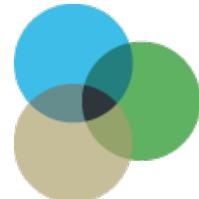


# BGT en BAG in QGIS

Marco Duiker



MD-kwadraat  
alles geo!

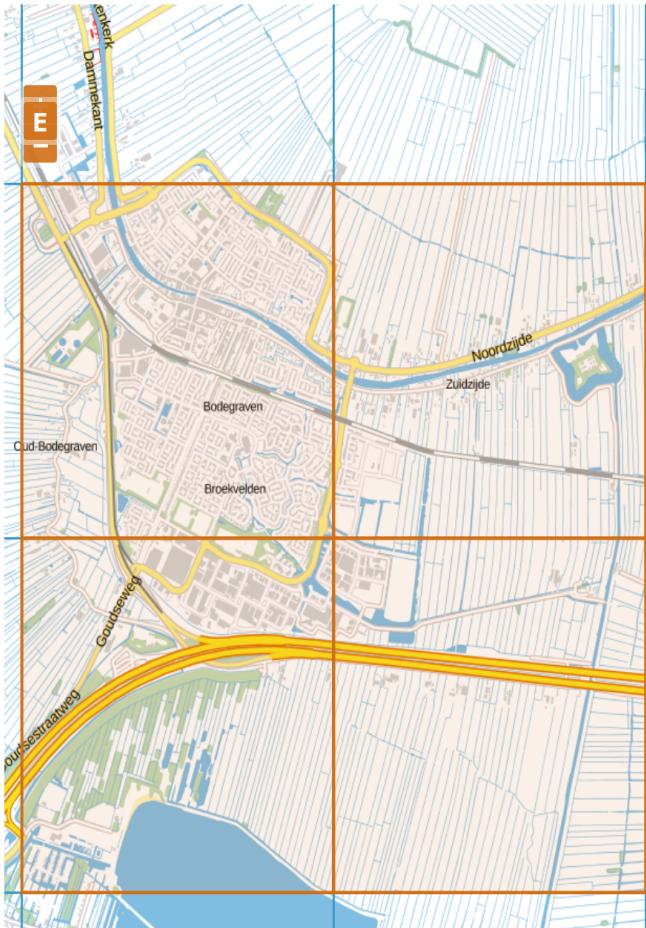


GEO ACADEMIE



# BGT Download Inlezen

<https://www.pdok.nl/nl/producten/pdok-downloads/download-basisregistratie-grootschalige-topografie>



## BGT-data downloaden

Na de start van het downloaden kan het even duren voordat u respons krijgt. Ook kan het voorkomen dat het downloaden onderbroken lijkt te zijn (pauze-stand). In dit geval graag even geduld alstublieft.

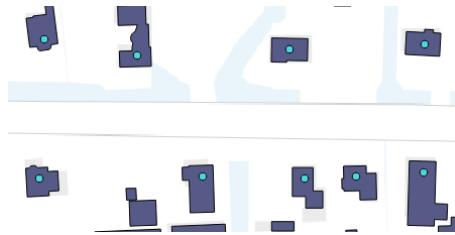
Format	GML
Inclusief plaatsbepalingspunten	Nee
Link	<a href="#">Download kaartbladselectie</a>

- bgt\_bak.gml
- bgt\_begroeidterreindeel.gml
- bgt\_bord.gml
- bgt\_buurt.gml
- bgt\_functioneelgebied.gml
- bgt\_gebouwinstallatie.gml
- bgt\_installatie.gml
- bgt\_kast.gml
- bgt\_kunstwerkdeel.gml
- bgt\_mast.gml
- bgt\_onbegroeidterreindeel.gml
- bgt\_ondersteunendwaterdeel.gml
- bgt\_ondersteunendwegdeel.gml
- bgt\_ongeëlabeldeobject.gml
- bgt\_openbareruimte.gml
- bgt\_openbareruimtelabel.gml
- bgt\_overbruggingsdeel.gml
- bgt\_overigbouwwerk.gml
- bgt\_overigescheiding.gml
- bgt\_paal.gml
- bgt\_pand.gml
- bgt\_put.gml
- bgt\_scheidingsglijbaan.gml
- bgt\_sensor.gml
- bgt\_spoor.gml
- bgt\_straatmeubilair.gml
- bgt\_tunneldeel.gml
- bgt\_vegetatieobject.gml
- bgt\_waterdeel.gml
- bgt\_waterinrichtingselement.gml
- bgt\_wegdeel.gml
- bgt\_weginrichtingselement.gml
- bgt\_wijk.gml



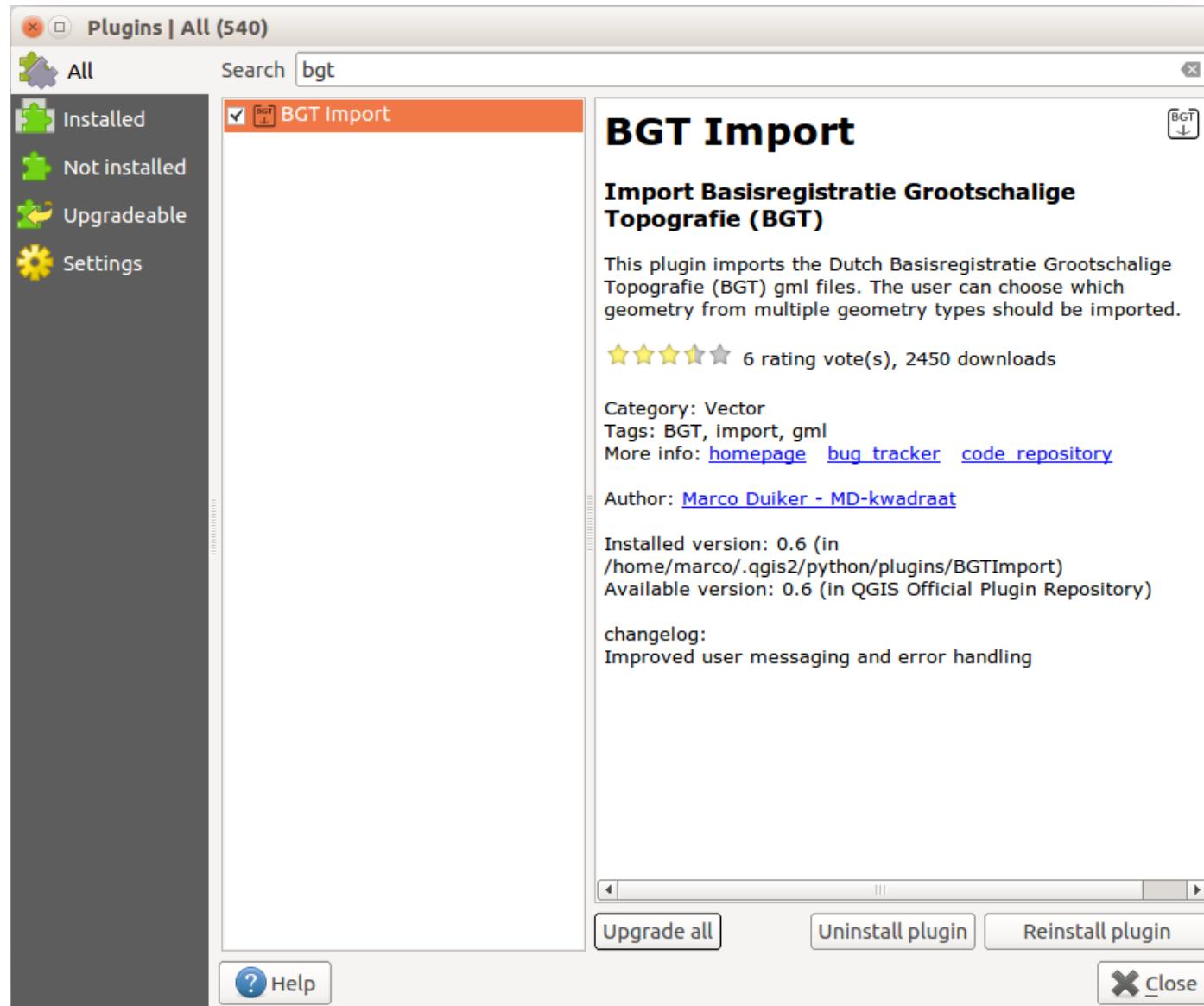
# BGT Import Plugin

📄 bgt_bak.qml
📄 bgt_begroeidterreindeel.qml
📄 bgt_bord.qml
📄 bgt_buurt.qml
📄 bgt_functioneelgebied.qml
📄 bgt_gebouwinstallatie.qml
📄 bgt_installatie.qml
📄 bgt_kast.qml
📄 bgt_kunstwerkdeel.qml
📄 bgt_mast.qml
📄 bgt_onbegroeidterreindeel.qml
📄 bgt_ondersteunendwaterdeel.qml
📄 bgt_ondersteunendwegdeel.qml
📄 bgt_ongeclassificeerdobject.qml
📄 bgt_openbareruimte.qml
📄 bgt_openbareruimtelabel.qml
📄 bgt_overbruggingsdeel.qml
📄 bgt_overigbouwwerk.qml
📄 bgt_overigescheiding.qml
📄 bgt_paal.qml
📄 bgt_pand.qml
📄 bgt_put.qml
📄 bgt_scheiding.qml
📄 bgt_sensor.qml
📄 bgt_spoor.qml
📄 bgt_staatmeubilair.qml
📄 bgt_tunneldeel.qml
📄 bgt_vegetatieobject.qml
📄 bgt_waterdeel.qml
📄 bgt_waterinrichtingselement.qml
📄 bgt_wegdeel.qml
📄 bgt_weginrichtingselement.qml
📄 bgt_wijk.qml



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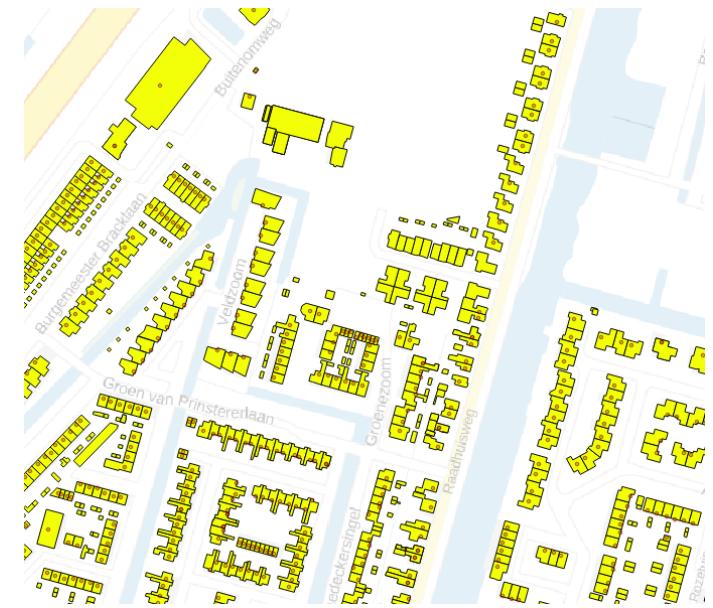
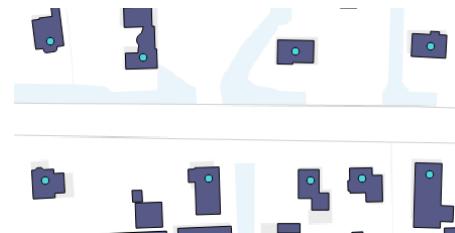
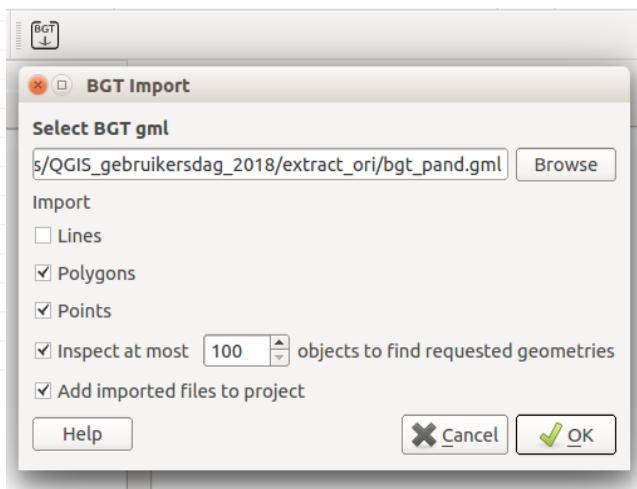
# BGT Import Plugin



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# BGT Import Plugin

bgt_bak.qml
bgt_begroeidterreindeel.qml
bgt_bord.qml
bgt_buurt.qml
bgt_functioneelgebied.qml
bgt_gebouwinstallatie.qml
bgt_installatie.qml
bgt_kast.qml
bgt_kunstwerkdeel.qml
bgt_mast.qml
bgt_onbegroeidterreindeel.qml
bgt_ondersteunendwaterdeel.qml
bgt_ondersteunendwegdeel.qml
bgt_ongeclassificeerdobject.qml
bgt_openbareruimte.qml
bgt_openbareruimtelabel.qml
bgt_overbruggingsdeel.qml
bgt_overigbouwwerk.qml
bgt_overigescheidings.qml
bgt_paal.qml
<b>bgt_pand.qml</b>
bgt_put.qml
bgt_scheiding.qml
bgt_sensor.qml
bgt_spoor.qml
bgt_straatmeubilair.qml
bgt_tunneldeel.qml
bgt_vegetatieobject.qml
bgt_waterdeel.qml
bgt_waterinrichtingselement.qml
bgt_wegdeel.qml
bgt_weginrichtingselement.qml
bgt_wijk.qml



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# BGT Visualisatie?



Nalezen: [Qgis.nl](http://Qgis.nl)



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# BGT Gebruik heeeeeel veeeeeeel lagen

The screenshot shows the QGIS interface with a processing dialog open. The dialog is titled 'supersum' and describes summing an expression over all selected layers. It includes fields for 'clip layer [optioneel]', 'filter expression [optioneel]', 'sum expression', and options for 'selected features only' and 'sum result table'. A 'Run' button is visible at the bottom right. The background map displays a detailed urban area with various land use and infrastructure layers. The left sidebar shows a list of layers, many of which are checked under a group named 'group1'. The right sidebar lists recently used algorithms and a 'Gebruikersscripts' section containing a script named 'supersum'.

Recent gebruikte algoritmen

- Ruimtelijke index maken
- Summarize
- bgt sum
- supersum
- Geldigheid controleren
- GDAL/OGR [48 geo-algoritmen]
- Modellen [4 geo-algoritmen]
- opdrachten GRASS [161 geo-algor...]
- opdrachten GRASS GIS 7 [314 geo-al...]
- QGIS geo-algoritmen [116 geo-alg...]
- Scripts [11 geo-algoritmen]

Database

Gebruikersscripts

- bgt sum
- Fill holes
- mijn\_buffer
- puntoplein
- radio test
- spatial cross join attributes
- supersum

U kunt meer algoritmen toevoegen aan de Toolbox, aanvullende providers inschakelen. [\[close\]](#)

# BGT Gebruik heeeeeel veeeeeeel lagen

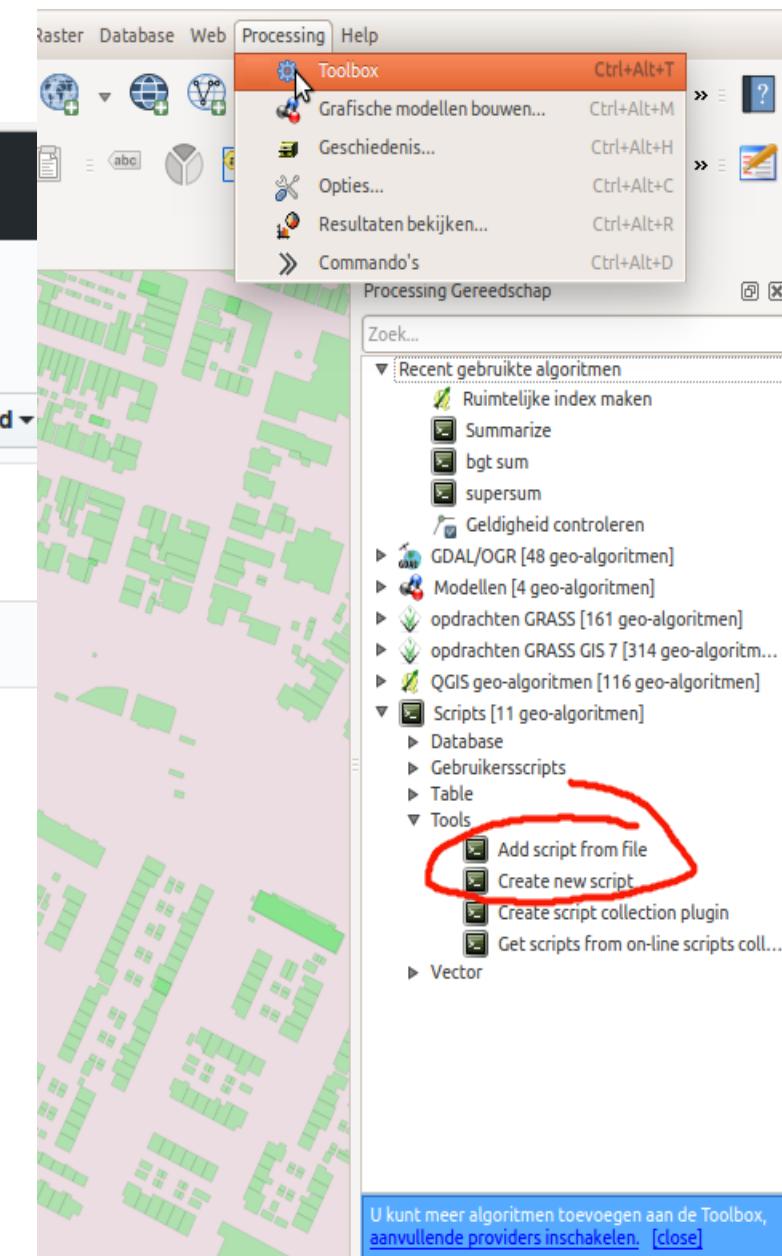
<https://gist.github.com/MarcoDuiker/>

The screenshot shows a GitHub Gist page for 'MarcoDuiker / supersum.py'. The page has a dark header with 'GitHubGist' and a search bar. Below the header, there are links for 'All gists' and 'GitHub'. The main content area shows the file 'supersum.py' with its code:

```
supersum

supersum.py

1  ##clip_layer=optional vector
2  ##filter_expression=optional string
3  ##polygon(boolean) True
4  ##point(boolean) True
5  ##line(boolean) True
6  ##sum_expression=string
7  ##selected_features_only(boolean) True
8  ##sum_total=output number
9  ##sum_result_table=output table
10
11 from qgis._core import *
12 from qgis.utils import iface
13 from processing import *
14 import csv
```



# BGT Toekomst

QGIS 3

→ Nieuwe plugin

PDOK

→ API?

→ WFS?

→ 1000 objecten?



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# BAG in QGIS: Kaart (WMS)

Pdok Geocoder zoek

PdokServicesPlugin

Zoeken: bag

	Laagnaam [style]	Type	Service
96	woonplaats	WFS	BAG
97	bag []	WMS	BAG
98	ligplaats [bag:bag_ligplaats]	WMS	BAG
99	pand [bag:bag_pand]	WMS	BAG
100	pand [bag:bag_pand_selected]	WMS	BAG
101	standplaats [bag:bag_standplaats]	WMS	BAG
102	verblijfsobject [bag:bag_verblijfsobject]	WMS	BAG
103	verblijfsobject [bag:bag_verblijfsobject]	WMS	BAG
104	verblijfsobject [bag:bag_verblijfsobject_...]	WMS	BAG
105	woonplaats [bag:bag_woonplaats]	WMS	BAG
106	BAG Terugmeldingen [bagterugmelding...]	WMS	BAG Terugmeldingen
107	BAG Terugmeldingen	WFS	BAG Terugmeldingen

Web Map Tile Service

bag

WMTS  
<https://geodata.nationaalgeoregister.nl/wmts?VERSION=1.0.0&request=GetCapabilities>

bag

Laad deze laag in QGIS (of dubbelklik op de regel)



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# BAG in QGIS: Kaart (WMS)

The screenshot shows the QGIS interface with the PdokServicesPlugin loaded. The search bar at the top contains the text "bag". The results table lists various BAG services:

Zoeken: bag	Laagnaam [style]	Type	Service
96 woonplaats	WFS	BAG	
97 bag []	WMS	BAG	
98 ligplaats [bag:bag_ligplaats]	WMS	BAG	
99 pand [bag:bag_pand]	WMS	BAG	
100 pand [bag:bag_pand_selected]	WMS	BAG	
101 standplaats [bag:bag_standplaats]	WMS	BAG	
102 verblijfsobject [bag:bag_verblijfsobject]	WMS	BAG	
103 verblijfsobject [bag:bag_verblijfsobject]	WMS	BAG	
104 verblijfsobject [bag:bag_verblijfsobject_...]	WMS	BAG	
105 woonplaats [bag:bag_woonplaats]	WMS	BAG	
106 BAG Terugmeldingen [bagterugmelding...]	WMS	BAG Terugmeldingen	
107 BAG Terugmeldingen	WFS	BAG Terugmeldingen	

Below the table, under "Web Map Tile Service", there is a section for "bag" with a WMTS link:

WMTS  
<https://geodata.nationaalgeoregister.nl/wmts?VERSION=1.0.0&request=GetCapabilities>  
bag

At the bottom, a button says "Laad deze laag in QGIS (of dubbelklik op de regel)".

The main area of the interface displays a map of building footprints.



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# BAG in QGIS: Data (WFS)

PdokServicesPlugin

PDOK services PDOK geocoder Extra OpenGeoGroep en PDOK

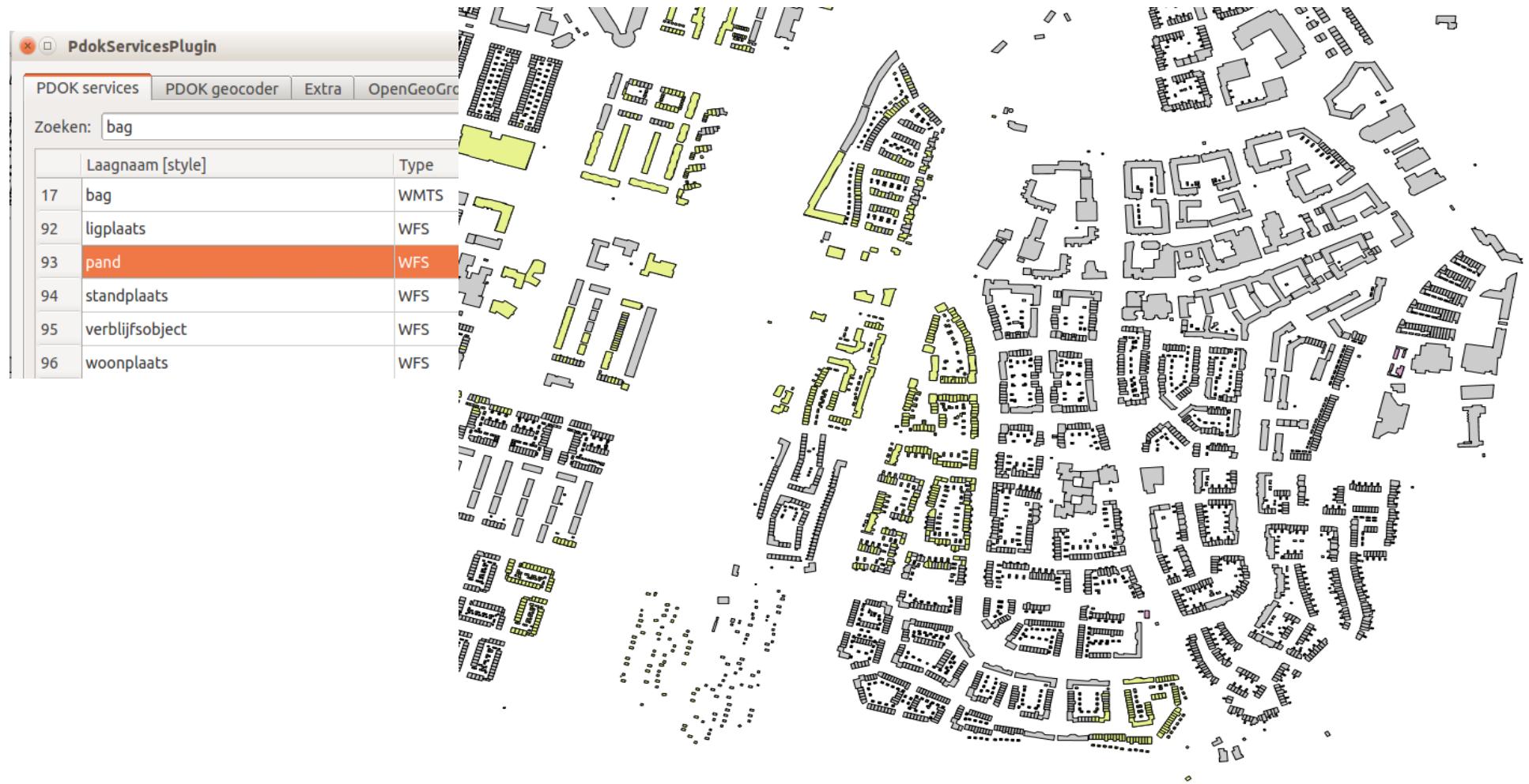
Zoeken: bag

	Laagnaam [style]	Type	Service
17	bag	WMTS	Web Map Tile Service
92	ligplaats	WFS	BAG
93	pand	WFS	BAG
94	standplaats	WFS	BAG
95	verblijfsobject	WFS	BAG
96	woonplaats	WFS	BAG



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# BAG in QGIS: Data (WFS)



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# BAG in QGIS: Data (WFS)

The image displays two windows of the QGIS 'Add WFS Layer from a Server' dialog.

**Left Window (Create a new WFS connection):**

- Server connections:** A list of existing connections.
- Create a new WFS connection:**
  - Name:** bag
  - URL:** //geodata.nationaalgeoregister.nl/bag/wfs (highlighted with a red box)
  - Authentication:** Configuration tab selected. Fields for User name and Password are present.
  - Version:** 2.0 (highlighted with a red box)
  - Max. number of features:** 1000 (highlighted with a red box)
  - Checkboxes:** Ignore axis orientation (WFS 1.1/WFS 2.0) and Invert axis orientation.
  - Buttons:** Help, Cancel, OK.

**Right Window (List of layers):**

- Server connections:** A list of existing connections, showing 'bag'.
- Filter:** An empty text input field.
- Table:** A list of layers with their titles, names, abstracts, and SQL queries.

Title	Name	Abstract	Sql
ligplaats	bag:ligplaats	ligplaats	
pand	bag:pand	pand	
standplaats	bag:standplaats	standplaats	
verblijfsobj...	bag:verblijfsobj...	verblijfsobj...	
woonplaats	bag:woonplaats	woonplaats	
- Checkboxes:** Use title for layer name and Keep dialog open.
- Coordinate reference system:** EPSG:28992, Change... button.
- Buttons:** Help, Add, Build query, Close.



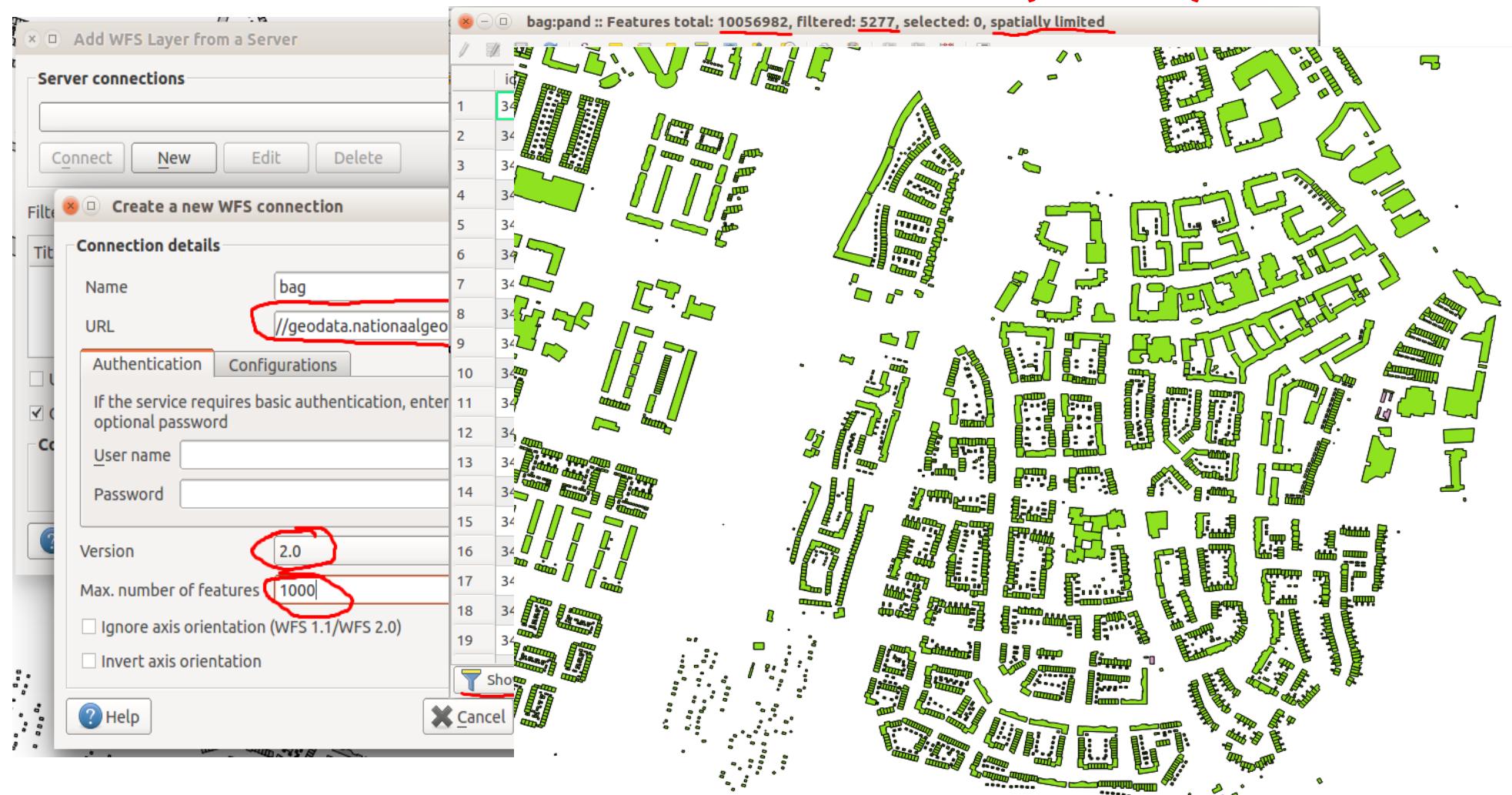
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# BAG in QGIS: Data (WFS)



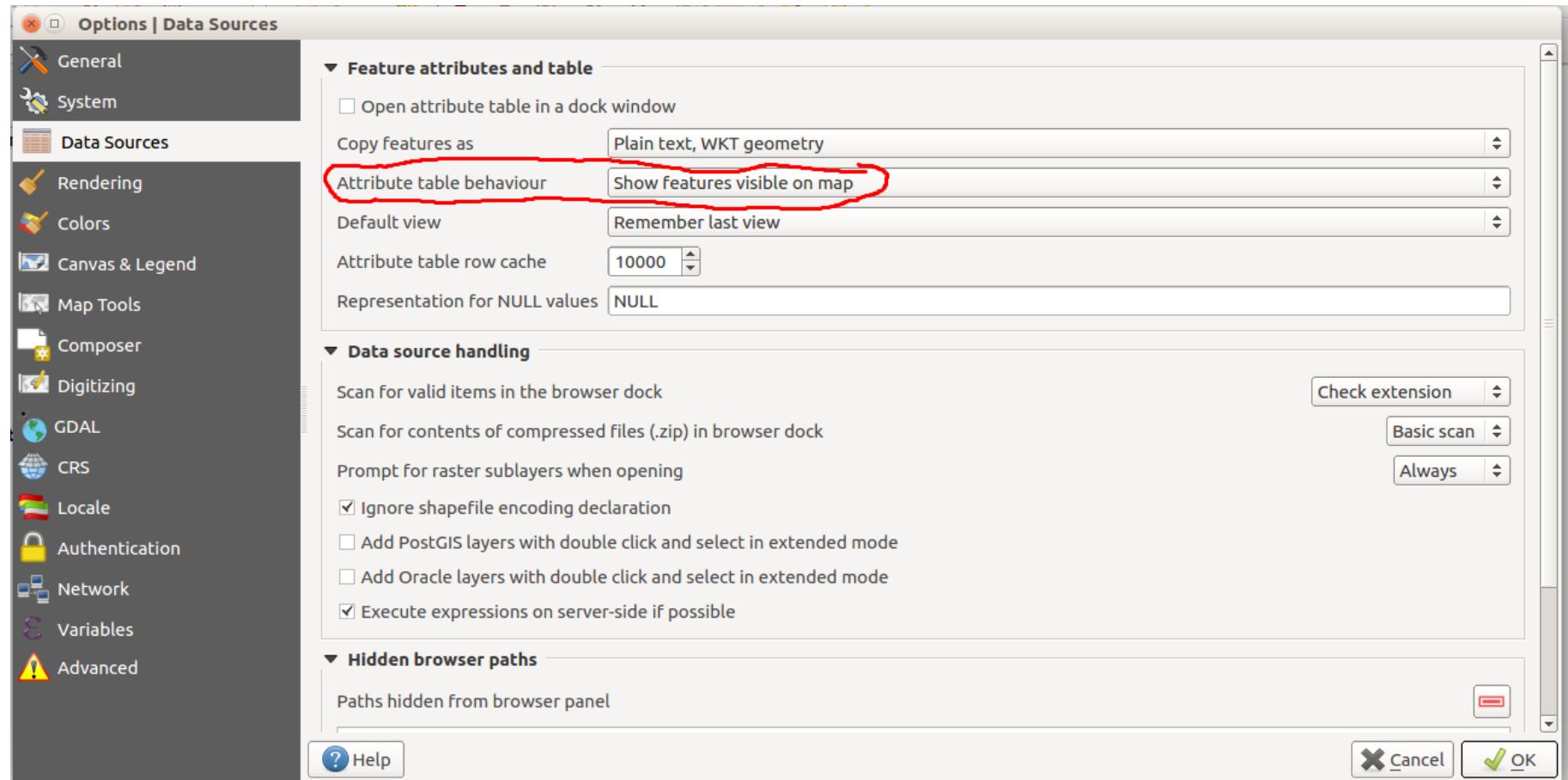
MD-kwadraat  
*alles geo!*

# BAG in QGIS: Data (WFS)



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# BAG in QGIS: Data (WFS)



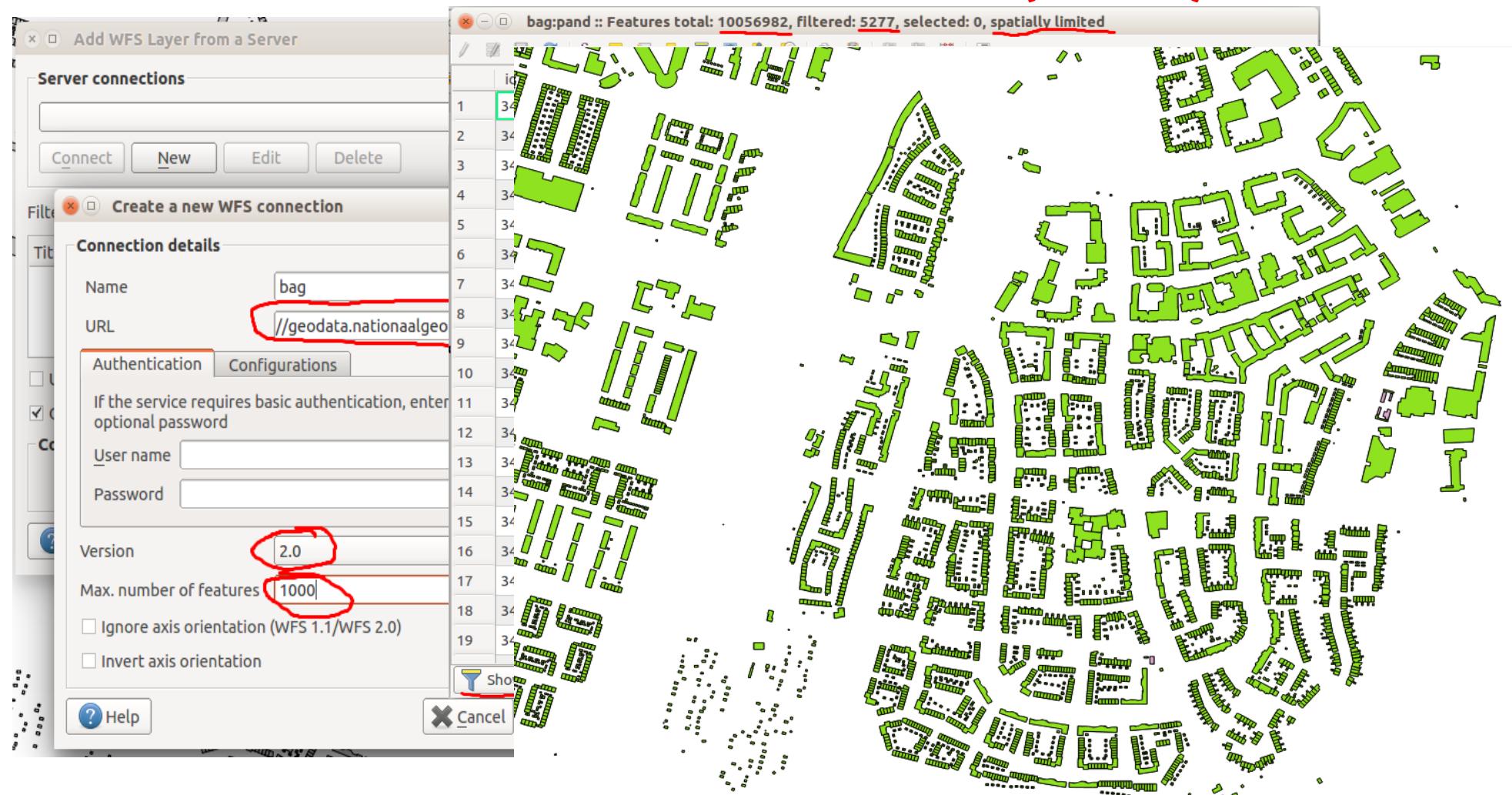
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# BAG in QGIS: Data (WFS)

bag:pand :: Features total: 10056982, filtered: 5277, selected: 0, spatially limited									
	identificatie	bouwjaar	status	gebruiksdoel	opervlakte_m	opervlakte_m2	il_verblijfsobj	tualiteitsdatu	...
1	344100000...	1961	Pand in ge...		0	0	0	NULL	
2	344100000...	1983	Pand in ge...		0	0	0	NULL	
3	344100000...	1984	Pand in ge...		0	0	0	NULL	
4	344100000...	1982	Pand in ge...		0	0	0	NULL	
5	344100000...	1993	Pand in ge...		0	0	0	NULL	
6	344100000...	1979	Pand in ge...		0	0	0	NULL	
7	344100000...	1984	Pand in ge...		0	0	0	NULL	
8	344100000...	1984	Pand in ge...		0	0	0	NULL	
9	344100000...	1983	Pand in ge...		0	0	0	NULL	
10	344100000...	1979	Pand in ge...		0	0	0	NULL	
11	344100000...	1979	Pand in ge...		0	0	0	NULL	
12	344100000...	1980	Pand in ge...		0	0	0	NULL	
13	344100000...	1985	Pand in ge...		0	0	0	NULL	
14	344100000...	1979	Pand in ge...		0	0	0	NULL	
15	344100000...	1991	Pand in ge...		0	0	0	NULL	
16	344100000...	1985	Pand in ge...		0	0	0	NULL	
17	344100000...	1985	Pand in ge...		0	0	0	NULL	
18	344100000...	1985	Pand in ge...		0	0	0	NULL	
19	344100000...	1961	Pand in ge...		0	0	0	NULL	

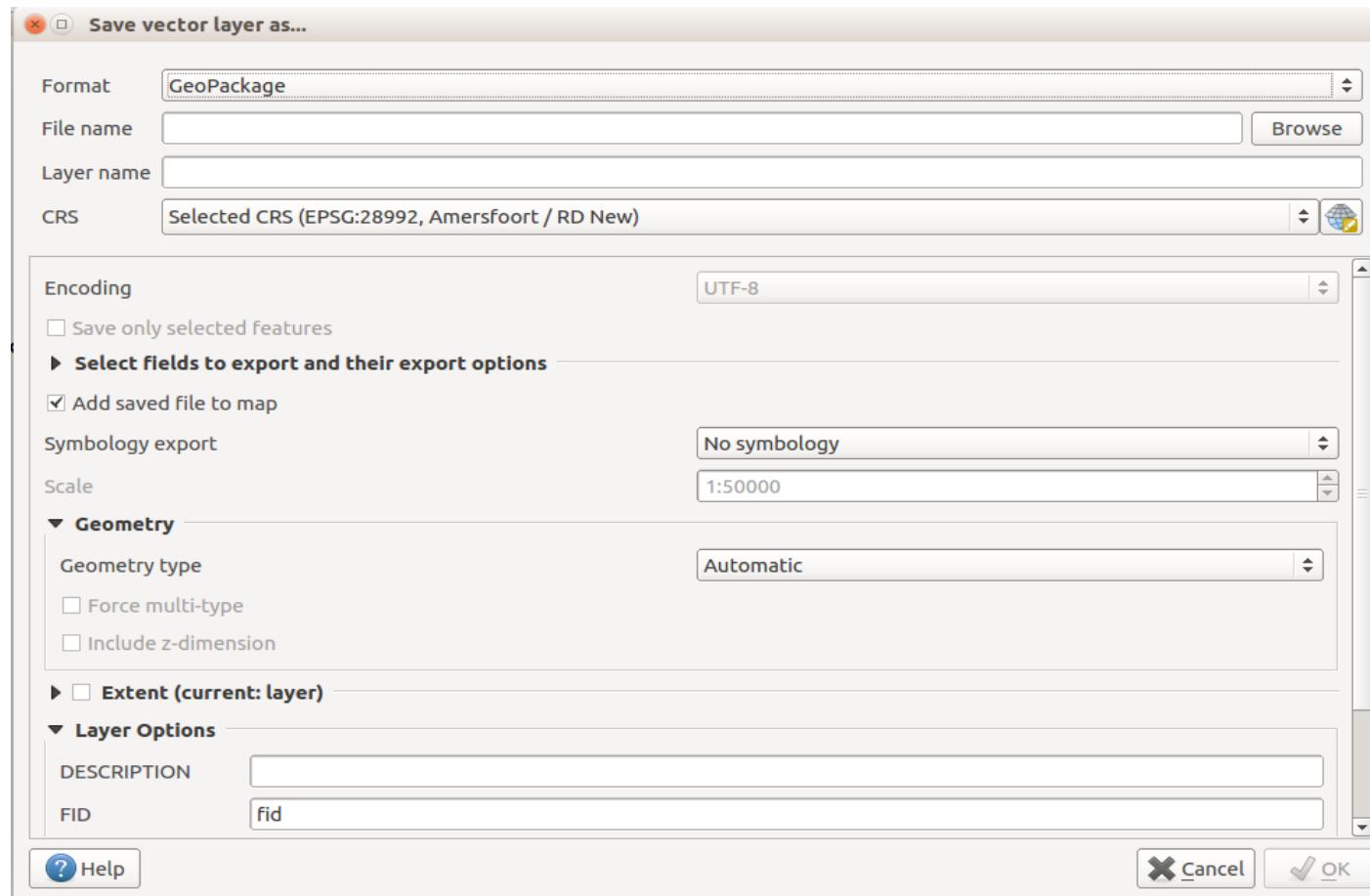


# BAG in QGIS: Data (WFS)



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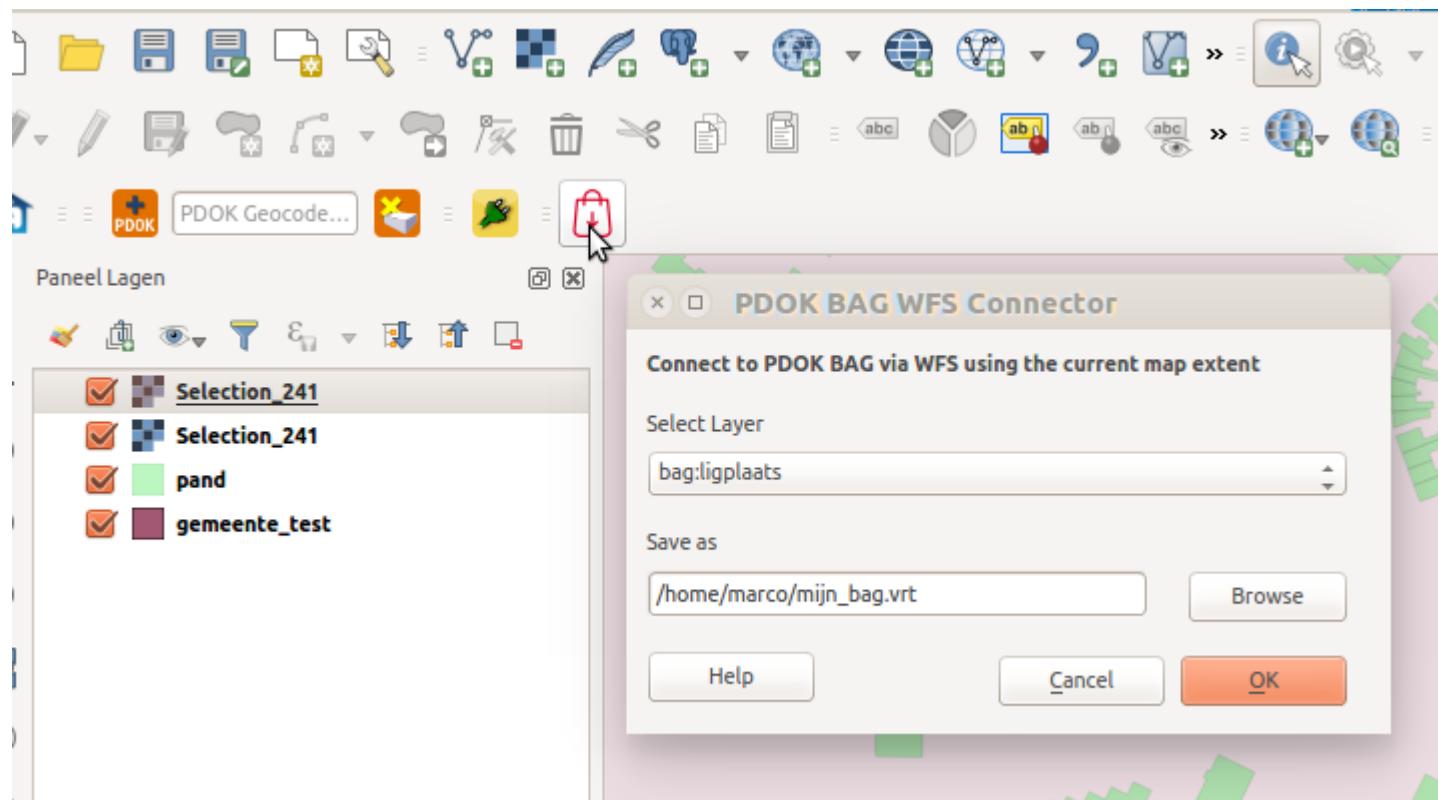
# BAG in QGIS: Data (WFS)



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# Oplossing (?) QGIS2

[https://github.com/MarcoDuiker/QGIS\\_BAG\\_Connector](https://github.com/MarcoDuiker/QGIS_BAG_Connector)



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# Conclusies

Services en GML kennen zo hun problemen

BGT import plugin helpt ...

Het is handig PDOK services “met de hand” te kunnen gebruiken

QGIS3 gaat beter om met WFS2 en response paging

→ PDOK wfs services beter bruikbaar



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