
QGEP Documentation

Version 0.5

The QGEP Project/OPENGIS.ch

07 September 2016

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QGEP is a wastewater management module for QGIS based on SIA 405 (Leitungskataster) and VSA-DSS (GEP) and developed closely to the QGIS application.

This document can also be downloaded as a single PDF document : QGEP.pdf .

Contents

1.1 QGEP Installation Guide

This will guide you through the setup of required applications and services to get your system ready for running QGEP.

Note : You also have the option of downloading a *Machine virtuelle de démonstration* that has a working QGEP demo.

1.1.1 Setup database server

If you expect to access the data from several different workstations, you can install the database on a network accessible server. If it is just a single desktop you are working on, this can be installed on the same machine.

Required Software

Server installation

- Install PostgreSQL (>=9.3)
 - [Windows download page](#)
- Install PostGIS (>=2.3)

Note : In a single desktop environment (no network database server) you can setup your database to trust local connections.

This way, the database won't ask for a password if you're connecting from your local workstation while no password is written anywhere. You even can do with no database password at all.

This can be done by editing the database access configuration file `pg_hba.conf` and set the auth-options from `md5` to `trust`. A database service reload is required to activate changes.

1.1.2 Database initialization

You can use `pgAdmin` to access and manage the database server.

Note : By clicking the link you can learn how to *Installer pgAdmin*

Process

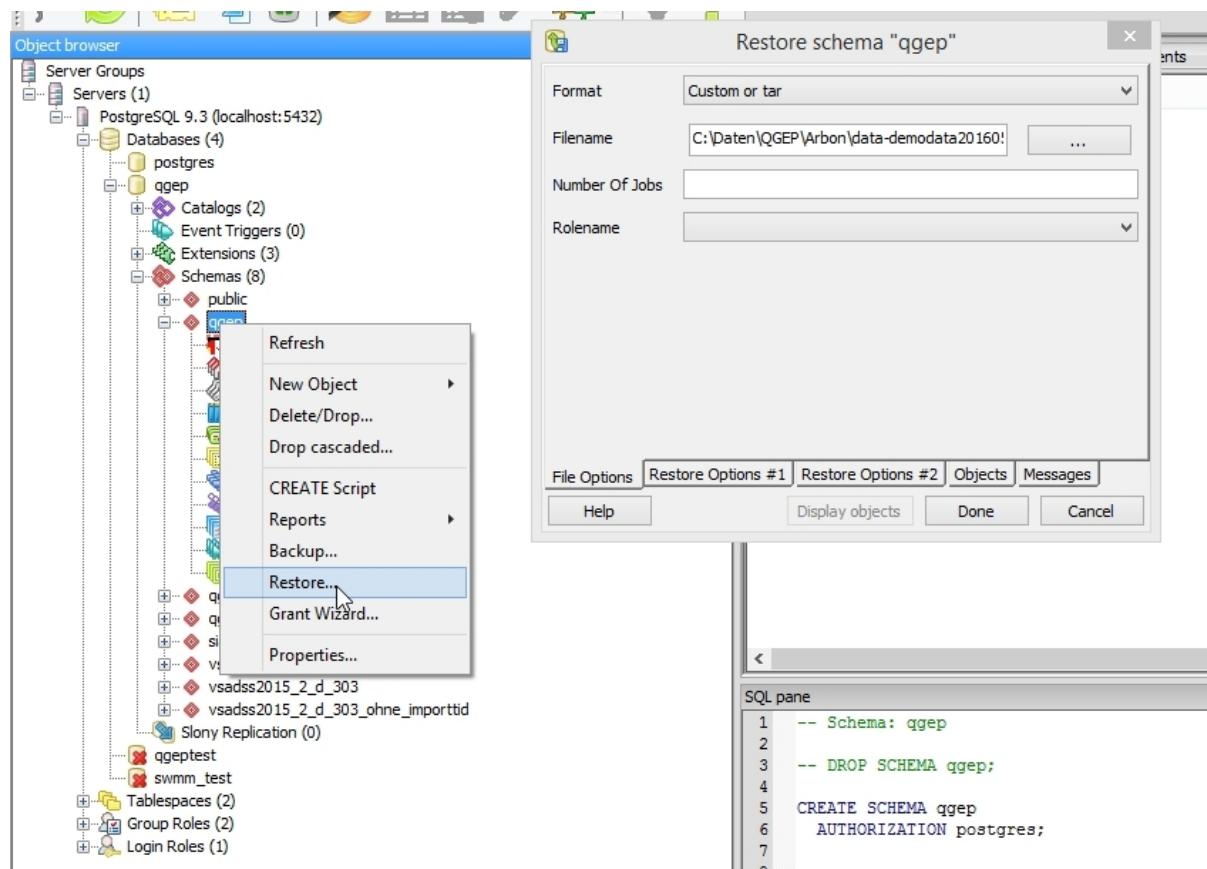
In pgAdminIII

- Connect to the database server
- Create a new group role (preferably named *qgep*, but you are free to choose)
- Create a new login role (*qgepuser* for example) and make it a member of the *qgep* group

You can do this graphically or by simply opening a pgAdminIII *Requêtes SQL* window and type the following :

```
CREATE GROUP qgep;
CREATE ROLE qgepuser LOGIN;
GRANT qgep TO qgepuser;
```

- Create a new database (preferably named *qgep*, but you are free to choose)
 - Change to this database
- Create a new schema with the name *qgep*
- Open an *Requêtes SQL* Window and create the extensions (if they're not created yet)
 - CREATE EXTENSION hstore;
 - CREATE EXTENSION postgis;
- Download demo data
 - https://github.com/QGEP/data/raw/demodata/qgep_demodata.backup
- Right click the *qgep* schema
 - Click *Restore*
 - Load your download of *qgep.backup*



- Restore Options #2 : Activate *Clean before restore*
- Click *Restore*
- Check whether in Message window last line is Exit Code 0
- Click *Cancel*
- Right click the database and click *Refresh*
- Update privileges for the database





- Right click the *qgep* schema
- Properties -> Privileges Tab > Grant USAGE to group *qgep*. You can also do this as a query : GRANT USAGE ON SCHEMA *qgep* TO GROUP *qgep*;
- Click *Grant Wizard...*
- Selection, click *Check All*
- Privileges
 - Group *qgep*
 - Choose *ALL*

1.1.3 Configuration du poste de travail

Configuration de la base de données

Pour que la station de travail sache où se trouve la base de données (sur le serveur local ou en réseau) il faut commencer par créer un fichier sur toutes les stations où QGIS/QGEP sera utilisé. Cela n'est pas nécessaire de le faire sur le serveur lui-même.

Ces étapes dépendent de votre système d'exploitation.

Windows

Créer un nouveau dossier où vous souhaitez enregister la configuration. Par exemple `pgconfig` dans vos documents. Ce dossier sera connu sous le nom de `PGSYSCONFDIR` dans ce guide.

Configurer la variable d'environnement `PGSYSCONFDIR` pour pointer sur le chemin de `PGSYSCONFDIR`

Dans ce dossier, vous trouverez deux fichiers

- `pg_service.conf`
- `pgpass` (si vous ne souhaitez pas entre le mot de passe à chaque connexion)

Attention : Sur Windows, il faut sauver `pg_service.conf` dans le format Unix. Une façon de faire cela est d'ouvrir le fichier avec [Notepad++](#) et aller dans l'onglet : ‘Édition -> Convertir les sauts de lignes -> Convertir en format UNIX (LF) -> Enregistrer’.

Linux

Sous Linux, vous pourrez placer les fichiers `.pg_service.conf` et `.pgpass` sous le dossier home (habituellement `/home/[username]`)

Tous les systèmes

Placer les lignes suivantes dans le fichier `pg_service.conf` ou `.pg_service.conf`. Vous devrez peut-être apporter des modifications selon votre configuration.

```
[pg_qgep]
host=localhost
port=5432
dbname=qgep
user=qgepuser
```

Pour enregistrer le mot de passe sur votre système, vous pouvez utiliser le fichier `pgpass`.

```
localhost:5432:*:qgepuser:password
```

Note : Si la base de données n'est pas sur votre poste local, remplacer toutes les occurrences de `localhost` par l'adresse réseau du serveur de base de données.

Installer QGIS

- Minimum requirement 2.14
- We recommend using the latest master build (called qgis-dev on Windows) which often offers a better experience in combination with QGEP. For Windows installation, download the [OSGeo4W Installer](#) choose *advanced installation* and install qgis-dev.

Installer le plugin QGEP

Plugin requirements :

- networkx
- Qt 4 PostgreSQL database driver

You can install them on debian based systems with :

```
sudo pip install networkx
sudo apt-get install libqt4-sql-psql
```

- Ouvrir QGIS
- Go to Plugins
- Installer/Gérer les extensions
- Settings
- Ajouter...
 - Nom : QGEP
 - URL : <https://raw.githubusercontent.com/QGEP/repository/master/plugins.xml>
 - Enable *Show also experimental plugins*
- Activer le plugin (voir l'image ci-dessous) :
 - Tous
 - Chercher *QGEP*
 - Cocher la case à côté

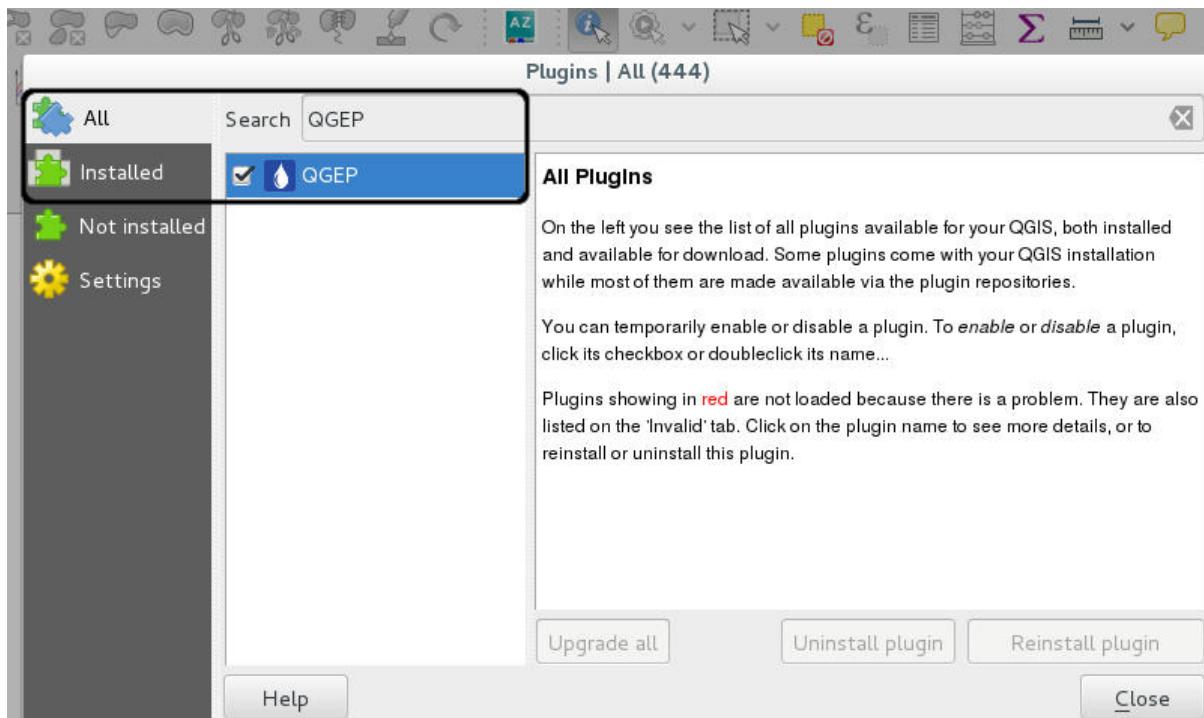


Fig. 1.1 – Ajouter le plugin QGEP

Installation du projet de démo

- Télécharger <https://github.com/QGEP/data/archive/demodata.zip>
- Extraire le fichier
- Restaurer le fichier `qgep_demodata.backup` dans pgAdmin III
- Ouvrir le projet `project/qgep_en.qgs` dans QGIS

1.2 QGEP User Guide

This represents a guide on how to collect data in QGEP (digitizing), edit existing data and use various tools like length profile, network following and plan plotting.

1.2.1 Digitizing in QGEP

This represents a guide on how to correctly collect and digitize data of sewer networks including building the topology.

Data entry

There are basically two ways :

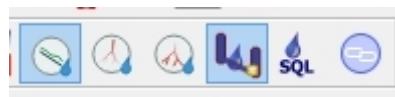
- Data entry by constructing or digitizing in the QGEP GIS itself
- Data entry in an external programm or software and then importing the position and/or technical data into QGEP e.g. :
 - coordinates from manholes from measurement
 - position and/or technical data from another GIS or CAD system
 - using data from the surveyor (e.g. property boundaries) as a basis for defining catchment borders
 - other

Data entry in QGEP needs some understanding of the underlaying data model [VSA-DSS](#), but is supported with some great data collecting wizards and forms that link the different tables correctly together. Especially the linking of manholes and reaches to a complete sewer network is highly automated and can be controlled with the network following tool.

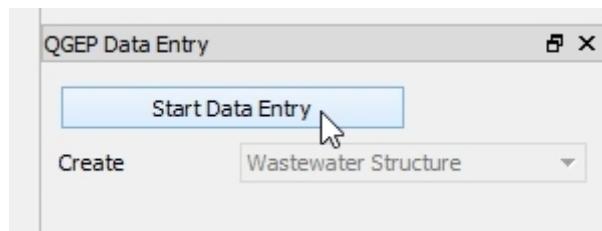
General

When digitizing you start with the point elements (wastewater structures such as manholes, special structures). Then you can connect those with line elements (channels with reaches).

To start with data entry select the QGEP button **Wizard**



On the left side bottom the **QGEP Digitizing** window appears :



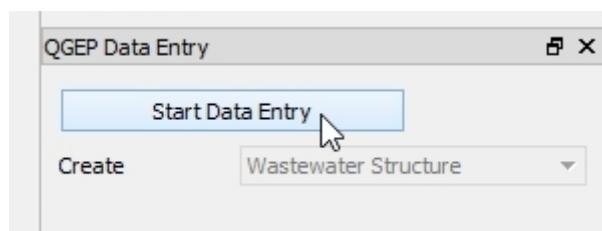
Click **Start Data entry** to enter the edit mode.

Digitizing Waste water structures

General

QGEP has a wizard to correctly collect manholes and special structures.

Select the **Wizard** button, then click **Start Data Entry** and choose **Wastewater Structure** in the pull down menu.



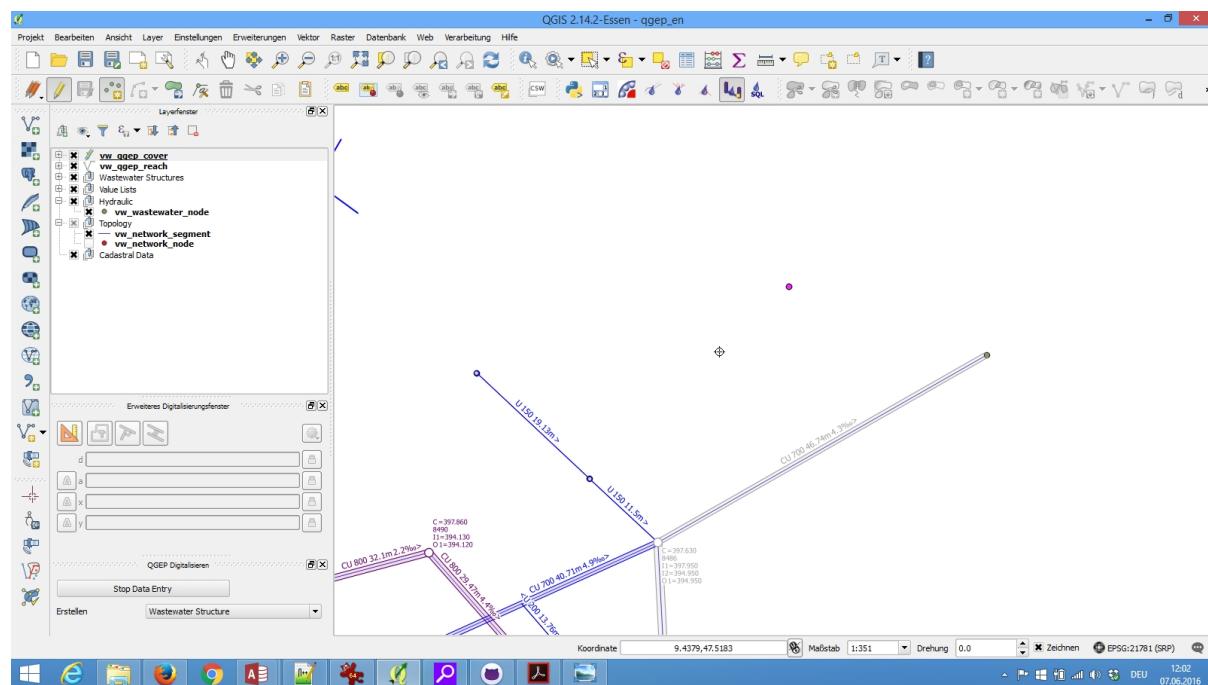
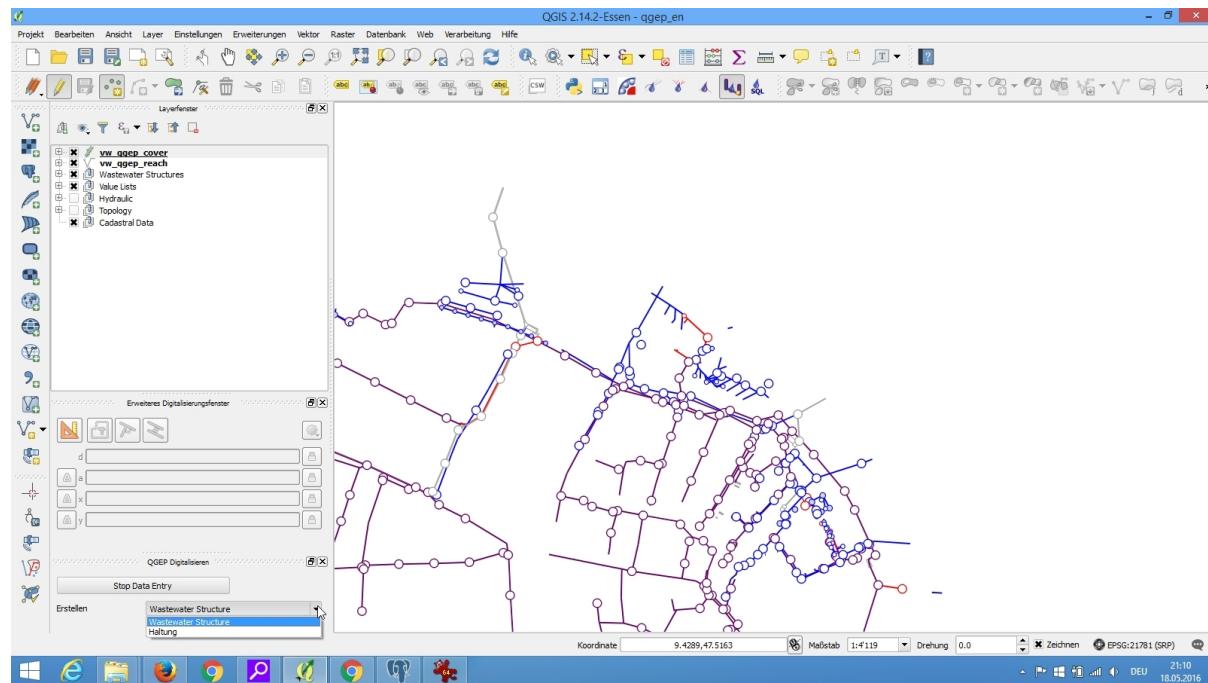
Digitizing

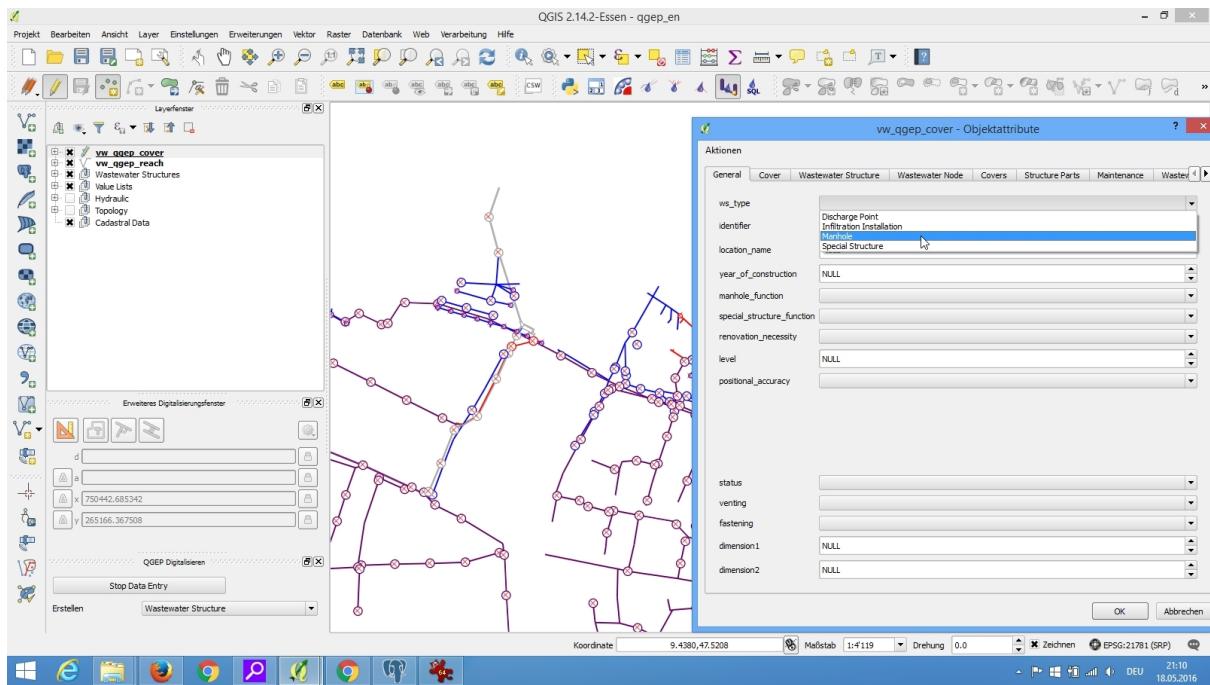
Now the cursor changes to the digitizing symbol and you can select the location of the new point element.

Then the **vw_gep_cover** form opens and you can start adding data in the **General** tab :

Select the type you want :

- discharge_point
- infiltration_installation
- manhole

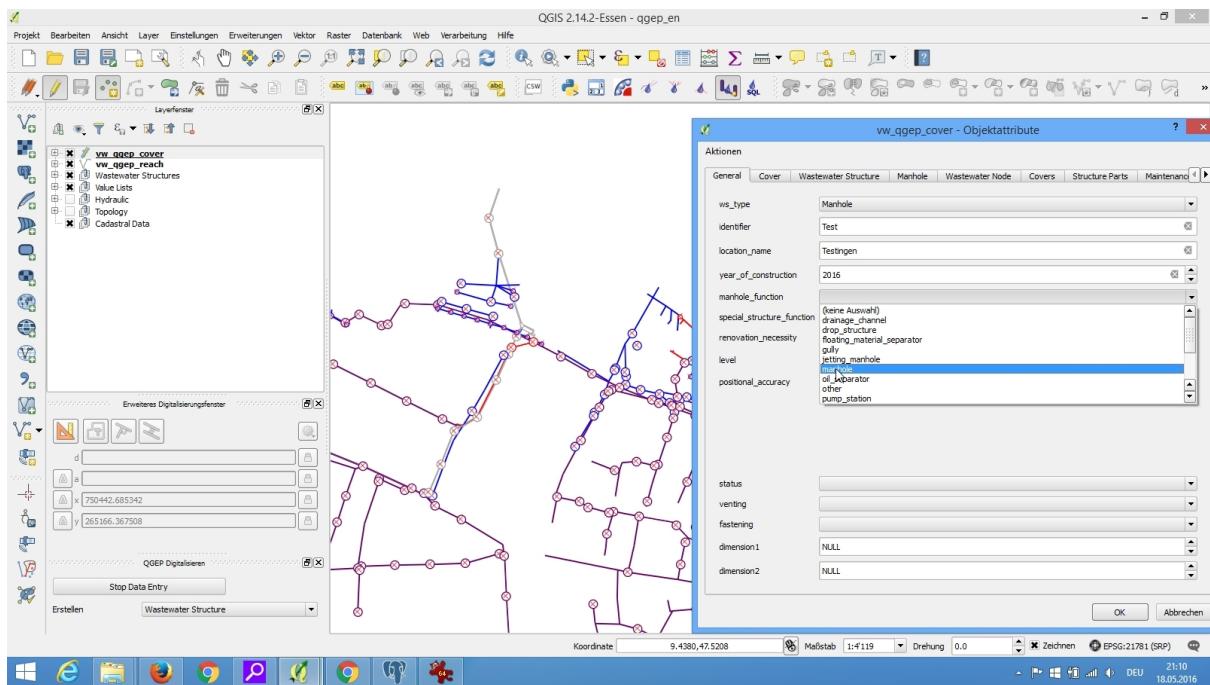




— special_structure

Then add the identifier (this is the attribute that will be displayed on the map).

For manholes and special structures you then choose the function (in **manhole_function** or in **special_structure_function**). It will be automatically displayed or hidden in the future depending on the **ws_type**)

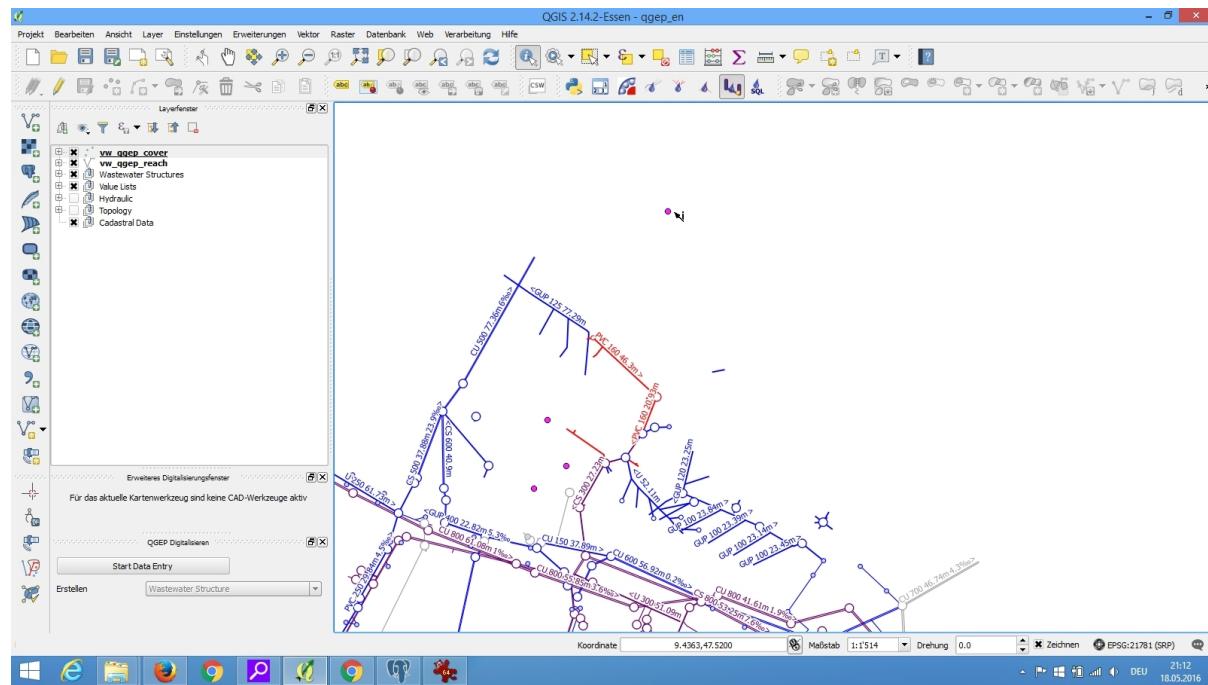
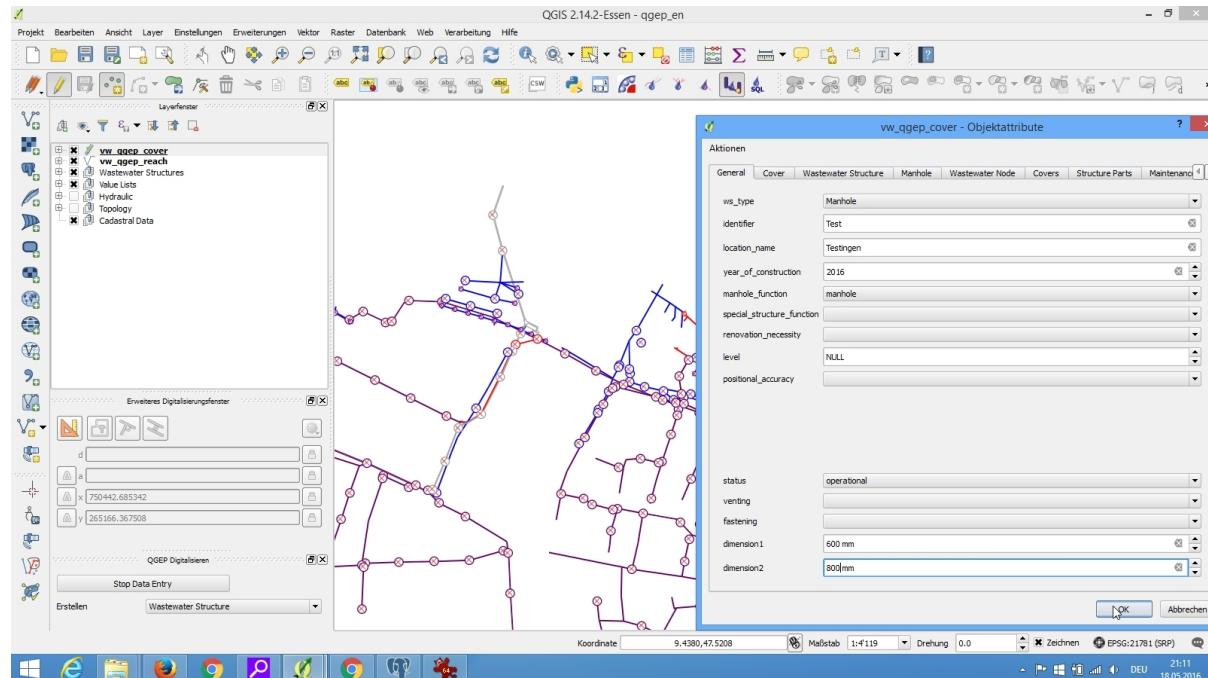


Add other attributes in the **General** tab. Now you can click OK.

Save the information of this layer by stopping the data entry wizard

You can re-edit your point object selecting the edit mode and then click with the info cursor on the object you want to edit. If you do not select the edit mode, you can just look add the existing data.

For detailed information about editing see the *Editing of existing data* chapter.



Further attributes and classes

When a point object is digitized a series of steps take place in the background in the QGIS database : a) a new object in the class wastewater structure is added b) a new object in the respective subclass [discharge_point, infiltration_installation, manhole, special_structure] is added and linked c) a new cover object is added and linked to the waste water structure d) a new wastewater node object is generated in wastewater network elements and its subclass wastewater nodes e) When you add additional objects such as structure parts (besides covers there are access aids, backflow prevention etc) then QGEP automatically generates the objects in the needed tables and subtables and sets the foreign keys to the waste water structure.

..(take more from GEPView-Howto 1.2. Chapter 4.1)

Digitizing detailed geometry

General

You can add a detailed geometry to waste water structures.

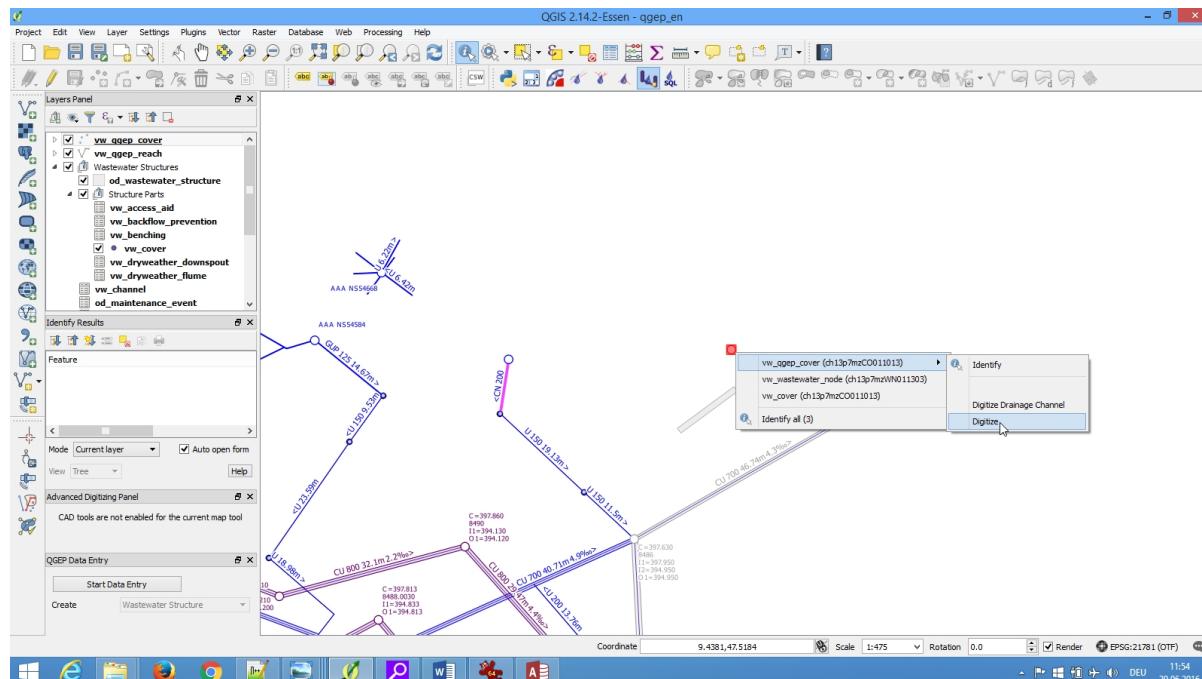
This is recommended for :

- Special structures and infiltration points, because they are not normed structures like manholes, where you can define **dimension1** and **dimension2** to describe the extension.
- Infiltration installations where **dimension1** and **2** are not enough to describe the geometry

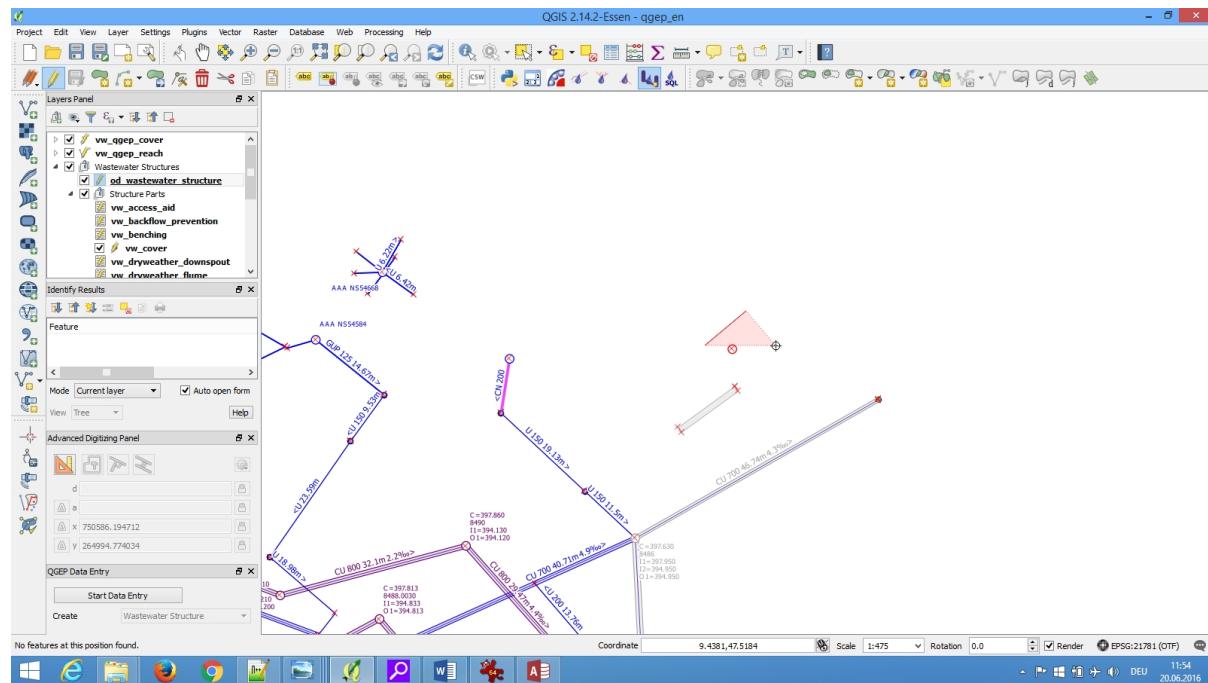
Attention : Detailed geometry is usually not used for manholes or channels !

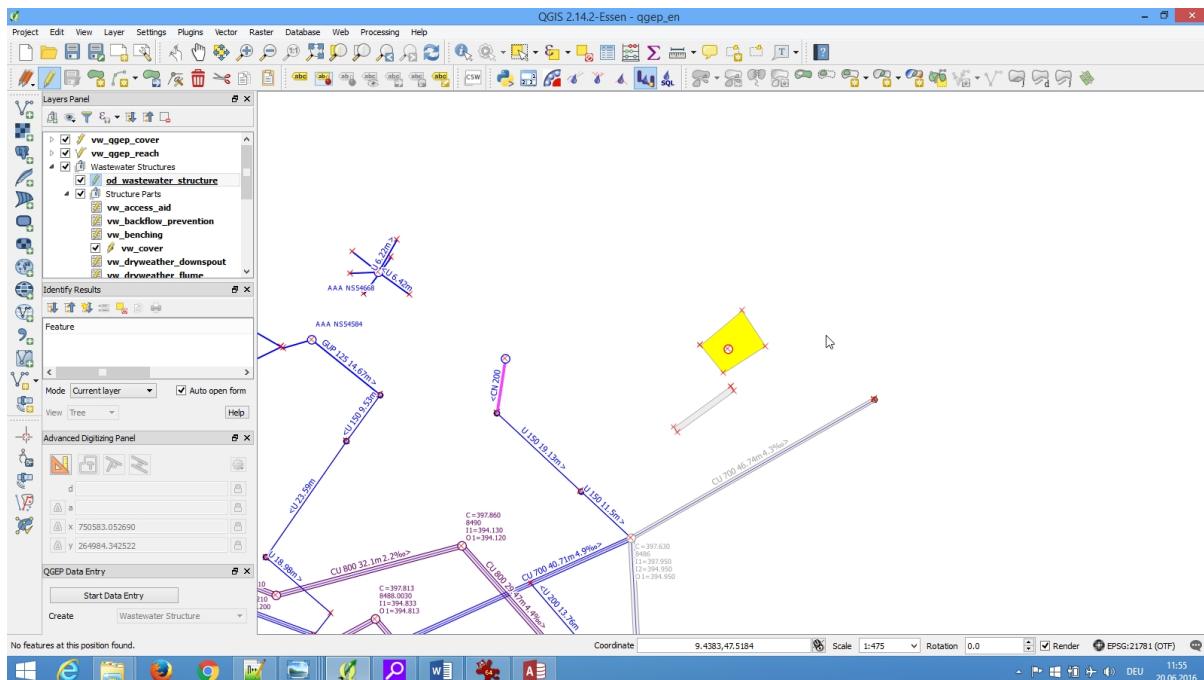
Digitizing tool

- Select the **vw_qgep_cover** layer
- Select the object where you want to add a detailed geometry with the info tool
- Right click the object and select the **vw_qgep_cover** layer
- Choose **Digitize**



- You can now start digitizing the polygon.
- Right click to stop.





Digitizing Drainage Channel

General

You can add a polygon to a manhole with function drainage channel.

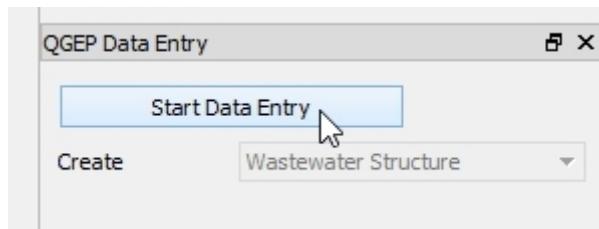
Digitizing tool

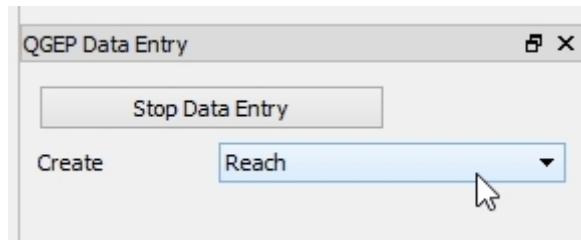
- Select the **vw_qgep_cover** layer
- Use the **Identify features** tool on the object to which you want to add a drainage channel geometry
- Right click the object and select the **vw_qgep_cover** layer
- Choose **Digitize Drainage Channel**
- You can now start digitizing the area polygon.
- Right click to stop.

Digitizing Channels

General

QGEP has a wizard to correctly build channels and connect them to the manholes / special structures and build up the topology for waste water nodes and reaches.



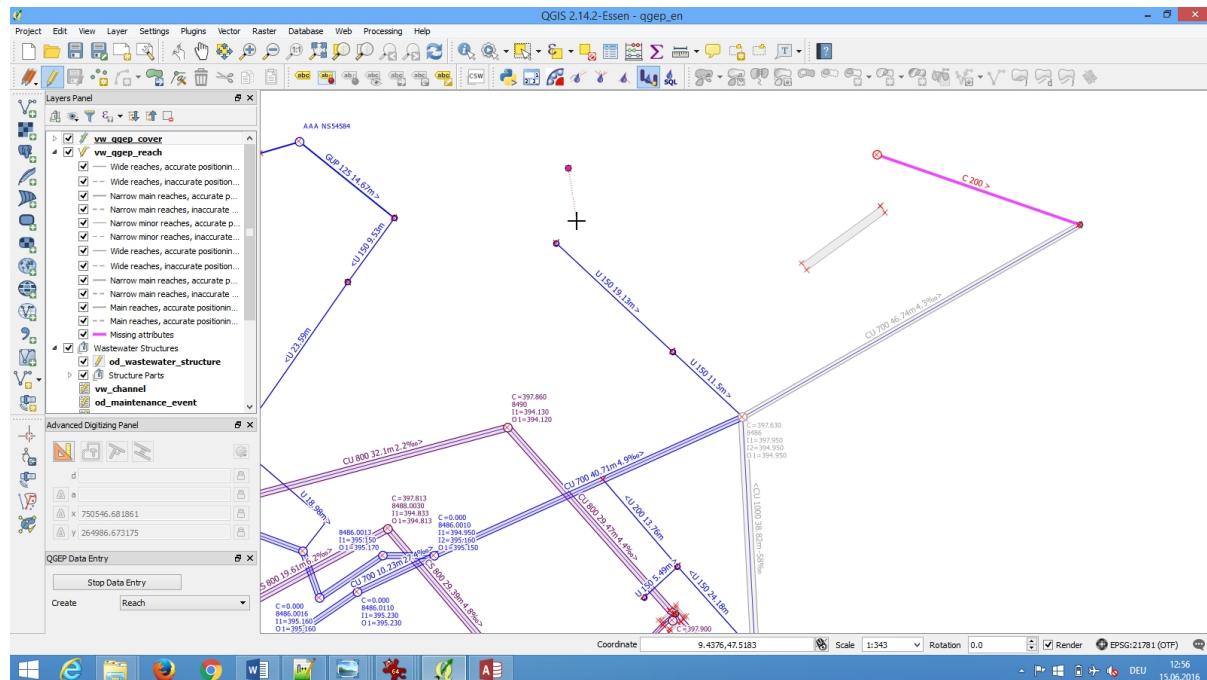


Attention : Start digitizing in the direction of the flow by starting with the **from manhole node** and finishing with the **to manhole node**.

Note : There is no tool yet to change the flow direction (topology), so try to make it right from the beginning.

Digitizing

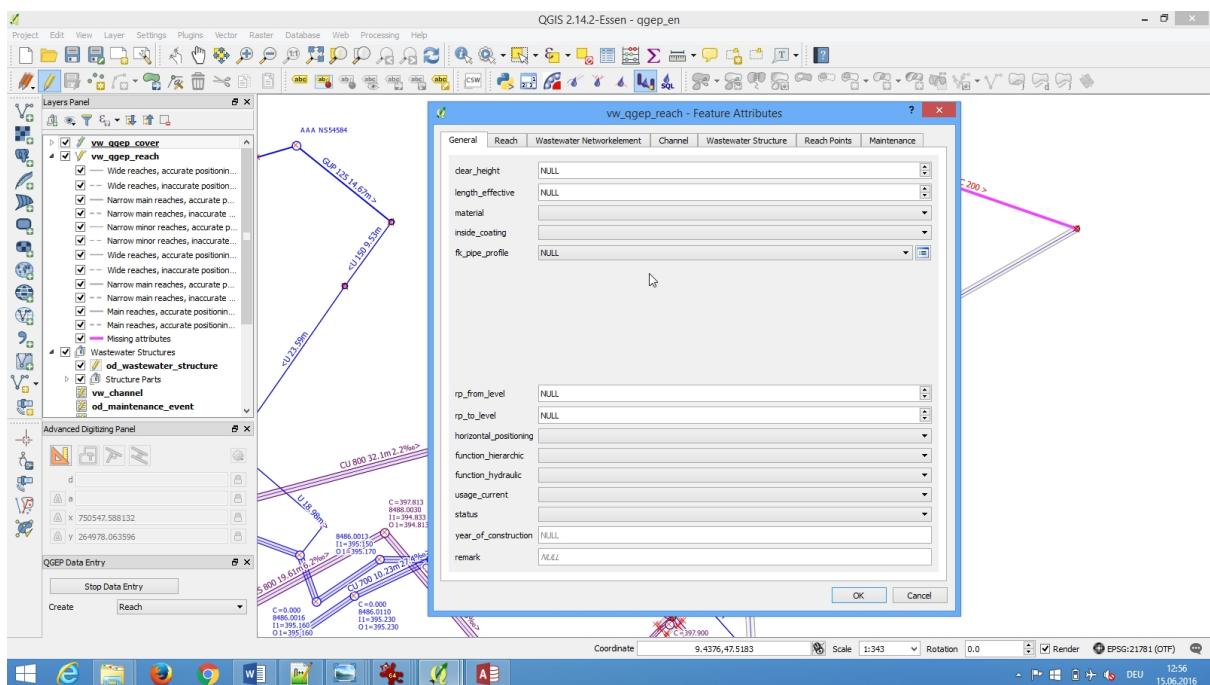
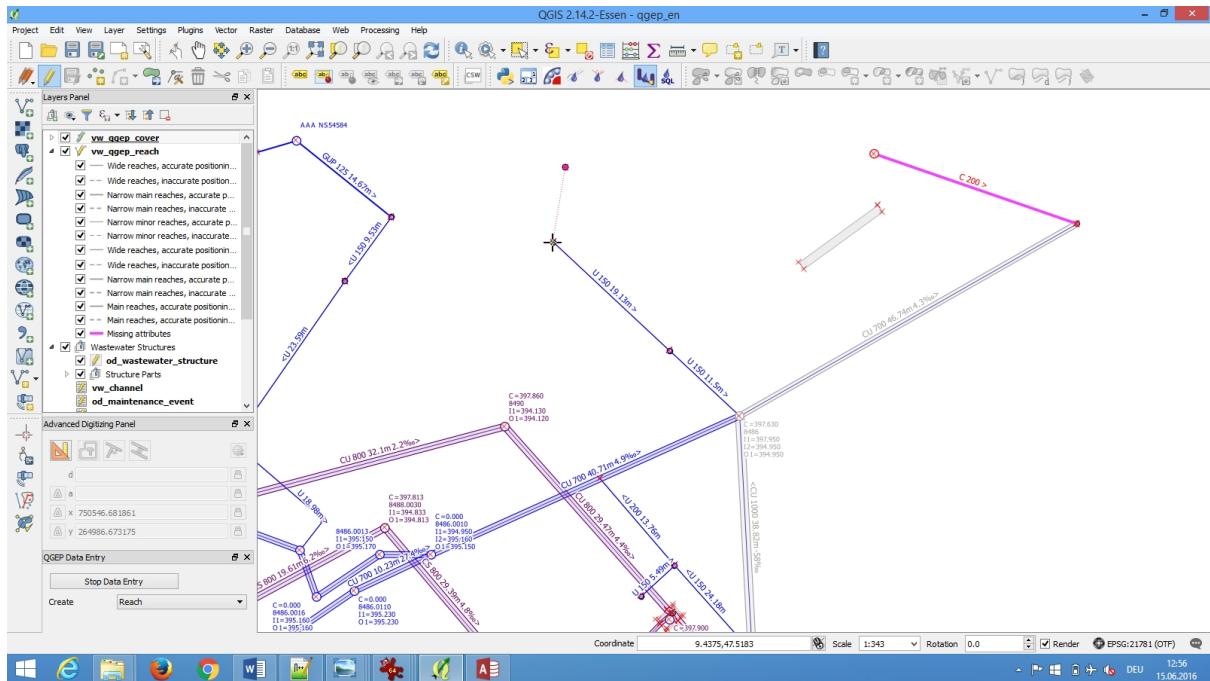
- In digitizing mode the cursor will automatically snap to the nearest cover or reach. When left clicking a line starts to draw.

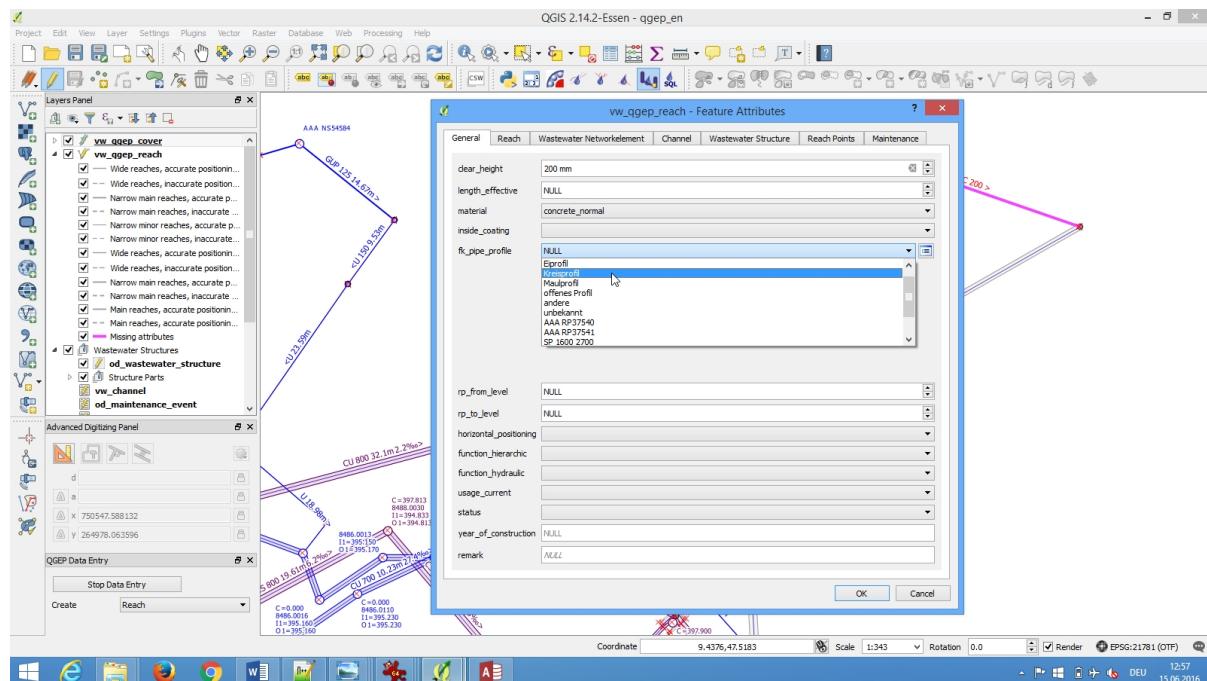


- With further left clicks anywhere you can define intermediary points of the reach progression. You can also directly select another manhole to draw a straight channel.
- You can finish digitizing the line by right clicking. This will make the reach form appear.

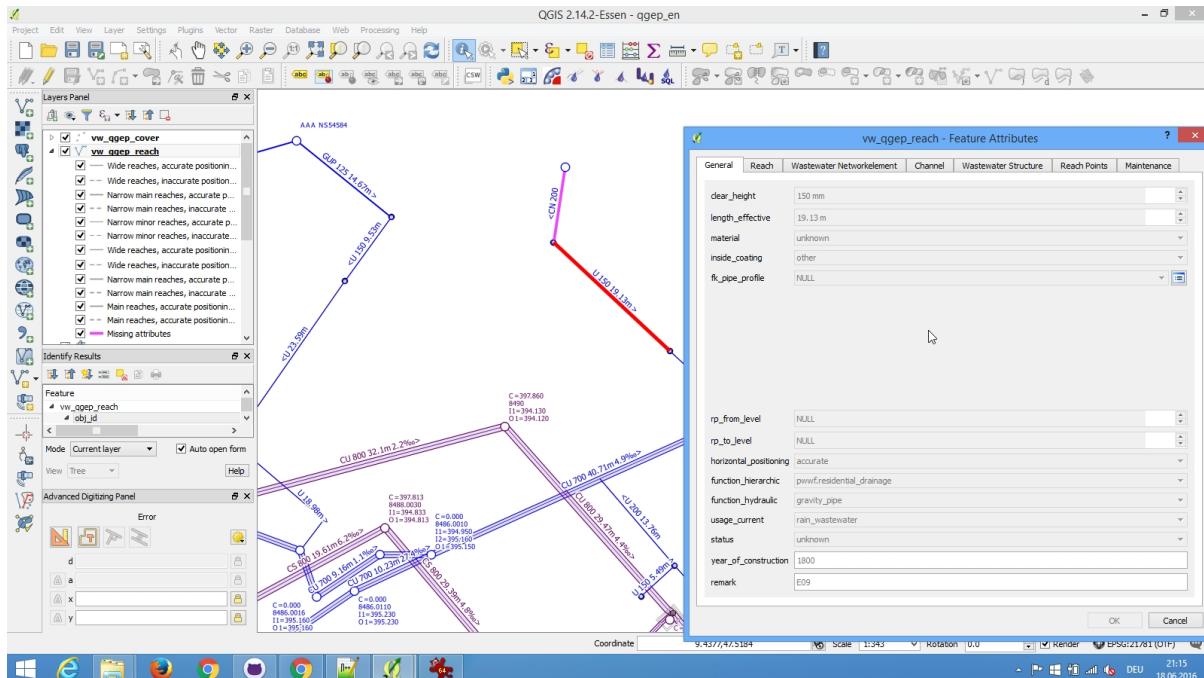
Note : Keep in mind that the finishing point of the line is the last point where you **left** clicked. Thus, for digitizing a simple line with 2 points you need two **left clicks** to digitize the line and one **right click** to finish the line digitizing.

- Add the attributes on the **General** tab. For the profile type you will get a list of defined profiles. You can edit those in **od_pipe_profile** table.
- When finished, then click the **OK** button.
- Save the information of this layer by stopping the data entry wizard.





- You can re-edit your point object selecting the edit mode and then click with the info cursor on the object you want to edit.
- If you do not select the edit mode, you can just look add the existing data.

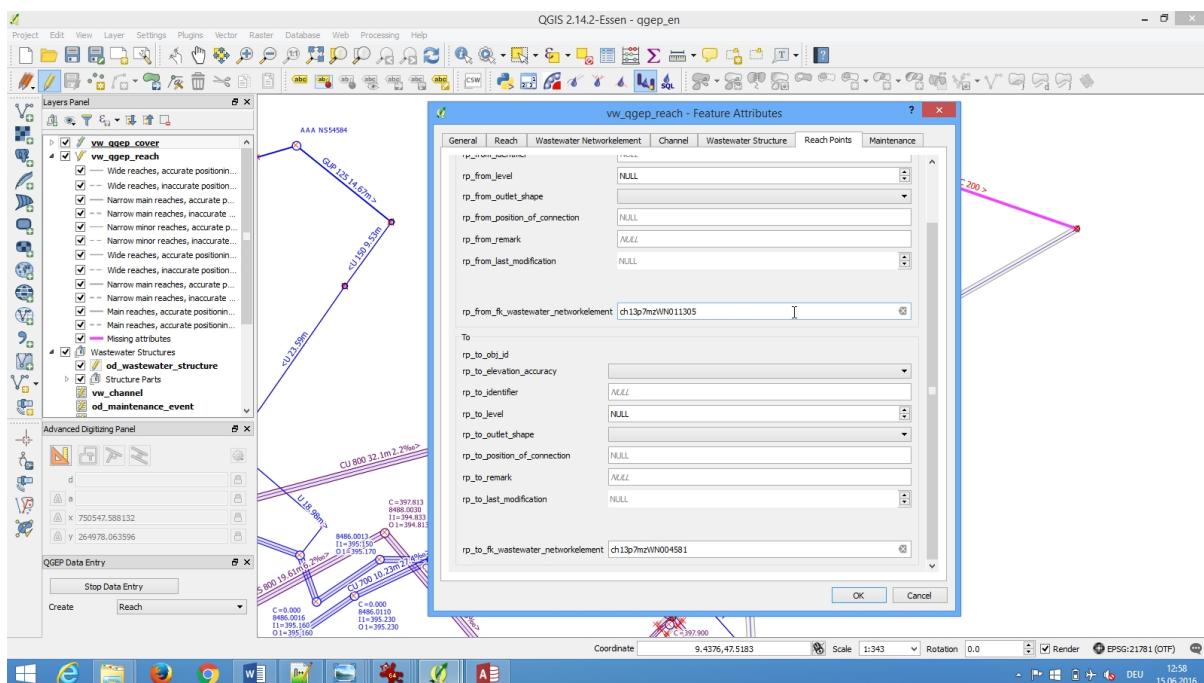


- For detailed information about editing see the [Editing of existing data](#) chapter.

Further attributes and classes

When a line object is digitized a series of steps take place in the background in the QGIS database :

- a new object is added in the wastewater structure class (`od_wastewater_structure`)
- a new object is added and linked in the **channel** subclass (`od_channel`)
- two new reach point objects are added and linked to the reach (`rp_from`, `rp_to_node`)



— a new reach object is generated in the **wastewater network elements** class (`od_wastewater_networkelement`) and its subclass **wastewater nodes** (`od_wastewater_node`)

TO DO Documentation

- Kanal/Haltung (Digitalisierrichtung, Schnappen)
- Weitere verknüpfte : Eigentümer, Rohrprofil, Hydraulische Geometrie, Hydraulische Einbauten
- evtl. Verknüpfungen erfassen
- take more from GEPView-Howto 1.2. Chapter 4.2)

Deleting objects

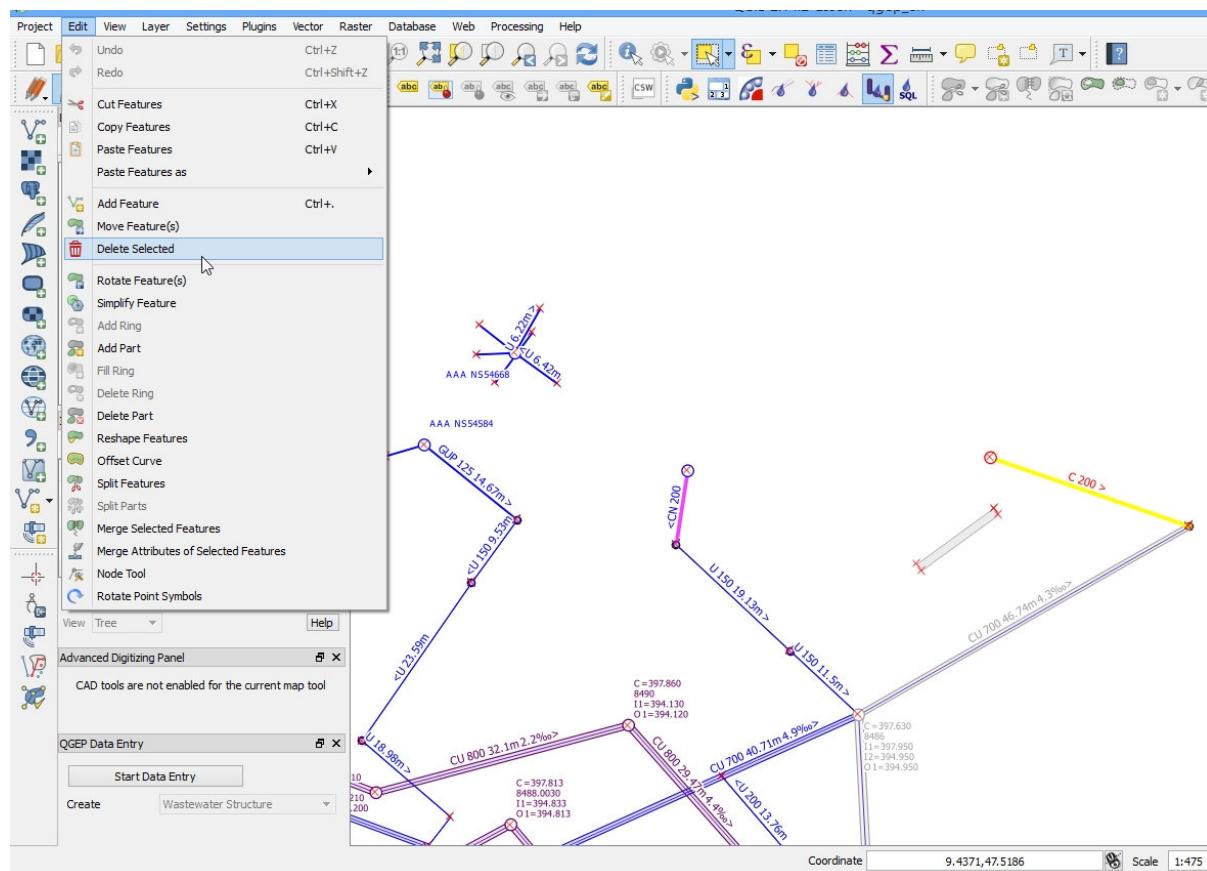
You can delete point or line objects (with all associated objects) through the **vw_qgep_(cover/reach)** layers. You can also pick and delete only a specific object (e.g. cover).

Delete Reaches

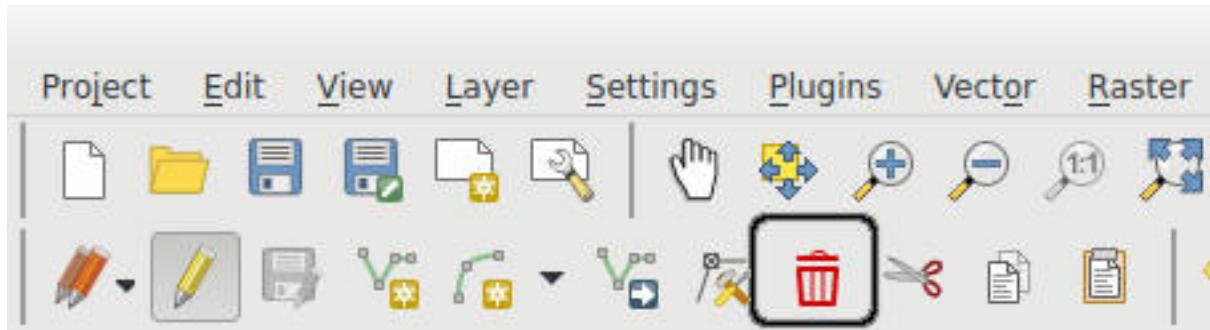
- Select **vw_qgep_reach** and change to edit mode.
- Select the reach(es) you want to delete. You can click on an object or draw an area.



- Use the top menu **Edit -> Delete Selected** to delete.

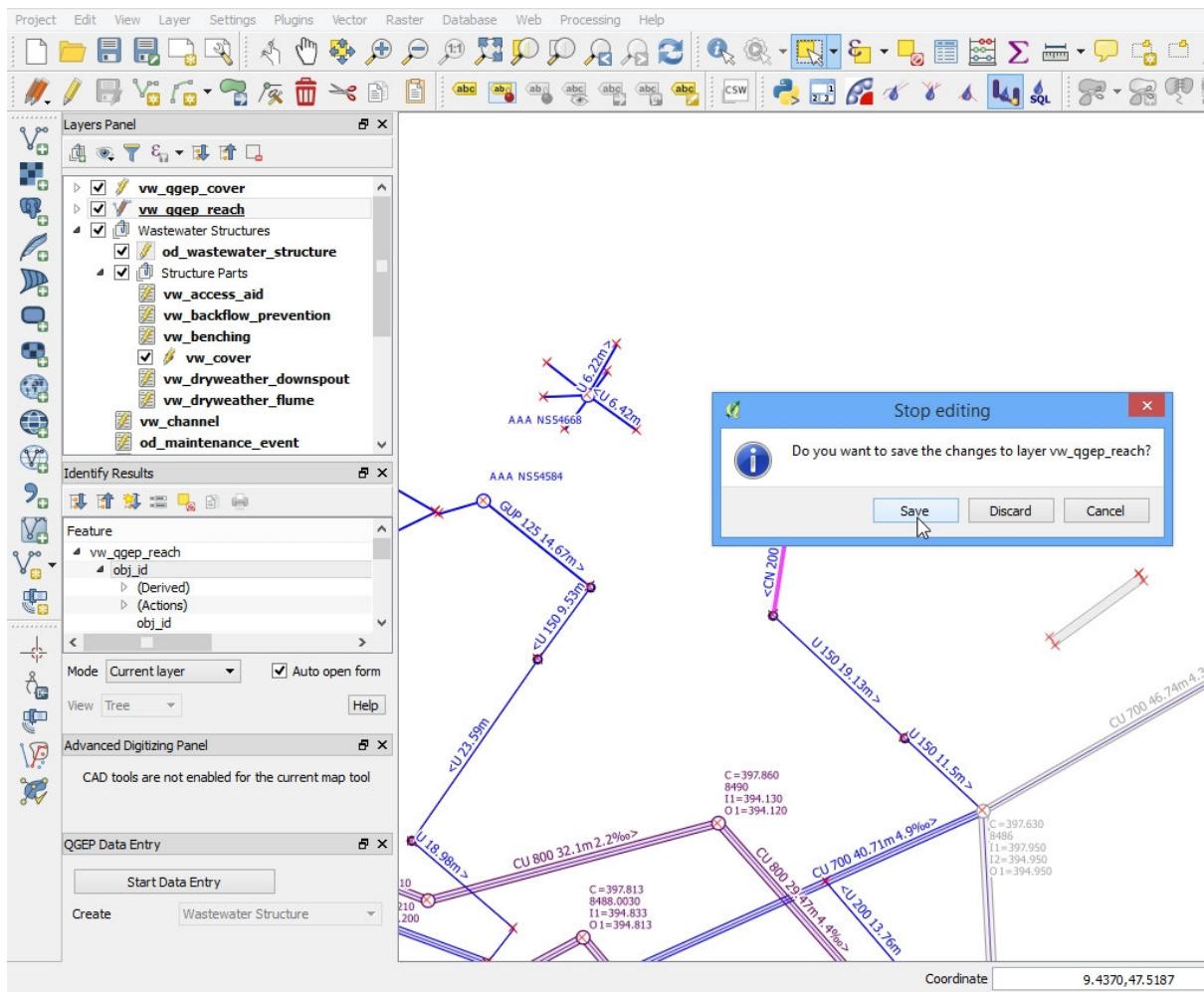


Note : The easiest way is to simply press the **Delete** key on your keyboard. Another way is to press the **Delete** button located in the **Digitizing toolbar**.



Depending on how you customized QGIS the **Digitizing toolbar** may be hidden or located elsewhere.

- Deselect the edit mode and confirm changes to layer. All changes will be saved to database.

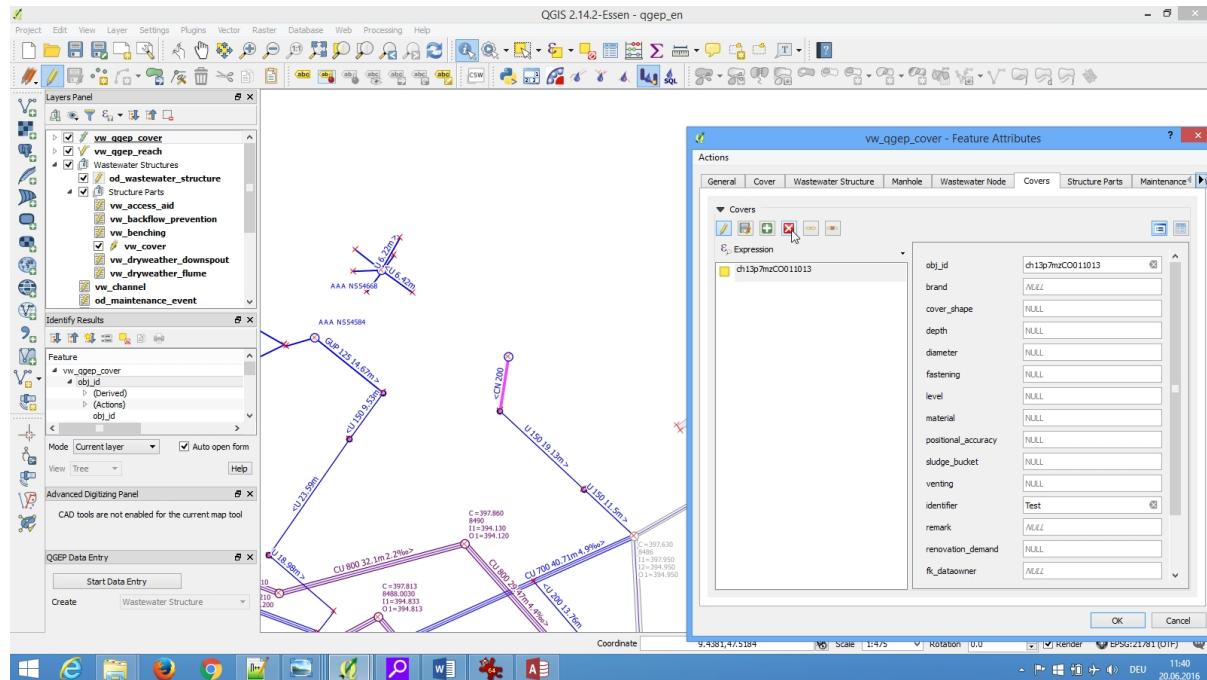


Delete Manholes and other Waste water Structures

- Select **vw_qgep_cover** and change to edit mode
- Select the objects (**manholes, special structures** etc.) you want to delete
- Use **Edit -> Delete Selected** to delete.
- Stop the editing mode and confirm changes to layer. All changes will be saved to database.

Delete Covers

- Select **vw_qgep_cover** and change to edit mode
- Select the object (**manholes**, **special structures** etc.) to which you want the cover deleted
- Use the **Identify Features** tool to open the form
- Switch to the covers tab
- Select the cover(s) you want to delete
- Click the red x button to delete the covers



- Click save on the form
- Deselect the edit mode and confirm changes to layer. All changes will be saved to database.

Delete Structure parts

- Select **vw_qgep_cover** and change to edit mode
- Select the object (**manholes**, **special structures** etc.) you want to delete the cover
- Use the **Identify Features** tool to open the form
- Switch to the structure parts tab
- Select the structure part you want to delete
- Click the red x to delete the covers
- Click save on the form
- Stop the editing mode and confirm changes to layer. All changes will be saved to database.

Digitizing Catchment Areas

General

Catchments can be digitized with QGIS standard tools.



They should not overlap. So enable the **Advanced digitizing toolbar** in the **View -> Toolbars Menu**

Digitizing

- Set the layer `od_catchment_area` into the edit mode.
- Use the **Add Feature** tool to digitize a new area.
- Select the **Enable Tracing** button before starting to digitize
- TO DO - add next points

Editing

- You can edit existing areas with the **Identify features** tool.

1.2.2 Editing in QGEP

This represents a guide on how to add and edit data in QGEP.

Editing of existing data

This represents a guide on how to edit existing data in QGEP.

Demo project

- Make sure you have imported the demo project with pgAdminIII (see the *Database initialization* chapter)
- Open the demoproject by going to the main menu and press **Project -> Open** or by pressing **CTRL + O** at the same time.
- Login to the database
- You should now have the demoproject loaded
- The project consists of different layers. Depending on your task what to edit or add you choose the layer.

Layers

- QGEP has different predefined layers :

Layer `vw_qgep_cover`

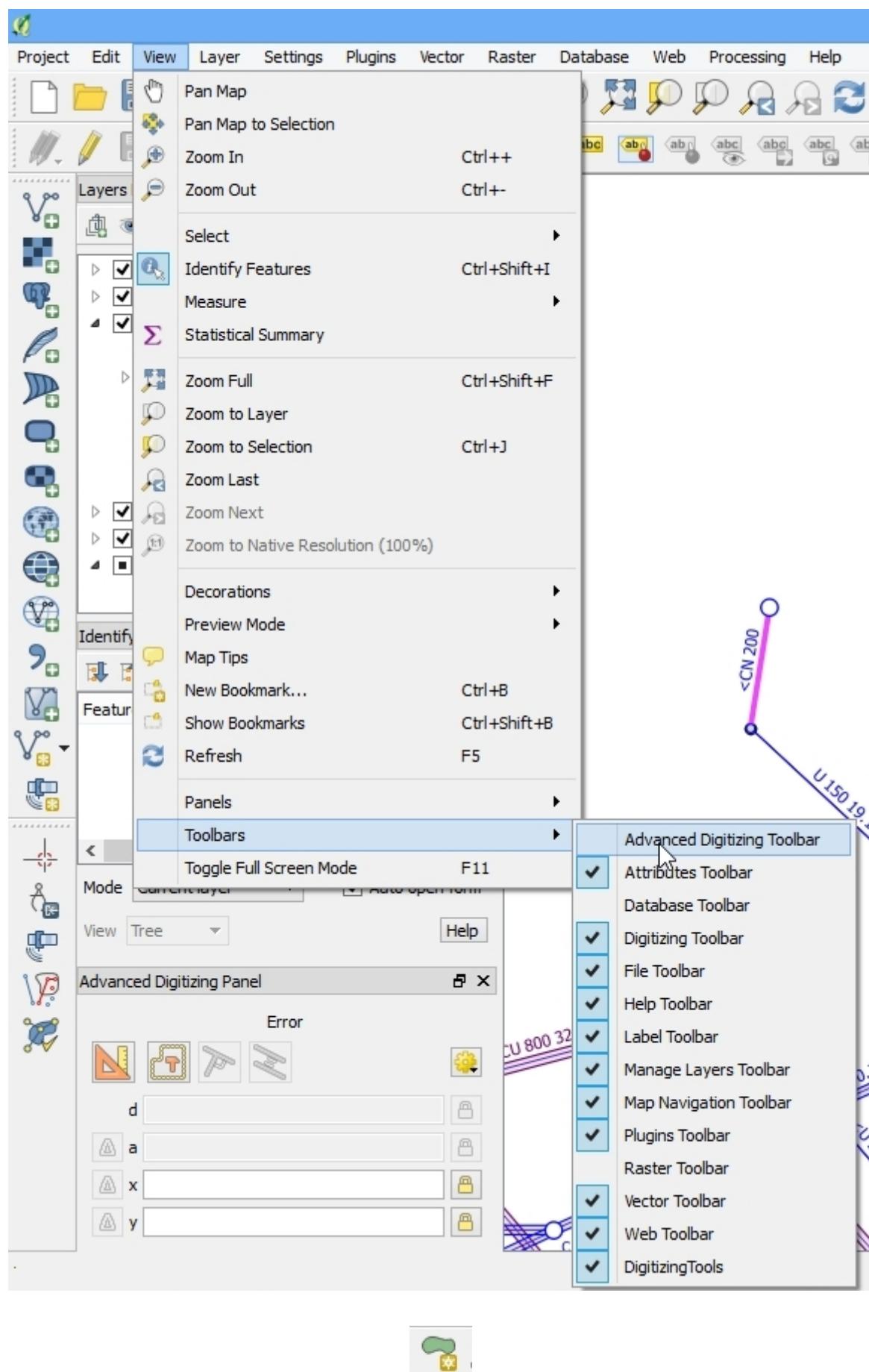
- The `vw_qgep_cover` layer allows to edit all point elements. This are the wastewater structures such as manholes, special structures, discharge points and infiltration installation (`wwtp_structures`, which is also a wastewater structure, are not supported yet).

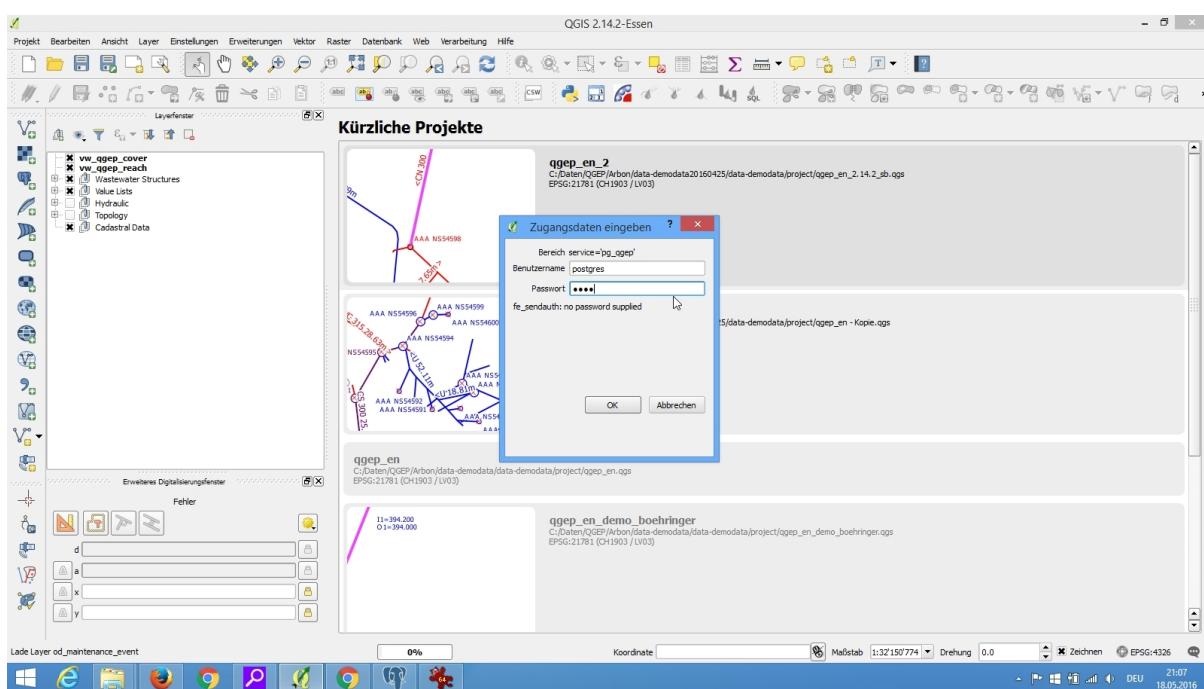
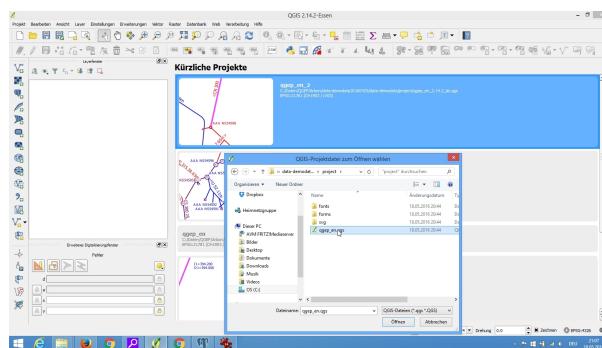
Layer `vw_qgep_reach`

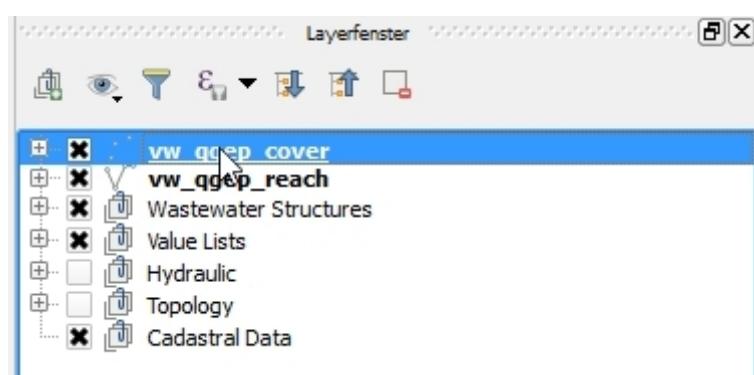
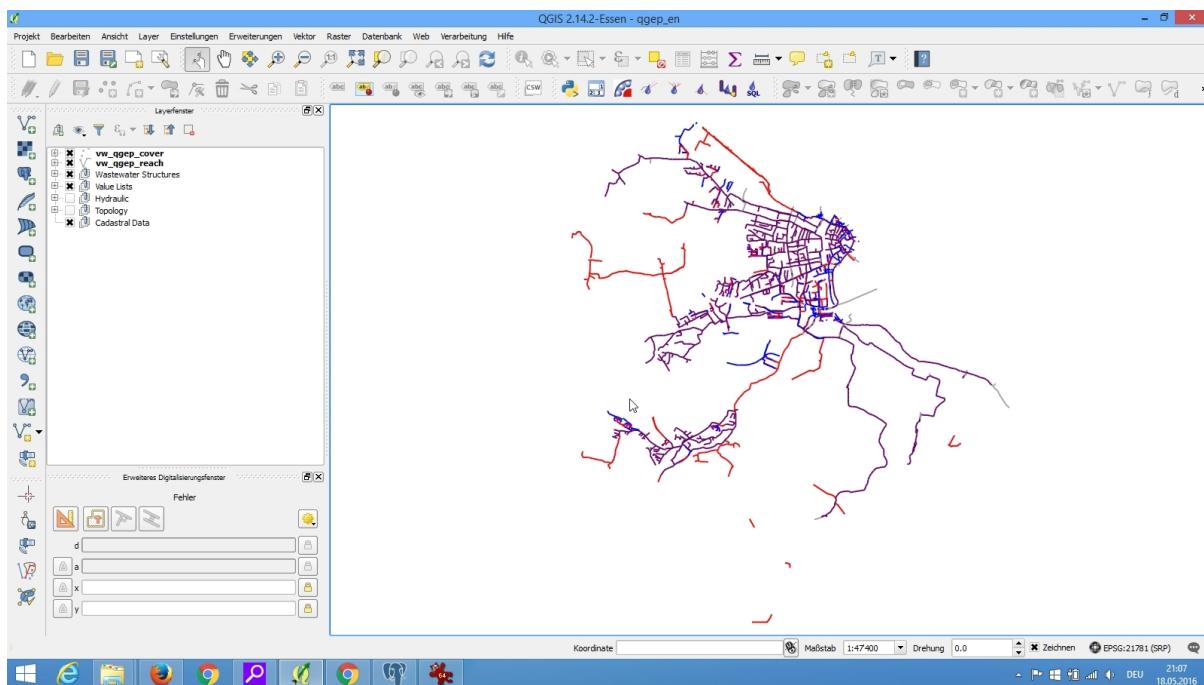
- The `vw_qgep_reach` layer allows to edit all linear elements of the wastewater network (**reaches / channels**).

Layer Waste water structures

- This layer contains various sublayers related to the waste water structure. It also contains links to the maintenance events, the relation table between waste water structures and maintenance events and the organisation table (where `owners`, `dataowners`, etc. are stored)







Layer Value lists

- Here you can see various value lists that are related to the sewer network classes.

Layer Hydraulic

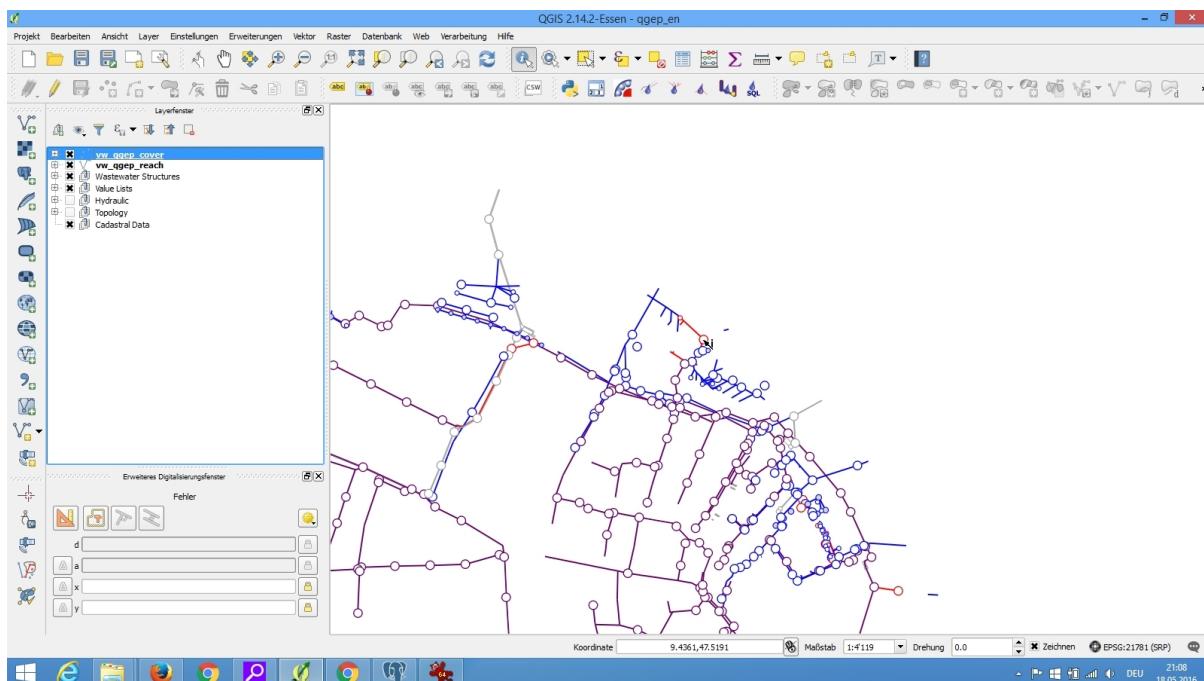
- This layer allows to select and edit waste water nodes. Select the layer, then choose the **Identify Features** tool and double click on a node.

Layer Topology

- Here you can find all needed information about the topology of the network.

Changing attributes of point elements (manholes / special structures)

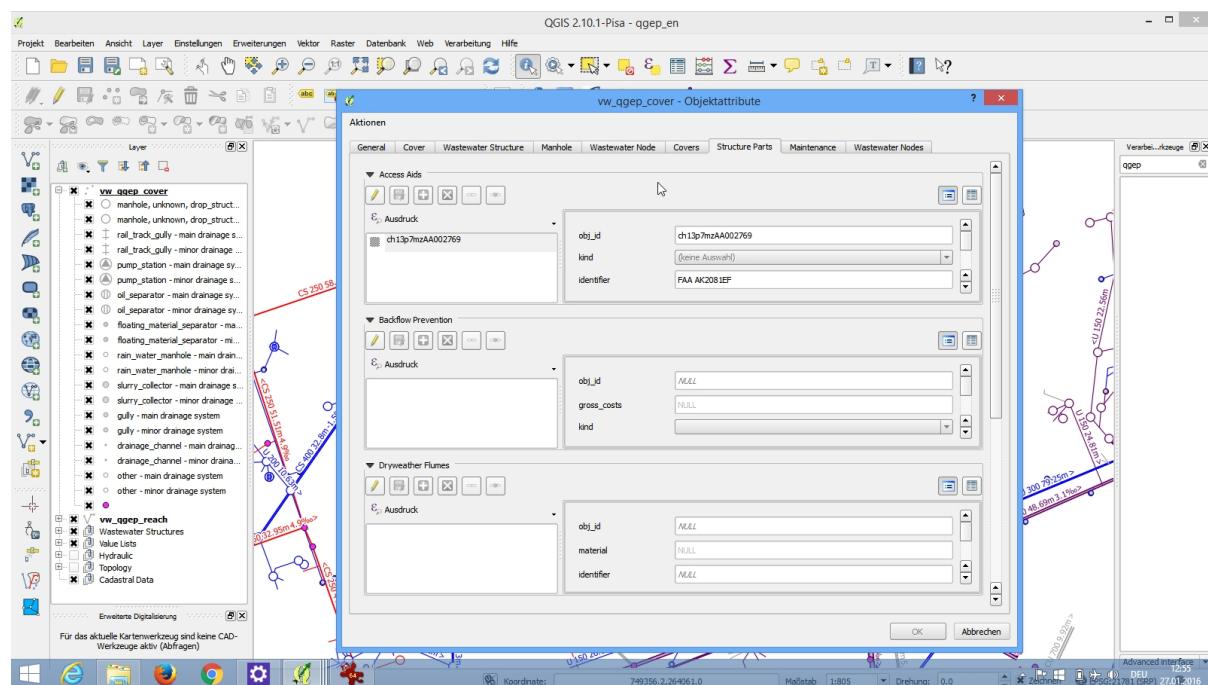
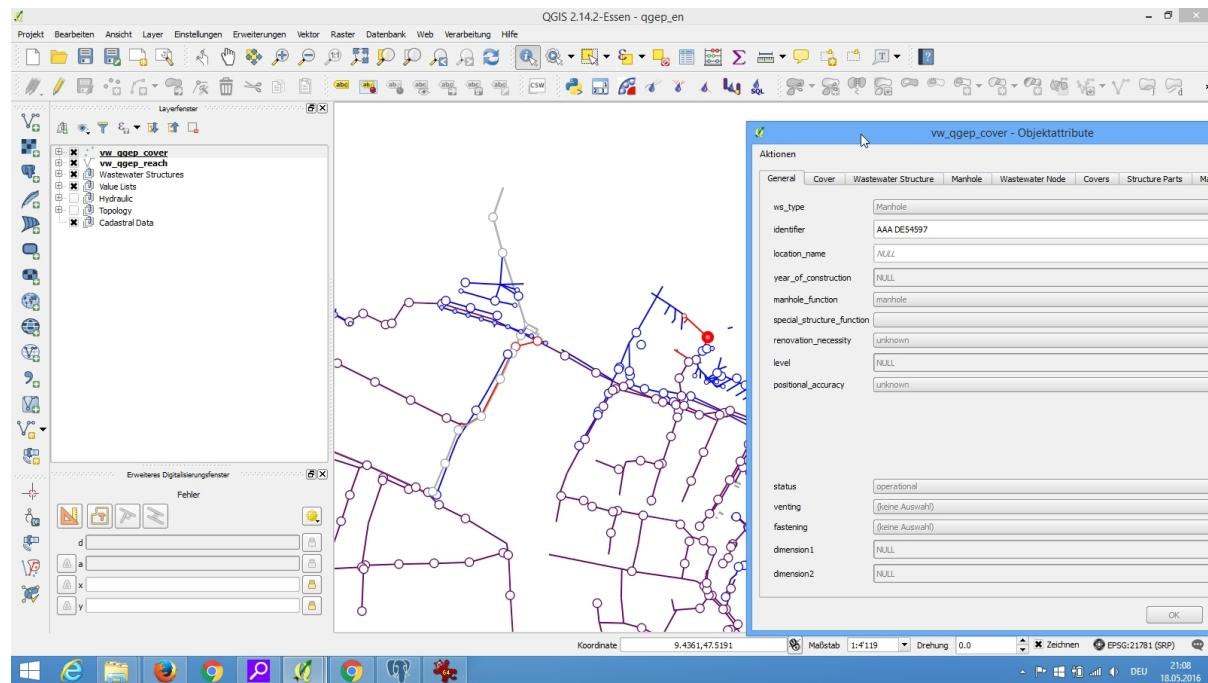
- To change an attribute you first need to select the **vw_qgep_cover** layer and switch to the edit mode.
- Or start the **QGEP Wizard** and click on **Start Data Entry**.
- Then click on the **Identify features** button and choose the element you want to edit by double-clicking.

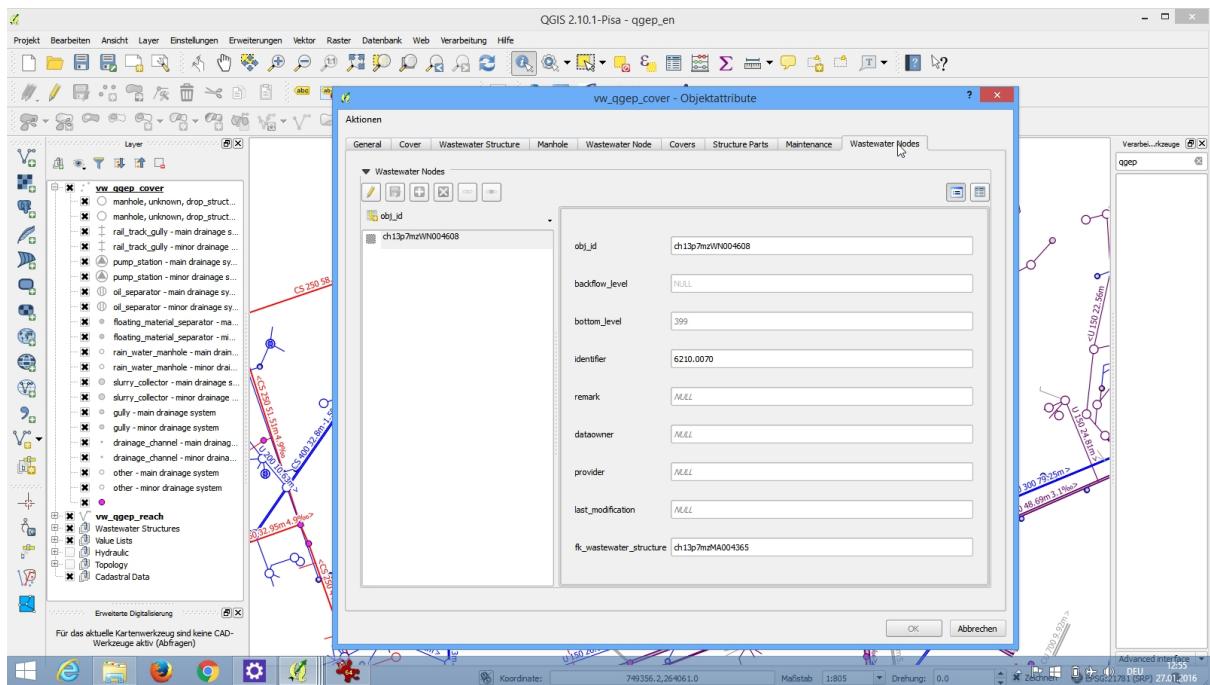


- The **vw_qgep_cover** form will open.
- On the first tab you can change the most common attributes
- To change attributes of related tables (e.g. cover) you need to select the correspondent tab. Depending on the kind of wastewater structure you can edit additional attributes in the respective tab (**special structure, manhole**).
- The **covers** tab allows you to add additional covers.
- In **Structure parts** you can add also further parts such as **acces aids, backflow prevention, dryweather flume** etc.
- In **Wastewater nodes parts** you can edit or add all attributes of this class or add a second element.

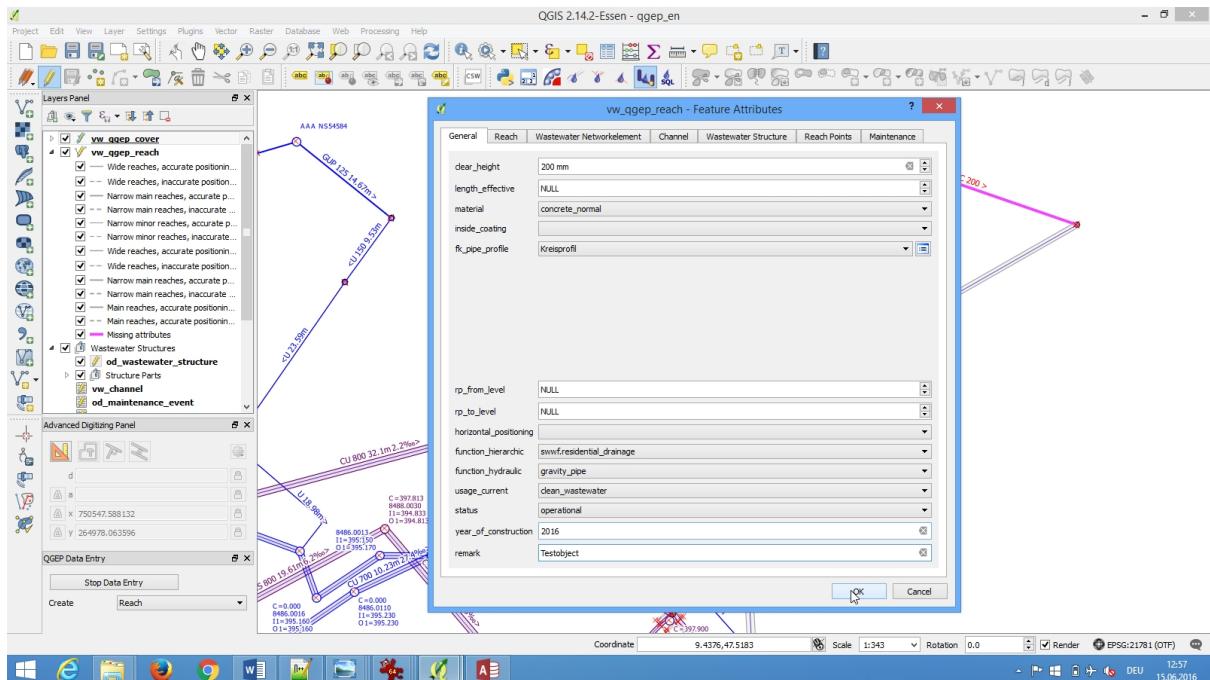
Changing attributes of linear elements (channels)

- To change an attribute you first need to select the **vw_qgep_cover** layer and switch to the edit mode.





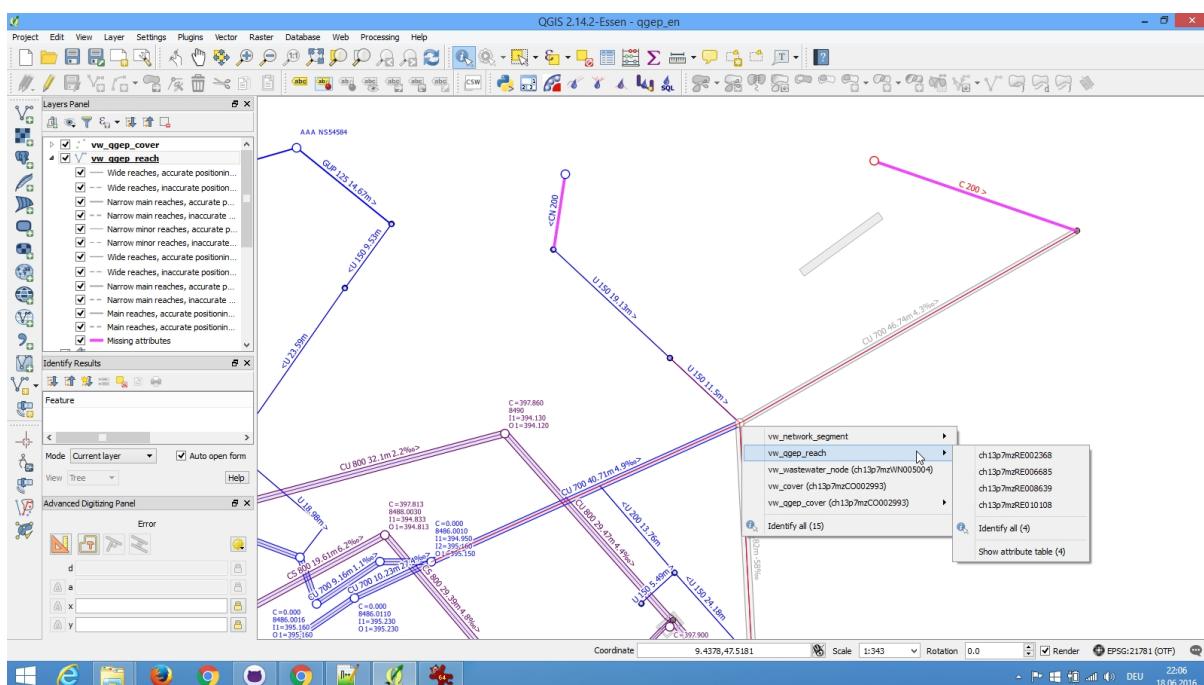
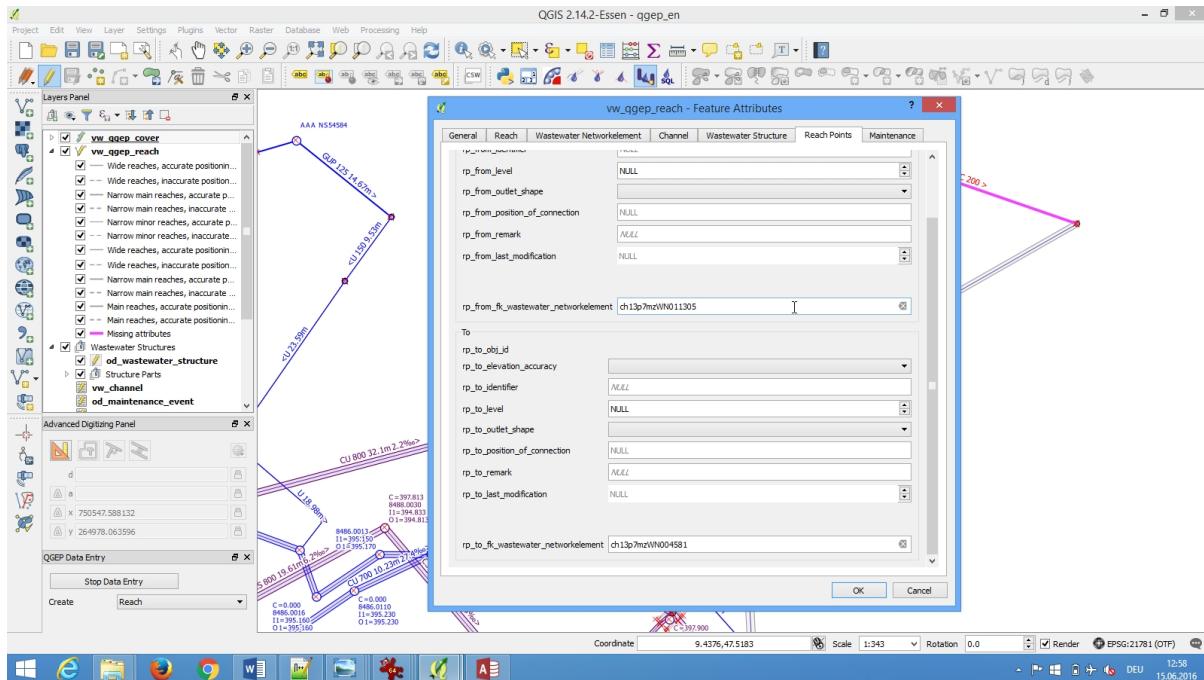
- Then click on the **Identify features** button and choose the element you want to edit by double-clicking a channel.
- The **vw_qgep_reach** form will open.



- On the first tab you can change the most common attributes.
- To change attributes of related tables (e.g. **reach points**) select the correspondent tab.

Changing attributes of hydraulic elements

- With the **Identify feature** tool activated, right clicking an element outputs a selection of all existing objects.



- You can select then the object you want. This will get you to the correspondent form to see the details.

Saving changes

- Click **Save** and then deactivate the edit mode or click on **Stop data entry** if you have worked with the **QGEP Data Entry** wizard.

..* TO DO :

- Changing relations (Verknüpfungen ändern)
- Change ws_type (Subklasse eines Abwasserbauwerkes ändern (ObjektID ändert dann auch !))
- Split channels into different reaches (Kanäle unterteilen)

Link to the Homepage of the Swiss Waste Water Association - Datamodel VSA-DSS:

Moving Covers with Reaches and Wastewater Nodes

This represents a guide on how to move covers with reaches and wastewater nodes compared to just moving the cover in QGEP.

General

- This feature allows to move the whole manhole or special structure with all the connected reaches and wastewater nodes.
- In comparison you can also only move the cover or the wastewater node

Moving

- See [this video tutorial](#) to see the details and compare.

Adding or Editing of Maintenance Events

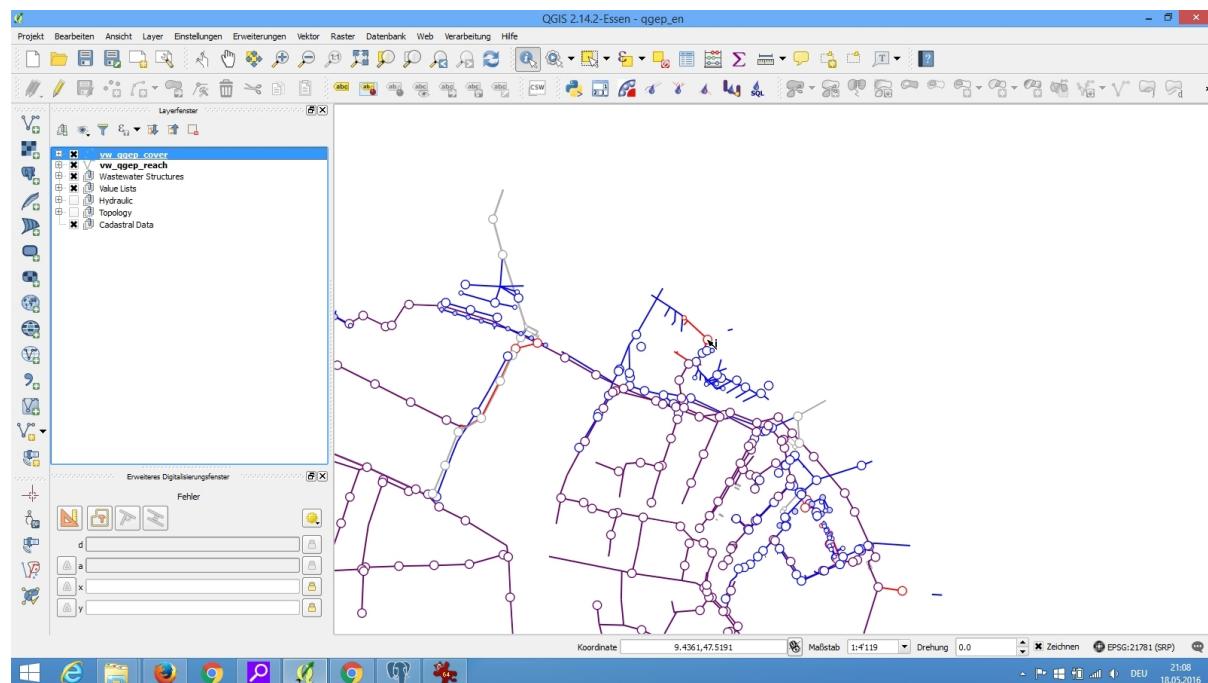
This represents a guide on how to add or edit maintenance event data in QGEP.

General

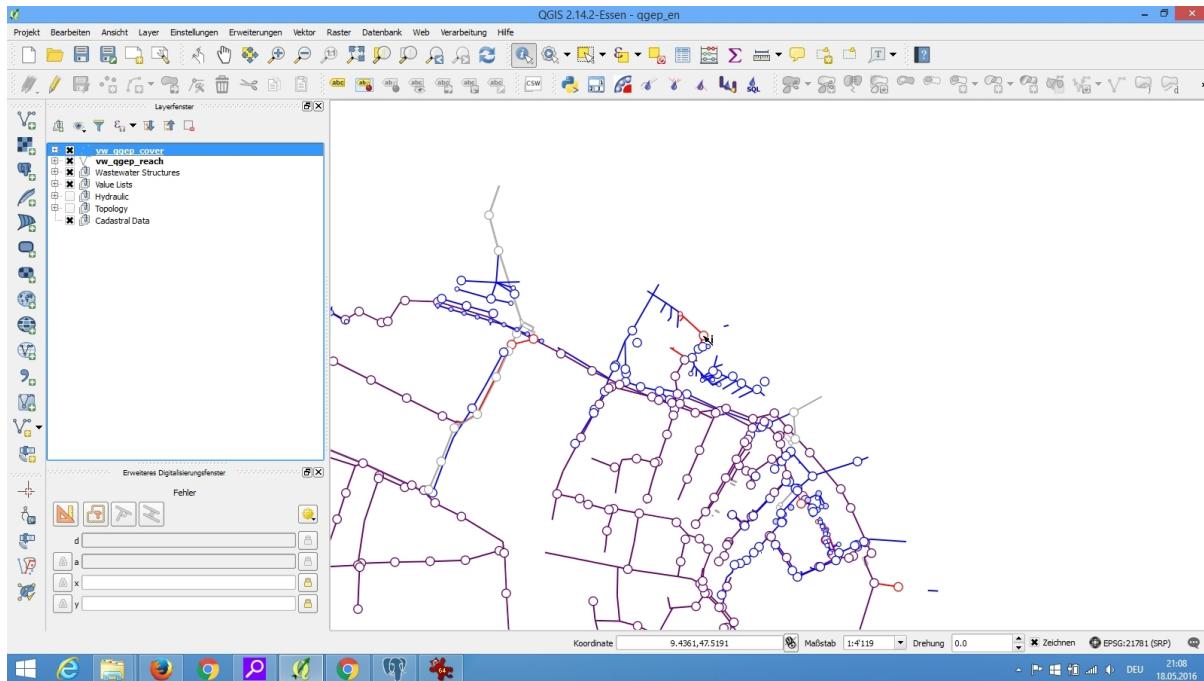
- Maintenance events can be connected to one structure or to many. Therefore QGEP uses an intermediary RE_table to model the n:m relationship (**re_maintenance_event_wastewater_structure**)

Adding (for single events that just belong to one structure)

- Enable the edit mode.
- With the **Identify Features** tool you can select **manholes** or **reaches** by selecting their corresponding layer (**vw_qgep_cover** or **vw_qgep_reach**).
- The respective form will open. Change to the **Maintenance Event** tab.
- Create a new maintenance event.



- Or link with an already existing maintenance event



- Close the form with **OK** and turn off the edit mode to save changes

Adding (for many events that can belong to many structures)

- to do

Editing

- Do as described in adding - but just edit existing maintenance events.

Connect Wastewater Network Elements

This represents a guide on how to connect wastewater network elements in QGEP.

General

- QGEP has a tool to connect wastewater network elements



Connecting

- See [this video tutorial](#) to see how it works:

1.2.3 Length profiles

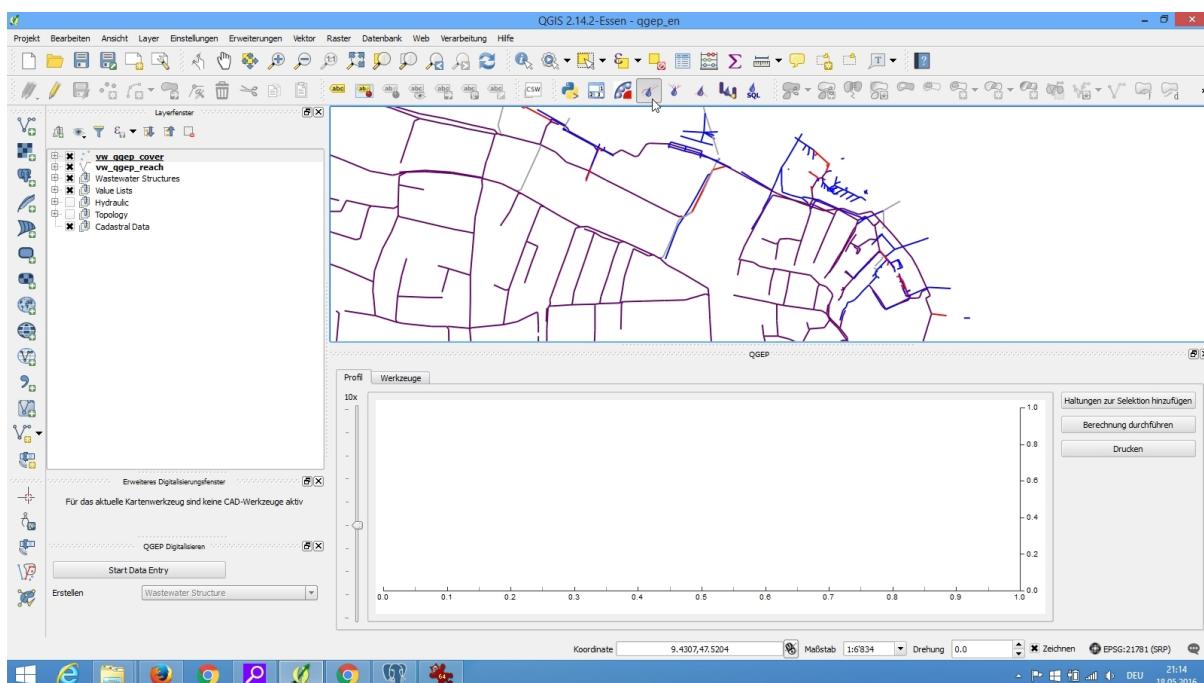
This represents a guide on how to choose a section and display a length profile.

General

QGEP has a unique function to display length profiles. Choose the length profile button to start.



The length profile window opens.



Select the **vw_qgep_cover** layer to select a starting point.

Then select a next manhole - it is not needed to be the direct next one. The tool automatically selects the manholes in between. You can repeat this several times. If there is no continuity you will get a warning. Right click to finish your selection.

In the profile window you now have the length profile. You can see detail info about manholes. If you hover over a manhole in the profile window you can see that the canvas correspondent gets highlighted in green.

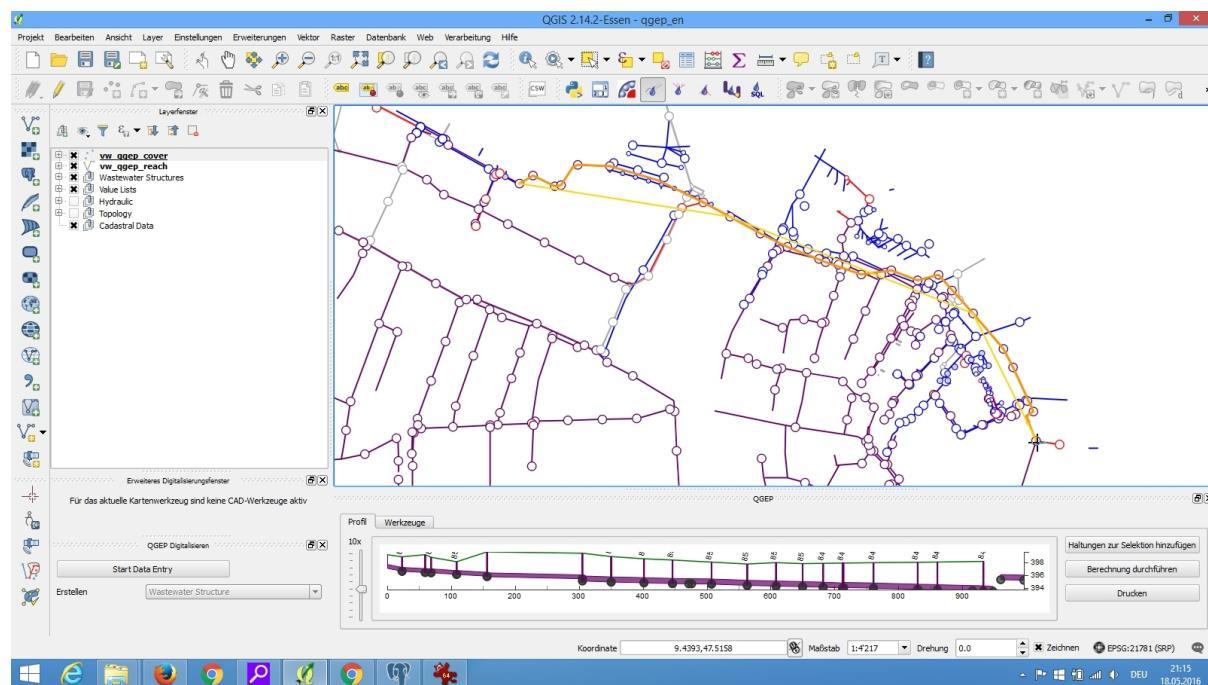
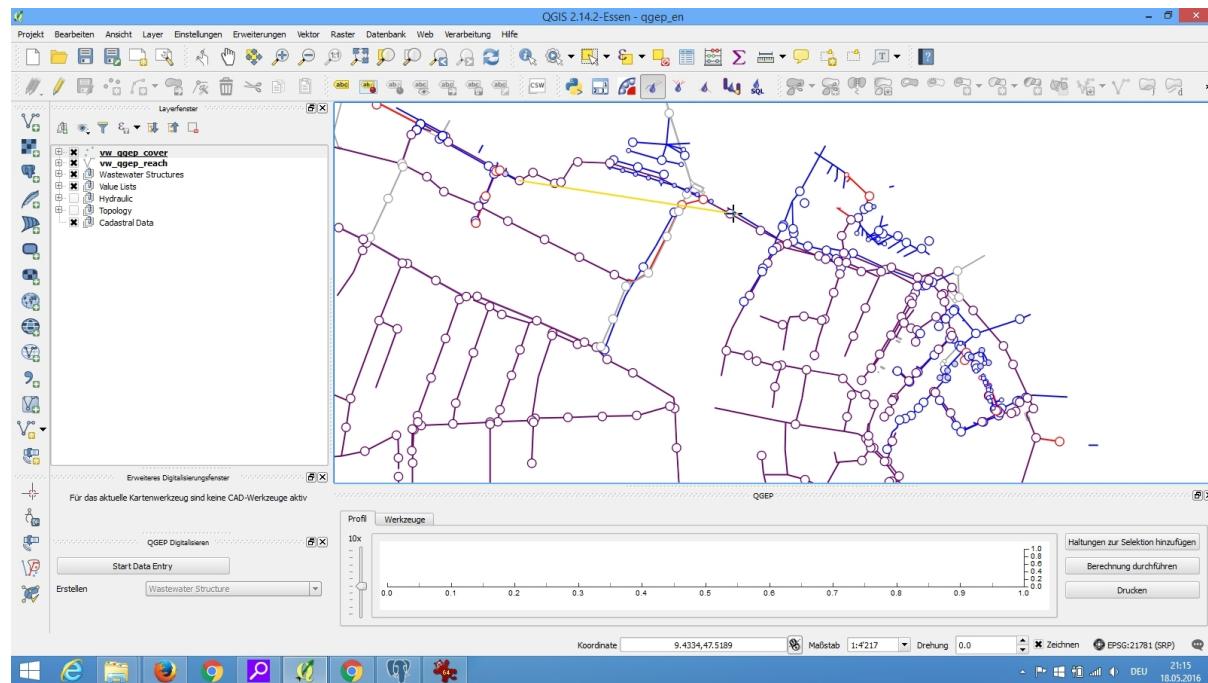
Same goes for the reaches.

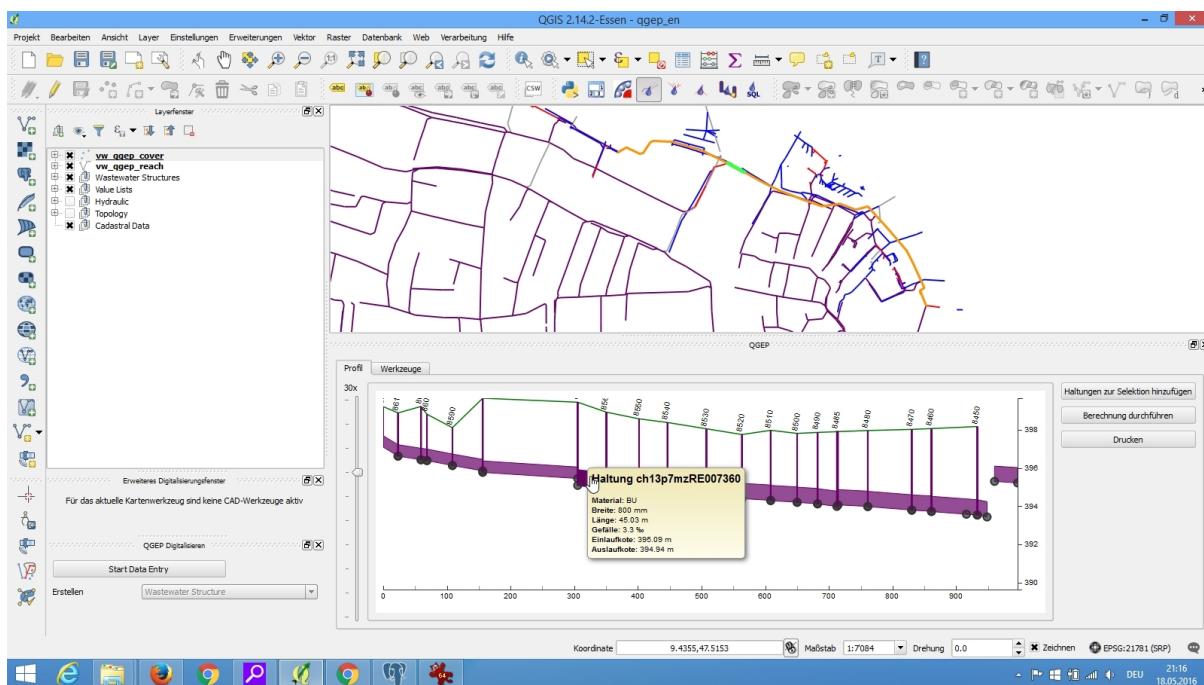
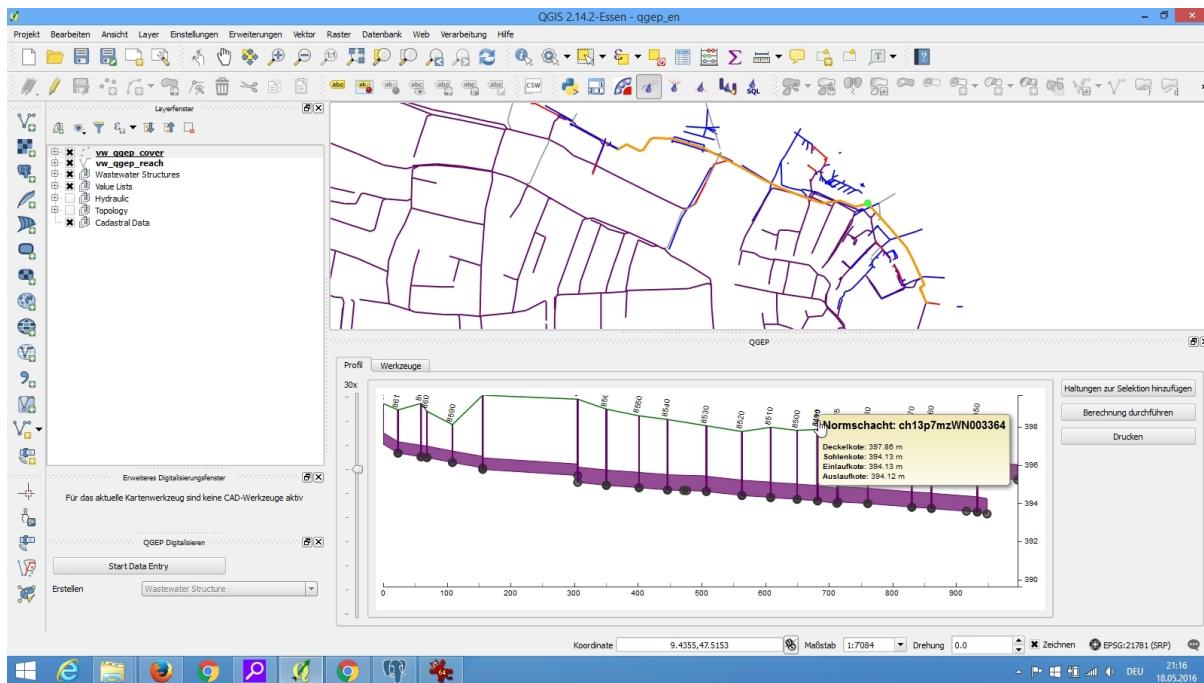
Printing

Select the **Print** button to send the profile to your selected printer. If you have installed a pdf printer you can save it as a pdf file.

1.2.4 Network following tools

This represents a guide on how to use the network following tools in QGEP.



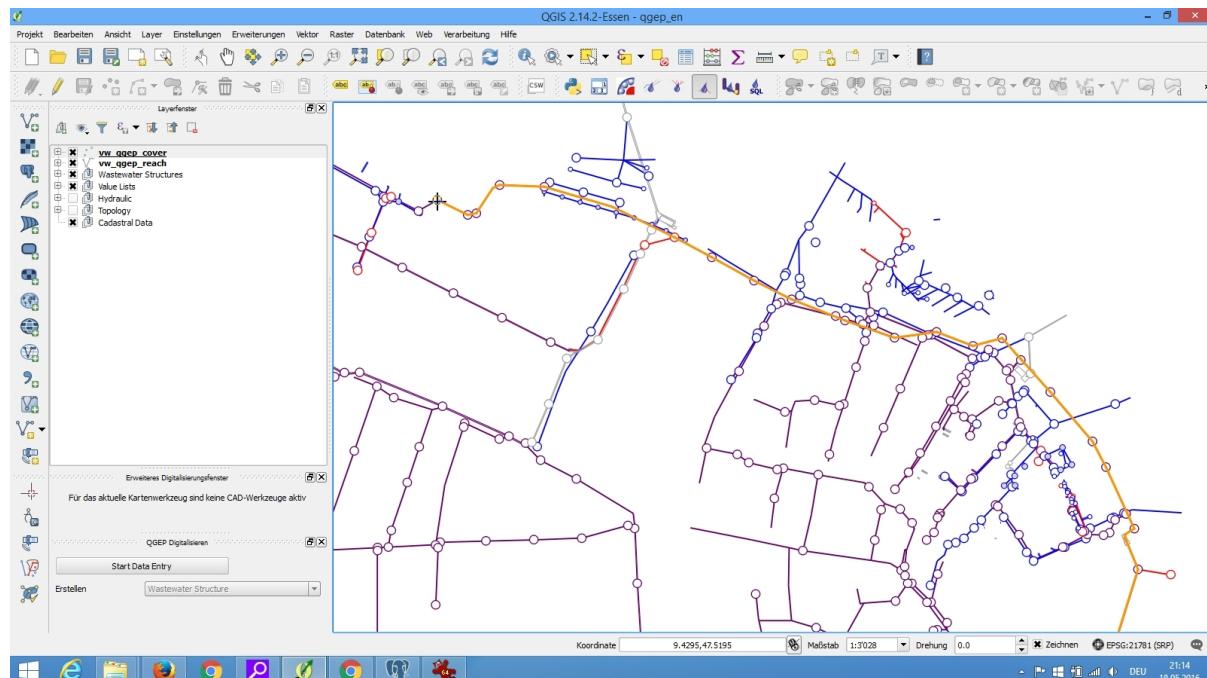


Downstream

- To start downstream network following select the **Downstream** button and click on a node afterwards :



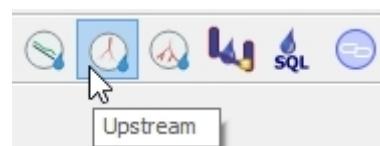
- After a few seconds all downstream reaches will be highlighted and you can see where the water is going to.



- Use this to check whether the topology of your network is correct or to find out where you could intervene in case of an accident.

Upstream

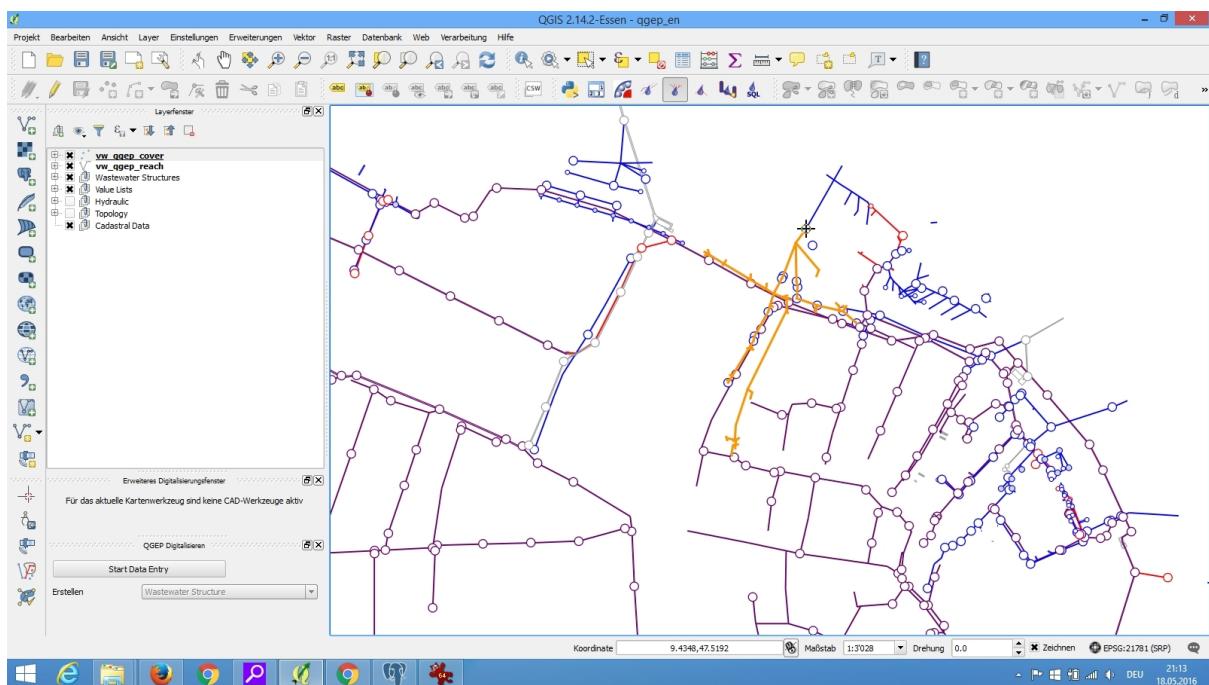
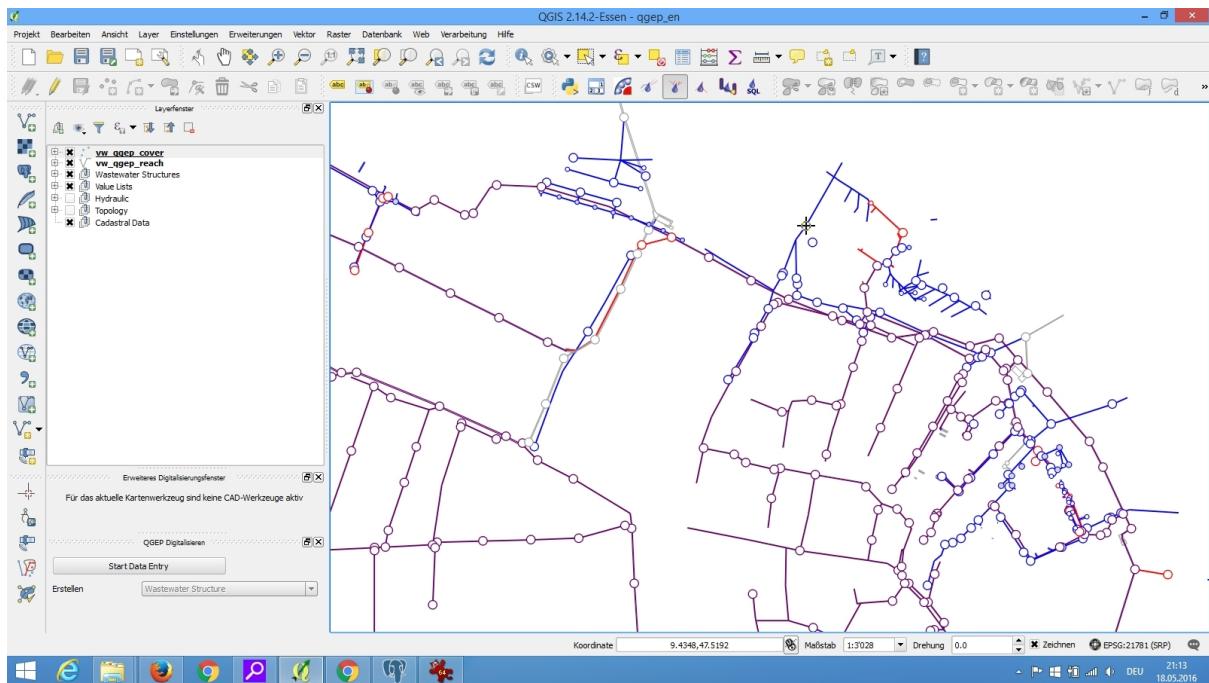
- To start upstream network following select the **Upstream** QGEP button and click on a node afterwards :



- Then select the manhole.
- After a few seconds all upstream reaches will be highlighted and you can see where the water is coming from.
- Use this to check if the topology of your network is correct.

1.2.5 Plan plotting

This represents a guide on how to do plan plotting in QGEP.



General

- You can define a title page and legends
- You can define, maintain and do serial plotting (**Rahmenpläne**)

For further instructions see [QGIS manual Creating Detailed Maps with the Atlas Tool](#)



1.3 Admin Guide

This represents a guide on how to administrate the database, install a Virtual machine, import and export data

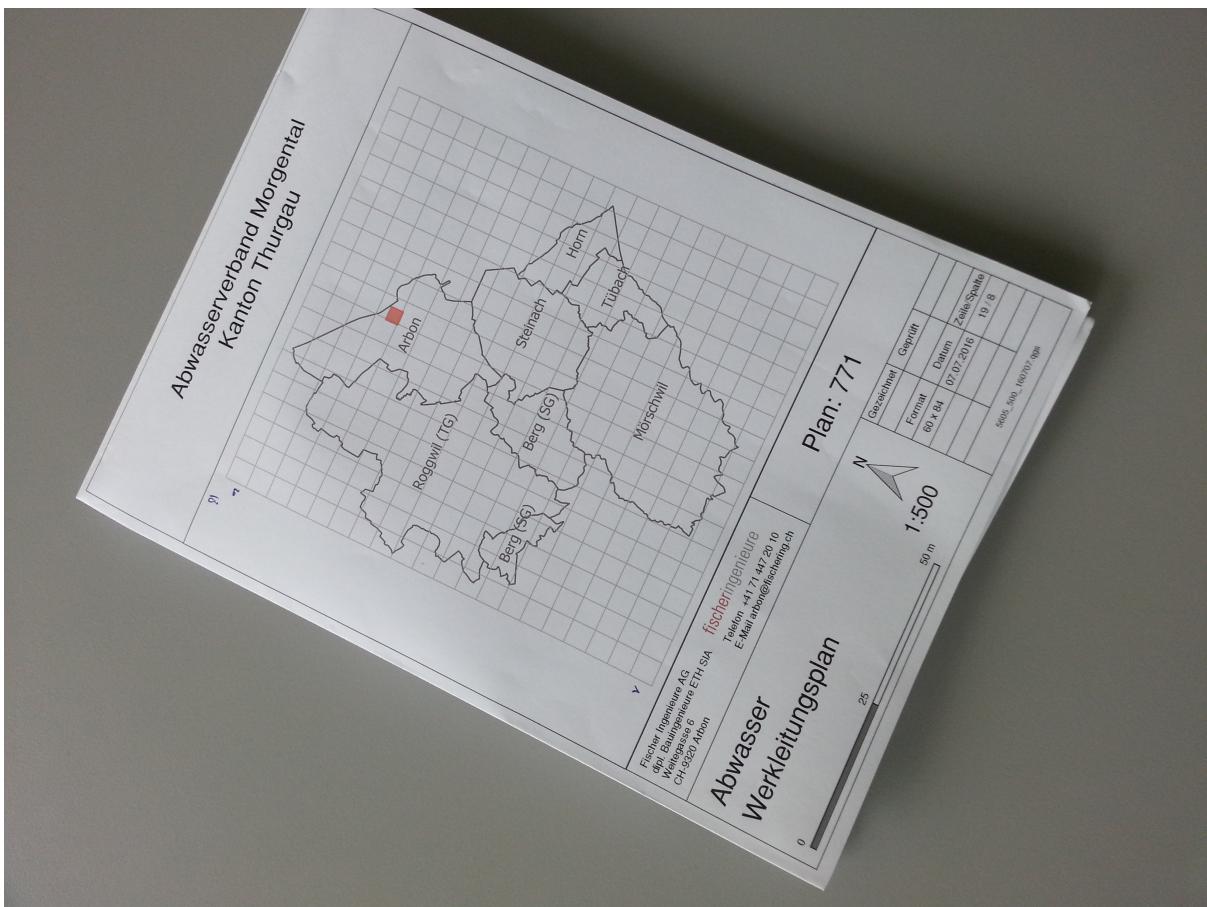
1.3.1 pgAdmin

PgAdmin III est un outil d’administration graphique pour le système de gestion de base de données PostgreSQL. Ce chapitre présente un guide pour la gestion basique de PostgreSQL avec pgAdmin.

Installer pgAdmin

Windows

pgAdmin devrait s’être installé automatiquement si vous avez utilisé l’installateur EnterpriseDB



Linux

Debian/Ubuntu based distros Vous pouvez installer pgAdmin en exécutant la commande suivante :

```
sudo apt-get install pgadmin3
```

Fedora based distros sudo yum install pgadmin3

Suse based distros sudo zypper install pgadmin3

Note : Toutes les commandes présentées ci-dessus assument que vous soyez connecté en tant qu'un utilisateur ayant les priviléges sudo (admin). Pour certains systèmes, il est possible qu'il soit requis d'utiliser la commande "su" afin de devenir l'utilisateur *root* et pouvoir exécuter les commandes ci-dessus sans le préfixe "sudo".

Utiliser pgAdmin

Requêtes SQL

Note :

- En cliquant sur l'icône mis en évidence par le point 1 vous pouvez ouvrir une requête SQL. L'icône SQL n'est actif que lorsque vous êtes connecté à une base de données.
 - En cliquant sur l'icône mis en évidence par le point 2 permet de lancer la requête SQL.
-

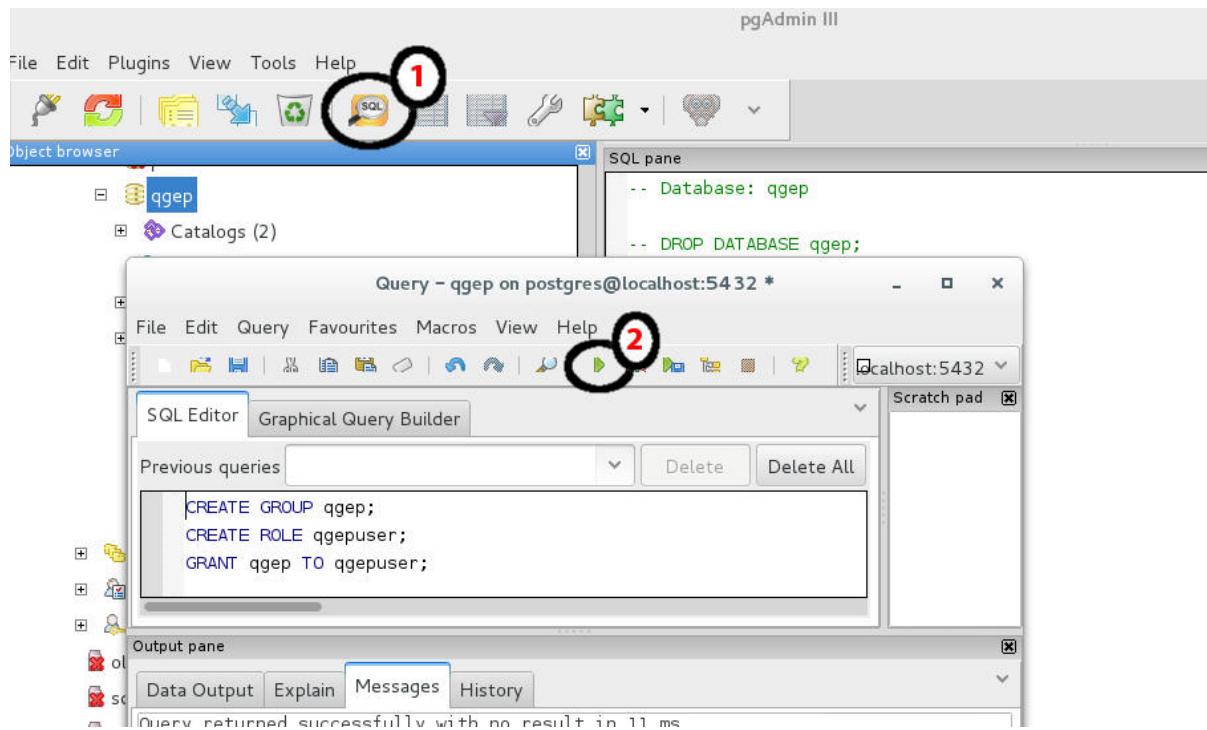


Fig. 1.2 – Exécuter des commandes SQL dans PgAdmin III

“Dump” de la base de données

Note :

- Ouvrir pgAdmin III et se connecter à la base de données
 - Faire un clic droit sur le schéma (dans l’arborescence sous “Schemas”) que l’on veut sauvegarder
 - Entrer l’endroit où le fichier devra être sauvegardé
 - Cocher les options suivantes
-

Note :

- Après avoir fait tourner le processus de sauvegarde, le code de sortie devrait indiquer 0 si tout s’est bien passé
-

1.3.2 Import de données

This represents a guide on how to import data from QGEP.

Import formats

- INTERLIS (in progress)
- dxf (in progress)
- Shape
- MOUSE / MikeUrban
- Autre

INTERLIS

INTERLIS Import can be done using the ili2pg tool. For further information contact the developer team.

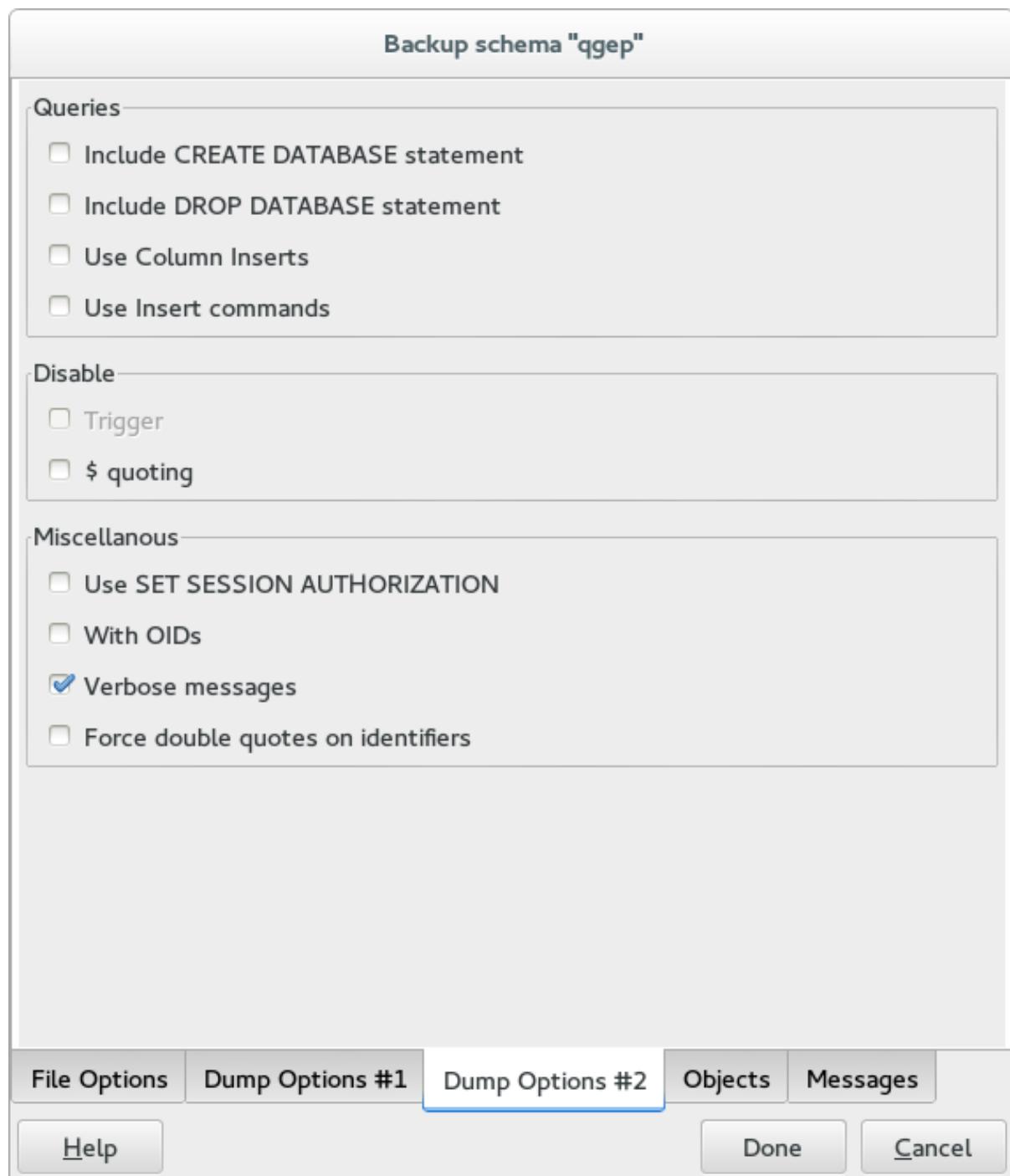
Backup schema "qgep"

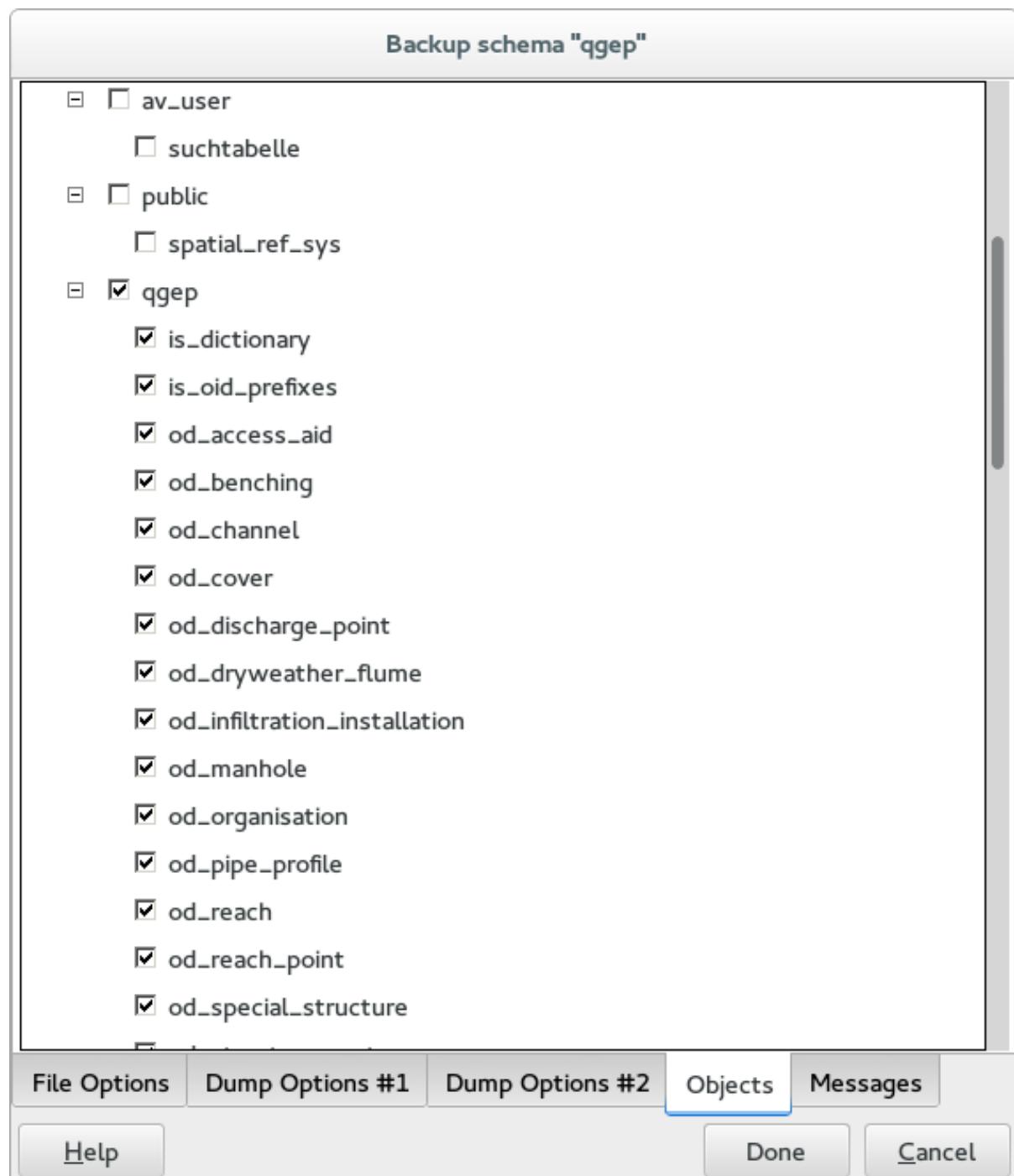
Filename	<input type="text" value="hents/qgep/demodata/backup_20150122.backup"/> ...
Format	Custom ▾
Compress Ratio	
Encoding	
Number Of Jobs	
Rolename	▼

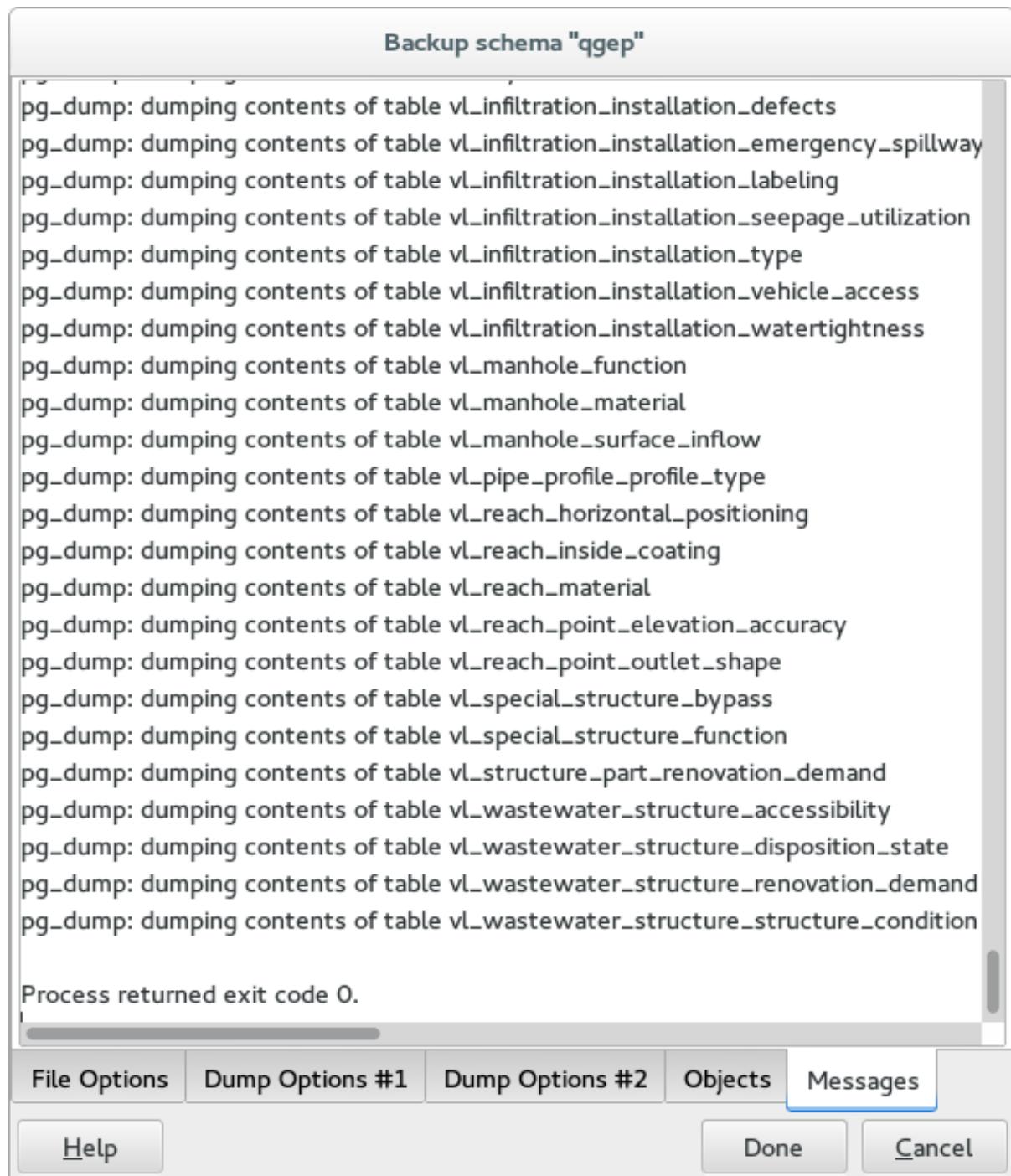
File Options Dump Options #1 Dump Options #2 Objects Messages

Help Done Cancel









1.3.3 Export de données

Ce chapitre représente un guide pour l'export de données depuis QGEP.

Export formats

- INTERLIS (in progress)
- dxf (in progress)
- Shape
- MOUSE / MikeUrban
- Autre

INTERLIS

INTERLIS Export can be done using the ili2pg tool. For further information contact the developer team.

1.4 Machine virtuelle de démonstration

Ceci représente un guide de téléchargement et d'installation de la machine virtuelle (MV) qui propose un set de données de démonstration pré-installé ainsi qu'une installation fonctionnelle de QGEP

1.4.1 À propos

This represents a guide on how to download and install a virtual machine (VM) that has a working QGEP installation with a demo dataset. The VM also has a working demo of the [QWAT water project](#).

The VM is based on Debian Testing with Cinnamon Desktop.

Debian Testing was chosen in order to have GDAL 2.x and also benefit from latest linux kernel so that latest hardware won't be a problem for the case where the VM is used outside virtualization (e.g use the virtual disk as basis to create a non-virtualized usb-stick to be used for demo purposes).

Logiciels installés :

- PostgreSQL 9.5.2 with Postgis 2.3
- QGIS 2.16

Paramètres différents d'une installation logiciel par défaut :

- pg_hba.conf a **trust**pour les connections locales
- QGIS est installé avec multithreaded rendering enabled

Note : The users qgis and root have the password qgis

Note : Si vous décidez d'utiliser la MV en production il est recommander de :

- Changer les mots de passe
- regenerate the ssh keys by running in a terminal sudo rm /etc/ssh/ssh_host_* && sudo dpkg-reconfigure openssh-server

Note : QGIS has been build from source as Debian developpers have dropped QtWebKit python support in the packages. After the QGIS ecosystem will remove its QtWebKit dependencies the VM will benefit again from the QGIS repo packages.

1.4.2 installer

Télécharger

Download the vm from here

Note : The size of the VM is around 4GB compressed and up to 15GB uncompressed.

Extraire

The virtual disk is archived using XZ compression.

To extract the archive :

— **Windows** : you can use [7-Zip](#) to extract the archive.

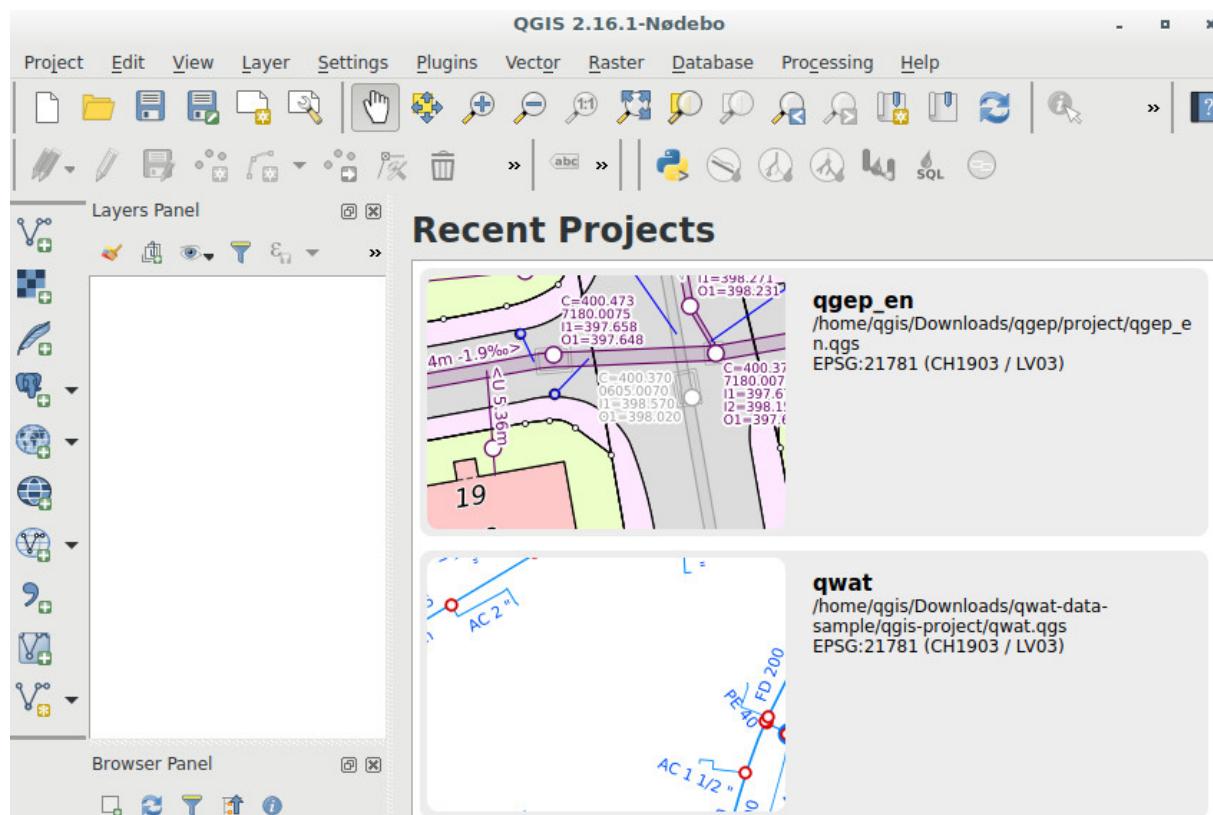
— **Linux** : cd to the download directory and run `xz -d qgis.vdi.xz`

You can run the VM as you would do with any VirtualBox VM.

Note : As the VM is based on Linux it is fairly simple to convert the image to a raw disk and put it on a USB stick (minimum 16GB) or a faster storage. This would enable you to run the app without the virtualization penalty and enjoy the full speed of your hardware.

Run QGEP

After logging in with `qgis` user and the same password, by clicking the QGIS icon located in the bottom bar you will get the following image :



Clicking the `qgep_en` project and following the [QGEP User Guide](#) should get you started.

1.4.3 QGIS Server

You can download a VM with an older QGEP setup that also has QGIS Server installed from <http://docs.qtibia.ro/qgisplatform.vdi.xz>.

The VM has working installations of QGIS Server and QGIS Web Client (QWC).

Access the Web Services

The Apache server is setup to respond to requests pointing to the `http://qgisplatform.demo`. Accessing the above link with the Internet Browser of the VM will take you to the starting page of QWC depicted in the above image.

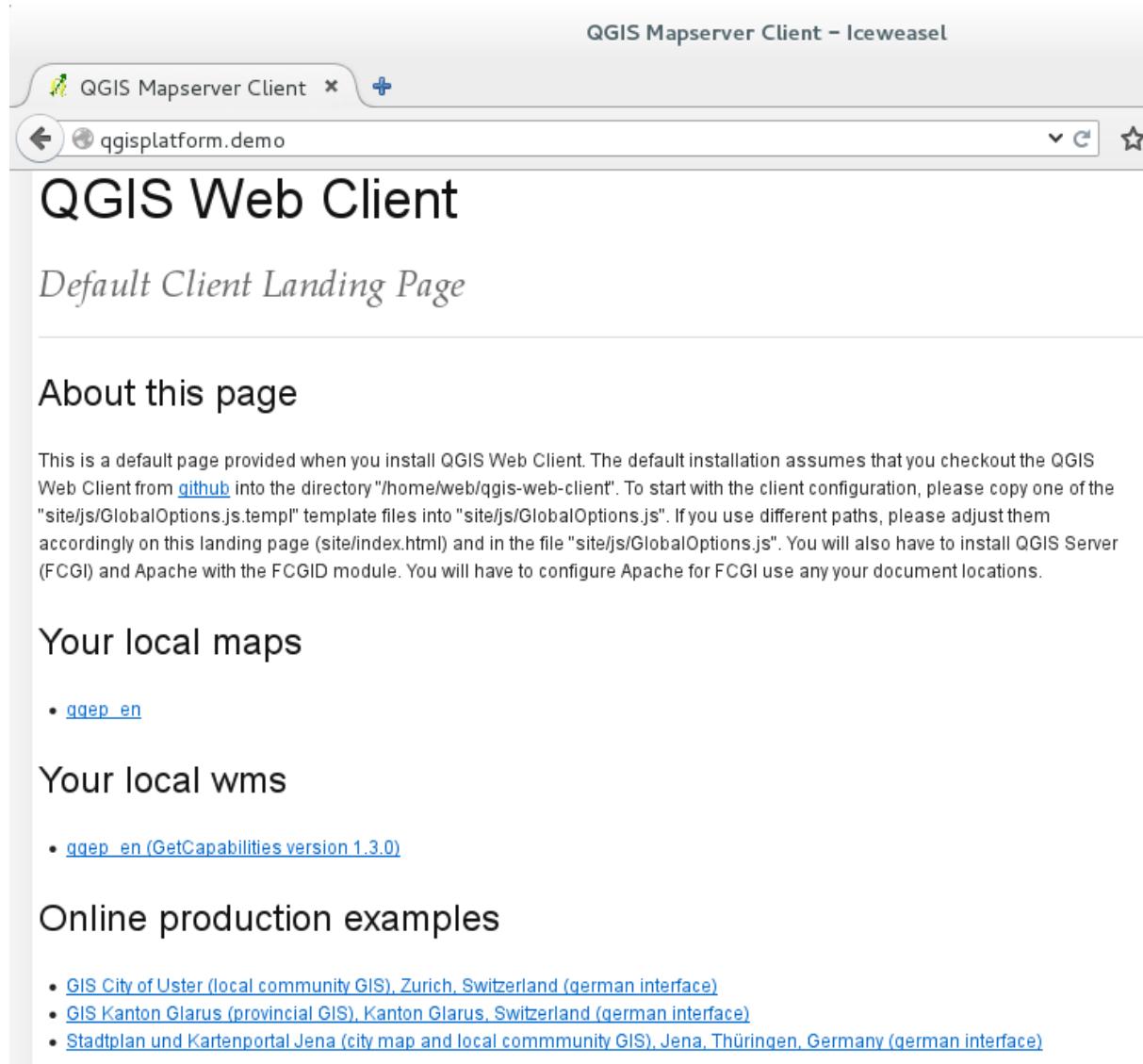


Fig. 1.3 – QGIS Web client starting page

If you want to access the web services outside the VM, you need to edit the `hosts` file on your machine and point `qgisplatform.demo` to the IP of the VM.

Note : If you've setup the VM with the network adapter in NAT mode only the VM host will be able to access the services. If you want all the devices on your LAN to do it, you need to setup the network adapter in bridge mode.

Indices and tables

- genindex
- search