



Collection of data and studies in Lakes Zazari, Cheimaditida, Petron and Vegoritida

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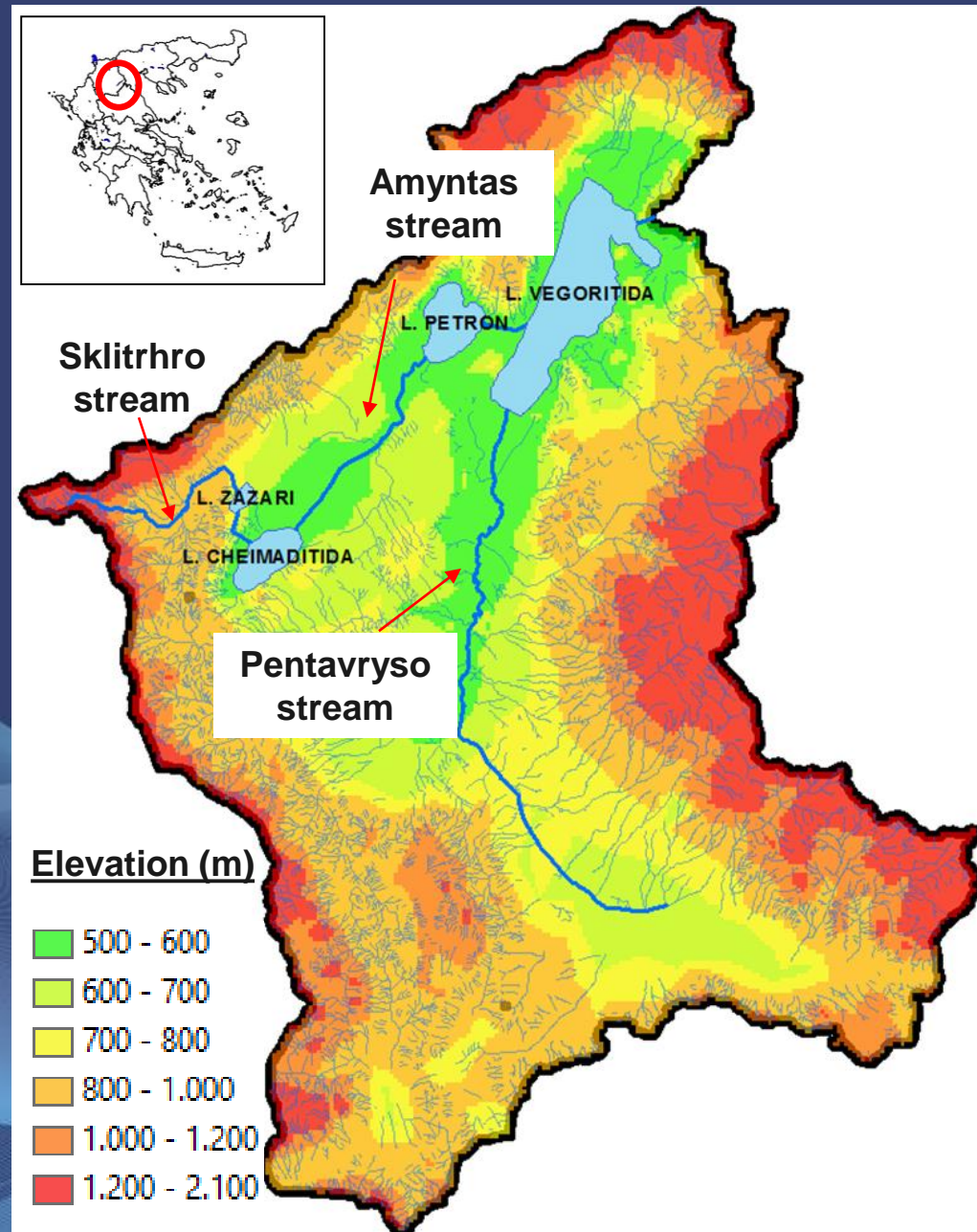
THE GOULANDRIS NATURAL HISTORY MUSEUM
GREEK BIOTOPE / WETLAND CENTRE

The study area

- Lakes Zazari, Cheimaditida, Petron & Vegoritida are located in the Water District of Western Macedonia
- The lakes are connected and the excess of surface water is transferred from one lake to the other
- Drainage area = 2145 km²
- Main streams in the catchment



Sklithro, Amyntas, Pentavryso

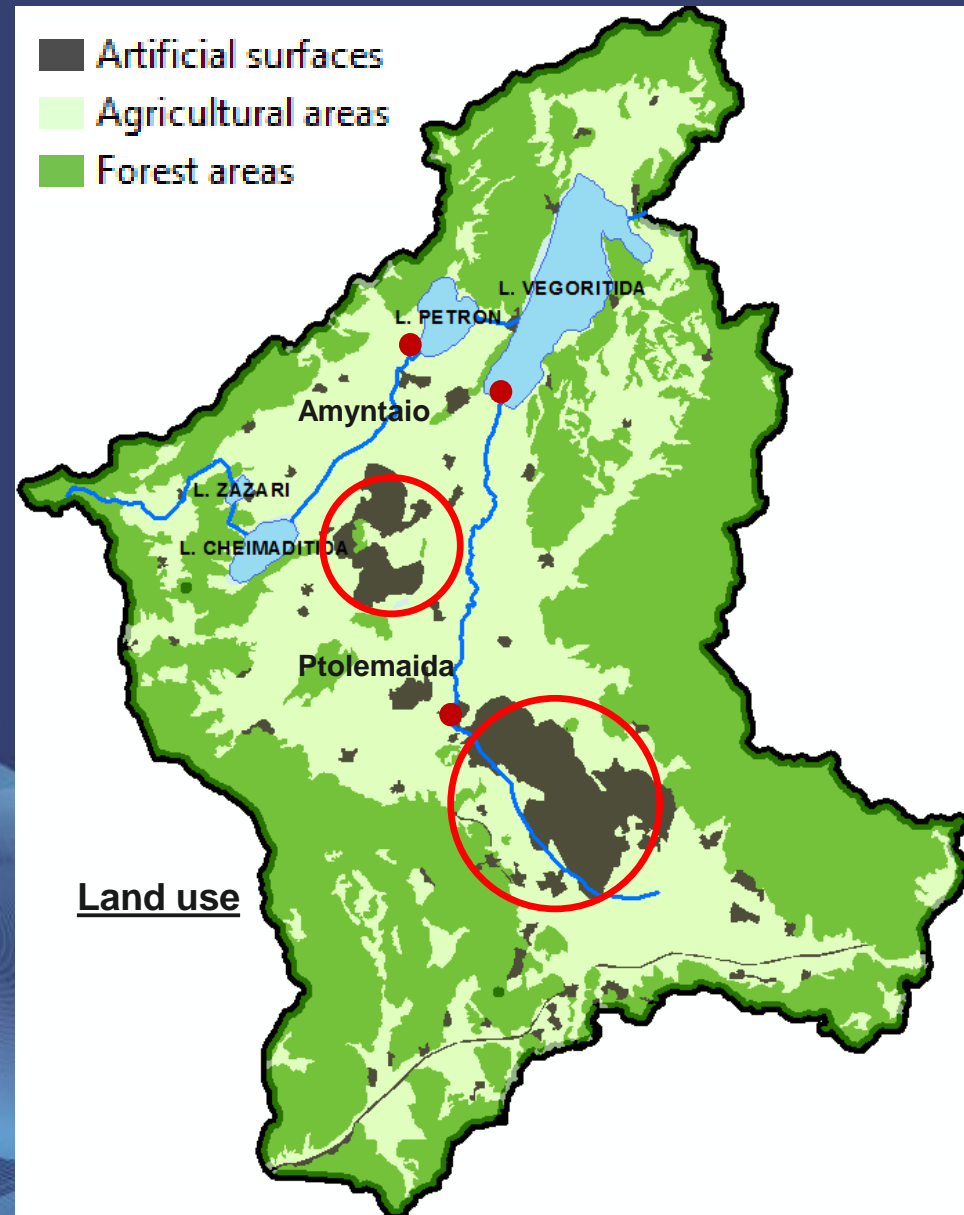


Activities and pressures

- Agriculture (wheat, corn, sugar beet and vineyard)
- Livestock farming
- Urban areas (3 sewage treatment plants)
- Industry (Steam-electric power plants & Mines)



Final destination of
pollution loads
Lake Vegoritida



Hydromorphological features of the lakes

	Zazari	Cheimaditida	Petron	Vegoritida
Surface area (km ²)	2.0	10.1	12.6	47.2
Stored volume (hm ³)	9.5	14.7	40.8	1206.9
Average depth (m)	5	1.5	3.5	26
Water level A.M.S.L (m)	599.6 m	592	573.1	518

Environmentally protected areas under EU legislation

Network of **Important Bird Areas** – IBA

Special Areas of Conservation – SAC

European Habitats Directive 92/43/EEC

Special Protection Areas – SPA

European Birds Directive 2009/147/EC

Natura 2000

**Includes strictly
protected reserves**

BUT

**Human activities
and privately
owned areas are
not excluded**

Pollution loads

- Area of agricultural land
- Number of animal heads
- Number of permanent residents

x

Loads of TN, TP, BOD



Total Loads (in tn/year) for each type of pressure at each catchment

Example for agriculture

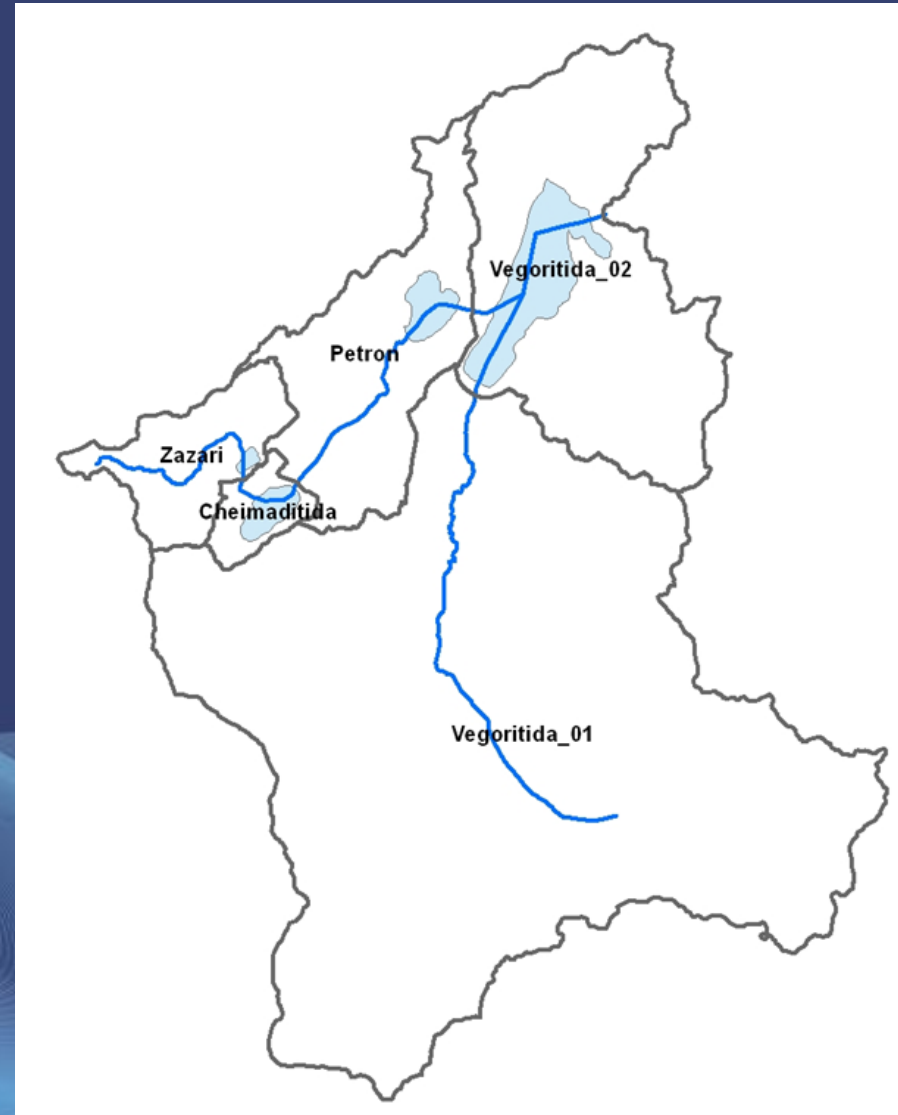
Loads of TN and TP for each crop group

=

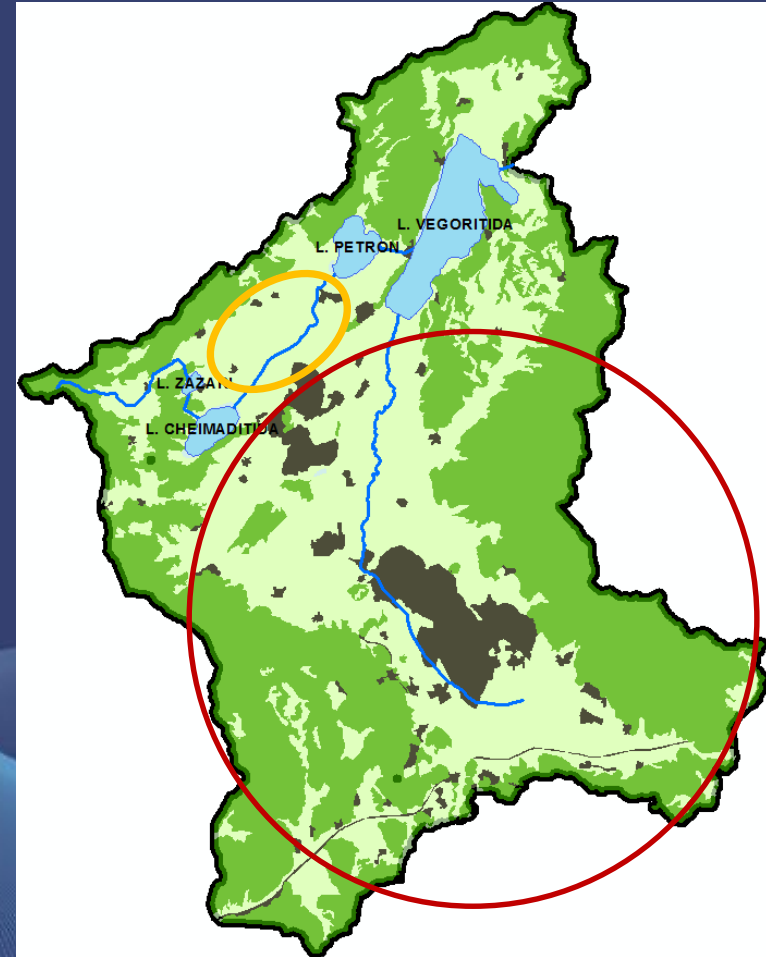
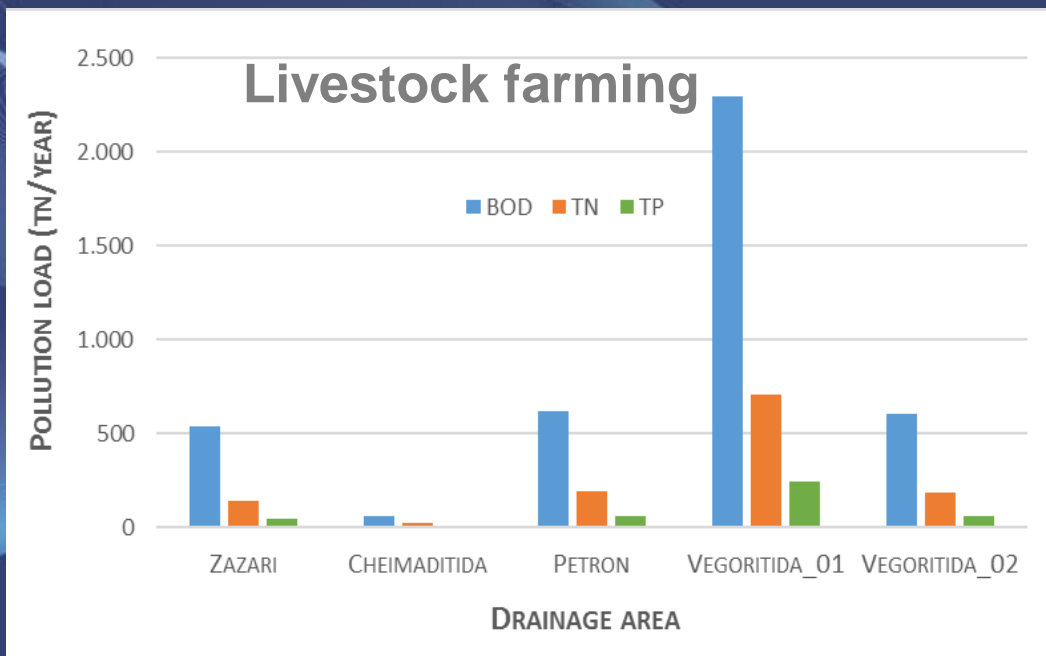
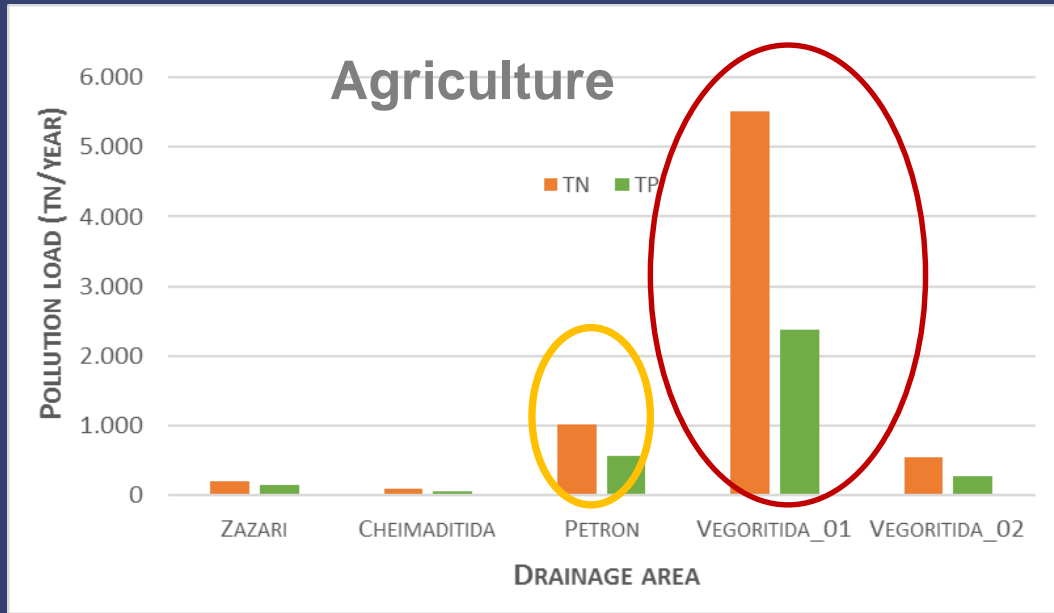
Area of agricultural land

x

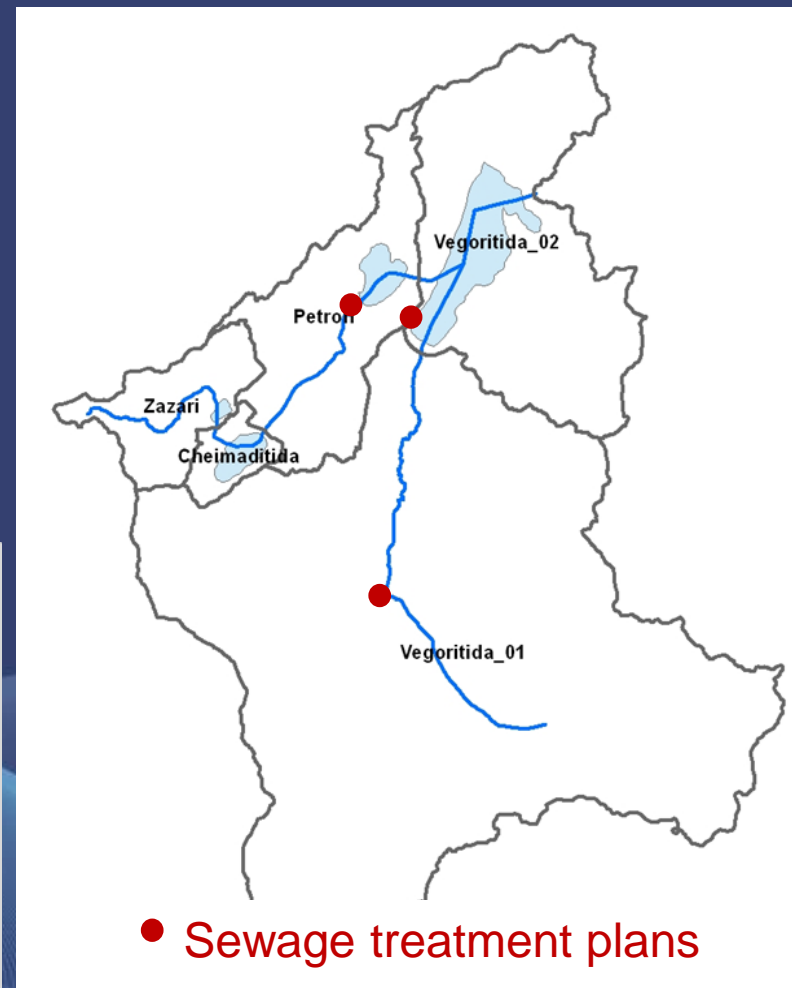
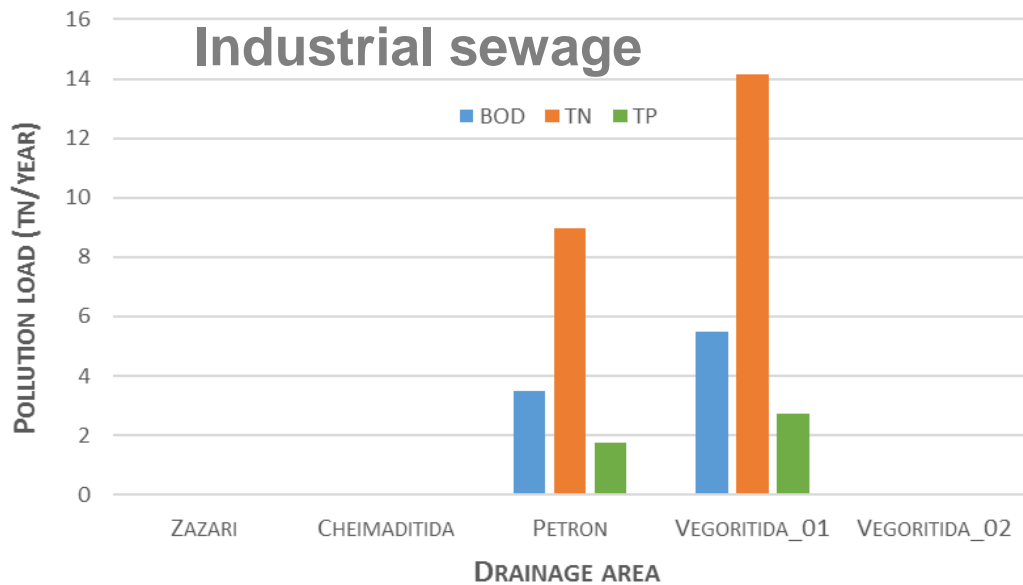
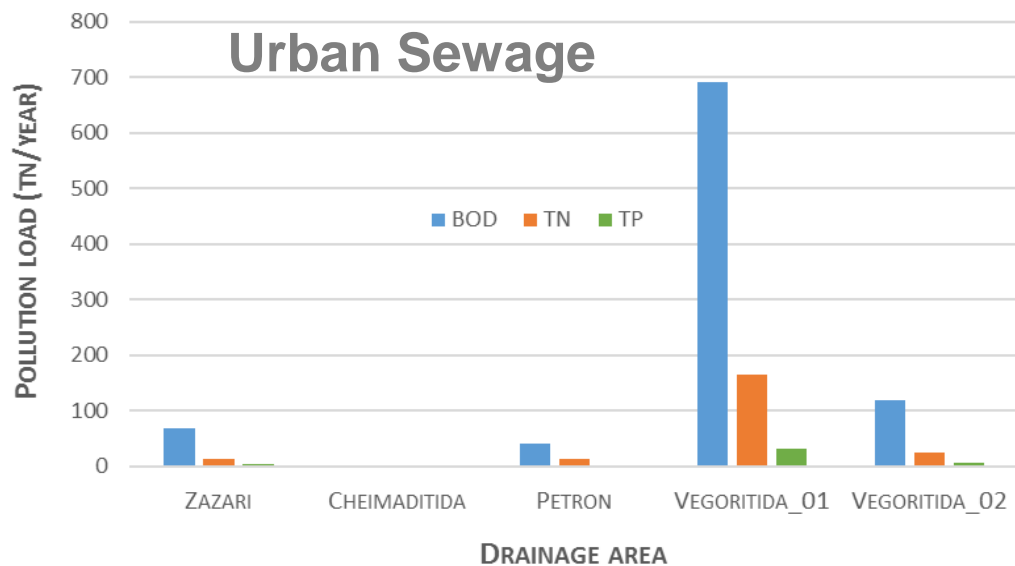
Fertilizer rate of (TN) and (TP)



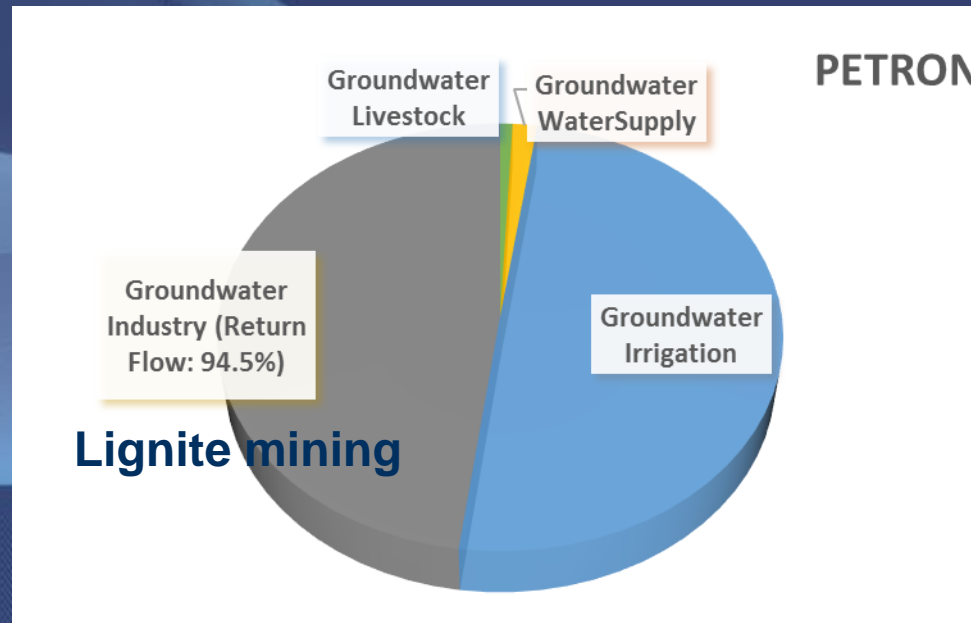
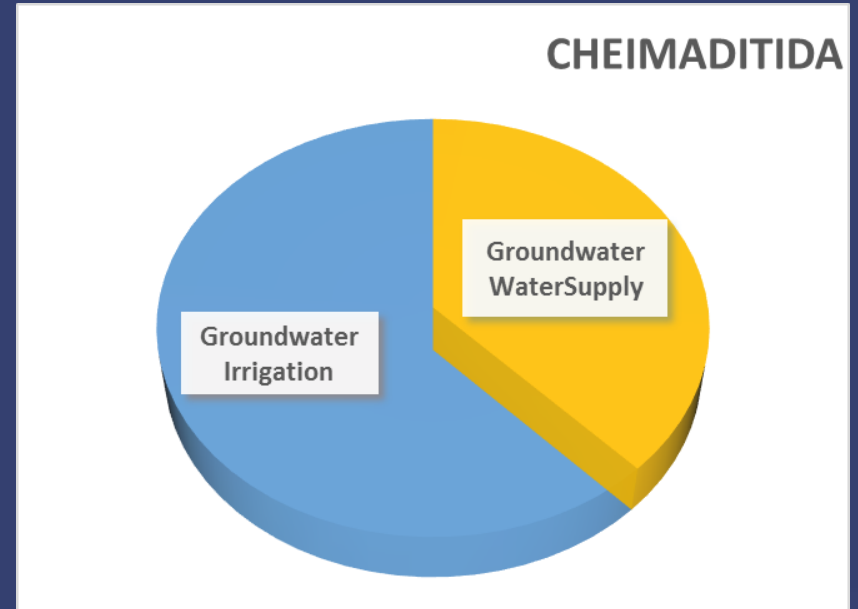
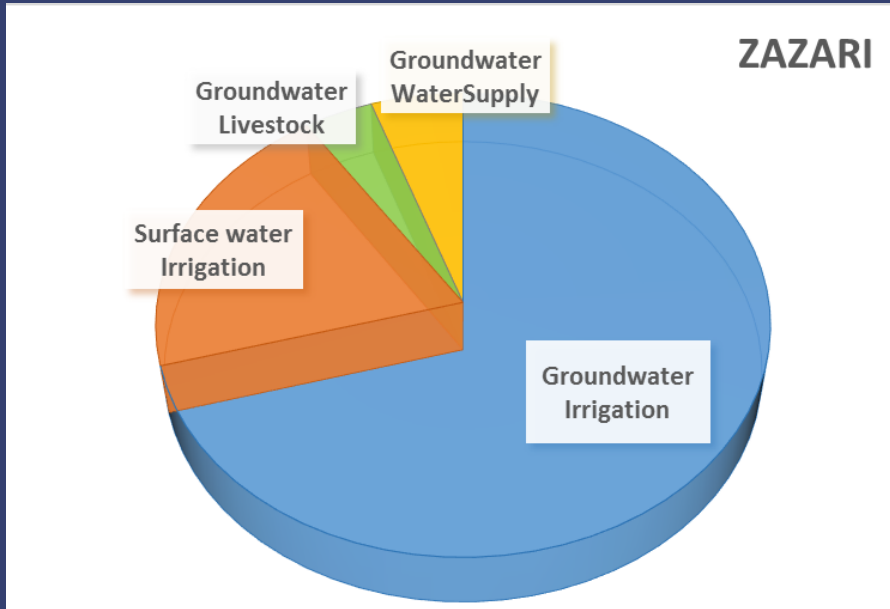
Results on Pollution Loads



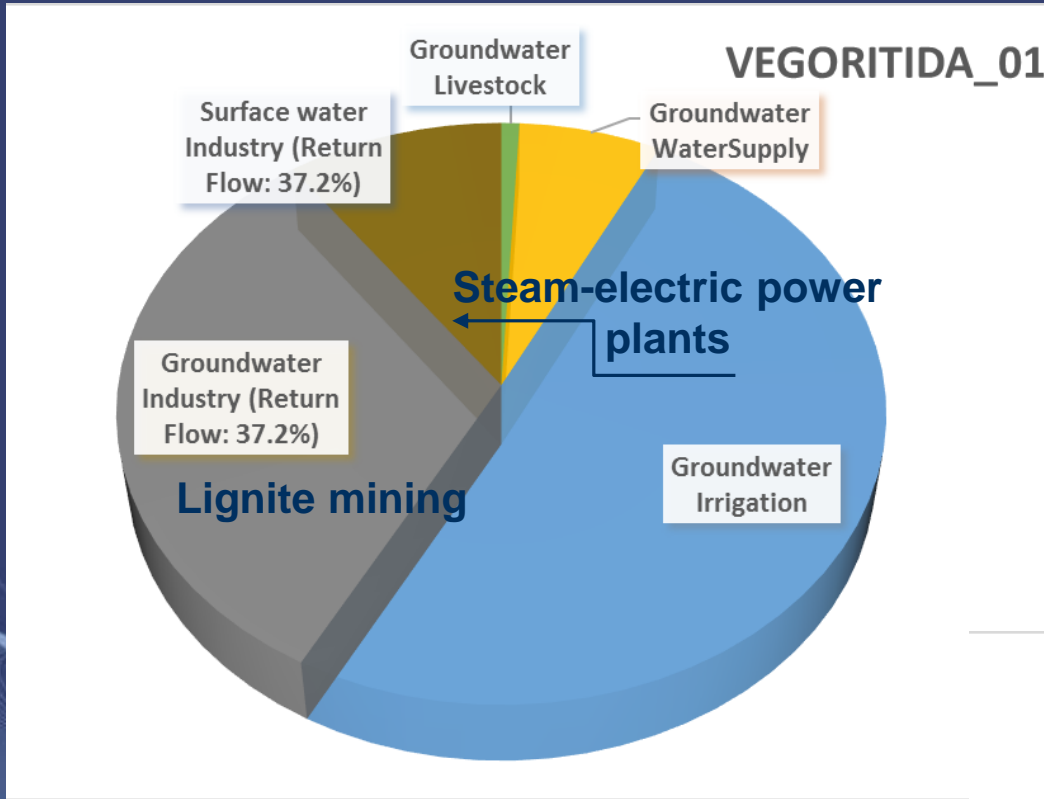
Results on Pollution Loads



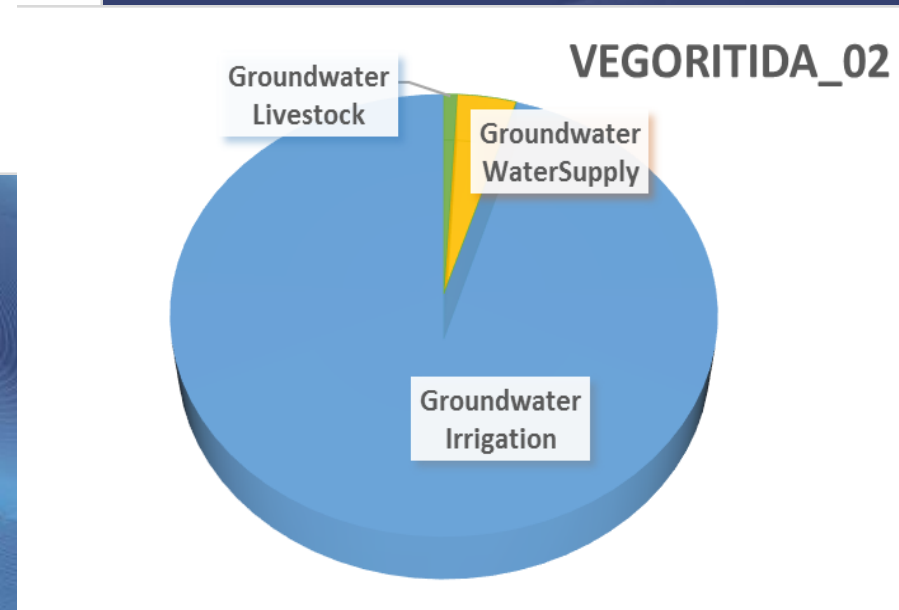
Water Demand



Water Demand



YEARLY WATER DEMAND (10 ⁶ m ³)	
Zazari	7.5
Cheimaditida	0.38
Petron	25.9
Vegoritida	133



Final Remarks

- Important area / Natura 2000 network
- Water Demand (mainly groundwater)

Irrigation Mine and Electricity
 Industry

- Pollution Loads in
Vegoritida_01 & Petron

