Open source GIS Data Model template backup/restore overview

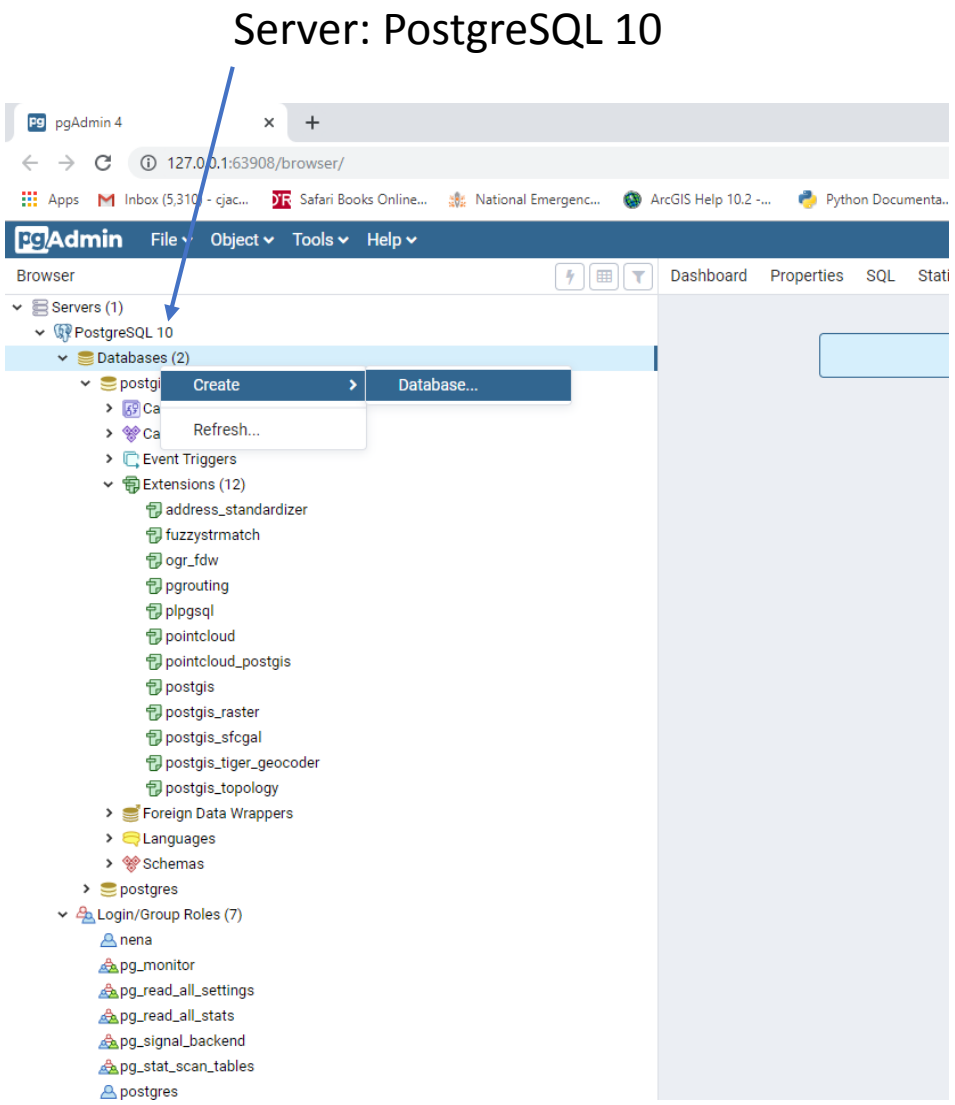
- Install PostgreSQL 10+, compatible PostGIS and PG Admin 4, if not already installed. Installation files ("pre-built binary packages") are available from https://www.postgresql.org/download/
- Create a new database with spatial extensions for import / export.
- If generating an export file, create the GIS Data Model template tables in a new schema. Load data into them, which will be a site-specific process. Then generate a backup file from the template.
- If importing data from another site, restore from the backup file into the database created for this purpose.
- Step-by-step instructions provided below.

Step 1: Create the Database

We're assuming a Postgres 10 or later environment with PostGIS and PGAdmin 4 installed and connections to one or more servers.

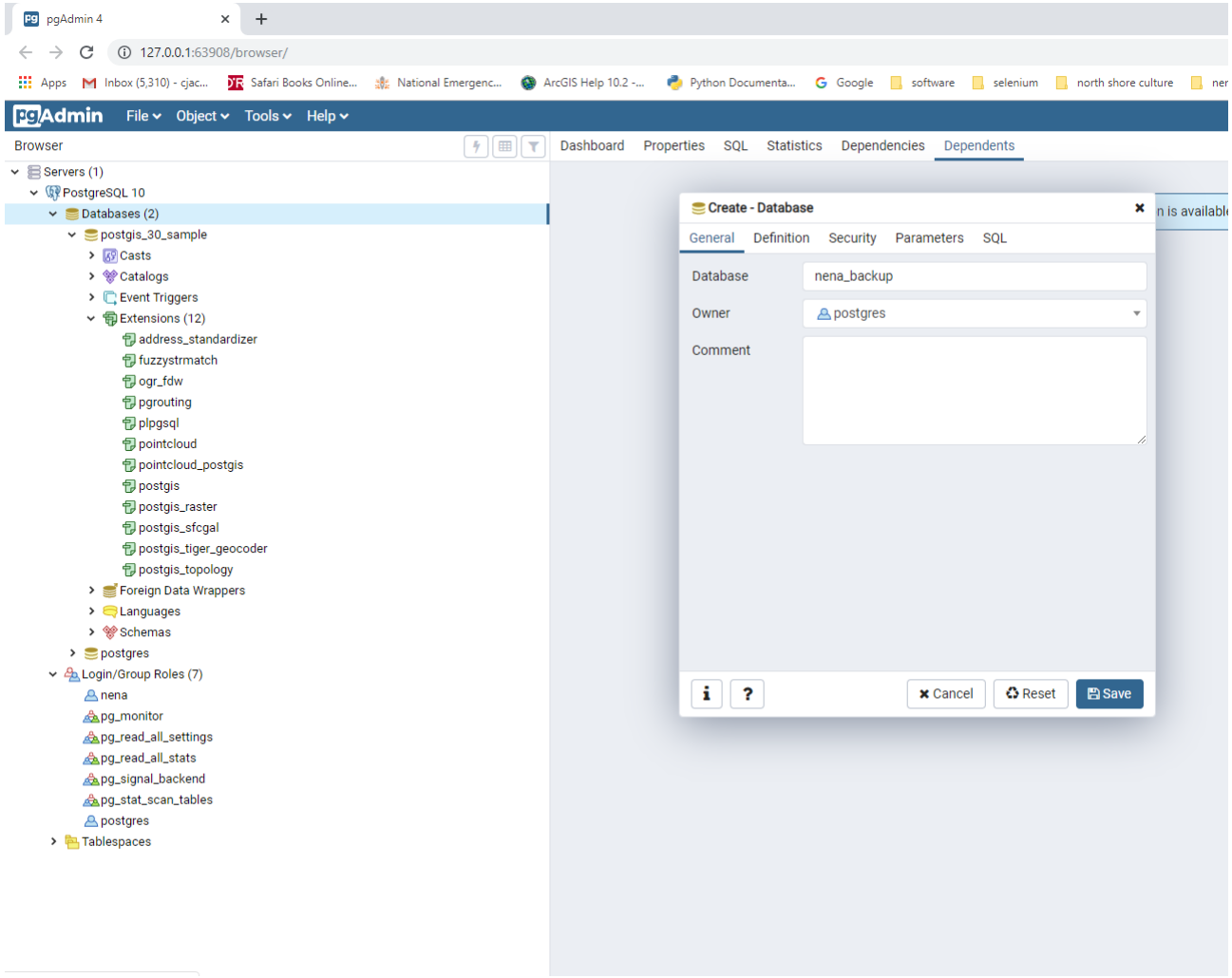
The first step is to create a database for the NENA GIS Data Model compliant import/export.

Under Server(s), click on the active connection, in this casePostgreSQL 10, right click on Databases, choose Create and then Database.



Name the Database and Save

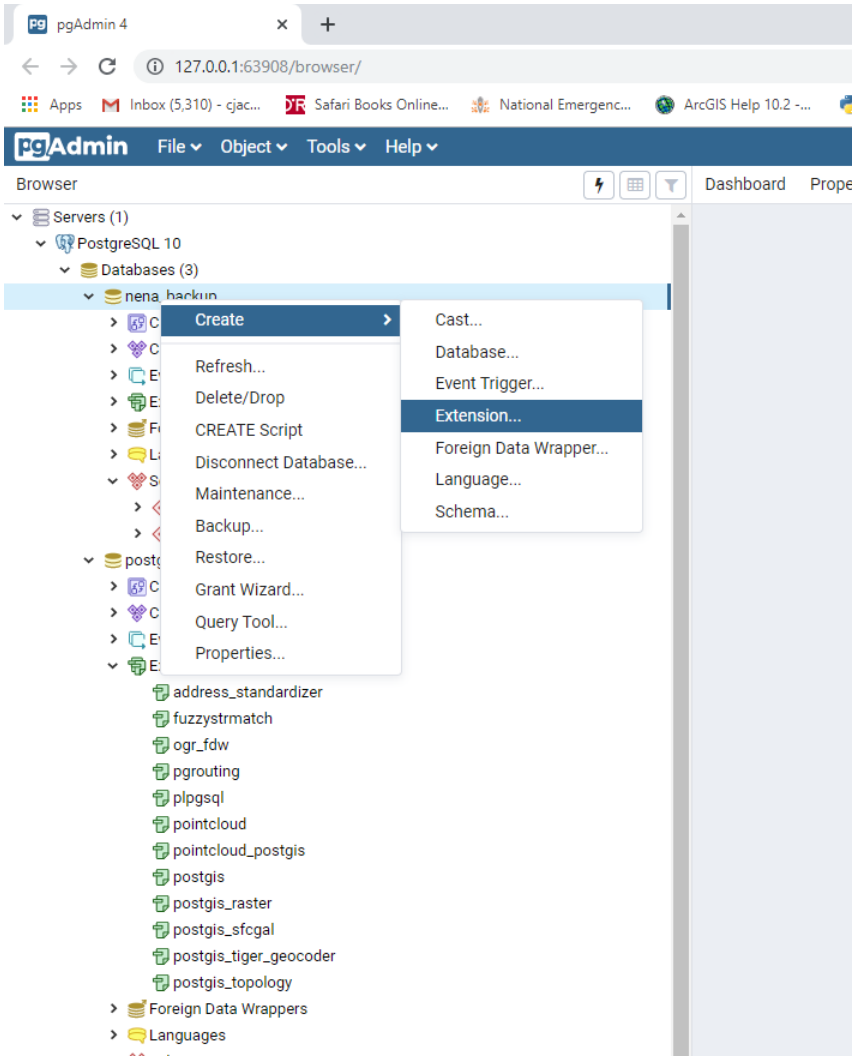
Fill in the dialog to create the database, in this case it will be called “nena_backup,” and click Save



Step 2: Add Spatial Extensions

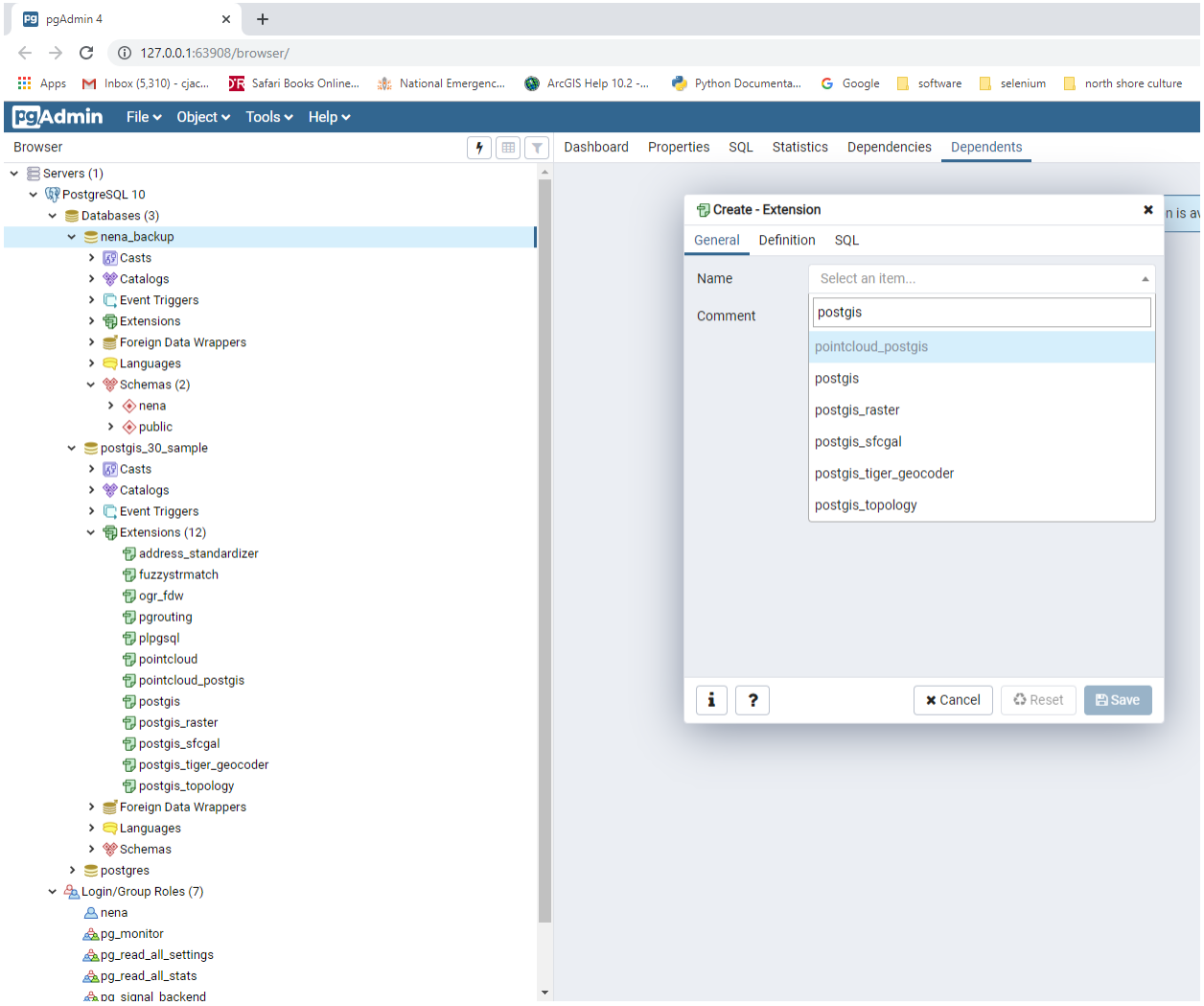
The next step is to add the minimum extensions needed to handle spatial data.

Right click on the database again, then choose Create and Extension.



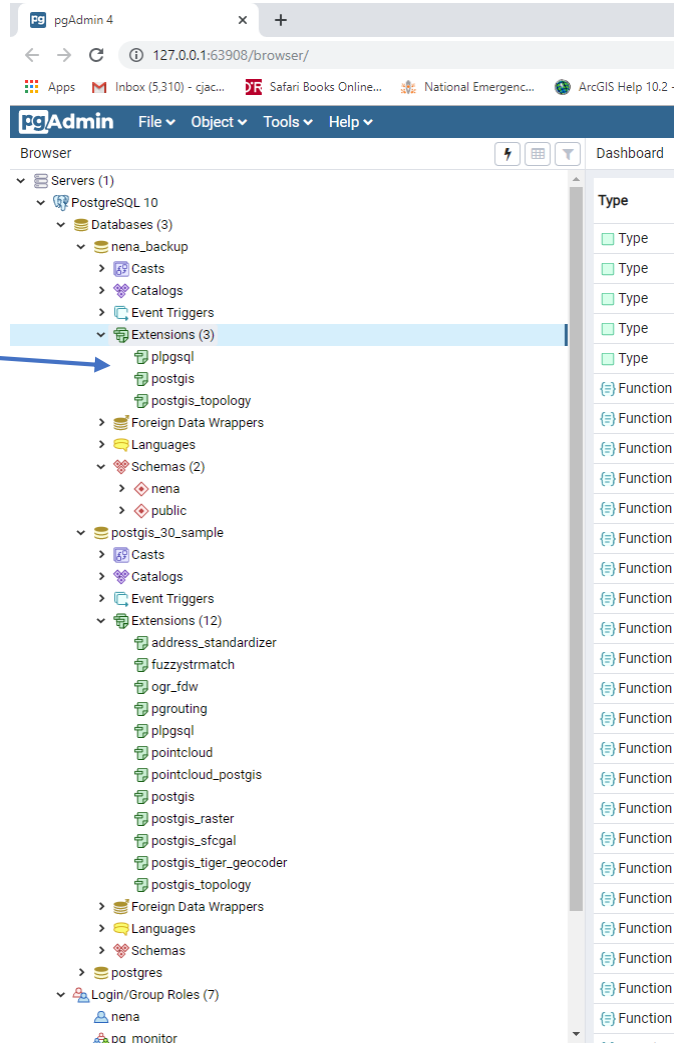
Add Spatial Extensions (2)

Pick from the listing the “postgis” extension and then Save. Repeat for “postgis_topology.”



Check Extensions

Check that extensions are listed for nena backup database



Next steps depend on whether you are exporting or importing data.

If you are exporting data:
If exporting data, then generate the NENA GIS Data Model template tables as detailed in Steps 3 & 4 below.

The process to populate these template tables will be specific to each site, and beyond the scope of this guidance. It will likely require the development of custom ETL scripts.

After the template is loaded, a backup file of the "nena" schema can be generated for transfer to another site. The "Create Backup" slides provide instructions for that operation.

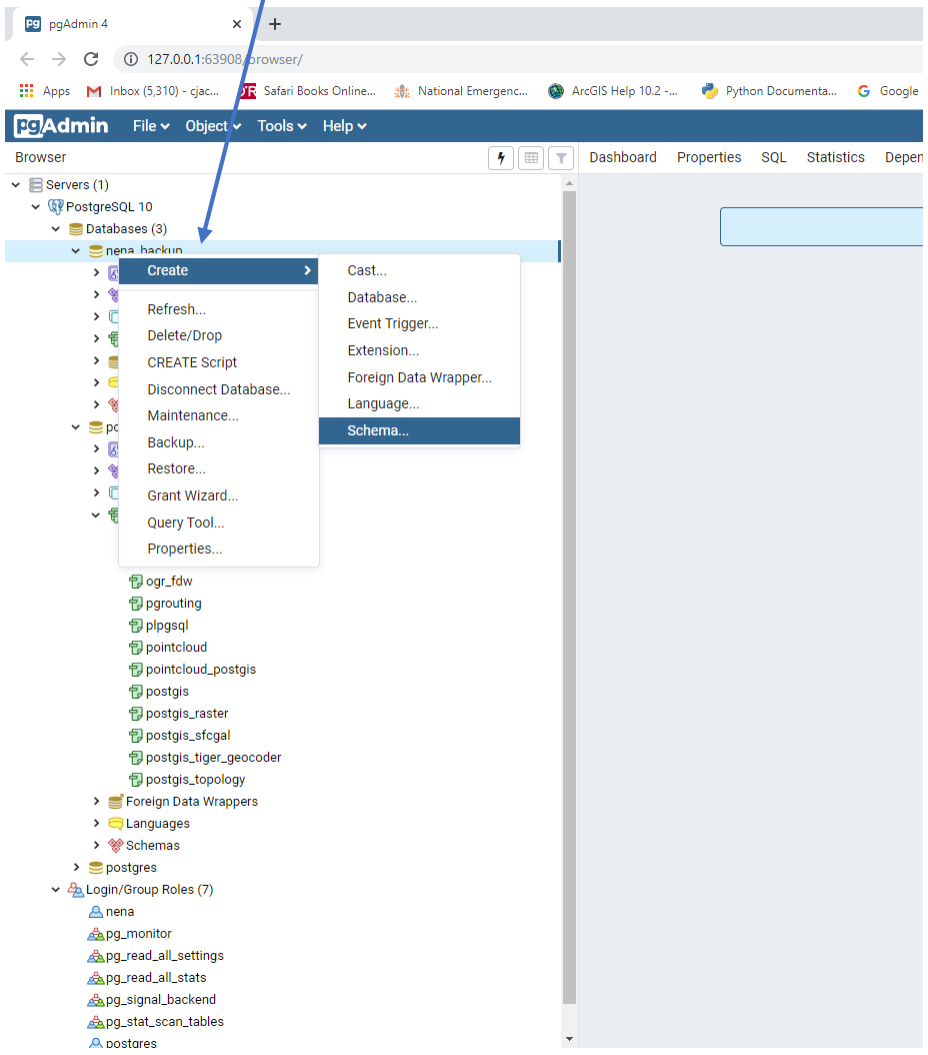
If you are importing data:
If a backup file is received, then it should be restored into the new database created in steps 1-2. The restore operation is detailed in the "Restore from Backup" slides at the end.

Step 3: Create a Schema

Next, create a schema for the data to export.

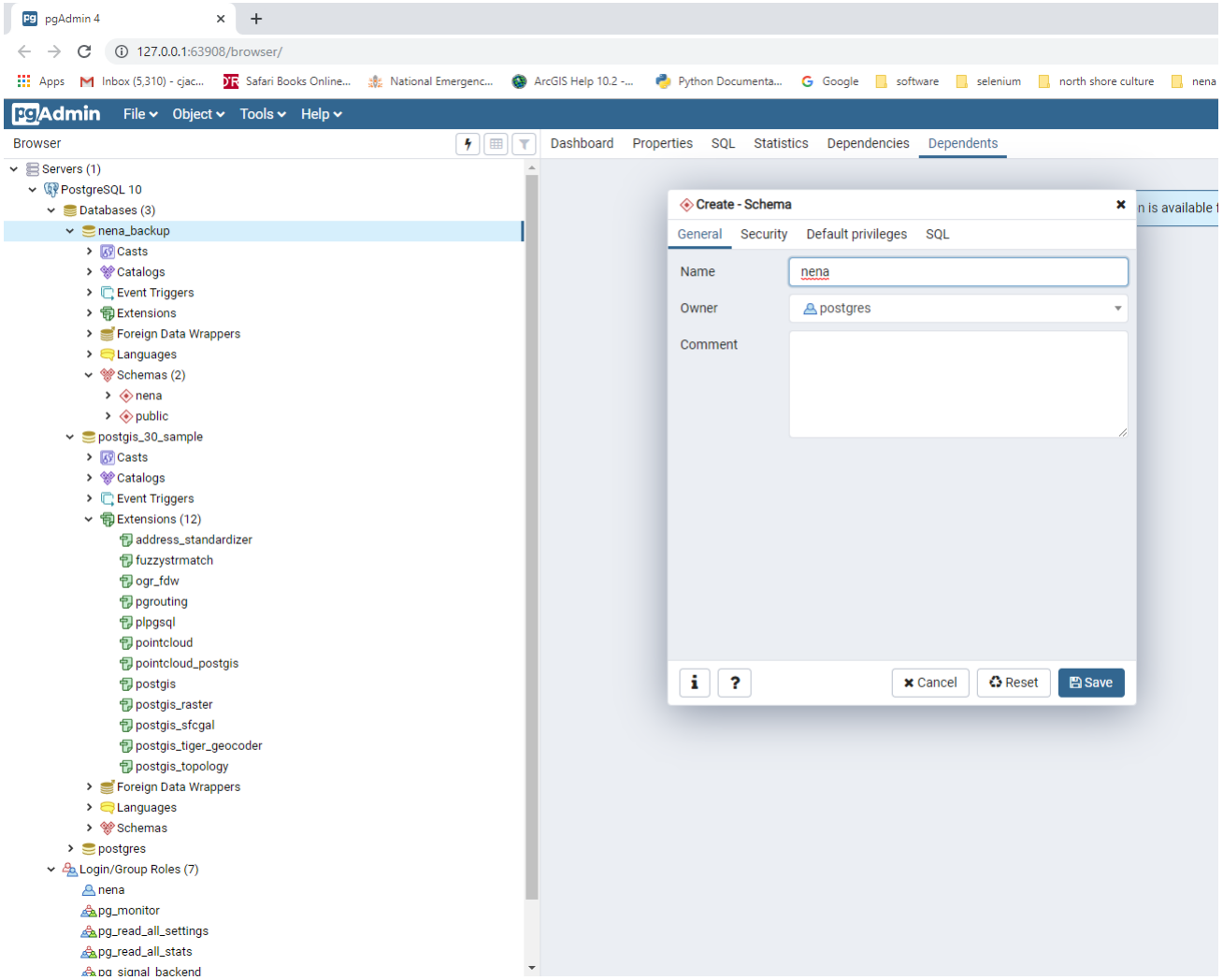
Under Databases, right click on the database that you have just created, choose Create and then Schema.

Newly created database: Nena_backup



Name the Schema

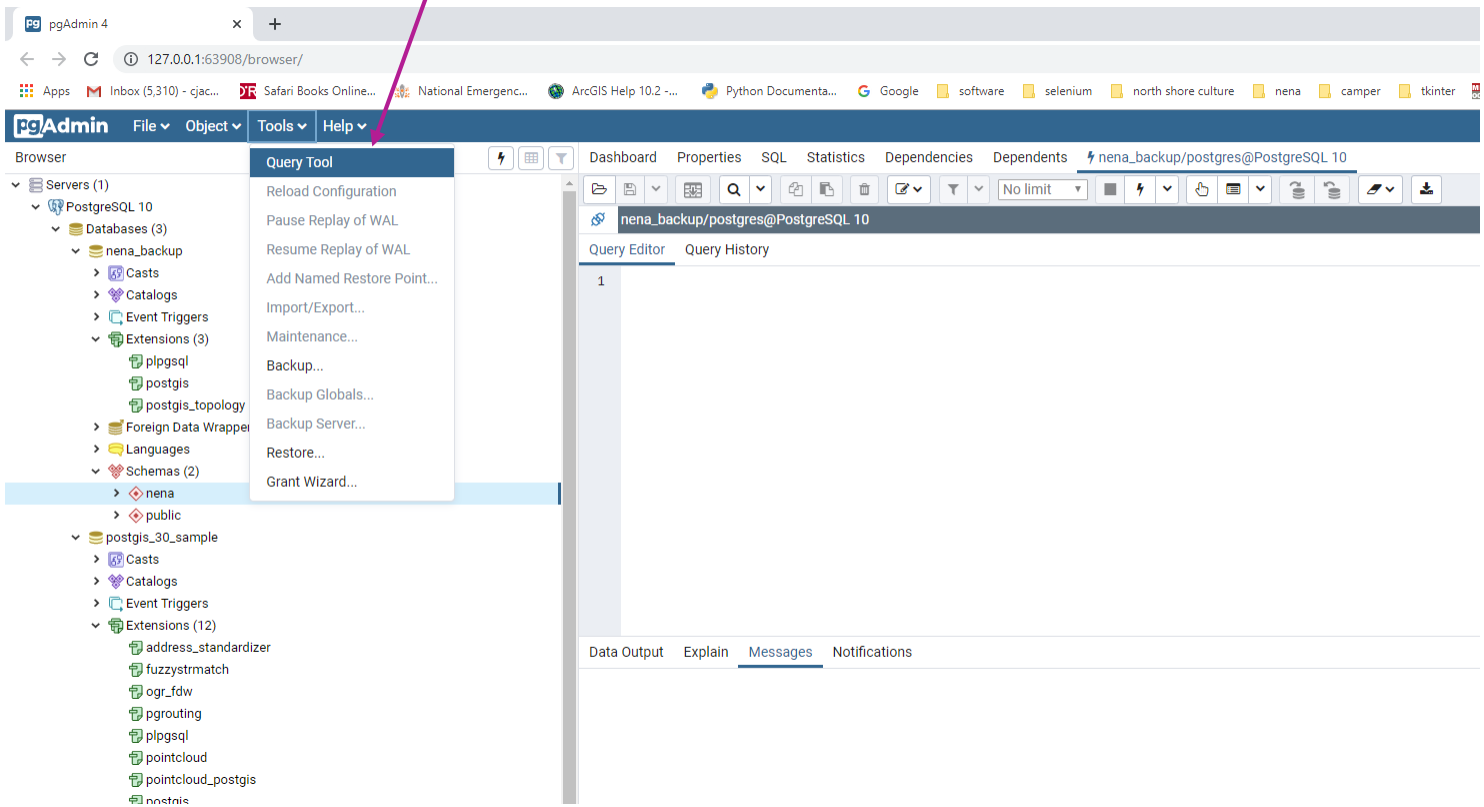
Fill in the dialog to create the schema, in this case it will be called “nena” and click Save



Step 4: Open Query Tool to Create Template

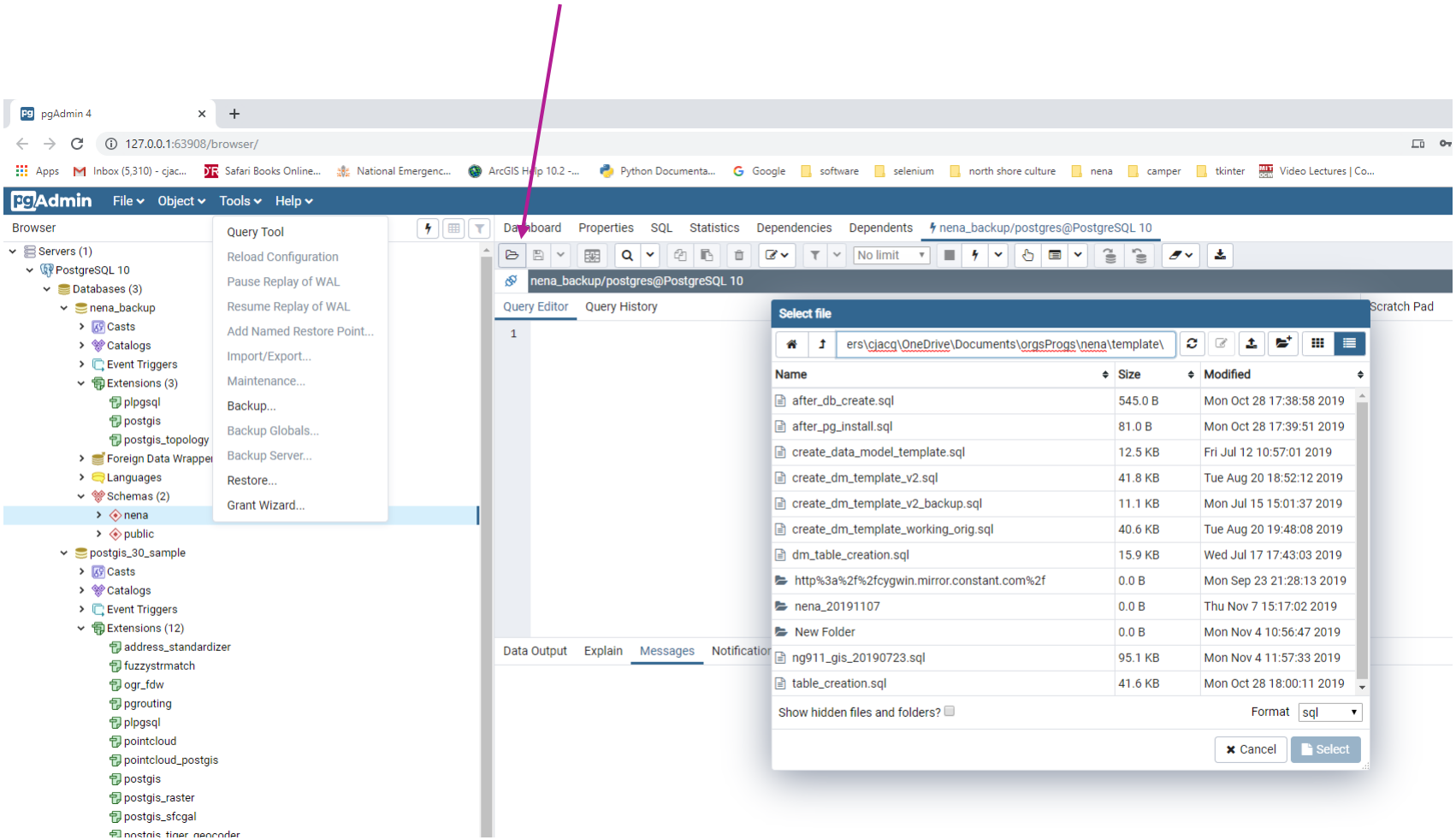
If exporting data, we need to create the tables for the GIS Data Model template.

Open the Query Tool, under the Tools tab



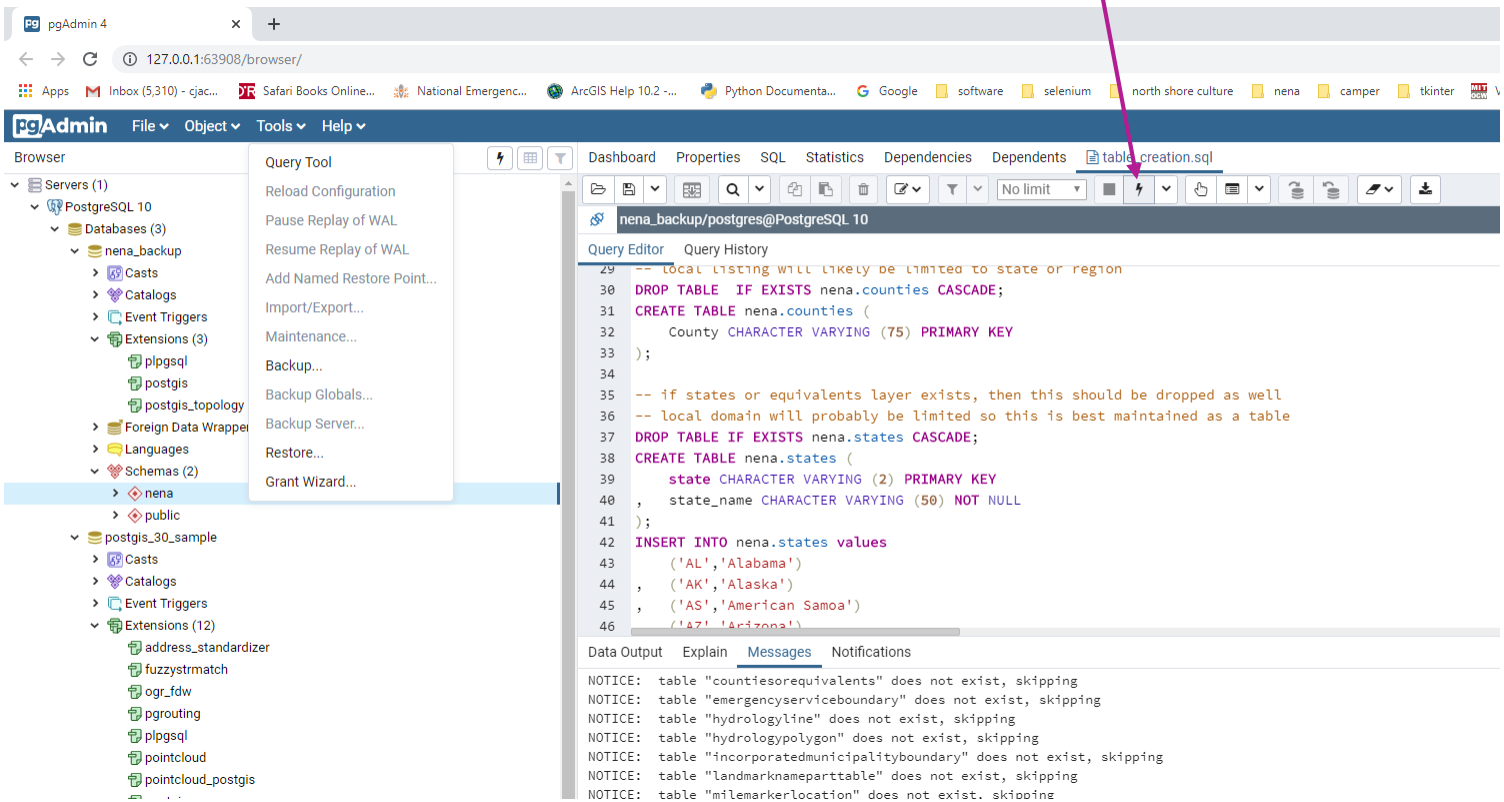
Open Template Table Creation Script

Click on file folder icon and browse to file location



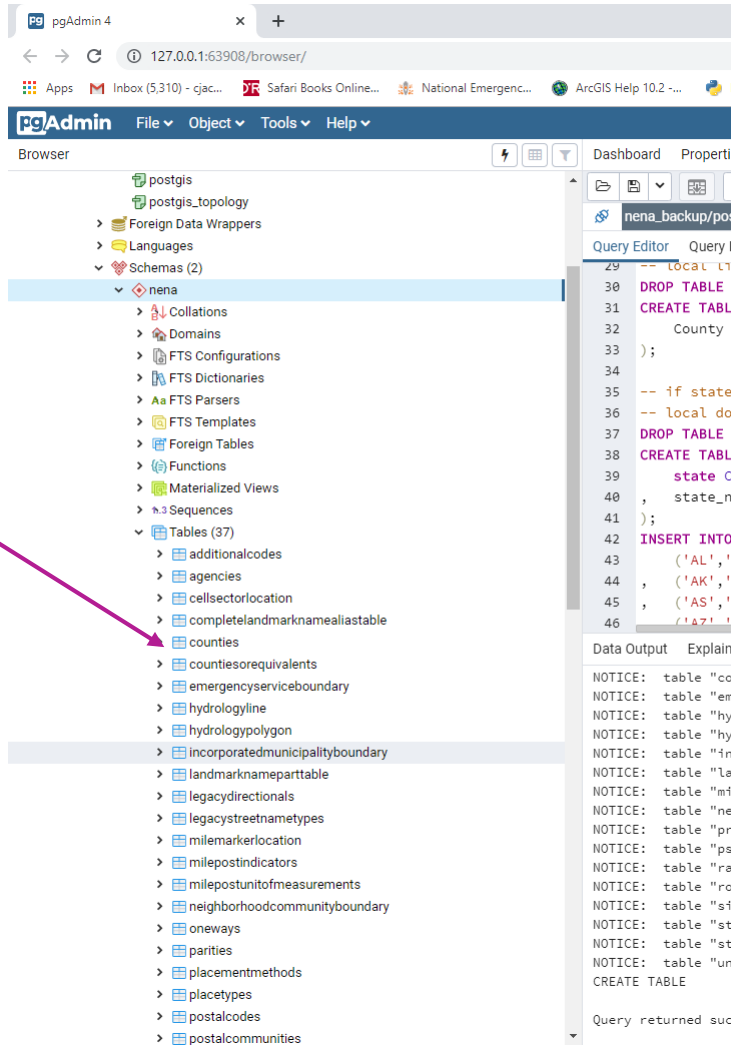
Run Table Creation Script

Run the table creation script (in this case, “table_creation.sql”) by clicking on lightning icon



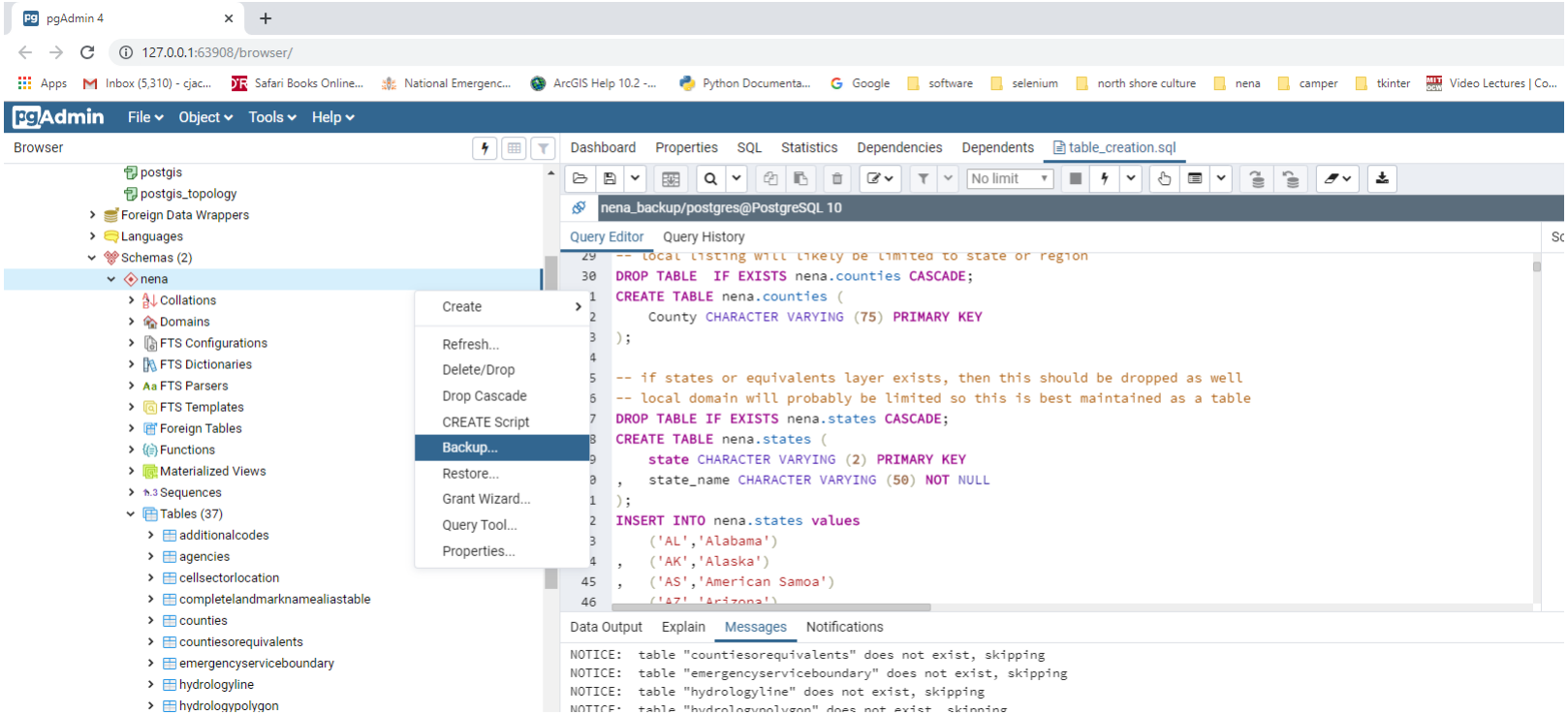
After Running Table Creation Script

Data Model tables will be listed under nena schema



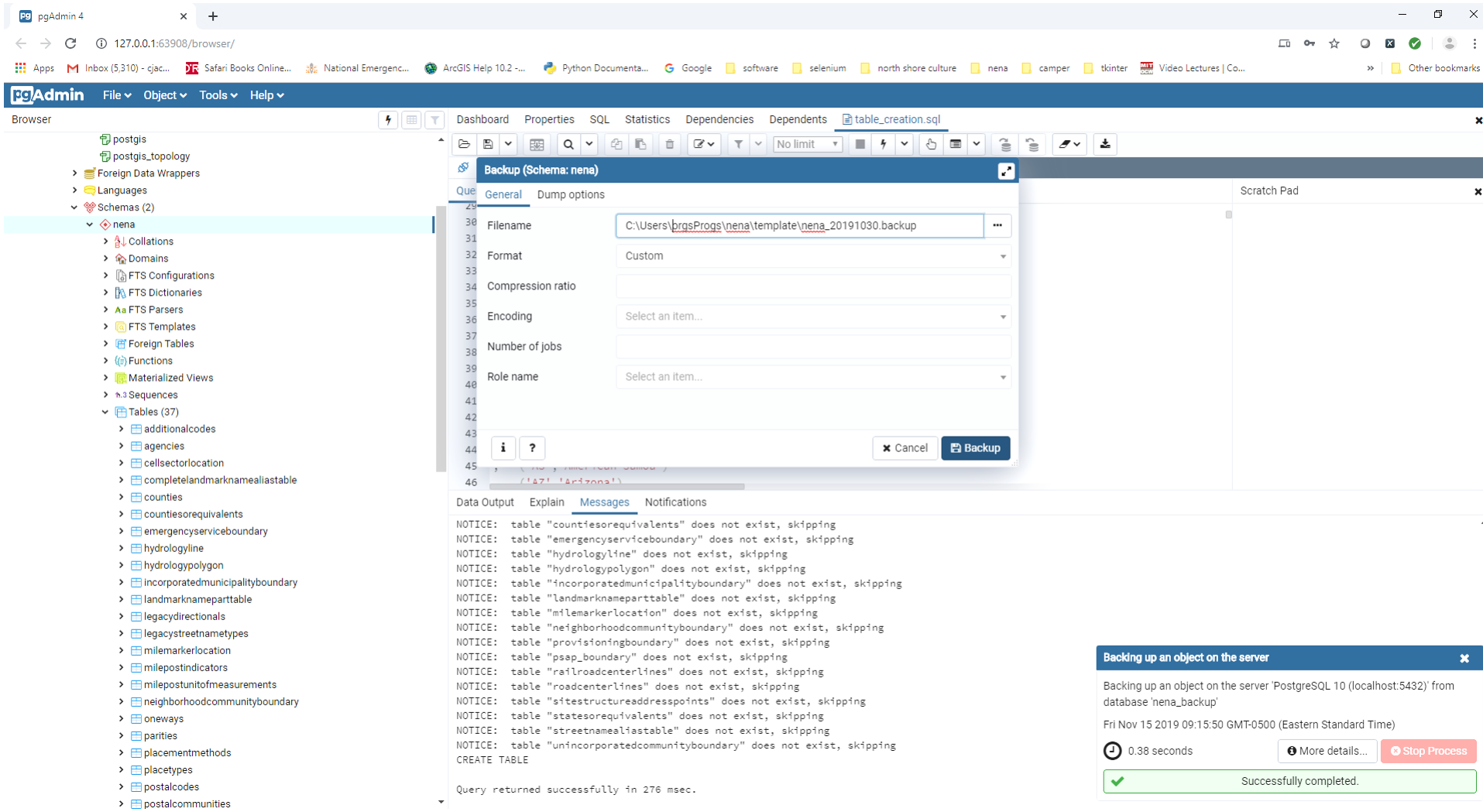
Create Backup to Transfer Data (1)

Highlight the nena schema, right click and choose Backup.



Create Backup to Transfer Data (2)

Fill in complete file path for the backup file and click Backup
Confirmation should appear in lower right as shown below



Restore from Backup

Create a new database, do not use the same one as used for backup operation. With restore database highlighted, right click and pick Restore, browse to the backup file, highlight and click Select. Confirmation should appear in lower right as shown below.