

OpenStreetMap Data for Pacific Island Countries

OpenStreetMap data and QGIS projects bundled for Pacific GIS users

Available on the Pacific Environment Portal

pacific-data.sprep.org



SPREP
Secretariat of the Pacific Regional
Environment Programme



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Frequently asked questions

What is OpenStreetMap?

OpenStreetMap (OSM) is a free, editable map & spatial database of the whole world. It's both free as in *speech* and free as in *beer*... the data doesn't cost any money to access or use, and you can do whatever you like with it (as long as you provide attribution).

Who uses OpenStreetMap?

OSM data is used by many companies, including MapBox, Facebook, Apple, Microsoft, Amazon, as a base map and as spatial data to power their applications. Editing OSM is one of the best ways to make sure your area is mapped on the internet, and people can navigate and find places using apps.

Learn more about who uses OpenStreetMap on the [OpenStreetMap website](#)¹.

What is this data product?

Extracts of OpenStreetMap data for each of the Pacific Island countries and territories, plus one for the region, in a GIS-friendly format, packaged with QGIS resources containing basic cartographic styling.

The goal is to increase awareness among Pacific GIS users of the richness of OpenStreetMap data in Pacific islands, as well as the gaps, so that they can take advantage of this free resource, become interested in contributing to OSM, and perhaps join the global OSM community.

Who is it for?

This is a freely available resource available to anyone. It has been designed to be familiar to GIS users in the Pacific.

How is it different to other downloadable extracts?

There are two key differences. The first is that it has been split into separate layers based on themes (buildings, roads, points of interest, etc), rather than simply by feature type (point, line, polygon). The other is that it comes bundled with QGIS projects and styles, to help you get started with using the data in your maps.

My data is missing! What do I do?

If it fits in with the OSM schema, you can add it and share your work with the world! See below for more detail.

¹ <https://welcome.openstreetmap.org/about-osm-community/consumers/>

How to get the data and keep it up to date

This data will be updated from the global OpenStreetMap database on a weekly basis. You can download the latest version from the [Pacific Environment Portal](#)², or from your [national environment data portals](#)³. Use the search field to look for datasets called "OpenStreetMap Data". The search result will show the regional OSM dataset (OpenStreetMap Data Pacific) and the national OSM datasets. Click on the specific dataset that you are interested in; this will take you to the dataset page where you can access the link to download the weekly updates.

As an alternative, you might want to use extracts from [Geofabrik](#)⁴, which are updated nightly, but are different from this resource:

- Geofabrik extracts are separated by feature type (point, line, polygon) rather than thematic layers (buildings, roads, etc).
- While it's the same source OSM data, the Geofabrik extracts are not split by countries in exactly the same way as OSM Pacific. For example, American Samoa, Guam, and Northern Mariana Islands are grouped together in the Geofabrik extract as "American Oceania".

Using the data and resources

QGIS desktop GIS software

QGIS is a professional-grade, free & open source desktop GIS software that runs on Windows, Mac, and Linux operating systems. This resource comes bundled with QGIS project files, with the OpenStreetMap data pre-loaded & styled for your convenience. You can download and install QGIS for your platform at the [QGIS project website](#)⁵.

The QGIS project files in this resource are built for the latest "Long Term Release" version of QGIS, which is currently QGIS 3.10.6 A Coruña. Symbology may not appear as intended in older versions. They should work well in later versions.

QGIS project files

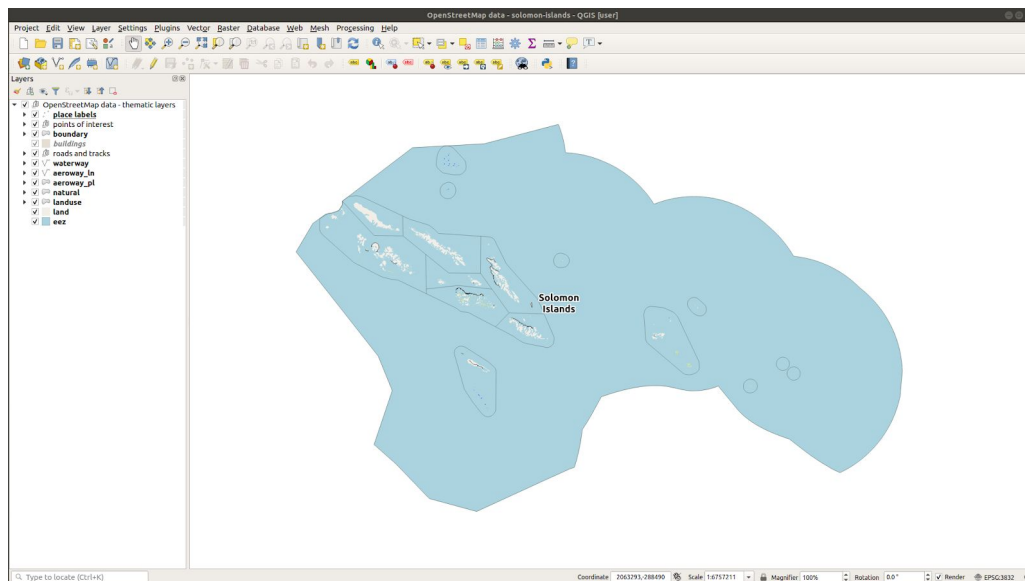
There are separate QGIS project files (.qgs) for most Pacific countries, and one for the region. When you open a project file, you should see something like this:

² <https://pacific-data.sprep.org>

³ <https://pacific-data.sprep.org/about>

⁴ <https://download.geofabrik.de/>

⁵ <https://qgis.org/en/site/forusers/download.html>



With the project open, you can pan/zoom, explore details, turn layers on/off, open attribute tables, query the data, change the styling, make maps, and export data into different formats.

QGIS layer files

The QGIS layer file (.qlr) makes it easy to bring the styled data into your existing QGIS projects, either by dragging and dropping them into the QGIS window, or using the menu (*Layer>Add from Layer Definition File...*).

Data

The actual data is in a GeoPackage, a file-based spatial database containing a collection of point, line, and polygon vector layers, divided into themes. [GeoPackage](https://www.geopackage.org/)⁶ is an open, standards-based format for storing geospatial information. As an open format, it can be used in various software packages, including QGIS and ArcGIS.

Editing the data in OpenStreetMap

What if OpenStreetMap doesn't have complete data in my area, or I see something that's incorrect or out of date?

Have a look at the online map at www.openstreetmap.org. Are the buildings complete in your neighbourhood? Do the roads have correct names, and do they connect in the right places? Could the points of interest in your city, town, or village be improved by fixing their locations, adding their names, or linking to a Wikipedia entry?

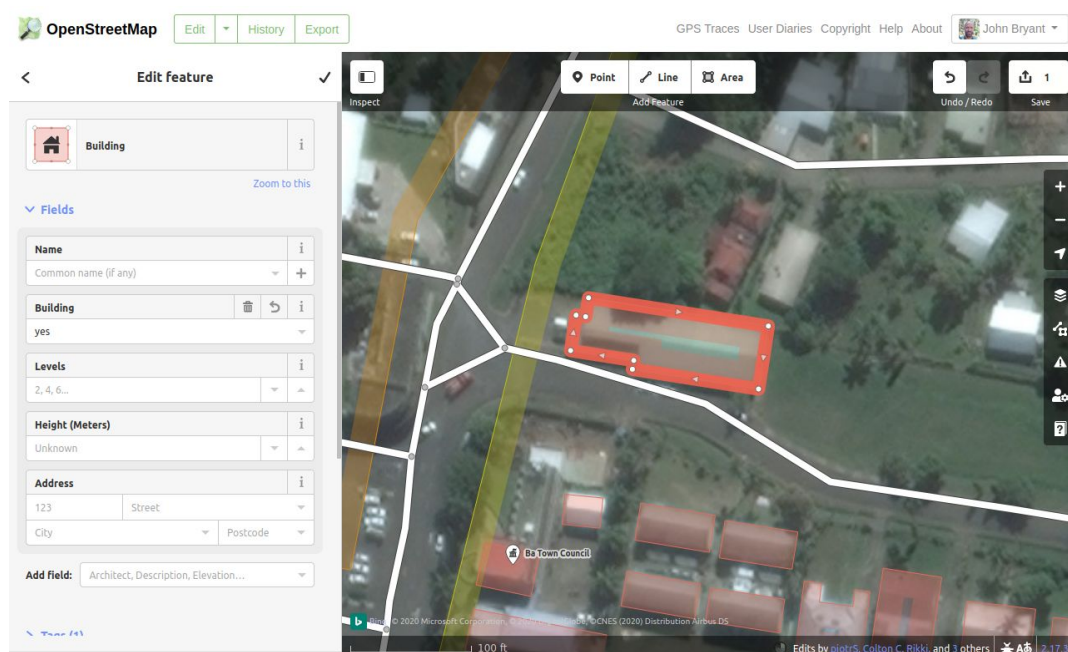
⁶ <https://www.geopackage.org/>

This is one of the best parts of OpenStreetMap: we can all contribute to making it a better map! By adding data when it's missing, fixing errors, and keeping features up to date, you're not only making it more useful for yourself, you're making a contribution the whole community can benefit from.

Buildings and roads are a great place to start. You can add or edit feature geometries, and you can add or edit relevant "tags". With tags, you can classify a feature (eg. building, road, land use type), or add relevant attributes (eg. name/address/business name/opening hours). Much like in a desktop GIS, these tags are what the OSM map's symbology and labelling are based on, and they're used to determine which features are included in the dataset bundled with the Pacific OSM data resource. Learn more about how tags work here: <https://wiki.openstreetmap.org/wiki/Tags>.

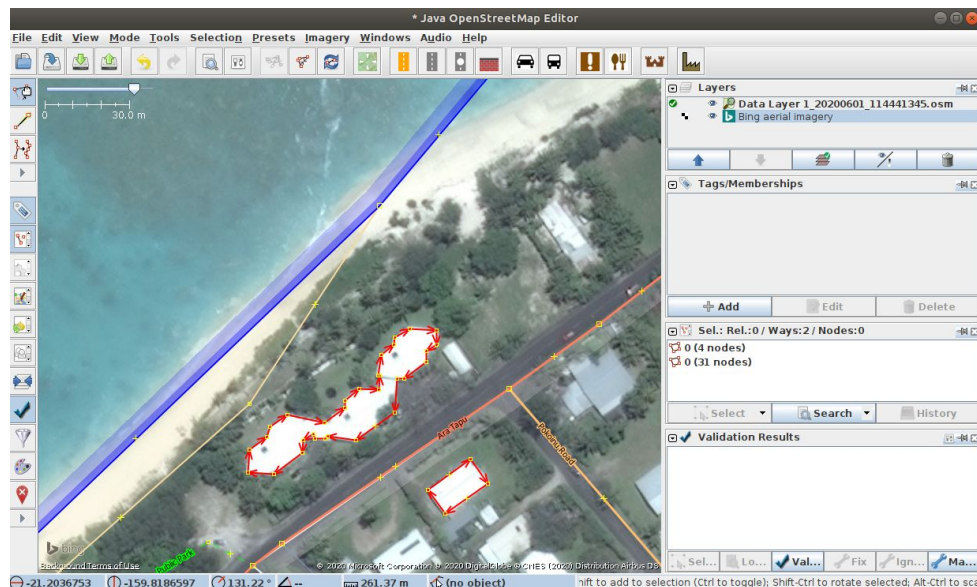
Anyone can create a free account and edit the data. Once you create an account, you can start editing. There are a few ways you can do this.

The easy-to-use iD editor allows you to make edits in your web browser at www.openstreetmap.org. If you want more editing power, you might want to try out the desktop software JOSM or one of the [many other available editors](#)⁷.



In-browser iD editor

⁷ <https://wiki.openstreetmap.org/wiki/Editors>



Desktop-based JOSM editor

While the data is very rich and detailed in many areas of the Pacific, there are quite a few places where buildings are yet to be completely mapped. It's a fun way to contribute to a great community resource and help make the data even more usable!

See the [OSM beginner's guide](#)⁸ for additional help.

The OSM community

Millions of registered users are adding to OpenStreetMap, and thousands of these mappers are actively managing the project and building community around the world. National and regional user groups are often engaged in suggesting locally-appropriate tagging schemes, organising mapping events, and training new users.

Ways you can get involved:

- Create an account and edit the map.
- Attend (or help organise) mapping events. With mapathons, mapping parties, and local & regional conferences happening all over the world, many of them online, you can participate or create your own. This is a great way to meet other mappers and learn from each other.
- Join the conversation. Sign up to mailing lists and participate in discussions about tagging schemes, what should be on the map, and community building efforts.

⁸ https://wiki.openstreetmap.org/wiki/Beginners%27_guide

Licences & credits

OpenStreetMap licence

OpenStreetMap data is open data, with a very permissive licence. You can download it and use it for any purpose you like, as long as you credit OpenStreetMap and its contributors. You don't have to pay anyone, or ask anyone's permission. When you download and use the data, you're granted permission to do that under the Open Database Licence (ODbL). The only conditions are that you Attribute, Share-Alike, and Keep open.

The required credit is “© OpenStreetMap contributors”. If you make a map, you should display this credit somewhere. If you provide the data to someone else, you should make sure the licence accompanies the data.

From the human-readable summary of the ODbL 1.0 licence:

You are free:

To Share: To copy, distribute and use the database.

To Create: To produce works from the database.

To Adapt: To modify, transform and build upon the database.

As long as you:

Attribute: You must attribute any public use of the database, or works produced from the database, in the manner specified in the ODbL. For any use or redistribution of the database, or works produced from it, you must make clear to others the license of the database and keep intact any notices on the original database.

Share-Alike: If you publicly use any adapted version of this database, or works produced from an adapted database, you must also offer that adapted database under the ODbL.

Keep open: If you redistribute the database, or an adapted version of it, then you may use technological measures that restrict the work (such as DRM) as long as you also redistribute a version without such measures.

Disclaimer

This is not a license. It is simply a handy reference for understanding the ODbL 1.0 — it is a human-readable expression of some of its key terms. This document has no legal value, and its contents do not appear in the actual license. Read the full ODbL 1.0 license text for the exact terms that apply.

Learn more:

- [full text of the ODbL](#)⁹
- [human-readable summary of the ODbL](#)¹⁰
- [further information about OpenStreetMap copyright and licence](#)¹¹

⁹ <https://opendatacommons.org/licenses/odbl/1.0/>

¹⁰ <https://opendatacommons.org/licenses/odbl/summary/>

¹¹ <https://www.openstreetmap.org/copyright>

QGIS licence

QGIS is free software released under the GNU Public License (GPL) Version 2 or above. You are free to download, install, modify, and distribute the software.

- [full text of the QGIS licence](#)¹²

Credits

This project was planned and completed by John Bryant ([Mammoth Geospatial](#)¹³) and Julie Callebaut and Tavita Su'a ([SPREP](#)¹⁴). Special thanks to the OpenStreetMap community for providing such a valuable resource, and to the QGIS community for providing a free professional-grade desktop GIS product for the world to use.

Several key open source software projects were used in the development of this resource:

- [GDAL/OGR](#)¹⁵
- [Osmium](#)¹⁶
- [Python](#)¹⁷
- [Linux](#)¹⁸

Frederik Ramm ([Geofabrik](#)¹⁹) supported this project by adding several new country-specific extracts to the Geofabrik download server.

Andrew Harvey ([Alantgeo](#)²⁰) offered excellent suggestions and advice that improved the overall quality of the project.

FOSSGIS maintains [an excellent resource](#)²¹ of pre-processed land polygons, built from OSM data, that were used in this project.

¹² <https://github.com/qgis/QGIS/blob/master/COPYING>

¹³ <https://mammothgeospatial.com/>

¹⁴ <https://www.sprep.org/>

¹⁵ <https://gdal.org/>

¹⁶ <https://osmcode.org/osmium-tool/>

¹⁷ <https://www.python.org/>

¹⁸ <https://www.linux.org/>

¹⁹ <https://www.geofabrik.de/>

²⁰ <https://www.alantgeo.com.au/>

²¹ <https://osmdata.openstreetmap.de/>