real estate agents, transportation providers, non-profit groups, other municipalities, etc. These groups utilize data for different purposes but they all want raw data so they can perform some type of analysis in order to make decisions, they want to create maps, or they want to build application to help the residents of Parkland County. Developers will download the data and combine information from multiple sources to create mobile or web applications. For some great examples of what can be done, check out the <u>City of Edmonton Open Data Applications</u> site.

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#### WHAT ARE THE BENEFITS OF AN OPEN DATA PORTAL?

- Self-service efficient customer service due to easy, fast access to Parkland County data
- Everyone will have access to County data at any time, reducing the need for data requests, media inquiries, and email requests
- Reduced administrative burden less time spent compiling data by the GIS team to satisfy data sharing agreements
- Support for innovation members of the public can build apps for Parkland County residents
- Surrounding municipalities can access the data to create maps or perform analysis
- Emergency services agencies can quickly access data as required
- Increased accountability & transparency the public will have greater insights into County activities, service delivery, and use of tax dollars
- Providing an additional service for our residents and the general public
- Embrace technology and be competitive with our neighbouring municipalities

### HOW WILL PRIVATE RESIDENT INFORMATION BE PROTECTED?

A formal open data portal process is currently in development. The process consists of several steps to ensure that all personal information is securely protected.

- 1. GIS will consult with the data authority that the data will be presented for upload into the open data portal. For example: Engineering will be consulted prior to suggesting water mains be uploaded.
- 2. Data will be cleansed by GIS to ensure private information is removed.
- 3. Metadata will be added/verified. Metadata is information about how & when the data was collected.
- 4. An update or refresh period will be set by GIS to ensure all data within the open data portal is relevant and up to date.
- 5. Data will be vetted (with sign off) by Legislative services.
- 6. GIS will develop an automation tool to allow for fast data updates when required.
- 7. GIS will add the dataset name (if it is a new dataset) to the open data catalog available on the Parkland County website.
- 8. GIS will load the data into the Parkland County open data portal, making it available for download.
- 9. GIS will test the new dataset to ensure it was loaded properly and that no personal information is included, by performing a test download.

# WILL THERE BE A FORMAL DATA SHARING LICENSE AGREEMENT THAT USERS NEED TO SIGN?

The premise of open data is that is it must be freely used without restriction. There is a Parkland County open data license agreement, structured after the <u>Open Government License - Alberta</u> but the public does not need to sign an agreement or log into a system to download data. There may be commercial businesses that download and utilize Parkland County data, and they are free to do so but they must follow the Parkland County Open Data License Agreement.

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# WHAT DATASETS AND DATA TYPES (FORMATS) WILL BE ADDED TO THE OPEN DATA PORTAL?

GIS will add a few datasets to the open data portal to start and then slowly build the catalog up over time. Data added to the portal will be of high value to the public, with a high degree of accuracy. It will be readily available in an open format, without legal constraints (does not contain private information). The data formats that will be uploaded into the data portal include xml, shapefile, csv, and xls spreadsheet data. The initial datasets for the open data portal are as follows:

Datasets to upload initially	Potential datasets to upload later
Address points	Internet towers
Roads	Land use districts
Subdivisions	Crown land & County land
Points of interest	Electoral districts
Schools	Landfill locations
Recreation facilities	Water & sanitary data
Trails	Road bans
School division boundaries	Bridges & culverts

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#### WHAT WILL THE OPEN DATA PORTAL LOOK LIKE?

There are some pretty incredible examples out there for us to follow which is great! Ideally we would like to end up with an open data portal very similar to what the County of Grande Prairie has created. They utilize the same software as Parkland County (ESRI products). To access the open data site there will be a home/landing page within the Parkland County website that contains all information related to open data such as the license agreement and FAQ's. On the open data home page there will be a link to the open data portal.

Here is an example of an open data home page:

http://www.countygp.ab.ca/EN/main/community/maps-gis/open-data/data.html

Here is an example of an ESRI open data portal: <a href="https://data1-cogp.opendata.arcgis.com/">https://data1-cogp.opendata.arcgis.com/</a>

Another beautiful example of an open data portal using ESRI software is the <u>City of Waterloo</u> in Ontario:

The <u>City of Edmonton</u> and <u>Strathcona County</u> have extensive open data portals, utilizing a software called Socrata. Socrata allows for all data types to be uploaded into the open data portal and is an allencompassing open data software.

### CAN THE OPEN DATA PORTAL BE USED FOR ALL DEPARTMENTS?

The open data portal utilizes ESRI, GIS software that we already have licensing for which is great as there are no additional software costs. The other huge benefit of using ESRI software to create our open data portal is that there are standard templates set up that allow us to get a site up and running in less than a week, data standards are built in, and the site is highly secure. The downside of using ESRI for our open data portal is that we are able to upload data formats such as XML, CSV, JPEG, RSS, mdb, etc. We are unable to upload files such as pdf's or word documents utilizing the software that we have. ESRI has published a <u>list of data formats</u> that can be uploaded into the open data portal.

### HOW OFTEN WILL DATA BE UPDATED?

Update frequency will depend upon the rate of change within each particular dataset. Roads, for example has updates quite often so the data would need to be updated monthly, whereas schools rarely changes so that would be updated annually. The update frequency will be stated on the data approval form that is filled out during the data upload process.

#### **HOW ACCURATE IS THE DATA?**

As with all Parkland County GIS data, the data within the open data portal will be as accurate as possible. There will be a disclaimer on the open data home page much like what is used for Discover Parkland. With the following wording:

"While a great deal of effort has been made by Parkland County to ensure that our digital data is of the highest quality, it is of course possible that there are errors, omissions, or inconsistencies. The data is



continually being updated and enhances. If a problem with the data is found, please help us correct the matter by sending an email to <a href="mailto:opendata@parklandcounty.com">opendata@parklandcounty.com</a>

Parkland County makes no warranties or guarantees, either expressed or implied as to the completeness, accuracy, or correctness of the information/data portrayed in this open data portal, and will not accept liability arising from any incorrect, incomplete, or misleading information contained therein."

# WHAT PRINCIPLES WILL BE FOLLOWED WHEN DECIDING TO ADD DATA TO THE OPEN DATA PORTAL?

The Government of Canada has established open data principles to help with decision making for open data. The principles below are standards from the <u>Government of Canada</u>.

Completeness – datasets should be as complete as possible, reflecting the entirely to what is recorded about a particular subject. All raw information from a dataset should be released to the public, unless there are access to information or privacy issues. Metadata that defines and explains the raw data should be included along with explanation for how the data was calculated.

Primacy – Datasets should come from a primary source. This includes the original information collected by Parkland County and available details on how the data was collected. Public dissemination will allow users to verify that information was collected properly and recorded accurately.

Timeliness – Datasets will be made available to the public in a timely fashion. Whenever feasible, information collected by Parkland County will be released as quickly as it is gathered. Priority will be given to data whose utility is time sensitive.

Access – Datasets released by Parkland County will be as accessible as possible with accessibility defined as the ease with which information can be obtained.

Machine Readability – Datasets released by Parkland County will be stored in widely-used file formats that easily lend themselves to machine processing, such as csv or xlm formats.

Non-discrimination – Datasets released by Parkland County will have as few barriers to use as possible. Any person will be able to access the data at any time without having to identify themselves.

Use of Commonly Owned Standards – Datasets released by Parkland County will be in freely available file formats with common standards (non-proprietary), to ensure that an application or program does not need to be purchased in order to utilize the data.

Licensing – Parkland County will release datasets under the Parkland County Open Data License which is designed on the <u>Open Government License</u> – <u>Alberta</u>. The license is designed to increase openness and minimize restrictions on data use.



Permanence – The capability of finding information over time is referred to as permanence. For best use by the public, information made available online should remain online with appropriate version-tracking and archiving over time.

Usage Costs – Parkland County releases the data free of charge.

### WHO DO WE CONTACT IF THERE ARE OPEN DATA QUESTIONS?

Please direct all inquiries and requests to <u>opendata@parklandcounty.com</u> or come visit the GIS Team for more information.