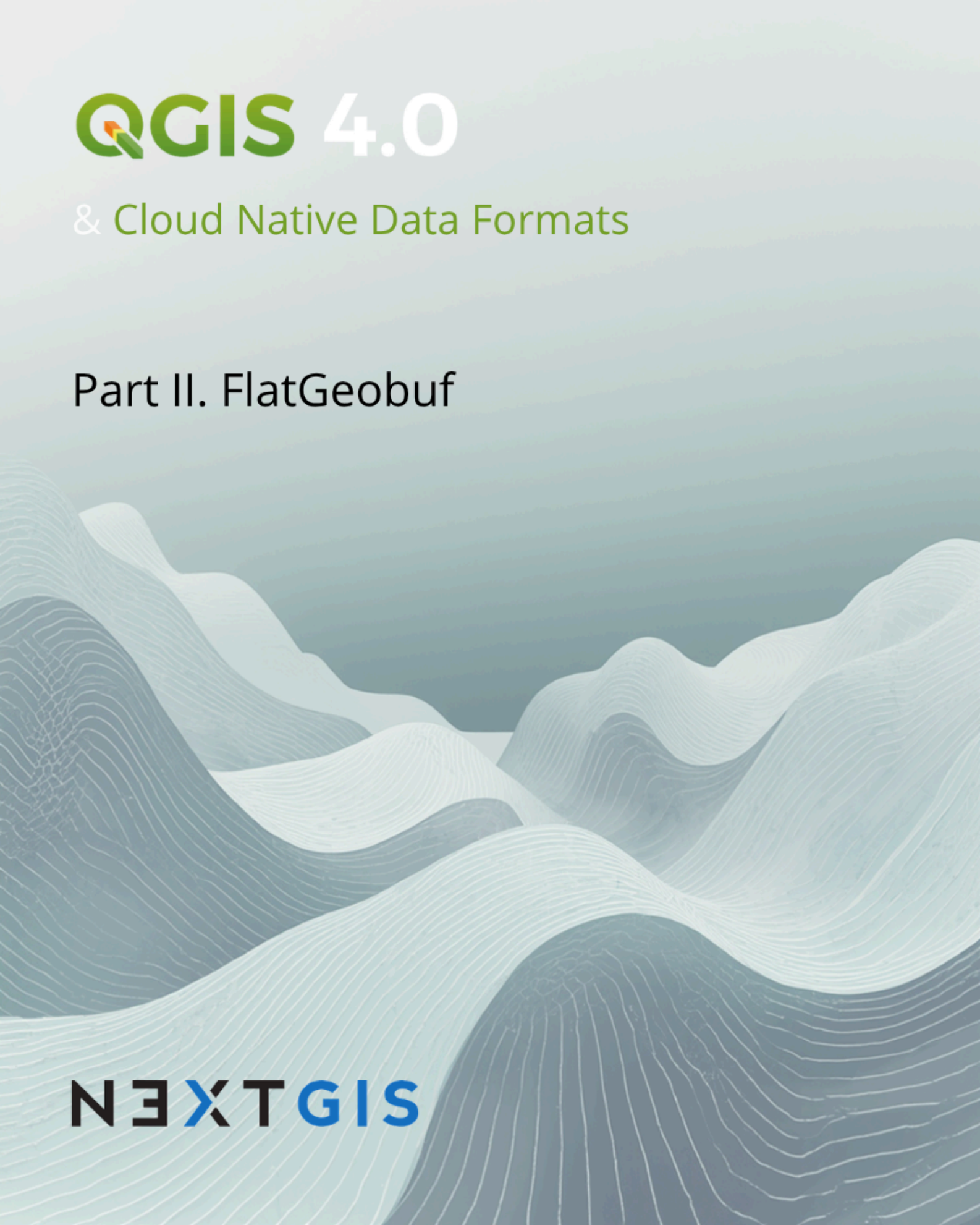
QGIS 4.0

& Cloud Native Data Formats

Part II. FlatGeobuf



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FlatGeobuf

FlatGeobuf is a compact, spatially indexed binary vector format that enables fast, partial access to geodata over HTTP without downloading the entire dataset.

FlatGeobuf allows publishing large static vector layers online without server applications, enabling users to interactively download only the required subsets of data.

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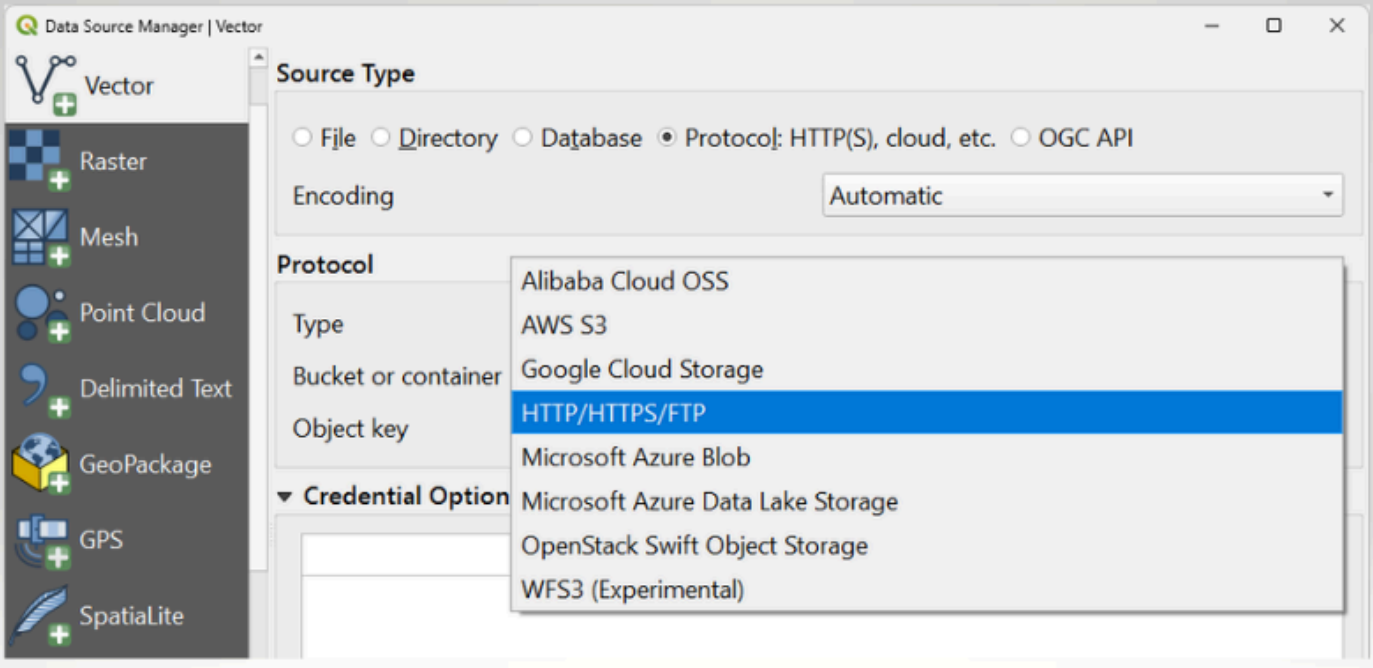
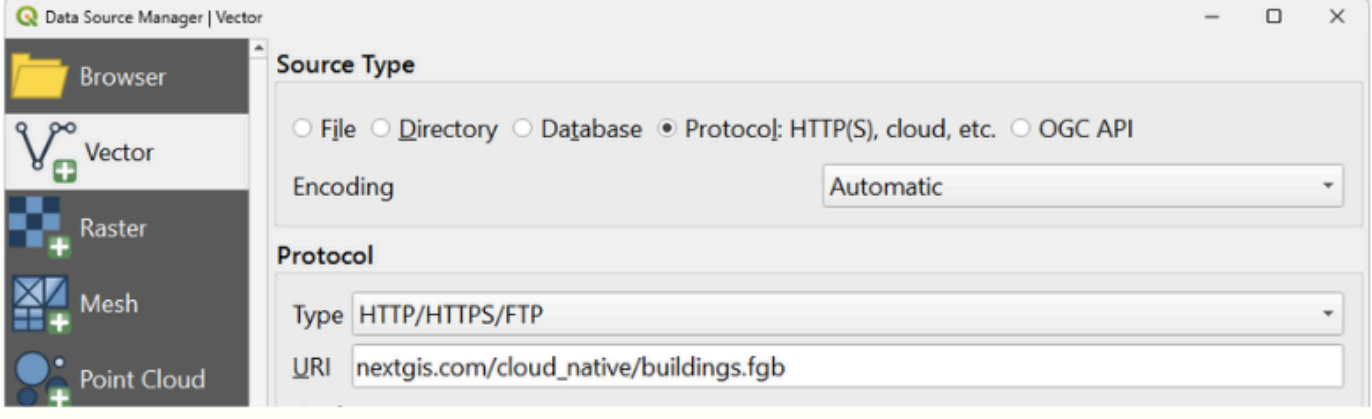
QGIS 4 supports direct reading of FlatGeobufs from various cloud storage types:



Use Data Source Manager → Vector and set the Source Type to “Protocol.”



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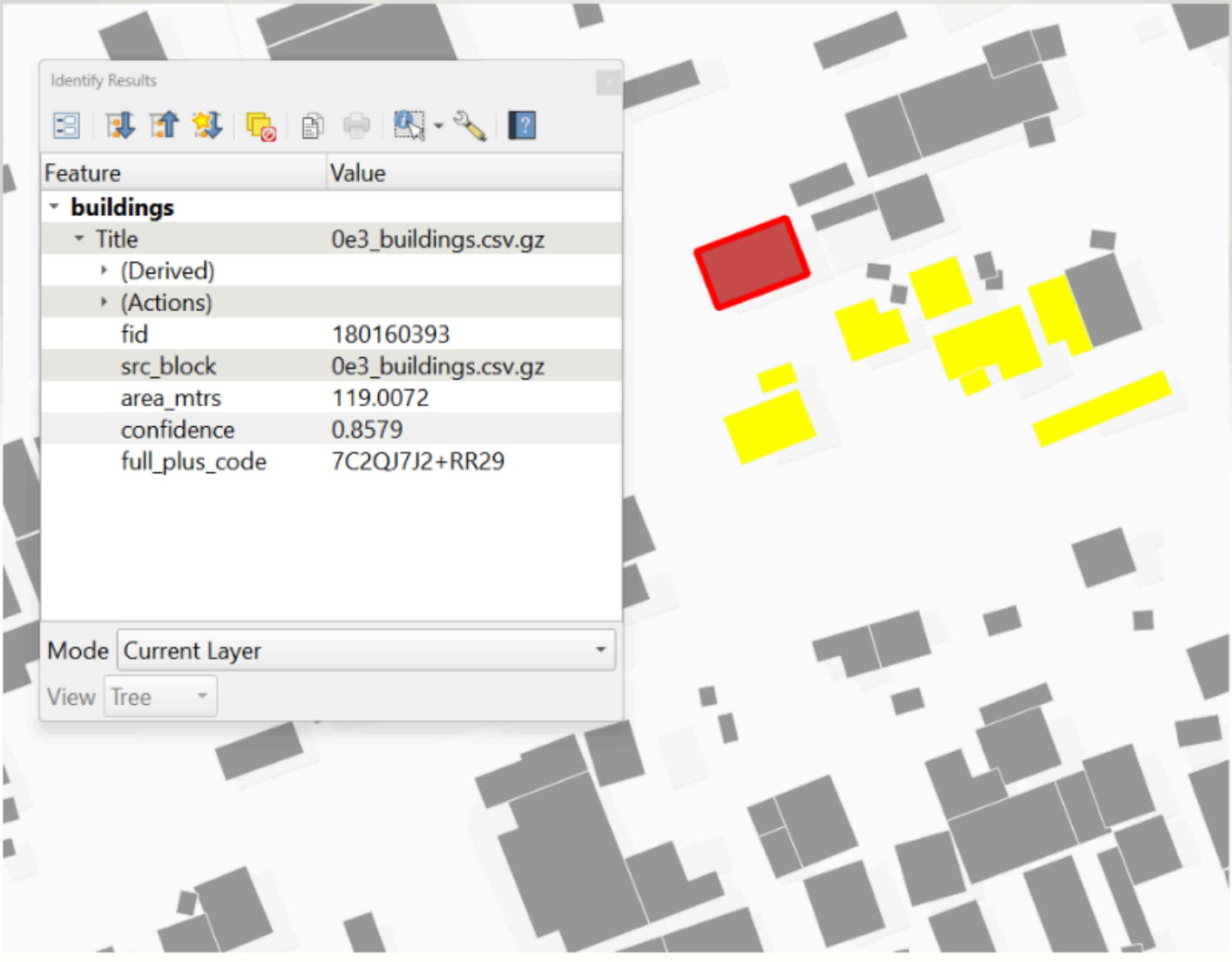
The connected layer is the original vector dataset with attributes, selectable and identifiable.



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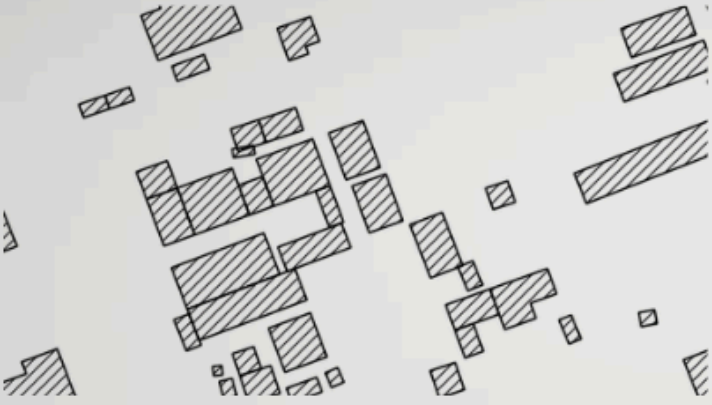
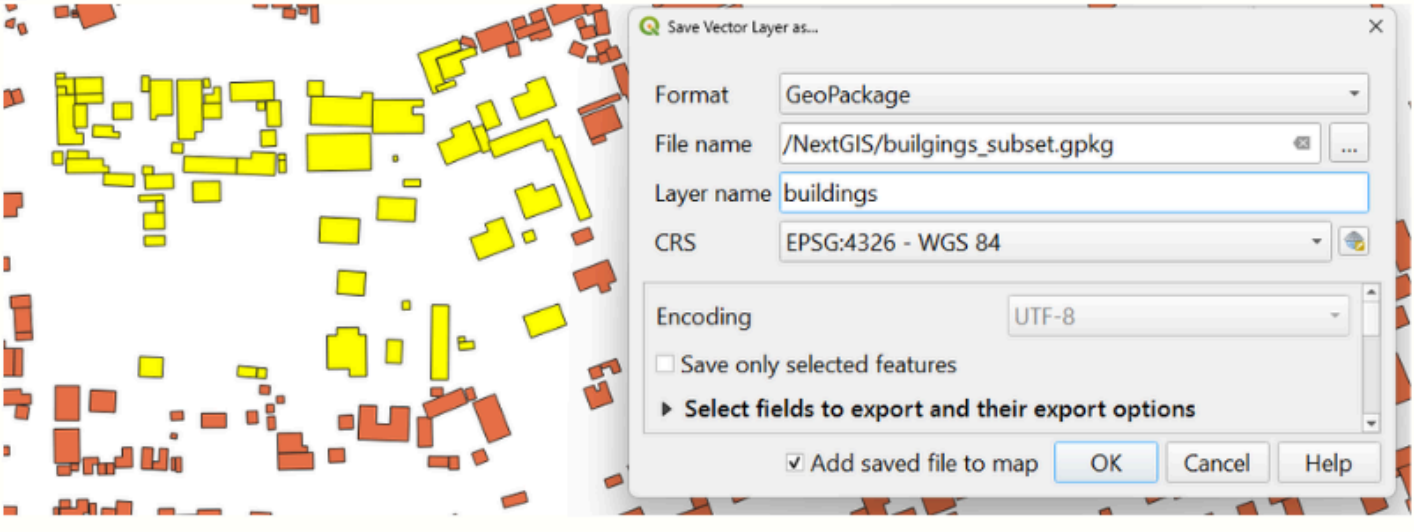
Style it using all QGIS capabilities, just as you would a local dataset.



Select features and save subsets locally using Export → Save Features As.



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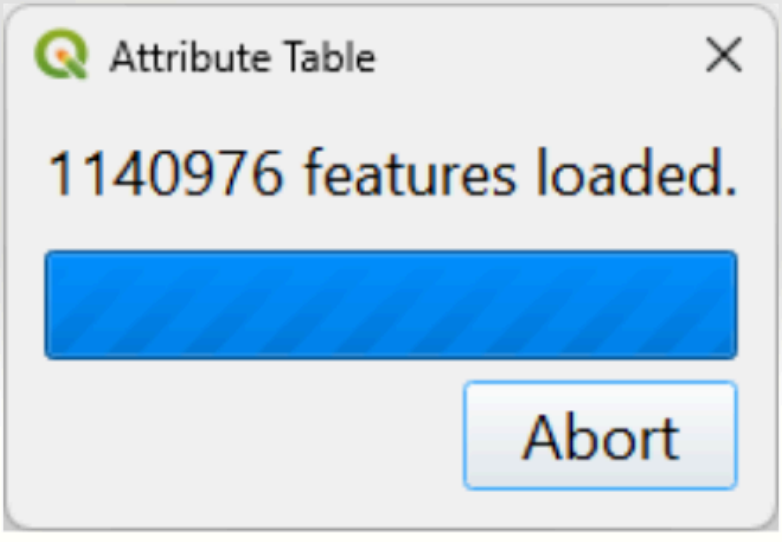
Be careful when running processing tools, attribute-based queries, or filters on the entire dataset. QGIS will download the data in full.



FlatGeobuf is not designed for querying data subsets by attribute values.

It is optimized for querying subsets based on spatial location.

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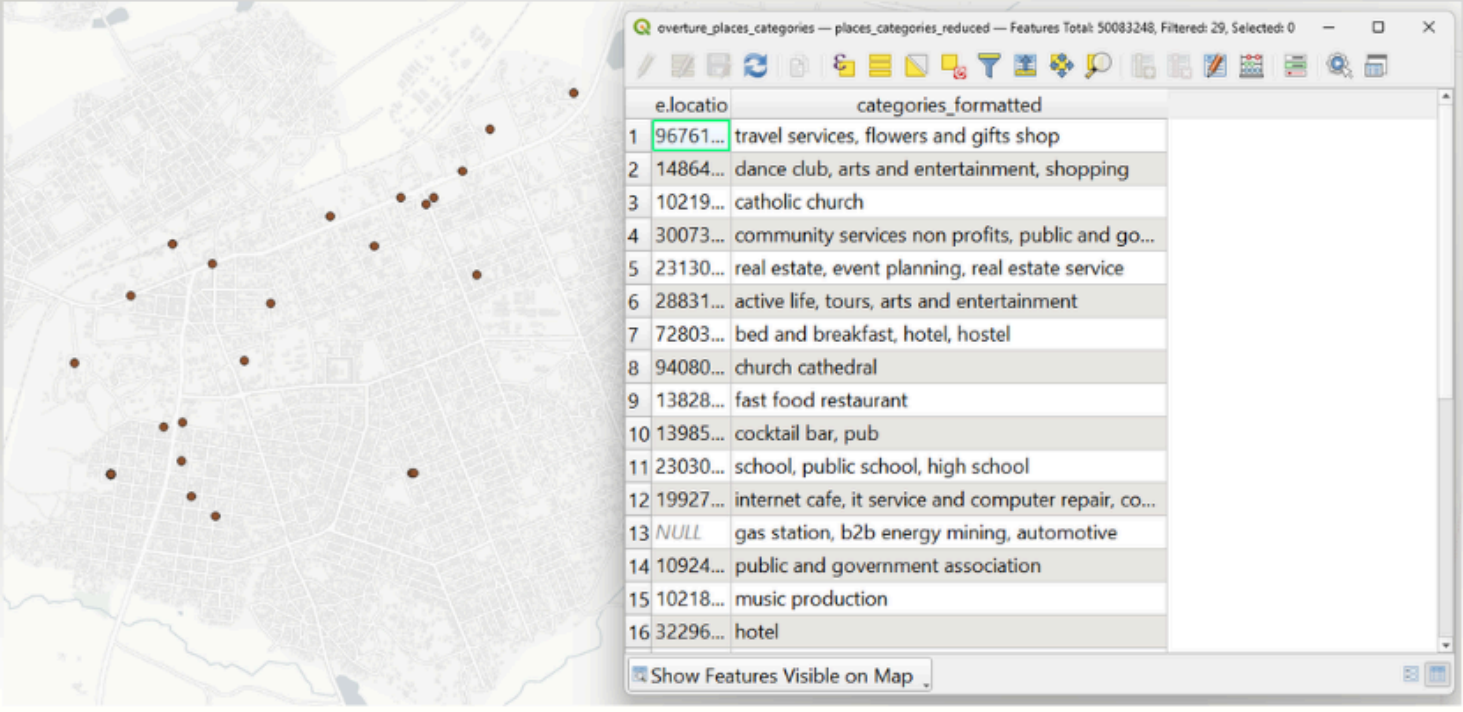
Use the attribute table in “Show Features Visible in Map” mode.



This will prevent QGIS from querying the entire dataset when building the attribute table.

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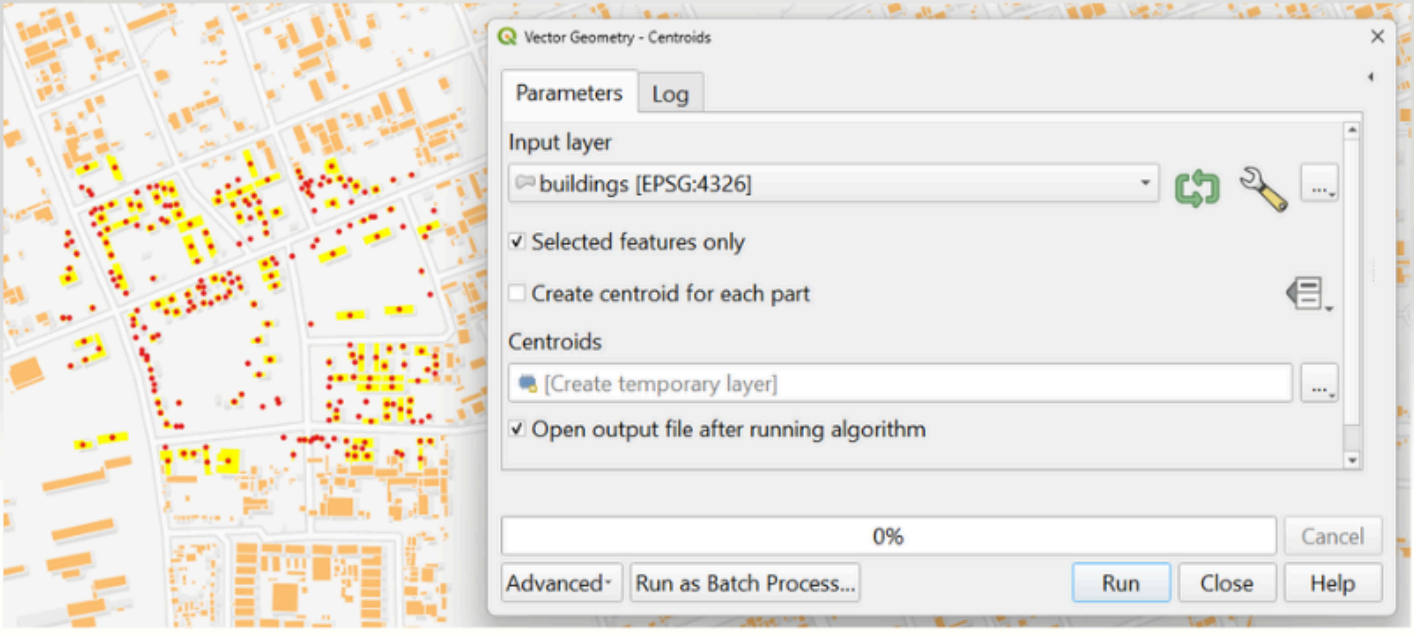
Run processing tools on previously saved local subsets or use the “Selected features only” option to limit processing to a selection.



Avoid running processing tools on the entire dataset.

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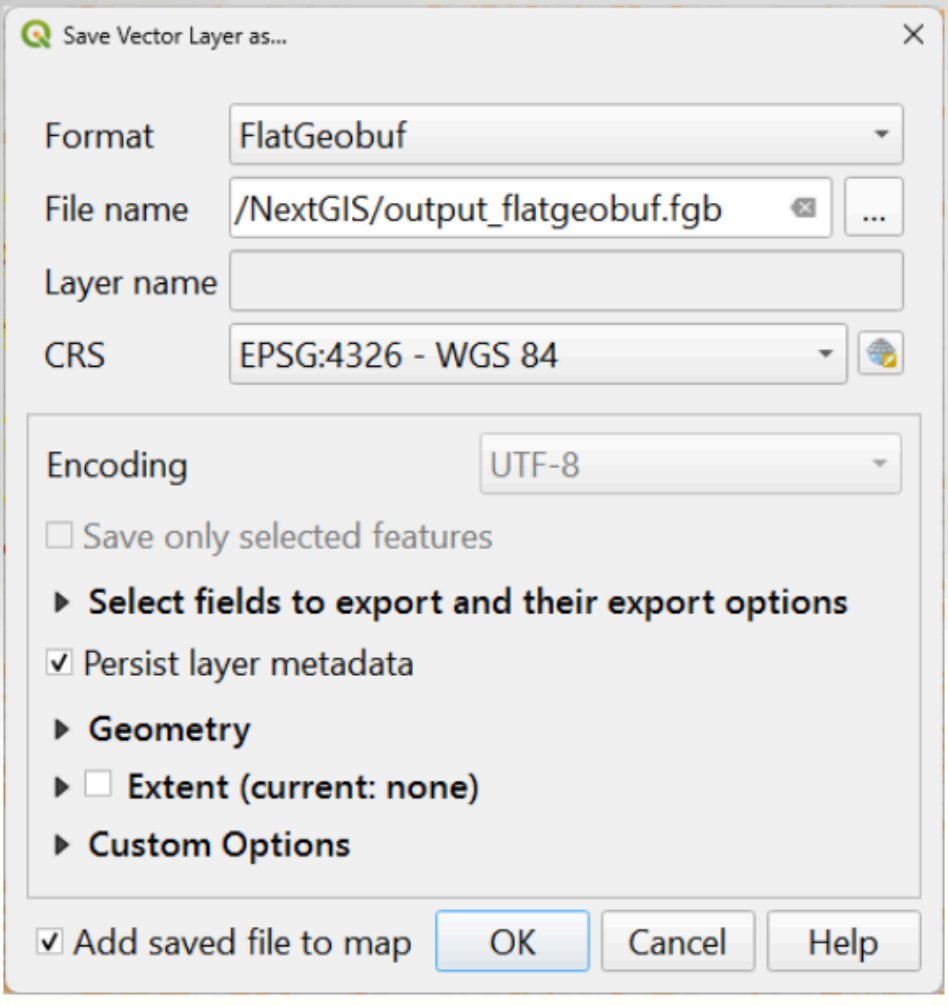
To create a FlatGeobuf, use the **layer context menu**

Export → Save Features As.



Set FlatGeobuf as the export format.

No additional parameters are required.
Full CRS support is available, including custom CRS definitions.

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Do not use FlatGeobuf for local workflows that involve frequent data editing. It also does not provide efficient indexed attribute querying.

Its primary purpose is efficient cloud access to large, mostly static datasets, especially when fast spatial filtering (by location) is required.

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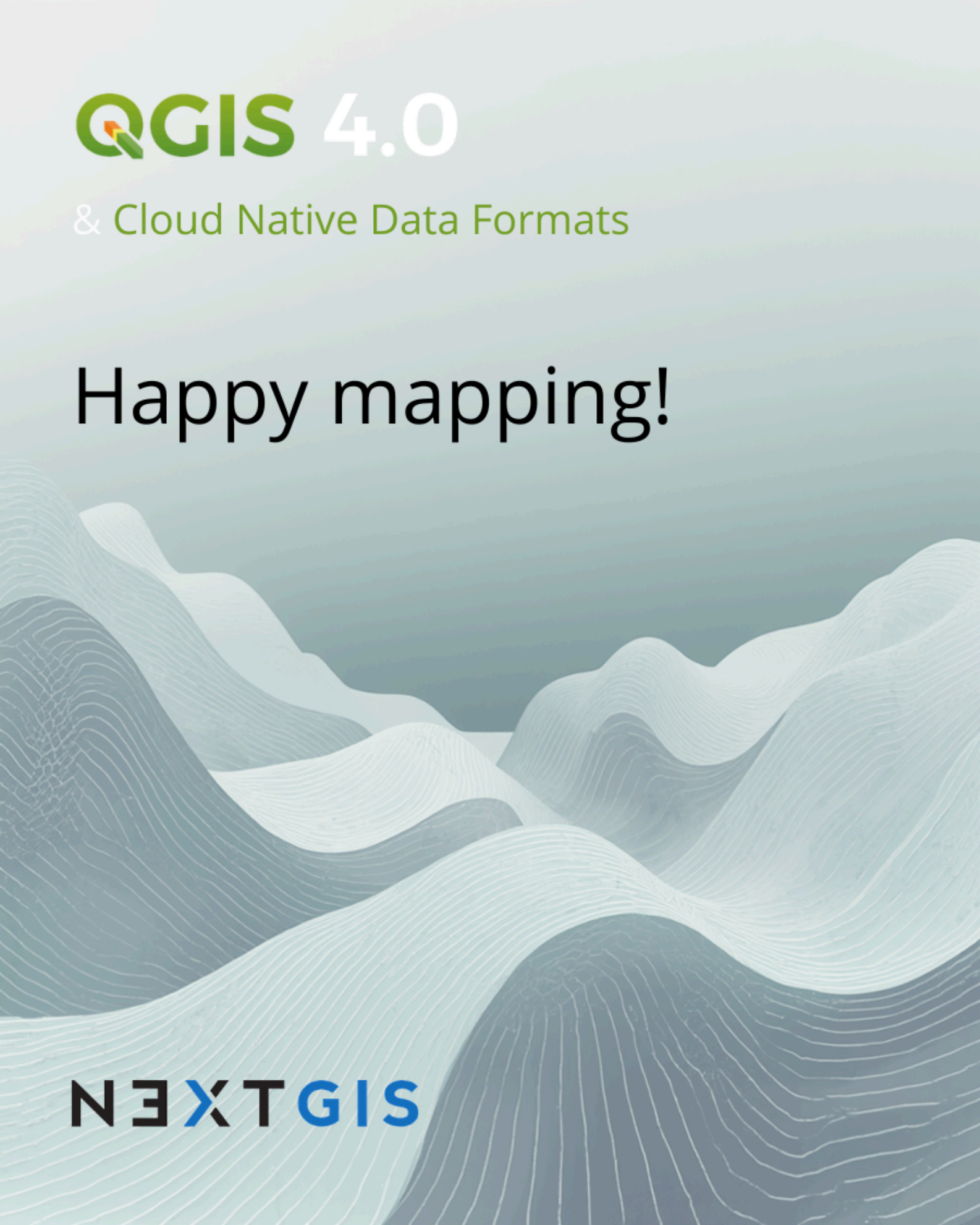
Happy mapping!



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