HELLENIC REPUBLIC
MINISTRY OF ENVIRONMENT, ENERGY AND CLIMATE CHANGE
SPECIAL SECRETARIAT FOR WATER
PROTECTION DIRECTORATE

"DEVELOPMENT OF NEW BASE SOFTWARE FOR THE MANAGEMENT AND OPERATION OF THE NATIONAL BANK OF HYDROLOGICAL AND METEOROLOGICAL INFORMATION (ETYMP) – PHASE III, IN GIS ENVIRONMENT AND DISCLOSURE OF THE ETYMP PROJECT"

Dictionary of Digital Geographic Database

July 29, 2010

THE PROJECT IS CO-FUNDED BY THE EUROPEAN UNION (75%) AND BY NATIONAL RESOURCES (25%)

HYDROSCOPE SYSTEMS CONSORTIUM

EXARCHOU NIKOLOPOULOS BENSSASSON CONSULTING ENGINEERS LTD.
LAZARIDIS & ASSOCIATES SA ENGINEERING PROJECTS COMPANY
GEOSET LTD

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	HYDROSCOPE SYSTEMS CONSORTIUM EXARCHOU NIKOLOPOULOS BENSSASSON CONSULTING ENGINEERS LTD LAZARIDIS & ASSOCIATES SA ENGINEERING PROJECTS COMPANY GEOSET LTD
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Distribution Table

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Project Acceptance Monitoring Committee		

Introduction

Digital Geographic Database

The digital geographic database (geodatabase) contains the following feature datasets and feature classes:

Layer	Description	Feature Class	Type	Scale
ABlocksNB1996	Plots	ABlocks96	Polygon	1:10 000
Administration	Administrative boundaries Greece	akth	Line	1:50 000
		border_arc	Line	1:50 000
		geogr_units	Polygon	1:50 000
		kratos	Line	1:50 000
		oria_dhmvn	Polygon	1:50 000
		oria_hellas	Line	1:50 000
		periferies	Polygon	1:50 000
		prefectures	Polygon	1:50 000
		regionsgr	Polygon	1:50 000
		SDE_kratos	Line	1:50 000
AdministrativeUnits	It contains the boundaries of all levels of the administrative hierarchy. Every feature class represents only one level.	NUTS1	Polygon	1:50 000
		NUTS2	Polygon	1:50 000
		NUTS3	Polygon	1:50 000
		FirstOrder	Polygon	1:50 000
		SecondOrder	Polygon	1:50 000
		ThirdOrder	Polygon	1:50 000
		FourthOrder	Polygon	1:50 000
		FourthOrder_1991	Polygon	1:50 000
		FourthOrder_pk	Polygon	1:50 000
Charto	Contains Greece and parts of neighbouring countries for chartographic purposes	sea_polygon	Polygon	
Dianomi100k_GMS	MGS 1:100 000 Map tile distribution	tile100k_GMS	Polygon	1:100 000
Dianomi50k_GMS	MGS 1:50 000 Map tile distribution	tile50k_GMS	Polygon	1:50 000
Dianomi5k_GMS	MGS 1:5 000 Map tile distribution	tile5k_GMS	Polygon	1:5 000
Elevation_50	Elevation data (contours, elevation points, special elevation	contourla	Line	1:50 000
		contourlm	Line	1:50 000
		elevp	Point	1:50 000
		elevzones	Polygon	1:50 000

Layer	Description	Feature Class	Type	Scale
	point for the improvement of DTM) Altitudinal zones at 100 meters.	sinkpo	Point	
Elevation_250	Elevation Zones	land_ranges	Polygon	1:250 000
Grids	GGRS87 map tile distribution and GGRS87 1:5 000 map tile distribution of Ministry of Agriculture	Gridxy87_arc	Line	
		tile5kegsa	Polygon	1:5 000
Hydro_250	Hydrographic Network	lakes	Polygon	1:250 000
		lakes_polygon	Polygon	1:1 000 000
		rivers	Line	1:250 000
		StationsPoi	Point	1:250 000
		watrcrsl1m_arc	Line	1:1 000 000
HydroGeology	Hydrogeological data	faults	Line	1:50 000
		geology	Polygon	1:50 000
		hydroformations	Polygon	1:50 000
		hygeo_code	Table	
		springs	Point	1:50 000
		springs_code	Table	
		springs_codename	Table	
		thermo	Point	1:50 000
HydroPhysicalWaters	Hydrographic and physiographic Network Data: River basin as defined in the register of Ministry of Development	aquedctl	Line	1:50 000
		coasta	Polygon	1:50 000
		coastl	Line	1:50 000
		daml	Line	1:50 000
		dangera	Polygon	1:50 000
		inunda	Polygon	1:50 000
		lakeresa	Polygon	1:100 000
		lndfrm1a	Polygon	1:50 000
		seastrtl	Line	1:50 000
		swampa	Polygon	1:50 000
		wellsprp	Point	1:50 000
		wtrcrsa	Polygon	1:50 000
		wtrcrsl_c	Line	1:50 000
		wtrcrsl_r	Line	1:100 000
		wtrshda	Polygon	1:50 000
Natura2000	Areas of Natura 2000	Natura	Polygon	1:100 000 for land 1:50 000 for sea
Pop50	Settlements	builtupa	Polygon	1:50 000 for Greece 1:100 000 for neighbouring countries

Layer	Description	Feature Class	Type	Scale
Pop250	Capital of Municipalities before “Kapodistrias"	Towns	Point	1:250 000
RailTransportNetworks	Railway network	Railwaylinksequence	Line	1:50 000
		conditionoffacility_rail	Table	
		railwaygauge	Table	
		raiwayelectrification	Table	
		verticalposition_rail	Table	
RoadTransportNetwork	Road Network	ConditionOfFacility	Table	
		ERoad	Line	1:100 000
		FuctionalRoadClass	Table	
		NumberOfLanes	Table	
		Road	Line	1:100 000
		RoadLinkSequence	Line	1:100 000
		RoadName	Table	
		RoadSurfaceCategory	Table	
		RoadWidth	Table	
		VerticalPosition	Table	
Toponames	Place names	topotext	Point	1:50 000
WaterDistricts	Water districts	coastawd_polygon	Polygon	1:50 000
		coastl_arc	Line	1:50 000
		wdg	Polygon	1 000 000
WFDGroundWater	Map of groundwater systems and groundwater aquifers monitoring stations	map	Polygon	
		monitoring	Point	
WFDSurface	Surface water monitoring stations	SWstn_detailed	Point	1:50 000
WFD_historical	Coastal waters, lakes, rivers and transitional waters	coastal_GR	Polygon	1:50 000
		lakes_GR	Polygon	1:50 000
		Rivers_GR	Line	1:50 000
		transitional_GR	Polygon	1:50 000
WFD	Hydrographic network for water management	Rivbasin	Polygon	1:250 000
		RWbody	Line	1:250 000
		WFD_CA1	Point	1:250 000
		WFD_RBD1	Polygon	1:250 000

In addition, it contains a raster level named «Hellas200» which is a geophysical Map of Greece of scale 1:200 000 with pixel size 200 m^2.

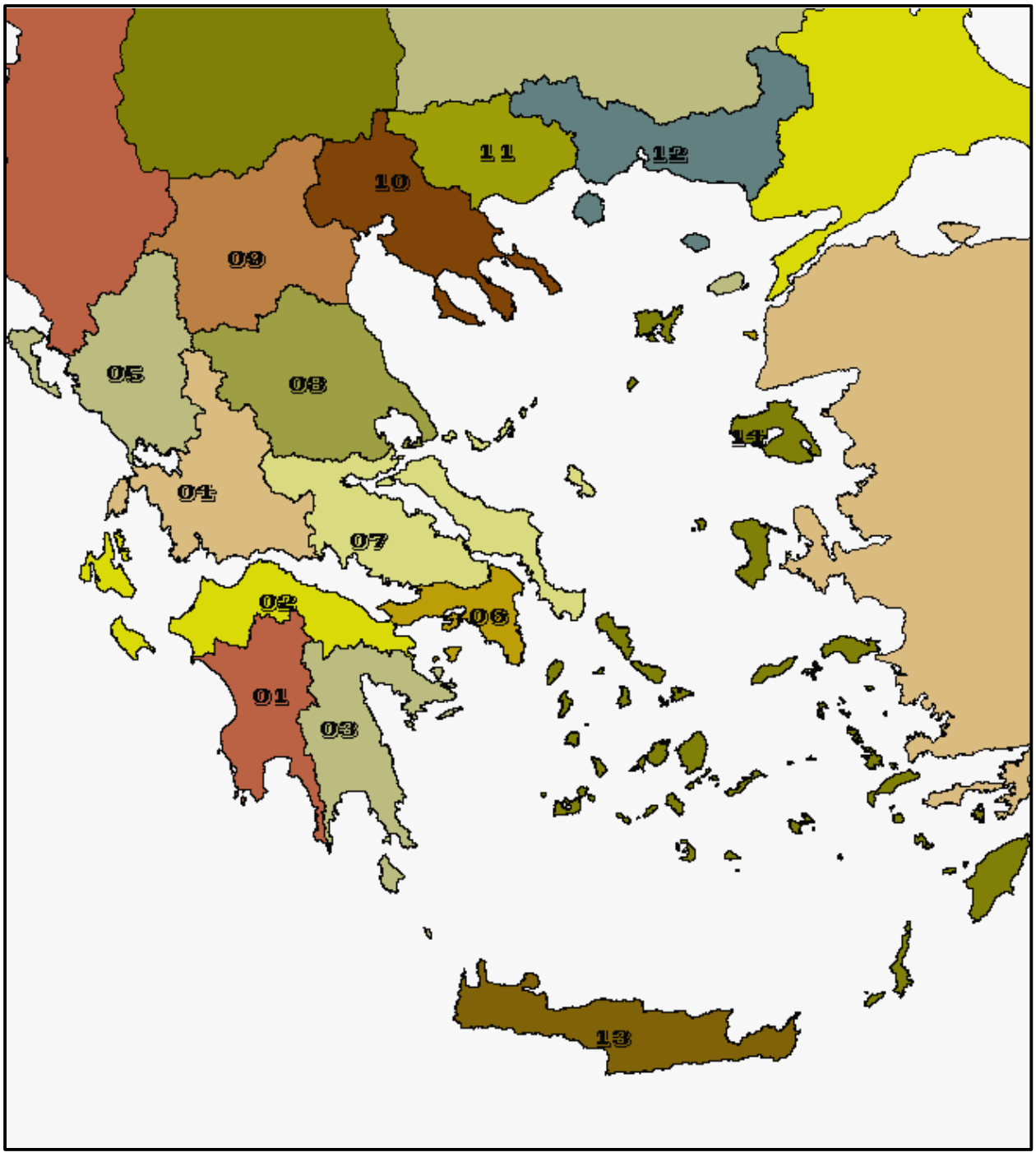
Link to previous phase

The current digital geodatabase (ETYMP 2) was based on the digital geodatabase created during the 2nd phase of the project (ETYMP 1), circa 2000 and consisted of feature classes that resulted from selective digitization of the most recent, at the time, version of the analog 1:50 000 Map Sheets of the Hellenic Military Geographical Service (GYS). The data that formed the ETYMP 1 came from digitization of GYS 1:50 000 slides of 1971. The digitization was made between 1998 and 1999.

In the 3rd phase of the project we proceeded to the creation of the ETYMP 2 which is based on the data from ETYMP 1 which now have been enriched and updated. Initially, there was enrichment or review of the contents of the geographic database by adding new content. For example, we can mention the following: The hydrographic network, the physiographic elements and the Settlements have been updated as far as the area they cover is concerned, while the road network had to have a complete revision to reflect the current situation and to expand over the border areas. Finally, we proceeded to update the schema of the database, according to today's standards and are due under EU Directives, such as the Inspire Directive and the WFD guidance for water.

Water districts of Greece

The map below shows the 14 water districts of Greece.



Terminology

Digital Map / MXD

A digital map file (".mxd" file) contains details about the layers used to design various features, symbols and attributes of labels and other elements of the map. The composition of a digital map is the rendering of the information on the map with point, line or polygon symbols.

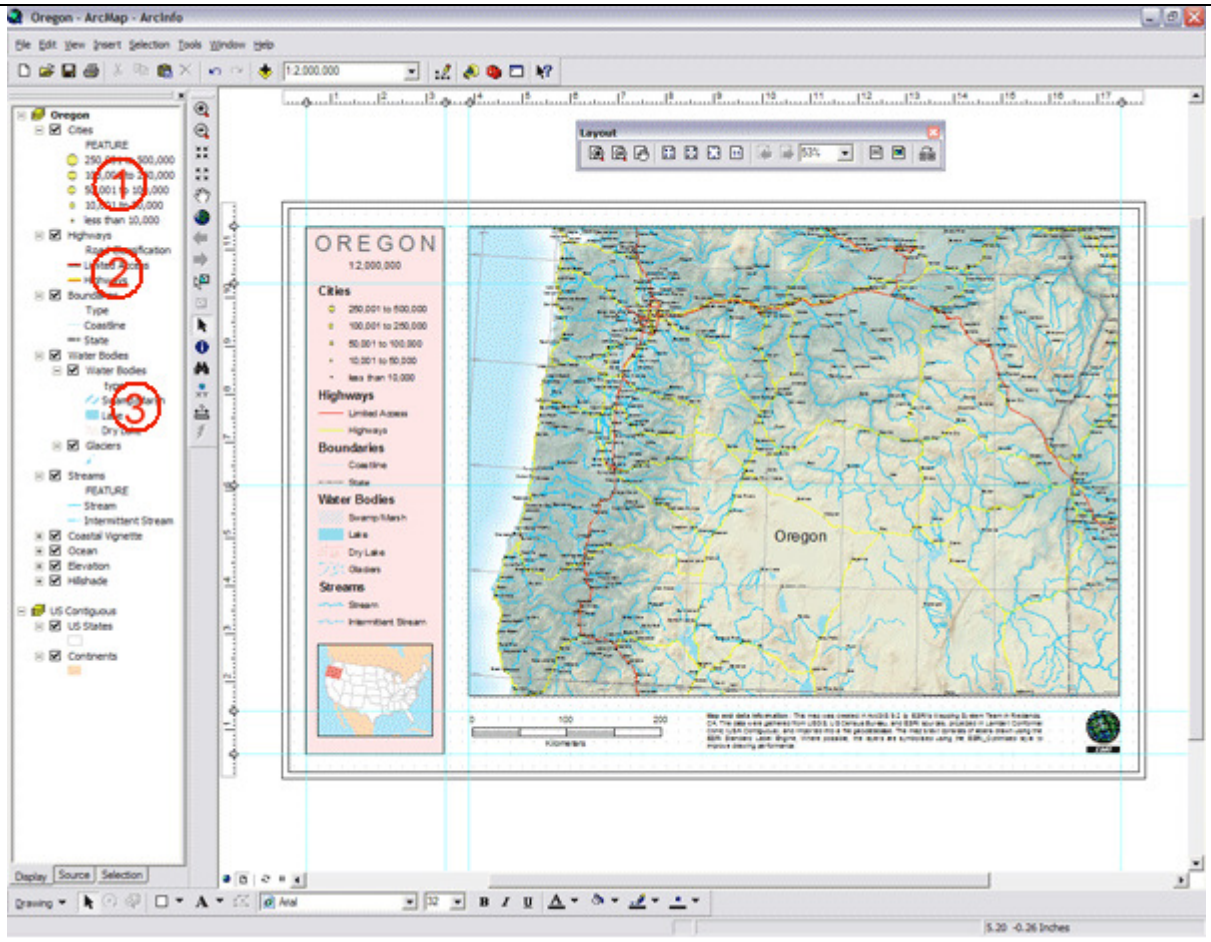


Figure 1: A digital map contains point (1), line (2) and polygon (3) thematic layers.

Layer

Layers are the visual representations of geographical themes at every digital mapping environment. In other word, a layer is a visualization of a portion of the real world or a phenomena and it corresponds to information that is shown in the legend.

The layer is a reference to a data source, like the feature classes of a geodatabase, which που defines how the symbol must appear on the digital map (".mxd" file). The layer define other additional attributes, like which features from a feature class will appear on a digital map.

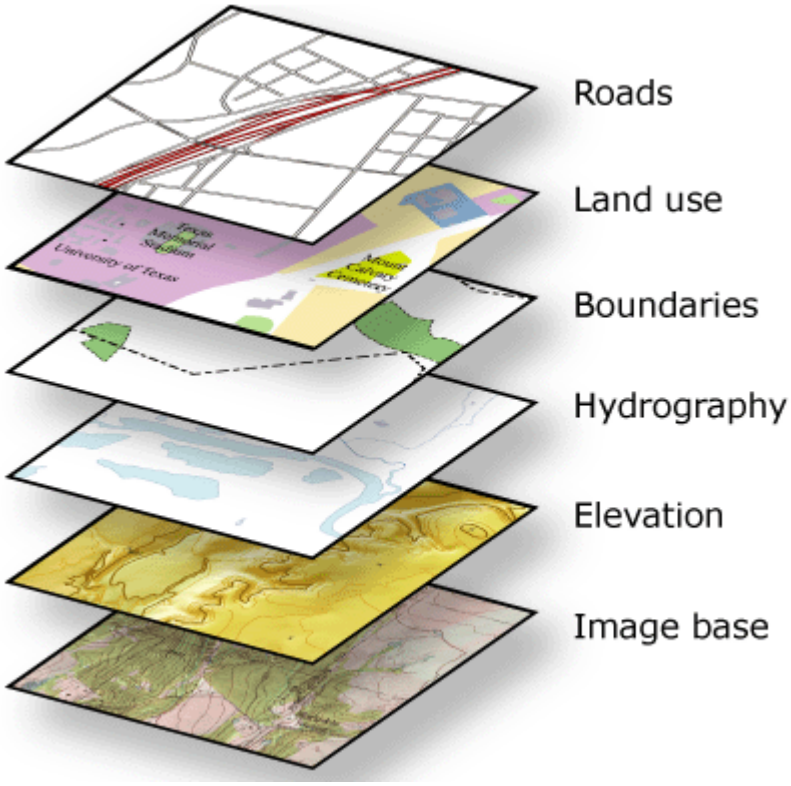
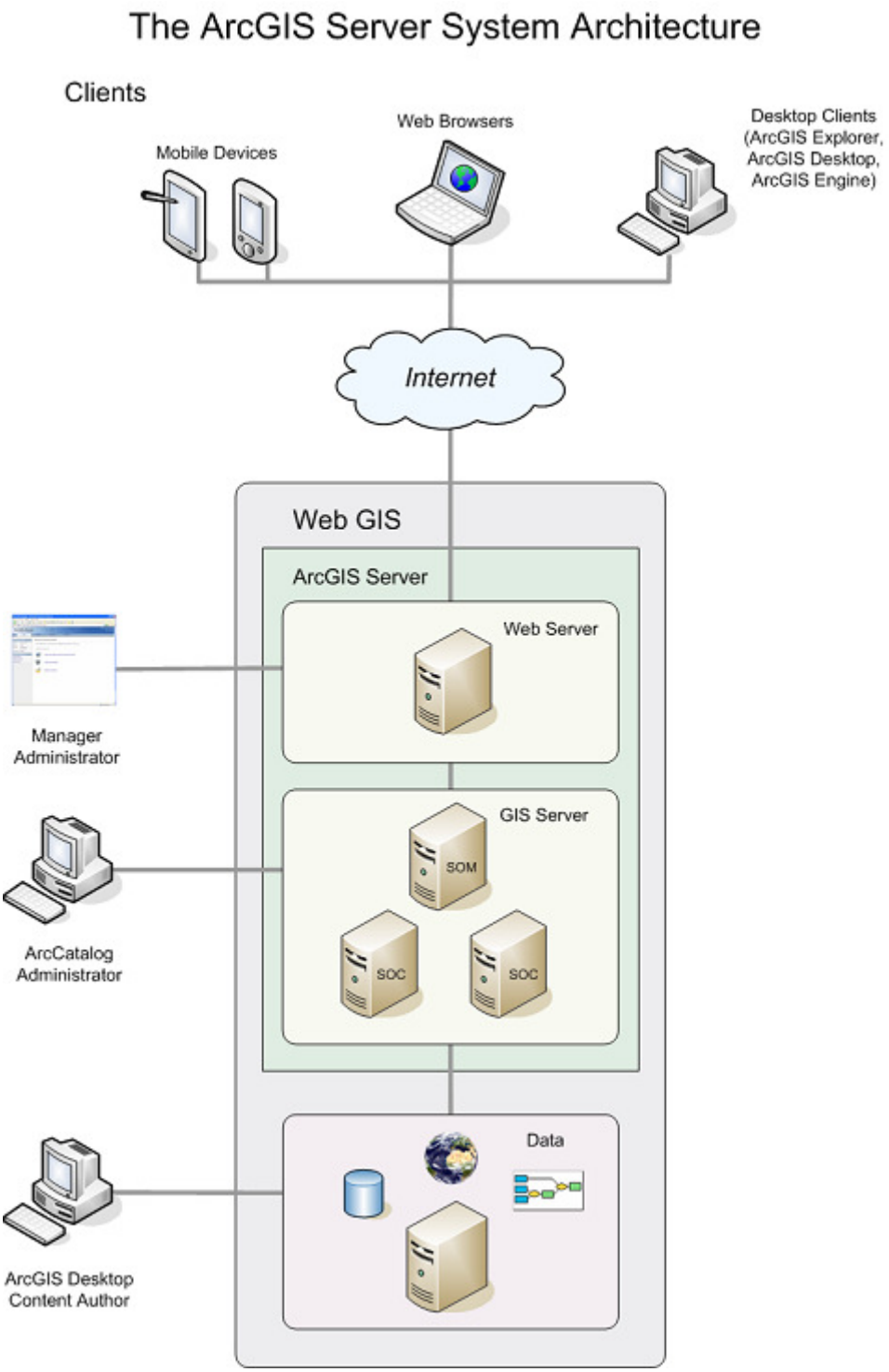


Figure 2: Representation of various types of geographic information through layers.

The levels of information can yield information through:

- Discrete entities as points, lines and polygons.
- Mapping symbols, colours, and labels that help to describe the objects on the map.
- Aerial photographs or satellite images covering the area of the map.
- Continuous surfaces such as elevation, which can be represented as contours, elevation points, or shaded relief map.

ArcGIS Server system architecture



The key elements of the system are:

GIS server: The part where all the GIS data exist. The GIS server export them as services for the client applications. It consists of two distinct parts. The server object managers (SOM) and the server object containers (SOC). The first one manages the services that run on the server. When there is a request from the client application it provides the appropriate service. The SOM are connected with one or more SOM. The SOC machines are these which contain the services the SOM manage. Depending on configuration, SOM and SOC may be in the same of a different system. (In figure above a SOM is connected with two SOC.)

Web server: This is the server where the applications and Web services are, which use resources to run on the GIS Server.

Clients: These are applications connected with the ArcGIS server services through the Internet.

Data server: It is a database server which contains all the GIS data found as services in the GIS server.

Manager and ArcCatalog administrators: Through ArcCatalog and ArcGIS Server Manager resources can be published as services.
The Manager is a Web application that supports services publishing, the administration of the GIS Server, the creation of Web applications and the publishing of ArcGIS explorer maps in the server.
The Catalag contains tools which can add connections to the GIS server either for general use or management of properties and services.

ArcGIS Desktop content authors: It is applications such as ArcMap, ArcCatalog and ArcGlobe which create the GIS content. Data, maps and geoprocessing tools which are published on the server

Map Services

The map services are part of GIS services and represent ready digital maps which are on the server and made available to client applications.

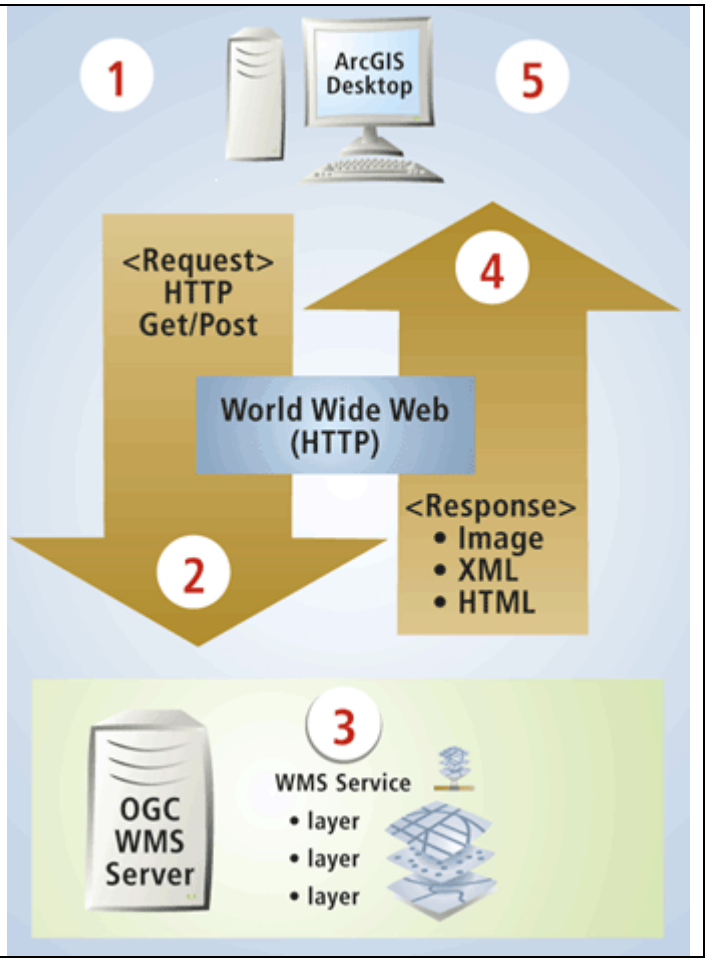
Web Map Services

The Open Geospatial Consortium, Inc (OGC) Web Map Service (WMS) is a OpenGIS specification standard for sharing interactive maps as images based on requests made from a client software to a server through the Internet.

The data is in a server from where the map service gets the data whenever necessary.

The communication between the client software, eg ArcMap, and WMS Server is via HTTP. The following describes the general steps of the process of communication between ArcGIS Desktop and a WMS Server.

1. Through ArcMap where there is interaction at a WMS layer ah HTTP query is created.
2. The HTTP query is sent to the WMS Server.
3. The WMS Server processes the query and generates a response.
4. The WMS Server sends the response. It can be in either XML or HTML or image format.
5. ArcMap receives the response kai processes the information.



Projection System

Projection system is a reference system used to identify the x, y and z positions of a point, a line or a surface in two dimensions or three dimensions. The projection system allows the projection of ellipsoid on a level surface. The system is defined by a series of functions, which, among other information, provide the degree of deformation of shape when depicted on an ellipsoid. Thus, each point of the ellipsoid corresponds to a point on the level surface and vice versa.

The projection system used in this project is the Greek Geodetic Reference System 1987 (GGRS 87).

The projection system GGRS 87 is considered as a single band for the whole country with a central meridian λo=240 and has a uniform scale factor of 0.9996. The deformations in this way can reach up to 1:1 000 near the boundaries of the country (ie 1 m every 1 km). To avoid negative values, the central meridian has an abscissa of 500 000 m. Top ordinate is the equator (φ=0°). It's the latest projection system used in Greece, is a cooperative effort of the Department of Higher Geodesy, Department of Rural and Surveying Engineering - NTUA, the Hellenic Army Geographic Service and the Hellenic Mapping and Cadastral Organization.

Projection System Name:	Greek Geodetic Reference System 87
Geodetic reference system (Datum):	GGRS 87 starting from the moved geodetic centre at Dionysus base station
Reference ellipsoid:	GRS'80
Semi-major axis a:	6 378 137.000 m
Inverse flattening (1/f):	1/298.257222101
Scale coefficient Ko	0.9996

The parallel shifting of the ellipsoid that applies to the WGS84 in relation to the ΕΓΣΑ 87 is:
(DX, DY, DZ) = (-199.72, 74.03, 246.02) in meters.

The GGRS 87 is an ellipsoid adjusted for Greece to have the smallest possible errors. Whereas the WGS84, geocentric. The conversion between WGS84 and GGRS87 gives errors less than a meter.

Digital Maps (mxds)

The following tables list all the maps that have been created for Internet Applications, the map services which share the map on the Internet and web map services, which are accessible to the client applications via the Internet.

C/N	File Name	Title	Layer Name	Dataset contents	Feature class contents	Notes
1.	Background.mxd					
a.			Water Districts	WaterDistricts	wdg	
b.			Lakes	Hydro_250	lakes_polygon	
c.			Rivers Main	Hydro_250	watrcrsl1m_arc	
d.			Rivers	Hydro_250	rivers	
e.			Boundaries	Administration	kratos	
f.			Coastline	Administration	akth	
g.			Local Governments	Administration	oria_dhmvn	
h.			Prefectures	Administration	prefectures	
i.			Regions	Administration	periferies	
j.			Provinces	Administration	regionsgr	
k.			Geographic Units	Administration	geogr_units	
l.			Elevation Zones	Elevation_250	land_ranges	
m.			Sea	Charto	sea_polygon	
n.			Geophysical Map		Hellas200	
2.	Greece.mxd					
a.			Geophysical		Hellas200	

C/N	File Name	Title	Layer Name	Dataset contents	Feature class contents	Notes
			Map			
3.	HydroMeteoStationsGR.mxd					
a.			H-M Stations		stationsgis	
4.	HyBasicDevS.mxd					
a.			Monitoring Stations		stationsgis	
b.			Water Districts	WaterDistricts	wdg	
c.			Lakes	Hydro_250	lakes_polygon	
d.			Rivers Main	Hydro_250	watrcrsl1m_arc	
e.			Rivers	Hydro_250	rivers	
f.			Boundaries	Administration	kratos	
g.			Coastline	Administration	akth	
h.			Local Governments	Administration	oria_dhmvn	
i.			Prefecture Governments	Administration	prefectures	
j.			Regions	Administration	periferies	
k.			Provinces	Administration	regionsgr	
l.			Geographic Units	Administration	geogr_units	
m.			Elevation Zones	Elevation_250	land_ranges	
n.			Geophysical Map		Hellas200	
o.			Sea	Charto	sea_polygon	
p.			Monitoring Spots	Hydro_250	StationsPoi	

C/N	File Name	Title	Layer Name	Dataset contents	Feature class contents	Notes
5.	SatImages.mxd					
a.			Landsat 100		Landsat_tile100km	

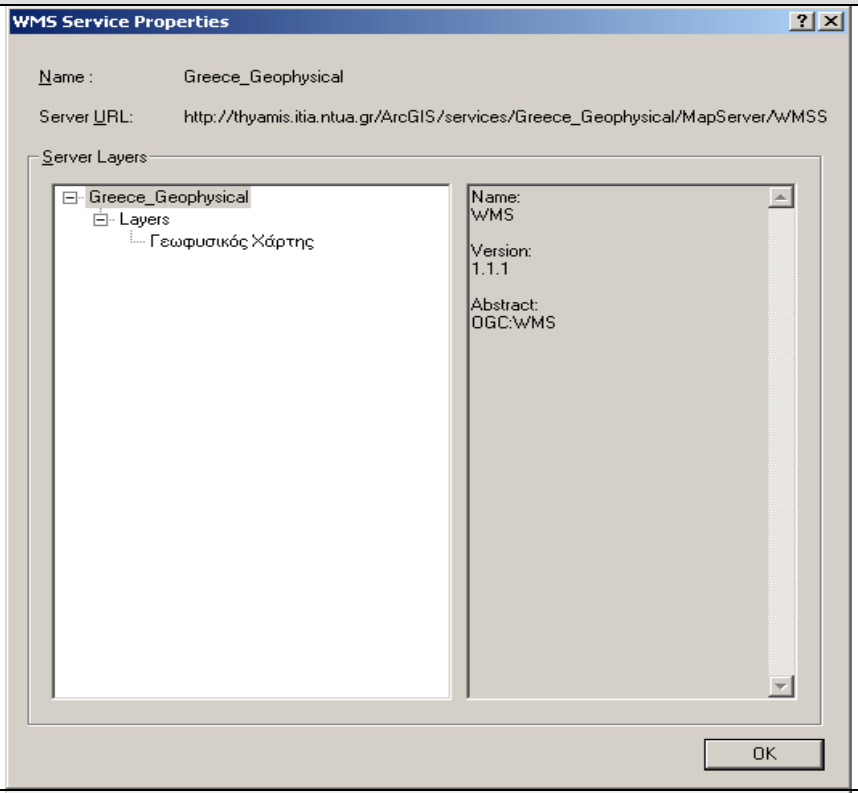
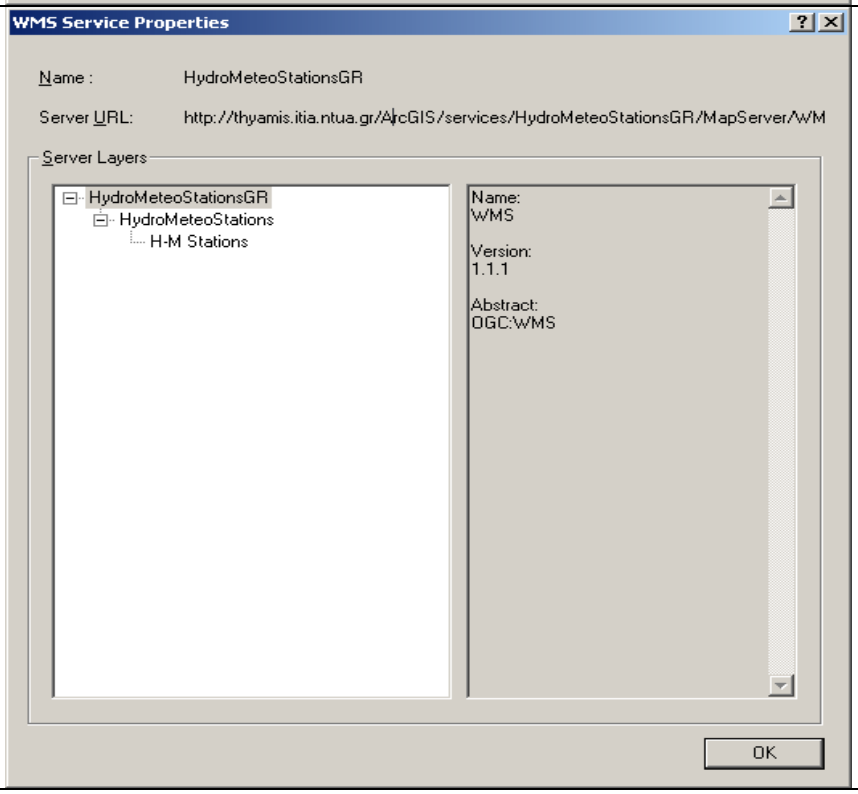
Map Services

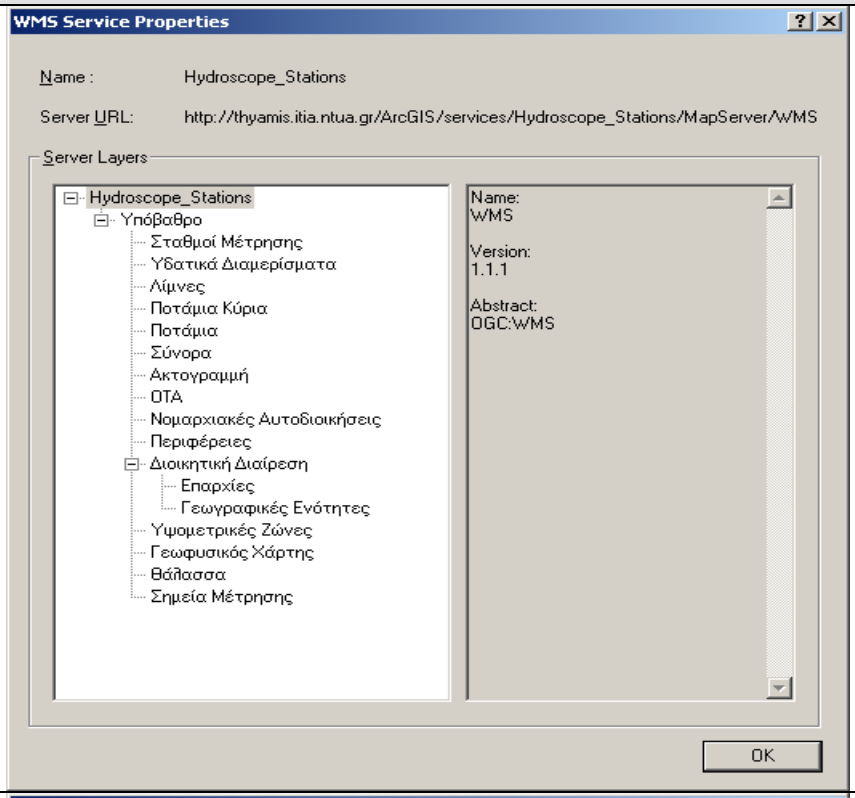
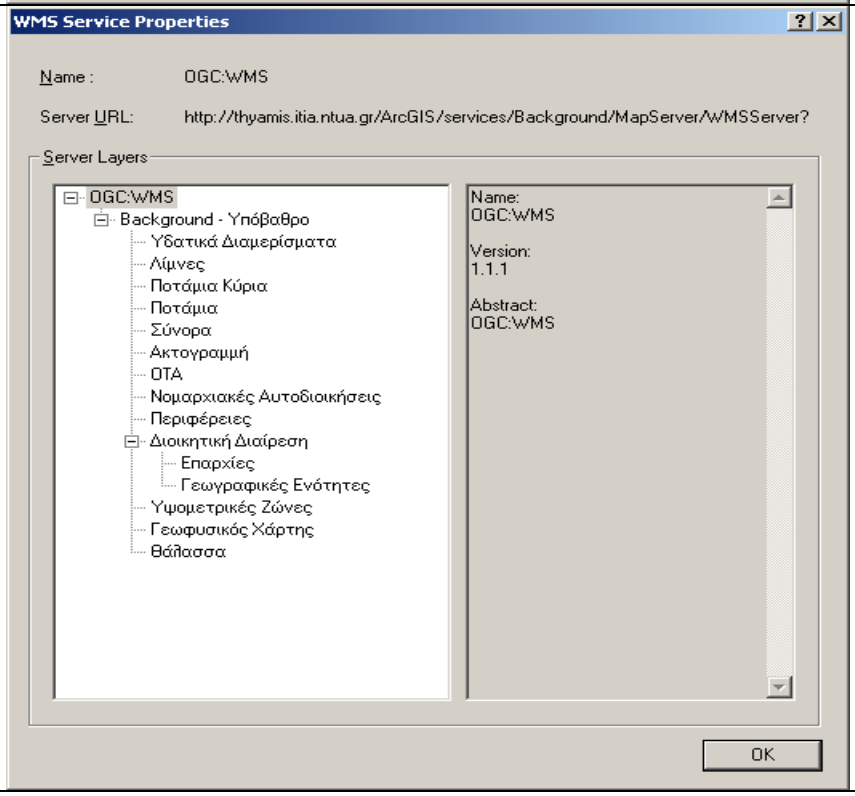
C/N	Service Name	Title	Content (mxd)	Notes
1.	Background	Topographic Base	Background.mxd	
2.	Greece_Geophysical	Geophysical Map	Greece.mxd	
3.	HydroMeteoStationsGR	H-M Stations	HydroMeteoStationsGR.mxd	
4.	Hydroscope_Stations		HyBasicDevS.mxd	
5.	RegionMap		SatImages.mxd	

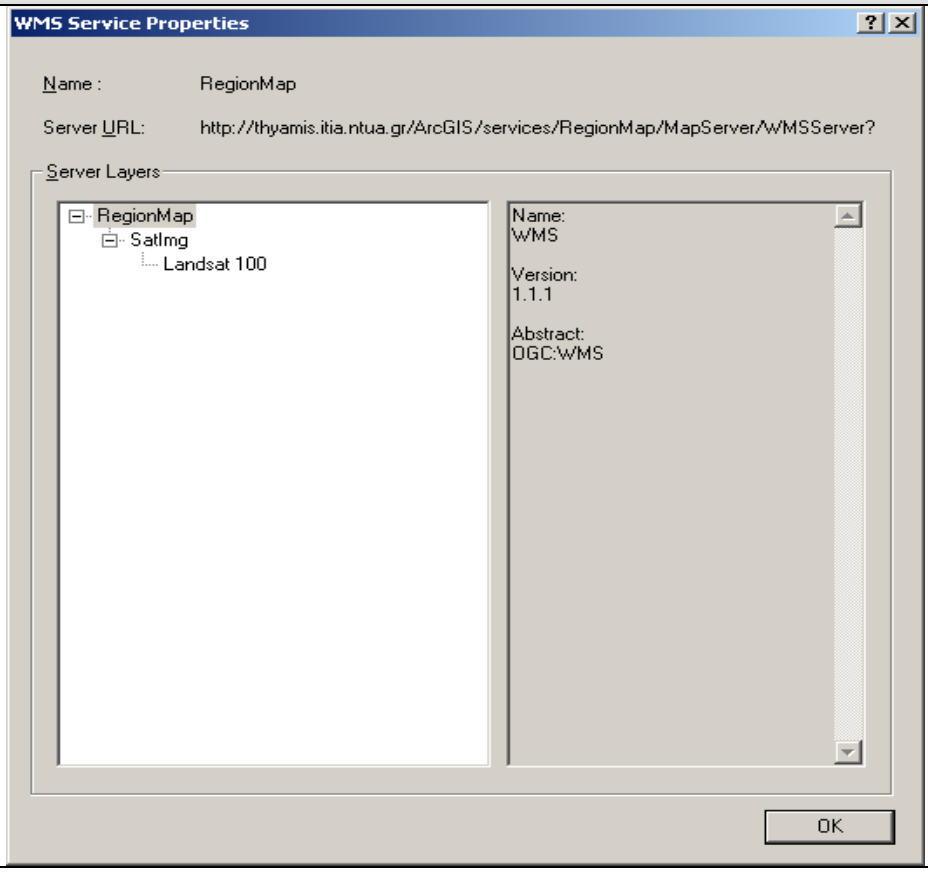
Web Map Services (WMS)

C/N	Service Name	Map Title	Content (mxd)	URL address	Notes
1.	OGC:WMS	Topographic Base	Background.mxd	http://thyamis.itia.ntua.gr/ArcGIS/services/Background/MapServer/WMSServer?	
2.	Greece_Geophysical	Geophysical Map	Greece.mxd	http://thyamis.itia.ntua.gr/ArcGIS/services/Greece_Geophysical/MapServer/WMSServer?	
3.	HydroMeteoStationsGR		HydroMeteoStationsGR.mxd	http://thyamis.itia.ntua.gr/ArcGIS/services/HydroMeteoStationsGR/MapServer/WMSServer?	
4.	Hydroscope_Stations		HyBasicDevS.mxd	http://thyamis.itia.ntua.gr/ArcGIS/services/Hydroscope_Stations/MapServer/WMSServer?	
5.	RegionMap		SatImages.mxd	http://thyamis.itia.ntua.gr/ArcGIS/services/Reg	

C/N	Service Name	Map Title	Content (mxd)	URL address	Notes
				ionMap/MapServer/WMSServer?	

C/N	WMS service name	Content
1.	Greece_Geophysical	
2.	HydroMeteoStationsGR	

C/N	WMS service name	Content
3.	Hydroscope_Stations	
4.	OGC:WMS	

C/N	WMS service name	Content
5.	RegionMap	

INSPIRE Directive

According to the INSPIRE guidelines for the management of the data the following standards have been followed:

- For the Transportation Network (road and rail)
- For the Administrative Units
- For the Hydrographic Network

Transportation Networks

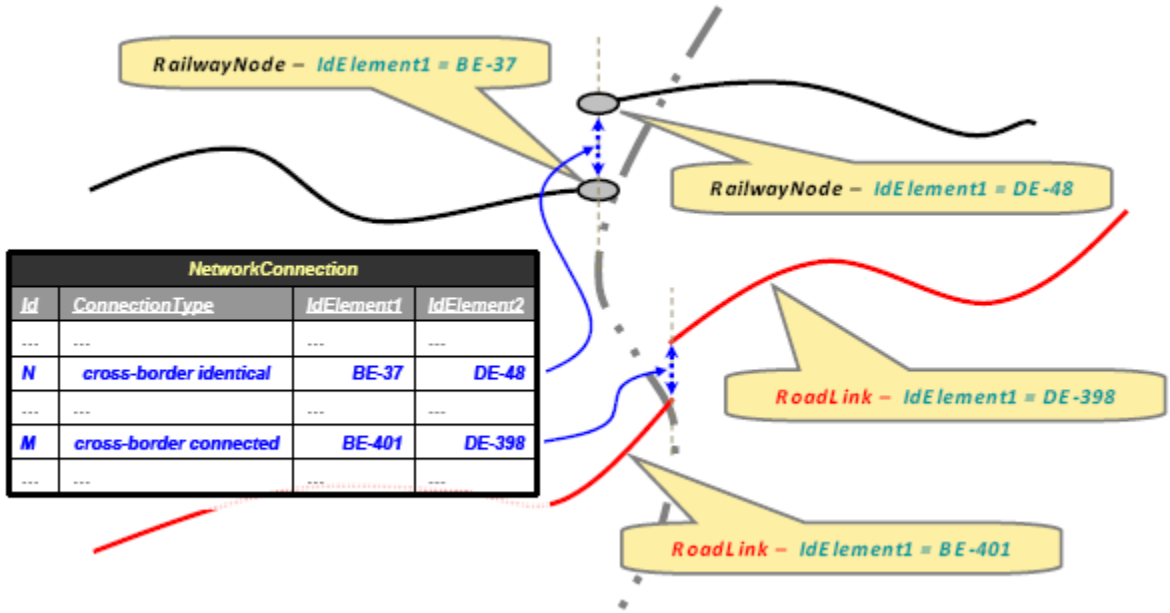


Figure 3: Example of cross-border link of a Transportation Network[1]

[1] INSPIRE Thematic Working Group Transport Networks. *D2.8.I.7 INSPIRE Data Specification on Transport Networks – Guidelines.* 2009-09-07. p32.

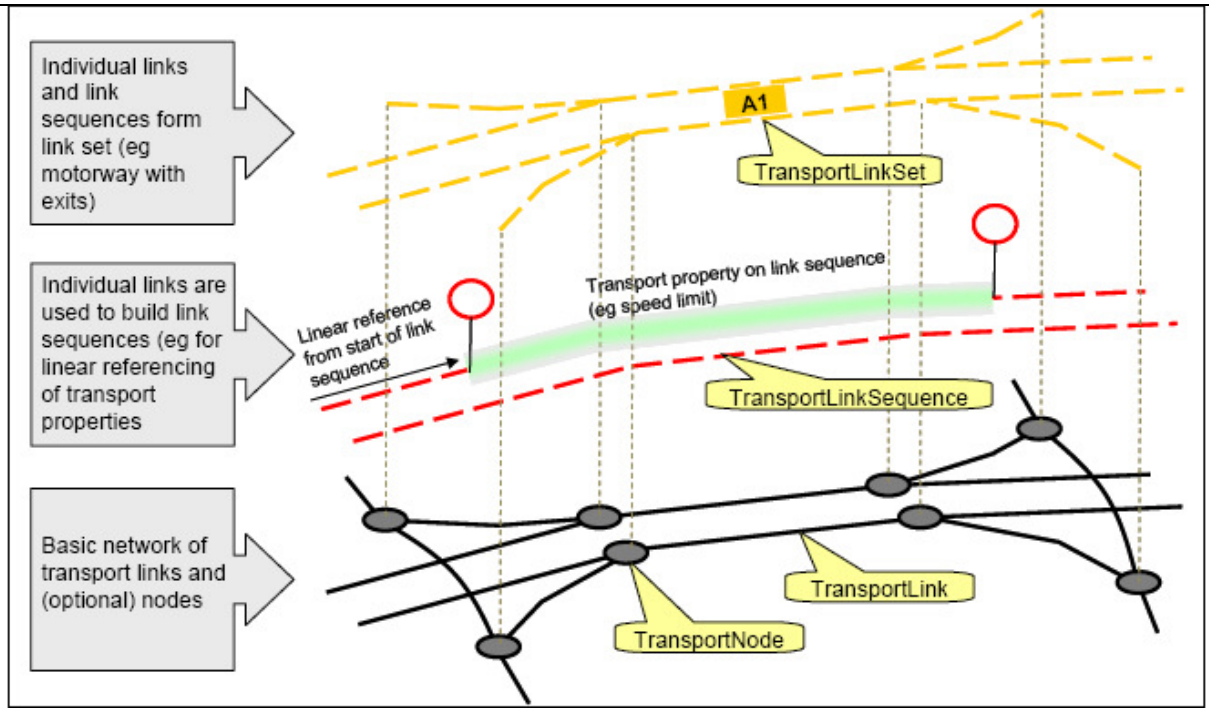


Figure 4: Example of the use of Link, Node, Link Sequence and Link Set[2]

[2] INSPIRE Thematic Working Group Transport Networks. *D2.8.I.7 INSPIRE Data Specification on Transport Networks – Guidelines.* 2009-09-07. p.33.

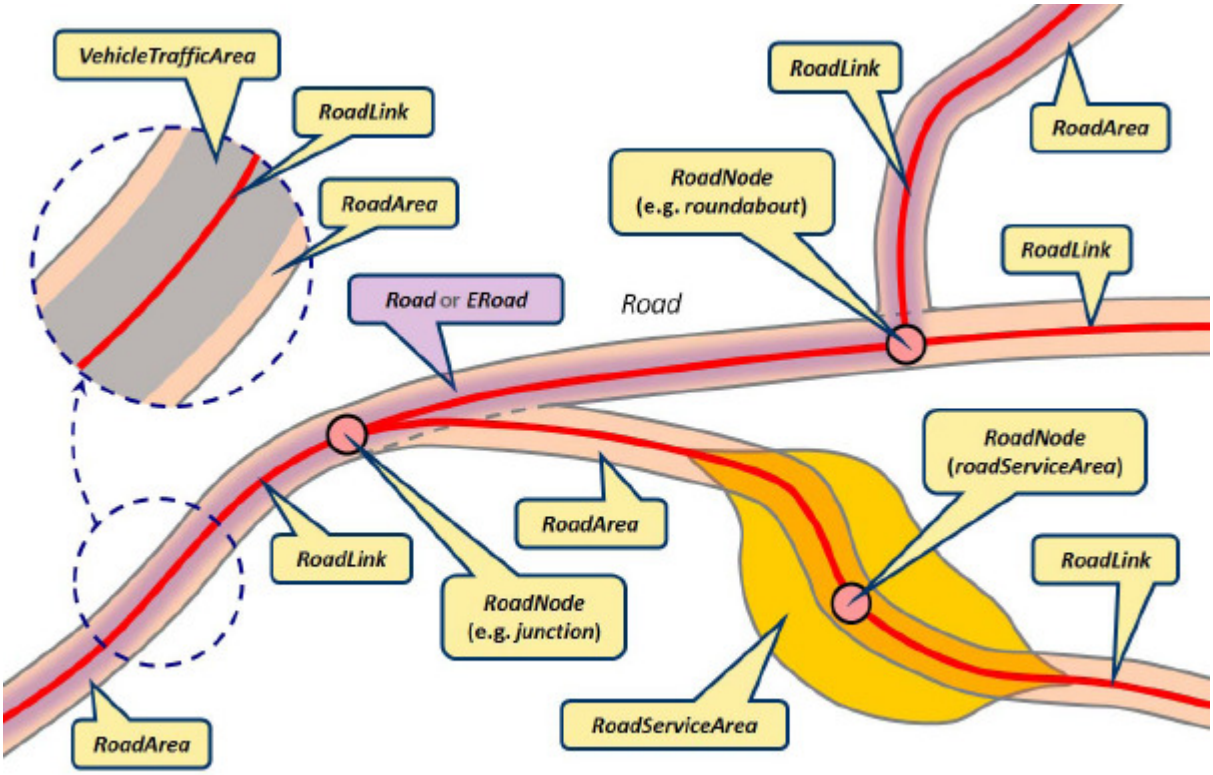


Figure 5: Illustration – Example of use of elements forming the Road Transport Network.[3]

[3] INSPIRE Thematic Working Group Transport Networks. *D2.8.I.7 INSPIRE Data Specification on Transport Networks – Guidelines.* 2009-09-07. p.55.

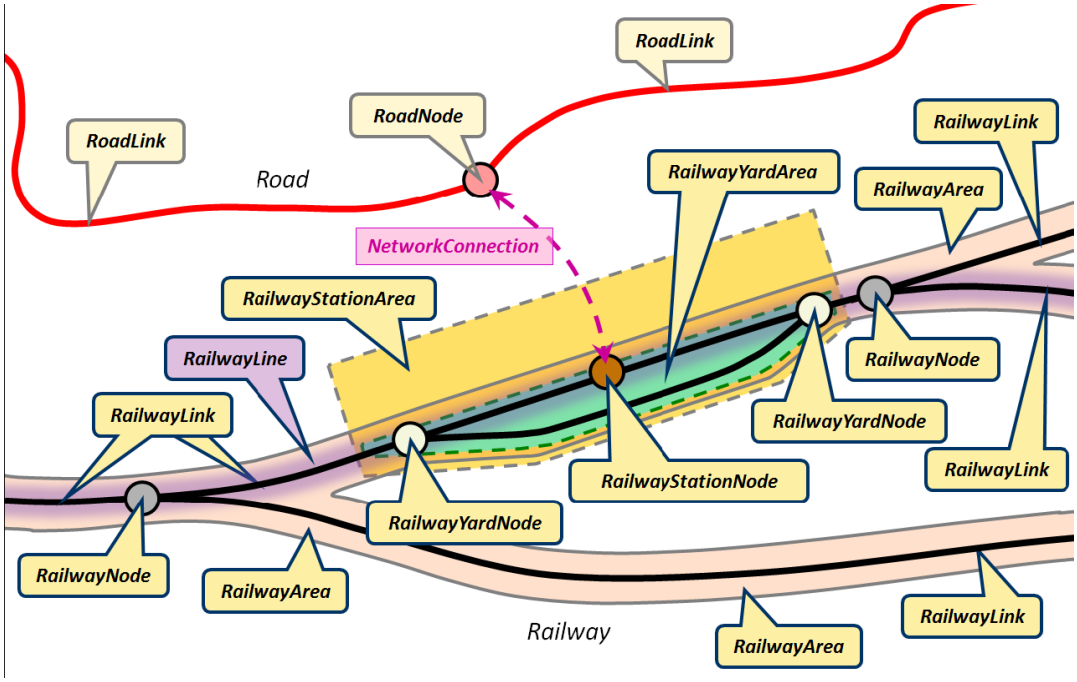


Figure 6: Illustration – Example of use of elements forming the Rail Transport Network.[4]

References

[DS-D2.5] INSPIRE DS-D2.5, Generic Conceptual Model, v3.2, http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/D2.5_v3.2.pdf

[DS-D2.8.I.3] INSPIRE DS-D2.8.I.3 INSPIRE data specification on Geographical names – Guidelines, v3.0 http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/INSPIRE_DataSpecification_GN_v3.0.pdf

[DS-D2.8.I.7] INSPIRE DS-D2.8.I.7 INSPIRE data specification on Transport Networks – Guidelines, v3.0 http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/INSPIRE_DataSpecification_TN_v3.0.pdf

[4] INSPIRE Thematic Working Group Transport Networks. *D2.8.I.7 INSPIRE Data Specification on Transport Networks – Guidelines.* 2009-09-07. p.79.

Administrative Units

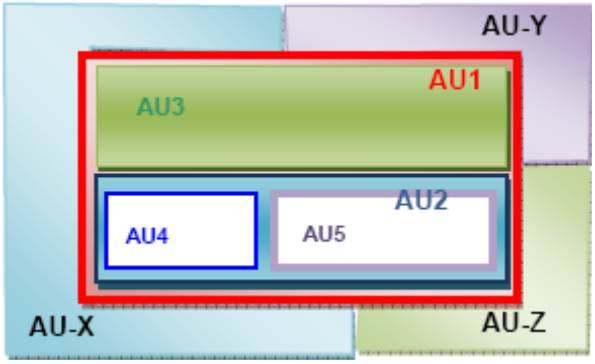
[5]The polygons represent Administrative units at three levels:

1) national level 1: AU1 polygon represents a country;
2) national level 2: AU2 and AU3 polygons represent regions; AU2 + AU3 topologically equal to AU1;
3) national level 3: AU4 and AU5 represent lowest level units; AU4 + AU5 topologically equal to AU2 For AU3 there is no further subdivision.

Level 2 is topologically equivalent to level1 of administrative hierarchy. Level 3 is not topologically equivalent to levels 1 and 2.

The national levels in which Administrative Units are separated are:		
Name	Depicts	Example
1st National Level	Country	Greece
2nd National Level	Region	Central Macedonia
3rd National Level	Prefecture	Aitoloakarnania
4th National Level	Local Government	Municipality of Katerini

Since we have more than one Level 1 AU geometric entities (country), the example is altered like this:



[6]Besides the 3 inner levels that remain as they were in the previous example, now they are three regional polygons, AU-X, AU-Y, AU-Z, which depict the neighbouring to AU1 countries.

Begin and end nodes of country level boundaries do not necessarily meet the begin/end node of some regional boundary

The Administrative Boundary features are determined independently at each level, and are based on the topological structure established separately for each level national administrative hierarchy.

[5] INSPIRE Thematic Working Group Administrative units. *D2.8.I.4 INSPIRE Data Specification on Administrative units – Guidelines.* 2009-09-07. p.24
[6] INSPIRE Thematic Working Group Administrative units. D2.8.I.4 *INSPIRE Data Specification on Administrative units – Guidelines.* 2009-09-07 p.25

References

[DS-D2.5] INSPIRE DS-D2.5, Generic Conceptual Model, v3.2,
http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/D2.5_v3.2.pdf

[DS-D2.8.I.3] INSPIRE DS-D2.8.I.3 INSPIRE data specification on Geographical names – Guidelines, v3.0
http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/INSPIRE_DataSpecification_GN_v3.0.pdf

[DS-D2.8.I.4] INSPIRE DS-D2.8.I.4 INSPIRE data specification on Administrative units – Guidelines,
v3.0
http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/INSPIRE_DataSpecification_AU_v3.0.pdf

Hydrographic Network

Figure 7: Some elements of the physical water and related objects[7]

Correlation of water elements with feature classes in the geodatabase

Elements	**Feature class**
Spring	wellsprp
Dam	daml
Aqueduct	aquedctl
Watercourse (flow και surface)	wtrcrsl_r, wtrcrsl_c, wtrcrsa
Standing water	swampa, dangera, lndfrm1a, lakersa
Land/Water boundary	coastl
Inundated Land	inunda
Sea structure	seastrtl
Drainage basin	DrainageBasin

[7] INSPIRE Thematic Working Group Hydrography. *D2.8.I.8 INSPIRE Data Specification on Hydrography – Guidelines*. 2009-09-07. p11

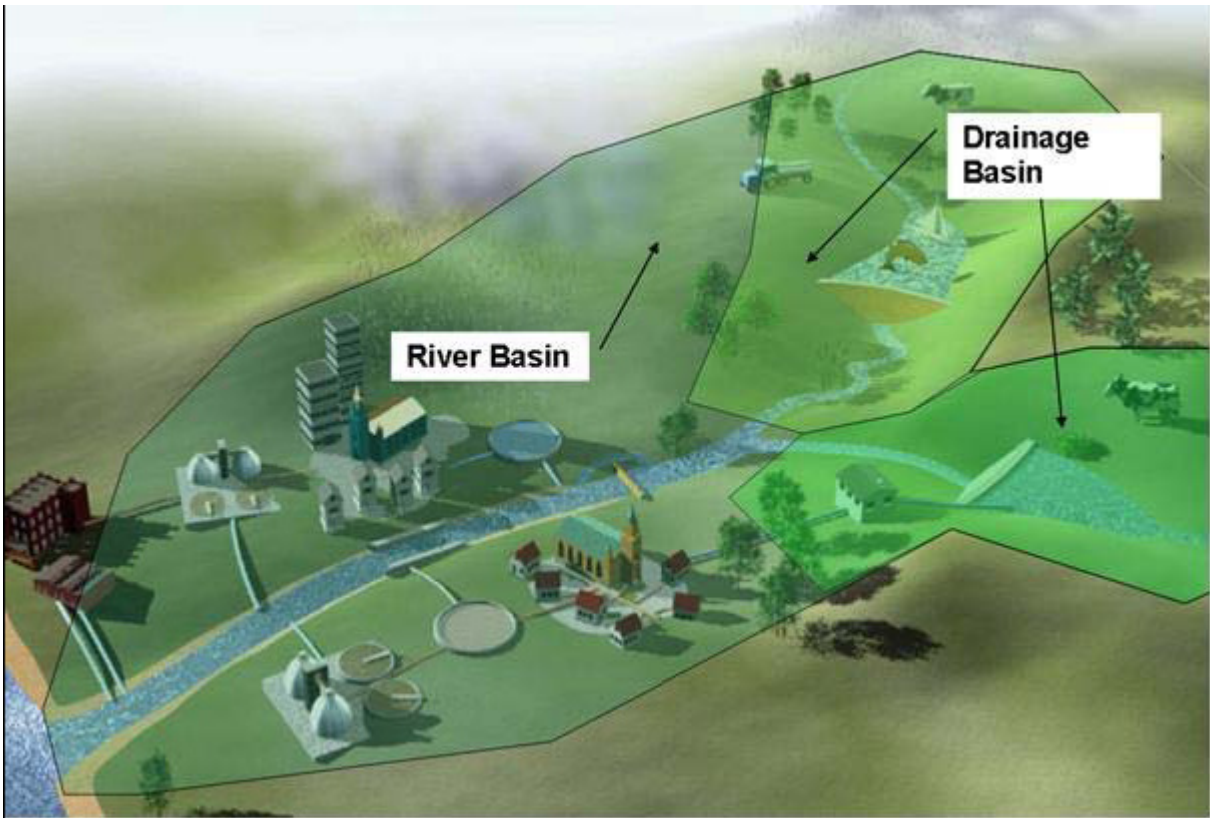


Figure 8: River basin and drainage basins[8]

[8] INSPIRE Thematic Working Group Hydrography. *D2.8.I.8 INSPIRE Data Specification on Hydrography – Guidelines*. 2009-09-07. p12

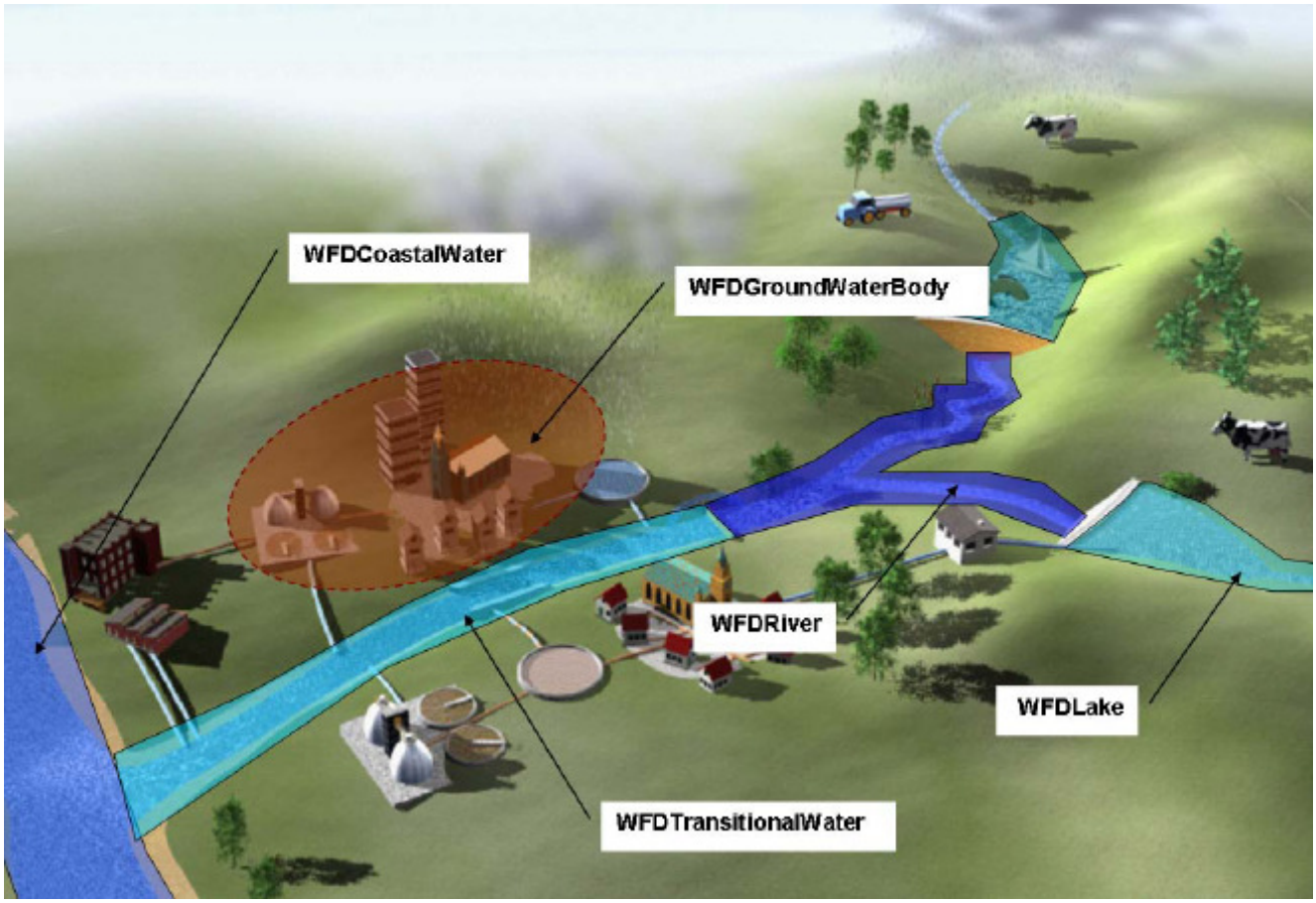


Figure 9: Elements of Reporting[9]

Moreover, the WFD dataset includes elements of the hydrographic network such as:

- rivers (river segment, river waterbody)
- lakes (lake segment, lake waterbody)
- drainage basins (river basin)
- sub-basins (sub-basin)

and management data like:

- water districts (riverbasindistricts)
- authority bodies (competent authorities)

It was created according the 2000/60/EK water guidance and specifically the texts:

- Guidance Document No. 2. Identification of Water Bodies http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework_directive/guidance_documents/guidancesnos2sidentifica/_EN_1.0_&a=d

[9] INSPIRE Thematic Working Group Hydrography. *D2.8.I.8 INSPIRE Data Specification on Hydrography – Guidelines*. 2009-09-07. p53

- Guidance Document No. 3. Analysis of Pressures and Impacts http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework_directive/guidance_documents/guidancesnos3spressuress/_EN_1.0_&a=d
- Guidance Document No. 5. Transitional and Coastal Waters - Typology, Reference Conditions and Classification Systems http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework_directive/guidance_documents/guidancesnos5scharacteri/_EN_1.0_&a=d
- Guidance Document No. 9. Implementing the Geographical Information System Elements (GIS) of the Water Framework Directive http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework_directive/guidance_documents/guidancesnos9sgisswgs31p/_EN_1.0_&a=d
- Guidance Document N° 22 - Updated WISE GIS guidance (nov 2008) http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework_directive/guidance_documents/guidance-no22-_nov08pdf_1/_EN_1.0_&a=d

Also, in the design of these levels the requirements of technical specifications relating to the inquiry and standards thematic layers (shapefile templates) mentioned in the text of the guideline and 22 at the following address were taken into account:

http://eea.eionet.europa.eu/Public/irc/eionet-circle/eionet-telematics/library?l=/technical_developments/wise_technical_group/updated_2nd-edition/supporting_documents/appendix_dictionary/framework_directive_1&vm=detailed&sb=Title

Items that are categorized differently

In some cases, data can be divided into different spatial objects groups in the Hydrographic model. For example, small weirs and sluices can act (and look) in a similar manner. For example: if the level-level rise, a sluice will start to behave as a dam with water running over the gates. The categorization is based on a component of normal operation. For example, a barrier is manufactured differently from a sluice and should be classified based on normal operation.

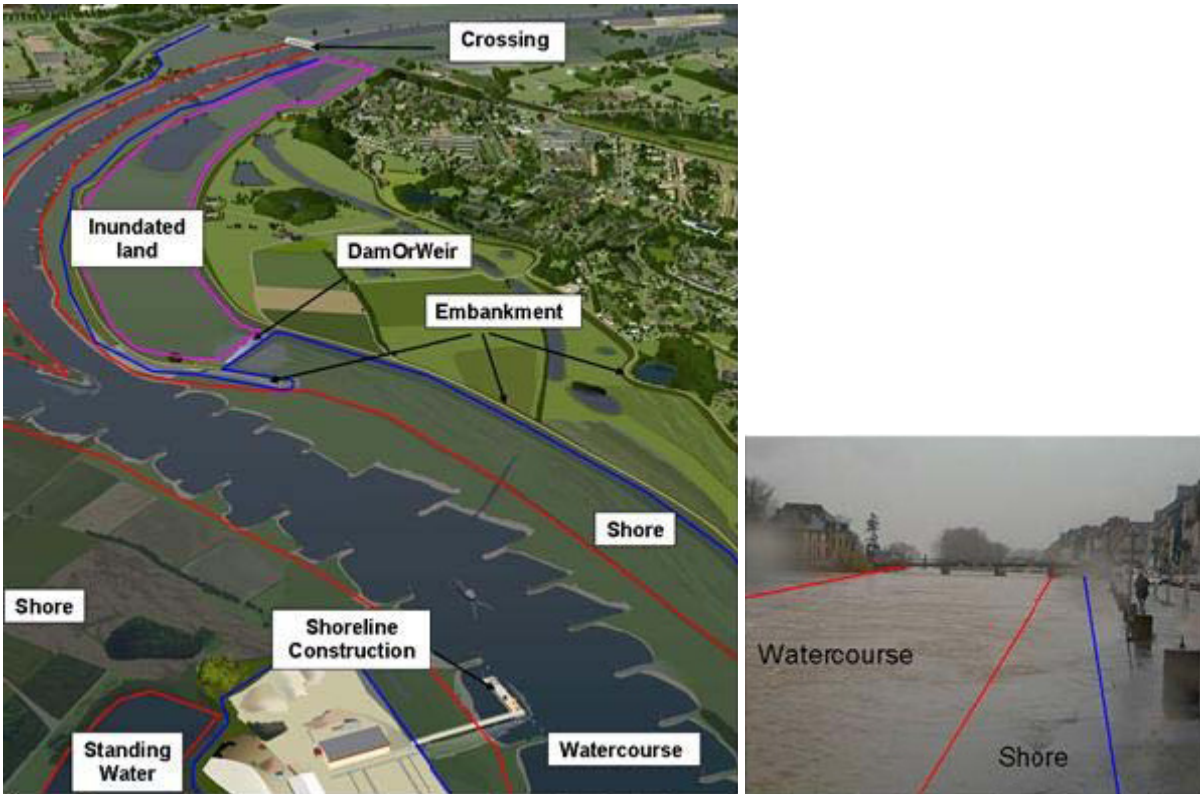


Figure 10: Watercourse, shore and inundated land; in the right situation the overflowed bank is not considered inundated land.[10]

Figure 11: Small weir (left) and sluice (right))[11]

[10] INSPIRE Thematic Working Group Hydrography. *D2.8.I.8 INSPIRE Data Specification on Hydrography – Guidelines*. 2009-09-07. p88

[11] INSPIRE Thematic Working Group Hydrography. *D2.8.I.8 INSPIRE Data Specification on Hydrography – Guidelines*. 2009-09-07. p88

References

[DS-D2.5] INSPIRE DS-D2.5, Generic Conceptual Model, v3.2,
http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/D2.5_v3.2.pdf

[DS-D2.8.I.3] INSPIRE DS-D2.8.I.3 INSPIRE data specification on Geographical names – Guidelines, v3.0
http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/INSPIRE_DataSpecification_GN_v3.0.pdf

[DS-D2.8.I.8] INSPIRE DS-D2.8.I.8 INSPIRE data specification on Hydrography –Guidelines, v3.0
http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/INSPIRE_DataSpecification_HY_v3.0.pdf

Catalog of Feature Classes

In the following tables there is no description of the fields generated automatically by ArcMap.

Where there is an asterisk (*) the fields are not specified by the INSPIRE Directive.

The value of -2999 was used in cases where there were unknown values for any record in the feature class.

ABlocksNB1996

ABlocks96		
Contents: Ilots 1996 – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
ilot_no	VARCHAR(10)	Code number of ilot
cover_id	SMALLINT	Land cover code
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
Shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
cover_id	10	Forest
	11	Forest mixed
	20	Urban
	21	Urban mixed
	30	Pasture
	31	Pasture mixed
	40	Arable
	41	Arable mixed
	50	Permanent crops
	51	Permanent crops mixed
	60	Olive cultivation
	61	Olive cultivation mixed
	70	Vines
	71	Vines mixed
	90	Other
	91	Roads – Water

The boundaries of the units were digitized from 1:10 000 scale aerial photographs taken in 1996.

Administration

akth		
Contents: Coastline of Greece – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

The data came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998.

border_arc		
Contents: Borders of Greece with national waters – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

The data came from the National Environmental Information Network and the scale is 1:50 000. These data are in the database for chartographic and / or historical reasons. These data are not updated.

geogr_units		
Contents: Geographic Units – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
onomasia	VARCHAR(55)	Name
ektash	VARCHAR(9)	Area of unit
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data came from the National Environmental Information Network and the scale is 1:50 000. These data are in the database for chartographic and / or historical reasons. These data are not updated.

kratos		
Contents: Borders of Greece without national waters – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

The data came from the National Environmental Information Network and the scale is 1:50 000. These data are in the database for chartographic and / or historical reasons. These data are not updated.

oria_dhmvn		
Contents: Boundaries of municipalities and settements – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
per_91	VARCHAR(4)	Region code in 1991
cod_91	VARCHAR(6)	Full code 1991
nom_91	VARCHAR(2)	Prefectue code in 1991
ota_91	VARCHAR(3)	Local govermnment code 1991
cod_pk	VARCHAR(6)	Full code before Kapodistrias
nom_pk	VARCHAR(2)	Prefecture code before Kapodistrias
ota_pk	VARCHAR(3)	Local government code before Kapodistrias
cod_mk	VARCHAR(4)	Full code after Kapodistrias
nom_mk	VARCHAR(2)	Prefecture code after Kapodistrias
ota_mk	VARCHAR(2)	Local government code after Kapodistrias
u_w_ota_91	VARCHAR(45)	Name of of municipality or settement in Greek in 1991

u_w_ota_pk	VARCHAR(45)	Name of of municipality or settement in Greek before Kapodistrias
u_w_ota_mk	VARCHAR(45)	Name of of municipality or settement in Greek after Kapodistrias
u_l_ota_91	VARCHAR(45)	Name of of municipality or settement with Latin characters in 1991
u_l_ota_pk	VARCHAR(45)	Name of of municipality or settement with Latin characters before Kapodistrias
u_l_ota_mk	VARCHAR(45)	Name of of municipality or settement with Latin characters after Kapodistrias
xdimos	DOUBLE	The X coordinate of the centroid of the polygon
ydimos	DOUBLE	The Y coordinate of the centroid of the polygon
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data came from the National Environmental Information Network and the scale is 1:50 000. These data are in the database for chartographic and / or historical reasons. These data are not updated.

oria_hellas		
Contents: Coastline and borders of Greece – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

The data came from the National Environmental Information Network and the scale is 1:50 000.

periferies		
Contents: Regions – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
region	VARCHAR(2)	Region code
onoma	VARCHAR(55)	Name
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data came from the National Environmental Information Network and the scale is 1:50 000. These data are in the database for chartographic and / or historical reasons. These data are not updated.

prefectures		
Contents: Prefectures – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
kodikos	VARCHAR(8)	Prefecture code
onomasia	VARCHAR(55)	Name in uppercase
ektash	VARCHAR(9)	Area of prefecture
onomasia_m	VARCHAR(55)	Name in lowercase
x	DOUBLE	The X coordinate of the centroid of the polygon
y	DOUBLE	The Y coordinate of the centroid of the polygon
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data came from the National Environmental Information Network and the scale is 1:50 000. These data are in the database for chartographic and / or historical reasons. These data are not updated.

regionsgr		
Contents: Provinces – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
kodikos	VARCHAR(8)	Province code
onomasia	VARCHAR(55)	Province name
ektash	VARCHAR(9)	Province area
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data came from the National Environmental Information Network and the scale is 1:50 000. These data are in the database for chartographic and / or historical reasons. These data are not updated.

AdministrativeUnits

NUTS1		
Contents: 1st level of Nomenclature of Territorial Units for Statistics – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the administrative unit
nutscode	VARCHAR(5)	Unique coding of the unit according to the framework of the guidance 1059/2003 of the European Parliament and the Counsil of 26/5/2003
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
inspireid	VARCHAR(50)	Unique external code of the administrative unit
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data obtained by processing the administrative boundary levels 1St Order, 2nd Order and 3rd Order with regard to Greece in conjunction with data from ESRI for the administrative boundaries of neighbouring countries, whereas the maps of Eurostat to determine the boundaries of statistical units.

NUTS2		
Contents: 2nd level of Nomenclature of Territorial Units for Statistics – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the administrative unit
nutscode	VARCHAR(5)	Unique coding of the unit according to the framework of the guidance 1059/2003 of the European Parliament and the Counsil of 26/5/2003

beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
inspireid	VARCHAR(50)	Unique external code of the administrative unit
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data obtained by processing the administrative boundary levels 1St Order, 2nd Order and 3rd Order with regard to Greece in conjunction with data from ESRI for the administrative boundaries of neighbouring countries, whereas the maps of Eurostat to determine the boundaries of statistical units.

NUTS3		
Contents: 3rd level of Nomenclature of Territorial Units for Statistics – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the administrative unit
nutscode	VARCHAR(5)	Unique coding of the unit according to the framework of the guidance 1059/2003 of the European Parliament and the Counsil of 26/5/2003
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
inspireid	VARCHAR(50)	Unique external code of της administrative unit
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data obtained by processing the administrative boundary levels 1St Order, 2nd Order and 3rd Order with regard to Greece in conjunction with data from ESRI for the administrative boundaries of neighbouring countries, whereas the maps of Eurostat to determine the boundaries of statistical units.

FirstOrder		
Contents: 1st level administrative division – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
country	VARCHAR(2)	Two-digit country number in accordance with ISO 3166
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the administrative unit
nationalcode	VARCHAR(10)	Thematic ID corresponding to the national administrative code set in each country
xresidenceofauthority	DOUBLE	X coordinate of the centroid of local government
yresidenceofauthority	DOUBLE	Y coordinate of the centroid of local government
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
nationallevel	VARCHAR(10)	The level of administrative hierarchy which owns the unit
nationallevelname	VARCHAR(50)	The name of administrative hierarchy level which owns the unit
name	VARCHAR(55)	Official national name of the administrative unit

endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
inspireid	VARCHAR(50)	Unique external code of the administrative unit
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
country	AL	Albania
	BG	Bulgaria
	MK	FYROM
	GR	Greece
	TR	Turkey

For areas concerning Greece the data came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998. For neighbouring countries they came from ESRI.

SecondOrder		
Contents: 2nd level administrative division – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the administrative unit
nationalcode	VARCHAR(10)	Thematic ID corresponding to the national administrative code set in each country
country	VARCHAR(2)	Two-digit country number in accordance with ISO 3166
name	VARCHAR(55)	Official national name of the administrative unit
nationallevel	VARCHAR(10)	The level of administrative hierarchy which owns the unit
yresidenceofauthority	DOUBLE	Y coordinate of the centroid of local government
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
nationallevelname	VARCHAR(50)	The name of administrative hierarchy level which owns the unit
xresidenceofauthority	DOUBLE	X coordinate of the centroid of local government
inspireid	VARCHAR(50)	Unique external code of the administrative unit
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
country	AL	Albania
	BG	Bulgaria
	MK	FYROM
	GR	Greece
	TR	Turkey

For areas concerning Greece the data came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998. For neighbouring countries they came from ESRI.

ThirdOrder		
Contents: 3rd level administrative division – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the administrative unit
nationalcode	VARCHAR(10)	Thematic ID corresponding to the national administrative code set in each country
country	VARCHAR(2)	Two-digit country number in accordance with ISO 3166
name	VARCHAR(55)	Official national name of the administrative unit
nationallevel	VARCHAR(10)	The level of administrative hierarchy which owns the unit
xresidenceofauthority	DOUBLE	X coordinate of the centroid of local government
yresidenceofauthority	DOUBLE	Y coordinate of the centroid of local government
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanvesion	DATETIME	Date and time of which spatial objects were removed from the database
nationallevelname	VARCHAR(50)	The name of administrative hierarchy level which owns the unit
inspireid	VARCHAR(50)	Unique external code of the administrative unit
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	**Value**	**Denotes**
country	AL	Albania
	BG	Bulgaria
	MK	FYROM
	GR	Greece
	TR	Turkey

For areas concerning Greece the data came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998. For neighbouring countries they came from ESRI.

FourthOrder		
Contents: 4th level administrative division – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the administrative unit
nationalcode	VARCHAR(10)	Thematic ID corresponding to the national administrative code set in each country
country	VARCHAR(2)	Two-digit country number in accordance with ISO 3166
nationallevel	VARCHAR(10)	The level of administrative hierarchy which owns the unit
xresidenceofauthority	DOUBLE	X coordinate of the centroid of local government

yresidenceofauthority	DOUBLE	Y coordinate of the centroid of local government
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
nationallevelname	VARCHAR(50)	The name of administrative hierarchy level which owns the unit
namegr	VARCHAR(45)	Official national name of the administrative unit in Greek
nameen	VARCHAR(45)	Official national name of the administrative unit in English
inspireid	VARCHAR(50)	Unique external code of the administrative unit
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
country	AL	Albania
	BG	Bulgaria
	MK	FYROM
	GR	Greece
	TR	Turkey

The data came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998.

FourthOrder_1991		
Contents: 4th level administrative division (with the coding applied until 1991) – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the administrative unit
nationalcode	VARCHAR(10)	Thematic ID corresponding to the national administrative code set in each country
country	VARCHAR(2)	Two-digit country number in accordance with ISO 3166
xresidenceofauthority	DOUBLE	X coordinate of the centroid of local government
yresidneceofauthority	DOUBLE	Y coordinate of the centroid of local government
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
nationallevel	VARCHAR(10)	The level of administrative hierarchy which owns the unit
nationallevelname	VARCHAR(50)	The name of administrative hierarchy level which owns the unit
namegr	VARCHAR(45)	Official national name of the administrative unit in Greek
nameen	VARCHAR(45)	Official national name of the administrative unit in English
inspireid	VARCHAR(50)	Unique external code of the administrative unit
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
country	AL	Albania
	BG	Bulgaria
	MK	FYROM

	GR	Greece
	TR	Turkey

The data came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998.

FourthOrder_pk		
Contents: 4th level administrative division (with the coding applied before Kapodistrias project) – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the administrative unit
nationalcode	VARCHAR(10)	Thematic ID corresponding to the national administrative code set in each country
country	VARCHAR(2)	Two-digit country number in accordance with ISO 3166
xresidenceofauthority	DOUBLE	X coordinate of the centroid of local government
yresidenceofauthority	DOUBLE	Y coordinate of the centroid of local government
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
nationallevel	VARCHAR(10)	The level of administrative hierarchy which owns the unit
nationallevelname	VARCHAR(50)	The name of administrative hierarchy level which owns the unit
namegr	VARCHAR(45)	Official national name of the administrative unit in Greek
nameen	VARCHAR(45)	Official national name of the administrative unit in English
inspireid	VARCHAR(50)	Unique external code of the administrative unit
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
country	AL	Albania
	BG	Bulgaria
	MK	FYROM
	GR	Greece
	TR	Turkey

The data came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998.

Charto

sea_polygon		
Contents: Greece and neighbouring countries for chartographic purposes – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
sea_id	INTEGER	Land or sea
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the

		system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
sea_id	0	Land
	1	Sea

The data was created by merging the coastline of Greece file with a digitized polygon in a rectangular frame surrounding the geographical area of Greece.

Corine

CLC2000		
Contents: Land use – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
code_00	VARCHAR(3)	Land use code
area	DOUBLE	The area of the polygon
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data was supplied by the European Environment Agency and their scale is 1:100 000.
http://www.eea.europa.eu/themes/landuse/clc-download

Dianomi100k_GMS

tile100k_GMS		
Contents: HMGS 1:100 000 Map tile distribution – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
id_100	SMALLINT	Map tile code
name	VARCHAR(40)	Map tile name in Greek
name__lat	VARCHAR(40)	Map tile name in Latin characters
classified	SMALLINT	Classification of tile
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
classified	0	The tile is not classified
	1	The tile is classified

The data come from the map tile distribution of the Hellenic Military Geographical scale of 1:100 000.

Dianomi50k_GMS

tile50k_GMS		
Contents: HMGS 1:50 000 Map tile distribution – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
area	DOUBLE	The area of the polygon
perimeter	DOUBLE	The perimeter of the polygon
diabathmis	DOUBLE	Classification of tile
titleg	VARCHAR(25)	Map tile name in Greek
titlee	VARCHAR(25)	Map tile name in Latin characters
code	INTEGER	Map tile code
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	**Value**	**Denotes**
diabathmis	0	The tile is not classified
	1	The tile is classified

The data come from the map tile distribution of the Hellenic Military Geographical scale of 1:50 000.

Dianomi5k_GMS

tile5k_GMS		
Contents: HMGS 1:5 000 Map tile distribution – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
area	DOUBLE	The area of the polygon
perimeter	DOUBLE	The perimeter of the polygon
name	VARCHAR(10)	Map tile name
tile5kgys	VARCHAR(6)	Map tile name
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data come from the map tile distribution of the Hellenic Military Geographical Service scale of 1:5 000.

Elevation_50

contourla		
Contents: Additional contour lines in areas of slope less than 5% – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
f_code	VARCHAR(5)	Feature code
hqc	SMALLINT	Accuracy class
zv2	INTEGER	Elevation
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
F_CODE	CA010	Contour line
HQC	2	Secondary contour of verified accuracy
ZV2	29999	Unknown

The data came from the geographic digital database that was created in the previous phase of the ETYMP project which itself came from digitized slides of the Hellenic Military Geographical Service of scale 1:50 000 version 1971. The digitization was made in 1999.

contourlm		
Contents: Contour lines per 100 meters – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
f_code	VARCHAR(5)	Feature code
hqc	SMALLINT	Accuracy class
zv2	INTEGER	Elevation
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
F_CODE	CA010	Contour line
HQC	1	Main contour of verified accuracy
	7	Main contour of questionable accuracy
ZV2	29999	Unknown

The data came from the geographic digital database that was created in the previous phase of the ETYMP project which itself came from digitized slides of the Hellenic Military Geographical Service of scale 1:50 000 version 1971. The digitization was made in 1999.

elevp		
Contents: Elevation points and trigonometric points used to calculate the Digital Terrain Model. – Point		
Fields	**Data Type**	**Description**
objectid	COUNTER	Point FID
f_code	VARCHAR(5)	Feature code
acc	SMALLINT	Accuracy class
ela	SMALLINT	Elevation accuracy
mcc	SMALLINT	Point position
zv2	INTEGER	Elevation
shape	LONGBINARY	The geometry of points, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes

ACC	0	Unknown
	1	Exact
	2	Approximate
ELA	0	Unknown
	1	Exact
	2	Approximate
MCC	0	Unknown
	30	On earth's surface
	103	Snow - Ice
ZV2	29999	Unknown

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides and supplemented by the corresponding colored map sheets in the same version. The digitization was made in 1999.

elevzones		
Contents: Elevation zones per 100 meter. – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
zv2	INTEGER	Elevation
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
ZV2	29999	Unknown

The data came from the geographic digital database that was created in the previous phase of the ETYMO project, which itself came from the digital terrain model with a pixel size of 25 meters.

sinkpo		
Contents: Additional points that were used to improve the hydrological characteristics of the digital terrain model. **–** Point		
Fields	**Data Type**	**Description**
objectid	COUNTER	Point FID
zv2	INTEGER	Elevation
shape	LONGBINARY	The geometry of points, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
ZV2	29999	Unknown

The data came from the geographic digital database that was created in the previous phase of the ETYMO project, which itself came from the digital terrain model with a pixel size of 25 meters.

Elevation_250

land_ranges		
Contents: Contours as polygons – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
low_spot	INTEGER	Lowest point
top_spot	INTEGER	Highest point
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data were obtained from digital terrain model with a pixel size of 100 meters.

Grids

gridxy87_arc		
Contents: GGRS87 1 degree map tile distribution – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
value	VARCHAR(20)	The value of latitude for the horizontal lines and the value of longitude for vertical lines in degrees GGRS87
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

Data were created in ArcGIS environment for chartographic purposes.

tile5kegsa		
Contents: GGRS87 4x5 km 1:5 000 map tile distribution – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
x_coord	DOUBLE	In the areas of land is the coordinate X of the center of the map tile, while for areas of sea is a constant value of no significance.
y_coord	DOUBLE	In the areas of land is the coordinate Y of the center of the map tile, while for areas of sea is a constant value of no significance.
tile	VARCHAR(15)	The code of the map tile
land	VARCHAR(1)	If the map tile is land or sea
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
Land	1	Land

Data were created in ArcGIS environment for chartographic purposes and their scale is 1:5 000.

Hydro_250

lakes

Contents: Lakes – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data came from the Hellenic Mapping and Cadastral Organization and their scale is 1:250 000. These data are in the database for chartographic and / or historical reasons. These data are not updated.

lakes_polygon		
Contents: Lakes – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
code	SMALLINT	Type of lake
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	**Value**	**Denotes**
Code	21	Lagoon
	45	Lake

The data came from the Hellenic Mapping and Cadastral Organization and their scale is 1:1 000 000. These data are in the database for chartographic and / or historical reasons. These data are not updated.

rivers		
Contents: Detailed rivers for scale 1:250 000 – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

The data came from the Hellenic Mapping and Cadastral Organization and their scale is 1:250 000. These data are in the database for chartographic and / or historical reasons. These data are not updated.

StationsPoi		
Contents: Weather stations – Point		
Fields	**Data Type**	**Description**
objectid	COUNTER	Point FID
aawdistrict	DOUBLE	Water district number
stationcode	DOUBLE	Station code
stationname	VARCHAR(255)	Station name
category	VARCHAR(10)	Station category
service	VARCHAR(255)	Maintenance service
startdate	DATETIME	Date of station put into use
finishdate	DATETIME	Date of station out of use
xegsa	DOUBLE	X Coordinate in EGSA
yegsa	DOUBLE	Y Coordinate in EGSA
elevation	DOUBLE	Station Altitude

wdistrict	VARCHAR(255)	Water district in which the station is in
fid_prefectures	INTEGER	Prefecture FID
kodikos	VARCHAR(8)	Prefecture code
onomasia	VARCHAR(55)	Prefecture name in Greek
ektash	VARCHAR(9)	Prefecture area
onomasia_m	VARCHAR(55)	Prefecture name in Latin characters
x	DOUBLE	X coordinate of point
y	DOUBLE	Y coordinate of point
shape	LONGBINARY	The geometry of points, it is automatically calculated by the system

The data came from the spatial planning directorate of the Ministry of Environment, Spatial Planning and Public Works and their scale is 1:250 000.

Fields can take the following values

Field Name	Value	Denotes
category	Rain	Hydrometeorological
	Stath	Rainfall

watrcrsl1m_arc		
Contents: Main rivers for scale 1:250 000 – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
name	VARCHAR(40)	River name
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

The data came from the Hellenic Mapping and Cadastral Organization and their scale is 1:1 000 000. These data are in the database for chartographic and / or historical reasons. These data are not updated.

HydroGeology

faults		
Contents: Ρήγματα – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
type	VARCHAR(2)	Not used in this project
dtype	VARCHAR(1)	Not used in this project
marine	VARCHAR(1)	Not used in this project
symbol	INTEGER	Characterization
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
symbol	1	Hydrological formation boundary
	50	Fault visible
	51	Thrust – Upthrust
	52	Fault possible

The data came from digitization of IGME geological maps scale 1:50 000.

geology		
Contents: Geological formations – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
Igme_Code	VARCHAR(80)	Geoligical formation code
Lithology	VARCHAR(100)	Lithological description of geoligical formation
Geo_Age	VARCHAR(100)	Age of geoligical formation
Fyllo_Igme	VARCHAR(100)	IGME sheet
Geo_Zone	VARCHAR(150)	Geotectonic zone
Area_Name	VARCHAR(30)	Name of area in Greek
Area_NameEN	VARCHAR(30)	Name of area in English
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Relation of the field with the code of the geological formation of the IGME sheet (Field: Igme_Code) with the field of the lithological description of the formation (Field: Lithology).

Field Name	Description	Igme_Code	Lithology
Igme_Code	Geoligical formation code from IGME sheet	Al, alc, als, dl, be, c, c1, c2, cd, el, HJK, Hc, Hc_s, H.cd, H.lg, H.sl	Quaternary sediments – alluvial – modern sediments.
		Al sc, al.sc1, alsc.2, cs, sc2, al1, al2, alc1, alsc, cs1, dlbc, dlc1, dlc2, dl1, dlic, dl-sc	Side scree – cones
		M, M.lk1, M.lk2, Mimk, N, Ng.lk	Formations – lacustrine deposits
		Es.c1, Es.c2, fc, fo.c, M1-zm, M1-3c, M1-2m, Fp-c, Kro-cc, M1.c, Nc, Ngc1, Ngc2	Conglomerates
		3Fims, 1-3Fimi, 3Fis2, 3Fi-s2, 4Fim1, 4Fim4, e.k, Es.st, Lp.c, M-pli	Marls – sandstones – clays
		f.st, Fo.st, F.st, Ji-m.sh, Kis, Mi.c2, M1.st2, st	Sandstone
		Em, Fo-m, Lp, M.m.k., M1.m1, Mim, Mi.k, Ms.m, ne, Ng, Ng.m	Marls
		Mbc, Mc, MG, Mm, M.mk, Mtb, Mm, M.m1, Ol.e, Ost.	Molassa
		B, b1, b2, b3, b3-2, Cr-Ni, Fe, fn, fn1	Transportation trends of bauxitic resources – iron ore
		Fw, fl, fo, fo.c, fpl, fs, fsg, 1-3fis, 1-4fi, ftc, 2fim2, 3fis3, 3fi, fs-g, ft.st, fi, f, F.o, fg, Ft, Fi, Fi.st, Fia, Fib	Flysch

Field Name	Description	Igme_Code	Lithology
		Jmk, ks, ks-k, TJ, Ts-Jikh, Ti, Jsk, k-Em.k, ki-mr, ki-7.fl, Cm-P.mr, D, e, ek, eMk, e-ok, Fok, kis, RJ-k, Tm-Jpk2, J, Jk, Ks-k, Ji-m, Ji-mk, Ji-mkd, Jk, Ts-Jik, Ji-sch, J-K-Em.k.i, J-kil, K, kh, K.8.k, Tk	Limestone
		Td, Tk, T5D, T5-J3k, J-ki, Jki	Limestone – Dolomite – radiolarites
		Jmr, mr, mr-sp, Pzn-Tim.mr, T-J.mr, Tm-s.mr	Marbles
		Ji-Mo, o, oc, obr, RJ-sh, S	Ophiolites – peridotites, serpentinite
		G, TG	Gypsum – evaporites
		Cm-P.sh, f.sh, Fgs, Jch, Jki, Jsh, Jm.sh, J.h, J.sch, J.sh, Ji-sk, Ji-s.ch, J-kish, T-J.sch, Kr.o-sh, Pzn-Timg, Pzn-Ts.sch, sch.mi	Slate – cherts
		Ab, ab.pr, ab.sch, ab-pr, ab-sch, b.sch, bs, Fgs, sch, gn.	Metamorphic – Igneous rocks

The data came from the administrative tools of the Ministry of Development and their scale is 1:50 000.

hydroformations		
Contents: Hydrogeological formations – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
code	VARCHAR(5)	Formation code
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
code	A	IMPERMEABLE FORMATIONS
	A1	IMPERMEABLE FORMATIONS – Flysch.
	A2	IMPERMEABLE FORMATIONS - Metamorphic rocks
	A3	IMPERMEABLE FORMATIONS - Plutonian and volcanic rocks.
	C	KARSTIC FORMATIONS - Limestone and marble of widespread development, moderate to high penetration of water.
	C1	KARSTIC FORMATIONS - Limestone and marble of limited development, varying penetration of water.
	C1’	KARSTIC FORMATIONS - Triassic limestone breccia of the Ionian zone, small to medium penetration of water.
	I	KARSTIC FORMATIONS
	I1	KARSTIC FORMATIONS - Granular alluvial deposits of varying penetration of water.
	I2	KARSTIC FORMATIONS - Granular non-alluvial deposits of moderate to very low penetration of water.
	I3	KARSTIC FORMATIONS - Molassic granular deposits of small penetration of water.

The data came from digitization of IGME geological maps scale 1:50 000.

hygeo_code		
Contents: Hydrogeological formations codes – Table		
Fields	**Data Type**	**Description**
objectid	COUNTER	Record FID
Id	DOUBLE	Record ID
code	VARCHAR(4)	Formation code
symbol	SMALLINT	
category	VARCHAR(25)	Formation category
title	VARCHAR(254)	Formation title
text	VARCHAR(15)	

Fields can take the following values

Field Name	Value	Denotes
code	A	IMPERMEABLE FORMATIONS
	A1	IMPERMEABLE FORMATIONS – Flysch.
	A2	IMPERMEABLE FORMATIONS – Metamorphic rocks
	A3	IMPERMEABLE FORMATIONS – Plutonian and volcanic rocks.
	C	KARSTIC FORMATIONS – Limestone and marble of widespread development, moderate to high penetration of water.
	C1	KARSTIC FORMATIONS – Limestone and marble of limited development, varying penetration of water.
	C1’	KARSTIC FORMATIONS - Triassic limestone breccia of the Ionian zone, small to medium penetration of water.
	I	KARSTIC FORMATIONS
	I1	KARSTIC FORMATIONS – Granular alluvial deposits of varying penetration of water.
	I2	KARSTIC FORMATIONS – Granular non-alluvial deposits of moderate to very low penetration of water.
	I3	KARSTIC FORMATIONS – Molassic granular deposits of small penetration of water.

The data came from digitization of IGME geological maps scale 1:50 000.

springs		
Contents: Springs – Point		
Fields	**Data Type**	**Description**
objectid	COUNTER	Point FID
code	SMALLINT	Spring coding
codename	VARCHAR(5)	Water district / Spring code
shape	LONGBINARY	The geometry of points, it is automatically calculated by the system

The data came from digitization of IGME geological maps scale 1:50 000.

springs_code		
Contents: Springs coding – Table		
Fields	**Data Type**	**Description**
objectid	COUNTER	Point FID
code	SMALLINT	Spring coding
legend	VARCHAR(30)	Legend

Fields can take the following values

Field Name	Value	Denotes
legend	1	Land spring
	2	Seaside spring
	3	Seaside spring

The data came from digitization of IGME geological maps scale 1:50 000.

springs_codename		
Contents: Springs coding – Table		
Fields	**Data Type**	**Description**
objectid	COUNTER	Point FID
id	DOUBLE	Spring ID
codename	VARCHAR(10)	Water district / Spring code
name	VARCHAR(35)	Spring name
place	VARCHAR(40)	Municipality where the spring is
quantity	VARCHAR(15)	Spring supply (c.m. / hour)

The data came from digitization of IGME geological maps scale 1:50 000.

thermo		
Contents: Hot springs – Point		
Fields	**Data Type**	**Description**
objectid	COUNTER	Point FID
shape	LONGBINARY	The geometry of points, it is automatically calculated by the system

The data came from digitization of IGME geological maps scale 1:50 000.

HydroPhysicalWaters

aquedctl		
Contents: Aqueducts – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
loc*	SMALLINT	Location category
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
geographicalname	VARCHAR(50)	Geographical name used to identify the object in the real world
hydroid	VARCHAR(10)	National hydrological object code
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
condition	VARCHAR(20)	The state of the aqueduct on the completion and use of it
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the reservoir
inspireid	VARCHAR(50)	Unique external code of the aqueduct
levelofdetail	VARCHAR(10)	Display detail
type	VARCHAR(10)	Type of artificial crossing
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
LOC	8	Terrestrial
	4	Underground

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version

1971 slides and supplemented by the corresponding colored map sheets in the same version. The digitization was made in 1998. Caution, they are not updated with the new coastine.

coasta		
Contents: Mainland and island area – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
namegr	VARCHAR(50)	Name in Greek
nameen	VARCHAR(50)	Name in English
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the mainland and island area
inspireid	VARCHAR(50)	Unique external code of του πολυγώνου
leastdetailedviewing resolution	VARCHAR(15)	Minimum scale which the name of the polygon should appear on the map
mostdetailedviewing resolution	VARCHAR(15)	Maximum scale which the name of the polygon should appear on the map
localtype	VARCHAR(15)	Local name of the type of the polygon
relatedspatialobject	VARCHAR(50)	Unique external code of the same spatial entity which may appear in other groups of INSPIRE guidance
type	VARCHAR(20)	Characterization of type of the polygon

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998. These data are in the database for chartographic and / or historical reasons. These data are not updated.

coastl		
Contents: Coastline – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlispanversion	DATETIME	Date and time of which spatial objects were removed from the database
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the coastline
inspireid	VARCHAR(10)	Unique external code of the coastline
origin	VARCHAR(10)	Source (natural - artificial)
waterlevelcategory	VARCHAR(30)	The reference level for heights
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998. These data are in the database for chartographic and / or historical reasons. These data are not updated.

daml		
Contents: Dams – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
mcc*	SMALLINT	Construction material
tuc*	SMALLINT	Use category of means of transport
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
geographicalnameen	VARCHAR(50)	Geographical name used to identify the object in the real world in English
hydroid	VARCHAR(10)	National hydrological object code
condition	VARCHAR(20)	The condition of the dam on the completion and use of it
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the dam
inspireid	VARCHAR(50)	Unique external code of the dam
levelofdetail	VARCHAR(10)	Level of detail
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
geographicalnemegr	VARCHAR(50)	Geographical name used to identify the object in the real world in Greek
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
MCC	0	Unknown
	21	Cement
	30	Dirt
	62	Cobble or stone
	999	Other material
TUC	0	Unknown
	1	Road and railway line
	3	Road line
	4	Railway line
	35	Not used in transport

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971. The digitization was made in 1998. Caution, they are not updated with the new coastine.

dangera		
Contents: Lagoons – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
geographicalnamegr	VARCHAR(50)	Geographical name used to identify the object in the real world in Greek
geographicalnameen	VARCHAR(50)	Geographical name used to identify the object in the real world in English
hydroid	VARCHAR(10)	National hydrological object code
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the lagoon

inspireid	VARCHAR(50)	Unique external code of the lagoon
levelofdetail	VARCHAR(10)	Level of detail
localtype	VARCHAR(15)	Local name of type of surface water
origin	VARCHAR(10)	Origin (natural - artificial)
persistence	VARCHAR(15)	Grade of permanence of flow of water
tidal	SMALLINT	Influence of tidal events
elevation	DOUBLE	Elevation
meandepth	DOUBLE	Mean depth
surfacearea	DOUBLE	Surface area
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
tidal	1	Exists

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998. Caution, they are not updated with the new coastine.

inunda		
Contents: Inundated land – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the inundated land
inspireid	VARCHAR(50)	Unique external code of the inundated land
inundationreturnperiod	SMALLINT	Average period (years) of inundation occurrence
inundationtype	VARCHAR(10)	The type of land subject to inundation by the cause of inundation
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998. Caution, they are not updated with the new coastine.

lakeresa		
Contents: Lakes – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
cntryname*	VARCHAR(50)	Country in which the lake is
geographicalnameen	VARCHAR(50)	Geographical name used to identify the object in the real world in Greek

geographicalnamegr	VARCHAR(50)	Geographical name used to identify the object in the real world in English
hydroid	VARCHAR(10)	National hydrological object code
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the lake
inspireid	VARCHAR(50)	Unique external code of the lake
levelofdetail	VARCHAR(10)	Level of detail
localtype	VARCHAR(15)	Local name of type of surface water
persistence	VARCHAR(15)	Grade of water flow permanence
tidal	SMALLINT	Influence of tidal events
elevation	DOUBLE	Elevation
meandepth	DOUBLE	Mean depth
surfacearea	DOUBLE	Surface area
origin	VARCHAR(10)	Origin (natural - artificial)
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
tidal	1	Exists

Data related to Greek territory came from the geographic digital geodatabase created during the previous phase of the ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides and supplemented by the corresponding colored map sheets in the same version. The digitization was made in 1998. For neighboring countries (Albania, FYROM, Bulgaria, Turkey) came from the digitization of Landsat 7 images with pixel size of 5 meters. The digitization was made in 2009. The satellite images were supplied from ESDI (Earth Science Data Interface) Internet based platform of the Global Land Cover Facility (GLCF) service of Maryland University of the US and the Earth Resources Observation Systems Center (EROS) of the United States Geological Survey (USGS). The images are taken between 1999 and 2003. Caution, they are not updated with the new coastine.

lndfrm1a		
Contents: Salt evaporation ponds – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
geographicalname	VARCHAR(50)	Geographical name used to identify the object in the real world
hydroid	VARCHAR(10)	National hydrological object code
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the salt evaporation pond
inspireid	VARCHAR(50)	Unique external code of the salt evaporation pond
levelofdetail	VARCHAR(10)	Level of detail
localtype	VARCHAR(15)	Local name of the surface water
origin	VARCHAR(10)	Origin (natural - artificial)
persistence	VARCHAR(15)	Grade of water flow permanence
tidal	SMALLINT	Influence of tidal events
elevation	DOUBLE	Elevation

meandepth	DOUBLE	Mean depth
surfacearea	DOUBLE	Surface area
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
tidal	1	Exists

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998. Caution, they are not updated with the new coastine.

seastrtl		
Contents: Shoreline construction – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
geographicalname	VARCHAR(50)	Geographical name used to identify the object in the real world
hydroid	VARCHAR(10)	National hydrological object code
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
condition	VARCHAR(20)	The state of construction on the completion and use of it
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the η κατασκευή
inspireid	VARCHAR(50)	Unique external code of the construction
levelofdetail	VARCHAR(10)	Level of detail
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998. Caution, they are not updated with the new coastine.

swampa		
Contents: Swamps– Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
geographicalname	VARCHAR(50)	Geographical name used to identify the object in the real world
hydroid	VARCHAR(10)	National hydrological object code
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the swamp
inspireid	VARCHAR(50)	Unique external code of the swamp
levelofdetail	VARCHAR(10)	Level of detail
localtype	VARCHAR(15)	Local name of the surface water
origin	VARCHAR(10)	Origin (natural – artificial)
persistence	VARCHAR(15)	Grade of water flow permanence
tidal	SMALLINT	Influence of tidal events

elevation	DOUBLE	Elevation
meandepth	DOUBLE	Mean depth
surfacearea	DOUBLE	Surface area
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
tidal	1	Exists

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998. Caution, they are not updated with the new coastine.

wellsprp		
Contents: Springs – Point		
Fields	**Data Type**	**Description**
objectid	COUNTER	Point FID
shape	LONGBINARY	The geometry of points, it is automatically calculated by the system
geographicalnamegr	VARCHAR(50)	Geographical name used to identify the object in the real world in Greek
geographicalnameen	VARCHAR(50)	Geographical name used to identify the object in the real worldin English
levelofdetail	VARCHAR(10)	Level of detail
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the spring
inspireid	VARCHAR(50)	Unique external code of the spring
hydroid	VARCHAR(10)	National hydrological object code
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998. Caution, they are not updated with the new coastine.

wtrcrsa		
Contents: Watercourses – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
geographicalnamegr	VARCHAR(50)	Geographical name used to identify the object in the real world in Greek
geographicalnameen	VARCHAR(50)	Geographical name used to identify the object in the real worldin English
hydroid	VARCHAR(10)	National hydrological object code
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the broad watercourse

inspireid	VARCHAR(50)	Unique external code of the broad watercourse
levelofdetail	VARCHAR(10)	Level of detail
localtype	VARCHAR(15)	Local name of the surface water
origin	VARCHAR(10)	Origin (natural – artificial)
persistence	VARCHAR(15)	Grade of water flow permanence
tidal	SMALLINT	Influence of tidal events
delineationknown	SMALLINT	Awareness of demarcation
length	DOUBLE	Length
level	VARCHAR(25)	Relative vertical position
streamorder	VARCHAR(10)	Degree of branching
width	VARCHAR(15)	Width
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
delineationknown	1	Exists
tidal	1	Exists

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998. Caution, they are not updated with the new coastine.

wtrcrsl_c		
Contents: Canals – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
geographicalnamegr	VARCHAR(50)	Geographical name used to identify the object in the real world in Greek
geographicalnameen	VARCHAR(50)	Geographical name used to identify the object in the real worldin English
hydroid	VARCHAR(10)	National hydrological object code
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the canal
inspireid	VARCHAR(50)	Unique external code of the canal
levelofdetail	VARCHAR(10)	Level of detail
localtype	VARCHAR(15)	Local name of the surface water
origin	VARCHAR(10)	Origin (natural - artificial)
peristence	VARCHAR(15)	Grade of water flow permanence
tidal	SMALLINT	Influence of tidal events
condition	VARCHAR(20)	The state of the canal on the completion and use of it
delineationknown	SMALLINT	Awareness of demarcation
length	DOUBLE	Length
streamorder	VARCHAR(10)	Degree of branching
width	VARCHAR(15)	Width
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
level	VARCHAR(20)	Relative vertical position
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
delineationknown	1	Exists
tidal	1	Exists

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides. The digitization was made in 1998. Caution, they are not updated with the new coastine.

wtrcrsl_r		
Contents: Rivers – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
cntryname*	VARCHAR(50)	Country where the segment of the river is
geographicalnamegr	VARCHAR(50)	Geographical name used to identify the object in the real world in Greek
geographicalnameen	VARCHAR(50)	Geographical name used to identify the object in the real worldin English
hydroid	VARCHAR(10)	National hydrological object code
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the river
inspireid	VARCHAR(50)	Unique external code of the river
levelofdetail	VARCHAR(10)	Level of detail
localtype	VARCHAR(15)	Local name of the surface water
origin	VARCHAR(10)	Origin (natural - artificial)
persistence	VARCHAR(15)	Grade of water flow permanence
tidal	SMALLINT	Influence of tidal events
delineationknown	SMALLINT	Awareness of demarcation
length	DOUBLE	Length
streamorder	VARCHAR(10)	Degree of branching[1]
width	VARCHAR(15)	Width
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
level	VARCHAR(25)	Relative vertical position
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
delineationknown	1	Exists
tidal	1	Exists

1. The coding was according to Strahler.

Data related to Greek territory came from the geographic digital geodatabase created during the previous phase of the ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides and supplemented by the corresponding colored map sheets in the same version. The digitization was made in 1998. For neighboring countries (Albania, FYROM, Bulgaria, Turkey) came from the digitization of Landsat 7 images with pixel size of 5 meters. The digitization was made in 2009. The satellite images were supplied from ESDI (Earth Science Data Interface) Internet based platform of the Global Land Cover Facility (GLCF) service of Maryland University of the US and the Earth Resources Observation Systems Center (EROS) of the United States Geological Survey (USGS). The images are taken between 1999 and 2003. Caution, they are not updated with the new coastine.

wtrshda		
Contents: Drainage basins – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
area	DOUBLE	Area of basin
subbasin	VARCHAR(3)	Subbasin code
cntryname	VARCHAR(50)	Country where the basin is
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
geographicalname	VARCHAR(40)	Geographical name used to identify the object in the real world
hydroid	VARCHAR(10)	National hydrological object code
basinorder	VARCHAR(5)	Number (or code) that expresses the degree of branching in a river drainage system
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the the basin
inspireid	VARCHAR(50)	Unique external code of the drainage basin
origin	VARCHAR(10)	Origin of the drainage basin
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which were granted by the Ministry of Development and adjusted in elevation and hydrographic data for each water district.

Natura2000

natura		
Contents: Natura 2000 areas boundaries– Polygon		
Fields	**Data Type**	**Description**
OBJECTID_1	COUNTER	Polygon FID
Shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
code	VARCHAR(50)	Natura area code
hectares	DOUBLE	The area of polygon in hectares
sitetype	VARCHAR(6)	Category
Shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
Shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
code	SPA	Special protection area for birds
	SCI	Zone of community importance

The data came from the National Environmental Information Network and the scale is 1:100 000 for the land and 1:50 000 for the sea.

Pop50

builtupa		
Contents: Main settlements – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
f_code	VARCHAR(5)	Feature code
exs	SMALLINT	State of existence
nam	VARCHAR(50)	Name
use	SMALLINT	Use
order	VARCHAR(2)	Settlement order
wdist	VARCHAR(2)	Capital of the water district
cod91	VARCHAR(8)	Settlement code by Greek NSS in 1991
municipality	VARCHAR(8)	Municipality or code by Greek NSS in 1991
onomasia	VARCHAR(55)	Name in Greek
real_pop	DOUBLE	Population
ektash	VARCHAR(9)	Area
ektash_xor	VARCHAR(9)	Area without internal water
ycometro	VARCHAR(5)	Elevation
problhmati	VARCHAR(1)	Degree of problem
morfologia	VARCHAR(1)	Morphology
astikothta	VARCHAR(1)	Urbanization
pol_sygkro	VARCHAR(2)	Urban complex
biom_kentr	VARCHAR(2)	Industrial Center
yphr_per_a	VARCHAR(2)	Regional development department
onomasia_m	VARCHAR(55)	Name of geographic code (lowercase)
tax_code	VARCHAR(5)	Postal code
prefecture	VARCHAR(2)	Prefecture code
province	VARCHAR(3)	Province code
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
F_CODE	AL020	Residential area
EXS	0	Unknown
	7	Destroyed
	62	Partially destroyed
	999	Other
USE	0	Destroyed
	26	> 500 000 residents
	30	100 000 – 500 000 residents
	31	25 000 – 100 000 residents
	111	5 000 – 25 0000 residents
ORDER	01	Order of settlement
WDIST	01	Capital of the water district
PROBLHMATI	4, 5	Problematic areas
	3	Mountainous areas
	0	Other areas
MORFOLOGIA	1	Lowlands
	2	Hilly areas
	3	Mountainous areas
ASTIKOTHTA	1	Urban population
	2	Semi-urban population
	3	Rural population

Data related to Greek territory came from the geographic digital geodatabase created during the previous phase of the ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides and supplemented by the corresponding colored map sheets in the same version. The digitization was made in 1998. For neighboring countries (Albania, Fyrom, Bulgaria, Turkey) came from the digitization of Landsat 7 images with pixel size of 15 meters. The digitization was made in 2009. The satellite images were supplied from ESDI (Earth Science Data Interface) Internet based platform of the Global Land Cover Facility (GLCF) service of Maryland University of the US and the Earth Resources Observation Systems Center (EROS) of the United States Geological Survey (USGS). The images are taken between 1999 and 2003.

Pop250

towns		
Contents: Οικισμοί – Point		
Fields	**Data Type**	**Description**
objectid	COUNTER	Point FID
oikism_91	VARCHAR(8)	Settlement code in 1991
per_91	VARCHAR(4)	Region code in 1991
cod_91	VARCHAR(6)	Full code in 1991
nom_91	VARCHAR(2)	Prefecture code in 1991
epa_91	VARCHAR(1)	Province code in 1991
ota_91	VARCHAR(3)	Local govermnment code in 1991
cod_pk	VARCHAR(6)	Full code before Kapodistrias
nom_pk	VARCHAR(2)	Prefecture code before Kapodistrias
epa_pk	VARCHAR(1)	Province code before Kapodistrias
ota_pk	VARCHAR(3)	Local government code before Kapodistrias
cod_mk	VARCHAR(4)	Full code after Kapodistrias
nom_mk	VARCHAR(2)	Prefecture code after Kapodistrias
ota_mk	VARCHAR(2)	Local government code after Kapodistrias
u_e_ota_91	VARCHAR(45)	Name of local govermnment in 1991 (Greek, ELOT98)
u_e_ota_pk	VARCHAR(45)	Name of local govermnment before Kapodistrias (Greek, ELOT98)
u_e_ota_mk	VARCHAR(45)	Name of local govermnment after Kapodistrias (Greek, ELOT98)
u_e_oik_91	VARCHAR(45)	Settlement name in 1991 (Greek, ELOT98, uppercase with article)
l_e_oik_91	VARCHAR(45)	Settlement name in 1991 (Greek, ELOT98, lowercase with article)
l_e_nam_91	VARCHAR(40)	Settlement name in 1991 (Greek, ELOT98, lowercase without article)
l_e_nam_mk	VARCHAR(40)	Settlement name after Kapodistrias (Greek, ELOT98, lowercase without article)
u_w_ota_91	VARCHAR(45)	Municipality name in Greek το 1991
u_w_ota_pk	VARCHAR(45)	Municipality name in Greek before Kapodistrias
u_w_ota_mk	VARCHAR(45)	Municipality name in Greek after Kapodistrias
u_w_oik_91	VARCHAR(45)	Settlement name in 1991 (Greek, Win95, uppercase with article)
l_w_oik_91	VARCHAR(45)	Settlement name in 1991 (Greek, Win95, lowercase with article)
l_w_nam_91	VARCHAR(40)	Settlement name in 1991 (Greek, Win95, lowercase without article)
u_l_ota_91	VARCHAR(45)	Municipality name in Latin characters in 1991
u_l_ota_pk	VARCHAR(45)	Municipality name in Latin characters before Kapodistrias
u_l_ota_mk	VARCHAR(45)	Municipality name in Latin characters after Kapodistrias
u_l_oik_91	VARCHAR(45)	Settlement name in 1991 (Latin, uppercase with article)
l_l_oik_91	VARCHAR(45)	Settlement name in 1991 (Latin, lowercase with article)
l_l_nam_91	VARCHAR(40)	Settlement name in 1991 (Latin, lowercase without article)
l_l_nam_mk	VARCHAR(40)	Settlement name after Kapodistrias (Latin, lowercase without article)
type_91	SMALLINT	Category of settlement in 1991
type_pk	SMALLINT	Category of settlement before Kapodistrias
type_mk	SMALLINT	Category of settlement after Kapodistrias

fx_code	VARCHAR(3)	The code of the 1:50 000 map sheet of the Hellenic Military Geographical Service where the base-point is
dxf_layer	VARCHAR(14)	Status of base-point
capitalnom	SMALLINT	Capital of prefecture
nomos	VARCHAR(50)	Prefecture
shape	LONGBINARY	The geometry of points, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
TYPE_91	0	Not a local government base
	1	Local government base
TYPE_PK	0	Not a local government base
	1	Local government base
TYPE_MK	0	Not a local government base
	1	Local government base
DXF_LAYER	E91_EPK_EMK	1991, BEFORE KAPODISTRIAS, AFTER KAPODISTRIAS
	E91_EPK_XMK	1991, BEFORE KAPODISTRIAS
	E91_XPK_EMK	1991, AFTER KAPODISTRIAS
	E91_XPK_XMK	1991
	X91_EPK_EMK	BEFORE KAPODISTRIAS, AFTER KAPODISTRIAS
	X91_EPK_XMK	BEFORE KAPODISTRIAS

The data came from the National Environmental Information Network and the scale is 1:250 000.

RailTransportNetworks

Railwaylinksequence		
Contents: Railways – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
fco	SMALLINT	Feature configuration
rrc	SMALLINT	Slope of railway
rsa	SMALLINT	Characteristic of separator
inspireid	VARCHAR(50)	Unique external code of the railway
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
validfrom	DATETIME	Date on which it came into existence
validto	DATETIME	Date on which it ceased to exist
link	VARCHAR(5)	Whether or not the direction of the digitization is the same as the actual direction of the segment
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
FCO	-32767	No value
	0	Unknown
	2	Multiple
	3	Simple
	11	Double
	12	In contrast
RRC	-32767	No value

	0	Unknown
	16	Main line
RSA	-32767	No value
	0	Unknown
	3	Accessible
link	+	Direction of digitization is the same as actual direction (it was used for bidirectional segments also)
	-	Direction of digitization is opposite of actual direction

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides and supplemented by the corresponding colored map sheets in the same version. The digitization was made in 1998.

conditionoffacility_rail		
Contents: Condition of facility – Table		
Fields	**Data Type**	**Description**
objectid	COUNTER	Record FID
currentstatus	VARCHAR(20)	Status of railway regarding completion and use
networkref	VARCHAR(50)	Link code with the railway table
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
inspireid	VARCHAR(50)	Unique external code of the attribute
validfrom	DATETIME	Date that the segment begun to exist
validto	DATETIME	Date that the segment ceased to exist

The data came from the geographic digital database that was created in the previous phase of ETYMP project.

railwaygauge		
Contents: Gauge of railway – Table		
Fields	**Data Type**	**Description**
objectid	COUNTER	Record FID
gauge	SMALLINT	Gauge of rails
railwaygauge	VARCHAR(15)	Category of railway gauge
networkref	VARCHAR(50)	Link code with the railway table
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
inspireid	VARCHAR(50)	Unique external code of the attribute
validfrom	DATETIME	Date that the attribute begun to exist
validto	DATETIME	Date that the attribute ceased to exist

The data came from the geographic digital database that was created in the previous phase of ETYMP project.

raiwayelectrification		
Contents: Electrfied – Table		
Fields	**Data Type**	**Description**
objectid	COUNTER	Record FID

networkref	VARCHAR(50)	Link code with the railway table
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
inspireid	VARCHAR(50)	Unique external code of the attribute
validfrom	DATETIME	Date that the attribute begun to exist
validto	DATETIME	Date that the attribute ceased to exist
electrified	SMALLINT	Electrified

The data came from the geographic digital database that was created in the previous phase of ETYMP project.

verticalposition_rail		
Contents: Vertical position – Table		
Fields	**Data Type**	**Description**
objectid	COUNTER	Record FID
verticalposition	VARCHAR(20)	Relative vertical position
networkref	VARCHAR(50)	Link code with the railway table
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
inspireid	VARCHAR(50)	Unique external code of the attribute
validfrom	DATETIME	Date that the attribute begun to exist
validto	DATETIME	Date that the attribute ceased to exist

The data came from the geographic digital database that was created in the previous phase of ETYMP project.

RoadTransportNetwork

ConditionOfFacility		
Contents: Condition of facility – Table		
Fields	**Data Type**	**Description**
OBJECTID	COUNTER	Record FID
currentStatus	VARCHAR(20)	Status of the roads regarding their completion and their use
networkRef	VARCHAR(50)	Link code to the road table
validTo	DATETIME	Date that the attribute ceased to exist
validFrom	DATETIME	Date that the attribute begun to exist
inspireId	VARCHAR(50)	Unique external code of the attribute
endLifespanVersion	DATETIME	Date and time of which spatial objects were removed from the database
beginLifespanVersion	DATETIME	Date and time of which spatial objects were created or inserted into the database

The data came from digitization of Landsat 7 images with pixel size 15 meters. The digitization was made in 2009. The satellite images were supplied from ESDI (Earth Science Data Interface) Internet based platform of the Global Land Cover Facility (GLCF) service of Maryland University of the US and the Earth Resources Observation Systems Center (EROS) of the United States Geological Survey (USGS). The images are taken between 1999 and 2003.

ERoad		
Contents: Roads that are part of the international E-road network – Line		
Fields	**Data Type**	**Description**
OBJECTID	COUNTER	Line FID
Shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
validFrom	DATETIME	Date that the attribute begun to exist
validTo	DATETIME	Date that the attribute ceased to exist
europeanRouteNumber	VARCHAR(5)	Unique code on the E-road network
beginLifespanVersion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endLifespanVersion	DATETIME	Date and time of which spatial objects were removed from the database
inspireID	VARCHAR(50)	Unique external code of the element
Shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

The data came from digitization of Landsat 7 images with pixel size 15 meters. The digitization was made in 2009. The satellite images were supplied from ESDI (Earth Science Data Interface) Internet based platform of the Global Land Cover Facility (GLCF) service of Maryland University of the US and the Earth Resources Observation Systems Center (EROS) of the United States Geological Survey (USGS). The images are taken between 1999 and 2003.

FuctionalRoadClass		
Contents: Classification of roads based on their significance in the road network – Table		
Fields	**Data Type**	**Description**
OBJECTID	COUNTER	Record FID
fuctionalClass	VARCHAR(15)	Function class of the road link in the road network
networkRef	VARCHAR(50)	Link code to the road table
validTo	DATETIME	Date that the attribute ceased to exist
validFrom	DATETIME	Date that the attribute begun to exist
inspireId	VARCHAR(50)	Unique external code of the attribute
beginLifespanVersion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endLifespanVersion	DATETIME	Date and time of which spatial objects were removed from the database

The data came from digitization of Landsat 7 images with pixel size 15 meters. The digitization was made in 2009. The satellite images were supplied from ESDI (Earth Science Data Interface) Internet based platform of the Global Land Cover Facility (GLCF) service of Maryland University of the US and the Earth Resources Observation Systems Center (EROS) of the United States Geological Survey (USGS). The images are taken between 1999 and 2003.

NumberOfLanes		
Contents: Number of lanes of the road – Table		
Fields	**Data Type**	**Description**
OBJECTID	COUNTER	Record FID
numberOfLanes	SMALLINT	Number of lanes
networkRef	VARCHAR(50)	Link code to the road table
minMaxNumberOfLanes	VARCHAR(10)	Maximun or minimum number of lanes
direction	VARCHAR(20)	Direction
validTo	DATETIME	Date that the attribute ceased to exist
validFrom	DATETIME	Date that the attribute begun to exist
inspireId	VARCHAR(50)	Unique external code of the element
endLifespanVersion	DATETIME	Date and time of which spatial objects were removed from the database

beginLifespanVersion	DATETIME	Date and time of which spatial objects were created or inserted into the database

The data came from digitization of Landsat 7 images with pixel size 15 meters. The digitization was made in 2009. The satellite images were supplied from ESDI (Earth Science Data Interface) Internet based platform of the Global Land Cover Facility (GLCF) service of Maryland University of the US and the Earth Resources Observation Systems Center (EROS) of the United States Geological Survey (USGS). The images are taken between 1999 and 2003.

Road		
Contents: Roads with national codes – Line		
Fields	**Data Type**	**Description**
OBJECTID	COUNTER	Line FID
Shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
validFrom	DATETIME	Date that the attribute begun to exist
validTo	DATETIME	Date that the attribute ceased to exist
localRoadCode	VARCHAR(5)	Identification code that has been assigned to the road by local authority
nationalRoadCode	VARCHAR(5)	National code of the road
beginLifespanVersion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endLifespanVersion	DATETIME	Date and time of which spatial objects were removed from the database
inspireId	VARCHAR(50)	Unique external code of the element
Shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

The data came from digitization of Landsat 7 images with pixel size 15 meters. The digitization was made in 2009. The satellite images were supplied from ESDI (Earth Science Data Interface) Internet based platform of the Global Land Cover Facility (GLCF) service of Maryland University of the US and the Earth Resources Observation Systems Center (EROS) of the United States Geological Survey (USGS). The images are taken between 1999 and 2003.

RoadLinkSequence		
Contents: Road link sequence – Line		
Fields	**Data Type**	**Description**
OBJECTID	COUNTER	Line FID
Shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
inspireId	VARCHAR(50)	Unique external code of the element
beginLifespanVersion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endLifespanVersion	DATETIME	Date and time of which spatial objects were removed from the database
validFrom	DATETIME	Date when the road link sequence begun to exist
validTo	DATETIME	Date when the road link sequence ceased to exist
link	VARCHAR(50)	Whether or not the direction of the digitization matches the actual direction of the segment
Shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

Fields can take the following values

Field Name	**Value**	**Denotes**
link	+	Direction of digitization is the same as the actual direction of the segment (used for bidirectional segments also)
	-	Direction of digitization is opposite to actual direction

The data came from digitization of Landsat 7 images with pixel size 15 meters. The digitization was made in 2009. The satellite images were supplied from ESDI (Earth Science Data Interface) Internet based platform of the Global Land Cover Facility (GLCF) service of Maryland University of the US and the Earth Resources Observation Systems Center (EROS) of the United States Geological Survey (USGS). The images are taken between 1999 and 2003.

RoadName		
Contents: Name of the road, assigned by the responsible authority – Table		
Fields	**Data Type**	**Description**
OBJECTID	COUNTER	Record FID
name	VARCHAR(50)	Name of road
networkRef	VARCHAR(50)	Link code to the road table
validTo	DATETIME	Date that the attribute ceased to exist
validFrom	DATETIME	Date that the attribute begun to exist
inspireId	VARCHAR(50)	Unique external code of the element
endLifespanVersion	DATETIME	Date and time of which spatial objects were removed from the database
beginLifespanVersion	DATETIME	Date and time of which spatial objects were created or inserted into the database

The data came from digitization of Landsat 7 images with pixel size 15 meters. The digitization was made in 2009. The satellite images were supplied from ESDI (Earth Science Data Interface) Internet based platform of the Global Land Cover Facility (GLCF) service of Maryland University of the US and the Earth Resources Observation Systems Center (EROS) of the United States Geological Survey (USGS). The images are taken between 1999 and 2003.

RoadSurfaceCategory		
Contents: Type of road surface – Table		
Fields	**Data Type**	**Description**
OBJECTID	COUNTER	Record FID
surfaceCategory	VARCHAR(10)	Type of road surface
networkRef	VARCHAR(50)	Link code to the road table
validTo	DATETIME	Date that the attribute ceased to exist
validFrom	DATETIME	Date that the attribute begun to exist
inspireId	VARCHAR(50)	Unique external code of the element
endLifespanVersion	DATETIME	Date and time of which spatial objects were removed from the database
beginLifespanVersion	DATETIME	Date and time of which spatial objects were created or inserted into the database

The data came from digitization of Landsat 7 images with pixel size 15 meters. The digitization was made in 2009. The satellite images were supplied from ESDI (Earth Science Data Interface) Internet based platform of the Global Land Cover Facility (GLCF) service of Maryland University of the US and the Earth Resources Observation Systems Center (EROS) of the United States Geological Survey (USGS). The images are taken between 1999 and 2003.

RoadWidth		
Contents: Width of road (mean value) – Table		
Fields	**Data Type**	**Description**
OBJECTID	COUNTER	Record FID
width	SMALLINT	Width

networkRef	VARCHAR(50)	Link code to the road table
mesuredRoadPart	VARCHAR(15)	Indicates the part of the road that the measurement is done
validTo	DATETIME	Date that the attribute ceased to exist
validFrom	DATETIME	Date that the attribute begun to exist
inspireId	VARCHAR(50)	Unique external code of the element
endLifespanVersion	DATETIME	Date and time of which spatial objects were removed from the database
beginLifespanVersion	DATETIME	Date and time of which spatial objects were created or inserted into the database

The data came from digitization of Landsat 7 images with pixel size 15 meters. The digitization was made in 2009. The satellite images were supplied from ESDI (Earth Science Data Interface) Internet based platform of the Global Land Cover Facility (GLCF) service of Maryland University of the US and the Earth Resources Observation Systems Center (EROS) of the United States Geological Survey (USGS). The images are taken between 1999 and 2003.

VerticalPosition		
Contents: Vertical position – Table		
Fields	**Data Type**	**Description**
OBJECTID	COUNTER	Record FID
verticalPosition	VARCHAR(20)	Relative vertical position
networkRef	VARCHAR(50)	Link code to the road table
validTo	DATETIME	Date that the attribute ceased to exist
validFrom	DATETIME	Date that the attribute begun to exist
inspireId	VARCHAR(50)	Unique external code of the element
endLifespanVersion	DATETIME	Date and time of which spatial objects were removed from the database
beginLifespanVersion	DATETIME	Date and time of which spatial objects were created or inserted into the database

The data came from digitization of Landsat 7 images with pixel size 15 meters. The digitization was made in 2009. The satellite images were supplied from ESDI (Earth Science Data Interface) Internet based platform of the Global Land Cover Facility (GLCF) service of Maryland University of the US and the Earth Resources Observation Systems Center (EROS) of the United States Geological Survey (USGS). The images are taken between 1999 and 2003.

Toponames

topotext		
Contents: Place names – Point		
Fields	**Data Type**	**Description**
objectid	COUNTER	Point FID
Shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
beginlifespanversion	DATETIME	Date and time of which spatial objects were created or inserted into the database
endlifespanversion	DATETIME	Date and time of which spatial objects were removed from the database
geometry	VARCHAR(10)	The geometric representation of the spatial area covered by the place names
leastdetailedviewing resolution	VARCHAR(15)	Minimum scale which the name of the polygon should appear on the map
localtype	VARCHAR(15)	Local name of the type of the polygon
mostdetailedviewing	VARCHAR(15)	Maximum scale which the name of the polygon should appear on

resolution		the map
name	VARCHAR(50)	Name
relatedspatialobject	VARCHAR(50)	Unique external code of the same spatial entity which may appear in other groups of INSPIRE guidance
type	VARCHAR(20)	Characterization of type of the polygon
inspireid	VARCHAR(50)	Unique external code of του πολυγώνου

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides and supplemented by the corresponding colored map sheets in the same version. The digitization was made in 1998.

WaterDistricts

coastawd_polygon		
Contents: Water districts – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
f_code	VARCHAR(5)	Feature code
mcc	SMALLINT	Material of construction
mcs	SMALLINT	Material of construction secondary
nm3	VARCHAR(50)	Name in Latin characters
nm4	VARCHAR(50)	Name in Greek
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	**Value**	**Denotes**
f_code	BA030	Water district
mcc, mcs	0	
	-32767	κενό

The data came from reviewing the ETYMP 1999 database with automated processes from DTM and union of drainage basins. These data, in turn, came from manual review of the original base of Hydtrological and Hydrographical data from 1990. This database was created by digitizing and coding of the drainage basins designs that were drawn by hand over the 1:50 000 maps of the Hellenic Military Geographical Service. These data are in the database for chartographic and / or historical reasons. These data are not updated.

coastl_arc		
Contents: Coastline – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
f_code	VARCHAR(5)	Feature code
acc	SMALLINT	Accuracy class
slt	SMALLINT	Category of coastine
vdc	SMALLINT	Category of vertical surface
zv2	DOUBLE	Elevation
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
f_code	BA010	Coastline
acc	0	Unknown
	1	Precise
slt	1	Unknown
vdc	15	Mean sea level
ZV2	0	Coastline elevation
	29999	Unknown

The data came from the geographic digital database that was created in the previous phase of ETYMP project, which itself came from the digitization of Hellenic Military Geographical Service, scale 1:50 000, version 1971 slides and supplemented by the corresponding colored map sheets in the same version. The digitization was made in 1998. These data are in the database for chartographic and / or historical reasons. These data are not updated.

wdg		
Contents: Water districts – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
wdistrict	VARCHAR(3)	Water district code
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data came from reviewing the ETYMP 1999 database with automated processes from DTM and union of drainage basins. These data, in turn, came from manual review of the original base of Hydtrological and Hydrographical data from 1990. This database was created by digitizing and coding of the drainage basins designs that were drawn by hand over the 1:50 000 maps of the Hellenic Military Geographical Service. These data are in the database for chartographic and / or historical reasons. These data are not updated.

WFDGroundWater

map		
Contents: Map of groundwater aquifer systems – Polygon		
Fields	**Data Type**	**Description**
OBJECTID	COUNTER	Polygon FID
Shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
AREA	REAL	The area of the polygon
PERIMETER	REAL	The perimeter of the polygon
CODE	VARCHAR(4)	Water aquifer code
TYPE	VARCHAR(54)	Water aquifer type
Shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
Shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data came from a study carried out by IGME for the Article 5 of Directive 2000/60/EC in order for Greece to meet the obligations towards the European Union.

monitoring

Contents: Groundwater Monitoring Stations – Point		
Fields	**Data Type**	**Description**
objectid	COUNTER	Point FID
eu_cd	VARCHAR(42)	Unique European Union level code
ms_cd	VARCHAR(40)	Unique member state level code
lon	VARCHAR(9)	Longitude of point
lat	VARCHAR(9)	Latitude of point
wb_locatio	VARCHAR(42)	Unique European Union level code according to article 5 for the underground water near which there is the station
name	VARCHAR(250)	Local name
well_or_sp	VARCHAR(1)	Typer of spring
quantitati	VARCHAR(1)	Quantitative monitoring station
chem_surve	VARCHAR(1)	Chemical monitoring station
chem_opera	VARCHAR(1)	Chemical operations monitoring station
no_subsite	INTEGER	Existence of subsite
depth	VARCHAR(1)	Depth
monitoring	VARCHAR(2)	Monitoring Station
drink_wate	VARCHAR(2)	Drinking water pumping
additional	VARCHAR(254)	Additional requirements if the station is near pumping water area
ind_supply	VARCHAR(2)	Industrial use
irrigation	VARCHAR(2)	Irrigation
other_supp	VARCHAR(2)	Other uses
assoc_doc_	VARCHAR(254)	Link or references to documents on the station
url	VARCHAR(250)	World Wide Web address
other_netw	VARCHAR(254)	Description of other networks that the station is part of
dist_cd	VARCHAR(42)	Unique European Code of the water district to which it belongs
shape	LONGBINARY	The geometry of points, it is automatically calculated by the system

Fields can take the following values

Field Name	**Value**	**Denotes**
well_or_sp	B	Drilling
	S	Spring
	W	Well
no_subsite	0	No subsite
	1	There is subsite

The data came from a study carried out by IGME for the Article 8 of Directive 2000/60/EC in order for Greece to meet the obligations towards the European Union.

WFDSurface

SWstn_detailed		
Contents: Surface water monitoring stations – Point		
Fields	**Data Type**	**Description**
objectid	COUNTER	Point FID
wdistrict	VARCHAR(50)	Water district code
name	VARCHAR(100)	Station name
bdy_cd	VARCHAR(24)	Unique code in European Union of monitored surface water
eu_cd	VARCHAR(24)	Unique code in European Union
ms_cd	VARCHAR(22)	Unique code in membert state
ins_when	DATETIME	Date it was inserted into the database
ins_by	VARCHAR(15)	Who inserted it into the database
depth	SMALLINT	Depth
drinking	VARCHAR(1)	Drinking water pumping station

invest	VARCHAR(1)	Research station
operat	VARCHAR(1)	Work station
habitat	VARCHAR(1)	Natural environment station
surveil	VARCHAR(1)	Monitoring station
reference	VARCHAR(1)	Reference station
lon_wgs84	DOUBLE	Longitude in WGS84
lat_wgs84	DOUBLE	Latitude in WGS84
intercal	VARCHAR(1)	Part of calibration network
internatio	VARCHAR(15)	Name of international network that the station is part of
w_body	VARCHAR(150)	Name of surface water
sciacode	VARCHAR(9)	Unique station code in international network
xcoord	INTEGER	X Coordinate
ycoord	DOUBLE	Y Coordinate
category	VARCHAR(20)	Type of surface water that is monitored
shape	LONGBINARY	The geometry of points, it is automatically calculated by the system

Fields can take the following values

Field Name	**Value**	**Denotes**
intercal	Y	Is part
	N	Is not part
	U	Unknown
	NA	Not Applicable

The data came from the implementation of the Article 8 of Directive 2000/60/EC in order for Greece to meet the obligations towards the European Union.

WFD_historical

coastal_GR		
Contents: Coastal Waters – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
eu_cd	VARCHAR(24)	Unique code in European Union
ms_cd	VARCHAR(50)	Unique code in member state
name	VARCHAR(100)	Name
altname1	VARCHAR(50)	First alternative name
altname2	VARCHAR(50)	Second alternative name
altname3	VARCHAR(50)	Third alternative name
basin_cd	VARCHAR(5)	Drainage basin code
character	VARCHAR(50)	Characterization
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data came from the implementation of the Article 5 of Directive 2000/60/EC in order for Greece to meet the obligations towards the European Union and their scale is 1:50 000.

lakes_GR		
Contents: Lakes – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
eu_cd	VARCHAR(50)	Unique code in European Union
ms_cd	VARCHAR(50)	Unique code in member state
name	VARCHAR(50)	Name
altname1	VARCHAR(50)	First alternative name

altname2	VARCHAR(50)	Second alternative name
altname3	VARCHAR(50)	Third alternative name
basin_cd	VARCHAR(5)	Drainage basin code
character	VARCHAR(50)	Characterization
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data came from the implementation of the Article 5 of Directive 2000/60/EC in order for Greece to meet the obligations towards the European Union and their scale is 1:50 000.

Rivers_GR		
Contents: Rivers – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
eu_cd	VARCHAR(50)	Unique code in European Union
ms_cd	VARCHAR(50)	Unique code in member state
name	VARCHAR(50)	Name
altname1	VARCHAR(50)	First alternative name
altname2	VARCHAR(50)	Second alternative name
altname3	VARCHAR(50)	Third alternative name
basin_cd	VARCHAR(5)	Drainage basin code
length	DOUBLE	Length
character	VARCHAR(50)	Characterization
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

The data came from the implementation of the Article 5 of Directive 2000/60/EC in order for Greece to meet the obligations towards the European Union and their scale is 1:50 000.

transitional_GR		
Contents: Transitional waters – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
eu_cd	VARCHAR(24)	Unique code in European Union
ms_cd	VARCHAR(50)	Unique code in member state
name	VARCHAR(50)	Name
altname1	VARCHAR(50)	First alternative name
altname2	VARCHAR(50)	Second alternative name
altname3	VARCHAR(50)	Third alternative name
basin_cd	VARCHAR(5)	Drainage basin code
character	VARCHAR(50)	Characterization
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

The data came from the implementation of the Article 5 of Directive 2000/60/EC in order for Greece to meet the obligations towards the European Union and their scale is 1:50 000.

WFD

Rivbasin
Contents: Drainage basins – Polygon

Fields	Data Type	Description
objectid	COUNTER	Polygon FID
name	VARCHAR(100)	Name in English
ms_cd	VARCHAR(22)	Unique code in member state
eu_cd	VARCHAR(24)	Unique code in European Union
dist_cd	VARCHAR(24)	Unique code of the water distrct it belongs to
areakm2	DOUBLE	Area in square kilometers
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Data related to Greek territory came from the geographic digital geodatabase created during the previous phase of the ETYMP project, which were provided by the Ministry of Development and have been adjusted to the elevation and hydrographic data of each water district. For the neighbouring countries they came from processing the Aster digital elevation model with pixel size about 30 meters. The processing of the DTM begun in September 2009 and was completed by the end of the year.

RWbody		
Contents: Streams – Line		
Fields	**Data Type**	**Description**
objectid	COUNTER	Line FID
eu_cd	VARCHAR(24)	Unique code in European Union
name	VARCHAR(100)	Name in Greek
altname1	VARCHAR(50)	Name in English
altname2	VARCHAR(50)	Not used in this project
altname3	VARCHAR(50)	Not used in this project
region_cd	VARCHAR(2)	Ecoregion to which it belongs
system	VARCHAR(1)	Type of characterization
ins_when	DATETIME	Date of input into the database
ins_by	VARCHAR(15)	Operator who made the input
basin_cd	VARCHAR(24)	Code of the drainage basin it runs across
status_yr	VARCHAR(4)	Time reference of characterization
modified	VARCHAR(1)	Modified or not
artificial	VARCHAR(1)	Artificial or not
alt_cat	VARCHAR(4)	Elevation category in accordance with anex II
geol_cat	VARCHAR(1)	Geological matter in accordance with annex II
size_cat	VARCHAR(2)	Typology of size based on the hydrologic basin in accordance with the Annex II
shape	LONGBINARY	The geometry of line, it is automatically calculated by the system
ms_cd	VARCHAR(22)	Unique code of member state
geology	VARCHAR(15)	Geology
lat	DOUBLE	Latitude
lon	DOUBLE	Longitude
size	DOUBLE	Size (total length in kilometers)
dist_source	DOUBLE	Distance from the source of the river
energy	VARCHAR(15)	Energy of stream
av_width	DOUBLE	Mean width of water
av_depth	DOUBLE	Mean depth of water
av_slope	DOUBLE	Mean slope
riv_morph	VARCHAR(15)	Form and shape of the main riverbed
discharge	VARCHAR(15)	Category of flow
val_morph	VARCHAR(15)	Form of valley
solids	VARCHAR(15)	Transfer of solids
acid_neut	VARCHAR(15)	Acid neutralizing ability
substratum	VARCHAR(15)	Mean substratum composition
chloride	VARCHAR(15)	Chlorides

a_temp_rge	VARCHAR(15)	Atmospheric temperature range
av_a_temp	DOUBLE	Mean atmospheric temperature
ppt	DOUBLE	Rainfall
shape_Length	DOUBLE	The length of the line, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes
region_cd	ME	Mediterranean
modified	Y	Modified
	N	Not modified
artificial	Y	Artificial
	N	Not artificial
alt_cat	Low	Lowland (<200 meters)
	Mid	Medium (200-800 meters)
	High	High (>800 meters)
geol_cat	C	Calcareous
	S	Siliceous
	O	Organic
size_cat	S	10 – 100 sq.km
	M	100 – 1000 sq.km
	L	1000 – 10000 sq.km
	XL	>10000 sq.km

Fields eu_cd, name, altname1, altname2, altname3, ms_cd, basin_cd have been filled in with the values that were at their respective features of WFD_Historical. This results in many cases not fully matched records thus some fields get the same code or left null.

Data related to Greek territory came from processing the digital elevation model of the previous phase of the ETYMP project with pixel size of 25 meters and for the neighbouring countries from the processing of Aster digital elevation model with pixel size of about 30 meters. The processing of the digital elevation model begun in September 2009 and was completed by the end of the year.

WFD_CA1		
Contents: Competent authorities – Point		
Fields	**Data Type**	**Description**
objectid	COUNTER	Point FID
eucacode	VARCHAR(42)	Unique European code of the competent authority
competentauthorityname	VARCHAR(100)	Official name of the competent authority in English
shape	LONGBINARY	The geometry of points, it is automatically calculated by the system
competentauthoritynamenl	VARCHAR(100)	Official name of the competent authority in Greek
acronym	VARCHAR(25)	Acronym of the competent authority if it exists
auth_cd	VARCHAR(40)	Unique national code of the competent authority
legalstatus	LONGCHAR	Summary of the legal status of the authority, how was established and what are the obligations relating directly or indirectly to the WFD
reference	VARCHAR(250)	Reference of link to the constitution or the constitution treaty or other similar legal document
summary	LONGCHAR	Summary of the constitution or the constitution treaty or other similar legal document
street	VARCHAR(100)	Street
city	VARCHAR(100)	City in English
citynl	VARCHAR(100)	City in Greek
country	VARCHAR(100)	Country
postcode	VARCHAR(50)	Postal code
rolecode	VARCHAR(3)	Role codes

comment	LONGCHAR	Other roles that are not covered above
url	VARCHAR(250)	Web address of the authority

Fields can take the following values

Field Name	Value	Denotes
rolecode	A	Coordination, preparation and production of management plans
	B01	Reporting of monitoring of the requirements
	B02	Reporting, regulating and granding permits of activities related to surface and groundwater
	B03	Reporting on public informing and consultation

The data came from digitization in which the layer “towns” was used as base layer.

WFD_RBD1		
Contents: Water districts – Polygon		
Fields	**Data Type**	**Description**
objectid	COUNTER	Polygon FID
eurbdcode	VARCHAR(42)	Unique code of the water district in European Union
rbdname	VARCHAR(100)	Name in English
rbdnamenl	VARCHAR(100)	Name in Greek
rbd_ms_cd	VARCHAR(22)	Unique code in member state
area	DOUBLE	Area of the water district in square kilometers
nationalrelationships	MEMO	Summary of the institutionalized relationships established in the water district to ensure the coordination of the competent authorities. It should also include a list of the coordinating body and its relationship with the authorities of which activities it coordinates. international – if the water district is part of an international water district
international	VARCHAR(1)	If the water district is part of an international water district
internationalname	VARCHAR(100)	In case it is part of an international water district, the name of that district
internationalrelationships	MEMO	In case it is part of an international water district, summary of the institutionalized relationships that have been established in the water district to ensure the coordination when the water district covers area larger than one member state or includes segments of a non-member state. Include references to international agreements if such exist and also links for further information
primecompetentauthority	VARCHAR(42)	Unique European code of the main competent authority
othercompetentauthority	VARCHAR(42)	Unique European code of other competent authority that is associated with the water district
otherrelevantroles	LONGCHAR	Summary of organizations that are not defined as competent authorities and the definition of their role
eusubunitcode	VARCHAR(42)	Unique European code. In case only one exists it is filled with the unique European code of the water district
ms_subunitcode	VARCHAR(40)	Unique code in member state
subunitname	VARCHAR(100)	Name in Greek
subunitnamenl	VARCHAR(100)	Name in English
shape	LONGBINARY	The geometry of polygon, it is automatically calculated by the system
shape_Length	DOUBLE	The perimeter of the polygon, it is calculated automatically by the system
shape_Area	DOUBLE	The area of the polygon, it is automatically calculated by the system

Fields can take the following values

Field Name	Value	Denotes

international	Y	Part of an internation water district
	N	Not part of an internation water district

Data related to Greek territory came from the geographic digital geodatabase created during the previous phase of the ETYMP project, which were provided by the Ministry of Development and have been adjusted to the elevation and hydrographic data of each water district. For the neighbouring countries they came from processing the Aster digital elevation model with pixel size about 30 meters. The processing of the DTM begun in September 2009 and was completed by the end of the year.

References

[DS-D2.5] INSPIRE DS-D2.5, Generic Conceptual Model, v3.2,
http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/D2.5_v3.2.pdf

[DS-D2.8.I.3] INSPIRE DS-D2.8.I.3 INSPIRE data specification on Geographical names – Guidelines, v3.0
http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/INSPIRE_DataSpecification_GN_v3.0.pdf

[DS-D2.8.I.7] INSPIRE DS-D2.8.I.7 INSPIRE data specification on Transport Networks – Guidelines, v3.0
http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/INSPIRE_DataSpecification_TN_v3.0.pdf

[DS-D2.8.I.4] INSPIRE DS-D2.8.I.4 INSPIRE data specification on Administrative units – Guidelines,
v3.0
http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/INSPIRE_DataSpecification_AU_v3.0.pdf

[DS-D2.8.I.8] INSPIRE DS-D2.8.I.8 INSPIRE data specification on Hydrography –Guidelines, v3.0
http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/INSPIRE_DataSpecification_HY_v3.0.pdf

Landsat 7 Satellite Images

The satellite images that were used as background came from the Landsat7 ETM+ (Enhanced Thematic Mapper) satellite. The images were taken between 1999 and 2003 during the summer of each year. The imagery was supplied via Internet from the following sources:

1) ESDI (Earth Science Data Interface) platform of the Global Land Cover Facility (GLCF) service of the Maryland university of the US
2) Center for Earth Resources Observation and Science (EROS) of the United States Geological Survey (USGS)

The images used cover all the area of Greece, western Turkey, Albania, FYROM and Bulgaria. Each file contains 9 images that correspond to the channels the Landsat 7 ETM+ censor records.

All the primary data supplied were radiometrically and geometrically correct. All data are accompanied by a text file which contains the metadata, while those from the (USGS), the include ground control points. In the following tabke the general attributes of the Landsat images are listed.

General attributes of the satellite images

To convert the images from UTM to EGSA87 third degree polynominal was used while the image reconstruction method was the Nearest Neighbour. The multispectral images were composited of channels 1, 2 and 3 that correspond to blue, green and red of the visible spectrum. Then the multispectral images (Landsat 1,2,3) were merged with pixel size 30m with the panchromatic channel with pixel size 15m which resulted in the creation of multispectral images with 15m resolution. To correct the radiometric defects due to the merge the selective histogram strengthening was used in each image. Finally, the MrSID (wavet compression) compression method was used to reduce the size of the images without any loss of information.

Satellite	Landsat7	
Censor	ETM+	
Number of channelsr	8	
Projection system	UTM	
Ellipsoid	WGS 84	
File type	Geotiff	
Pixel Size	Panchromatic (channel 8)	15m.
	Channels 1-5 and 7	30m.
	Channels 6H and 6L	60m.
Image reconstruction method	Cubic Convolution	
Cloud cover	Less than 10%	

Digital Terrain Model

The digital terrain model that came from the previous phase of the ETYMP project covered only the area of Greece. It was created from hydrographic and elevation data with the TOPOGRID command in ArcINFO. The pixel size was 25 meters. The digital terrain model as well as the data procuded from it have been created individually per each water district and them were merged.

Aster Digital Terrain Model

The Aster digital terrain model covers the neghbouring countries of Greece. It was created from the Ministry of Economy, Trade and Industry of Japan in cooperation with NASA and has pixel size of about 30 meters. It was supplied via Internet.

SRTM Digital Terrain Model

The SRTM digital terrain model has pixel size of 90m and is a mosaic from raster DTM that have been created from SRTM Radar satellite images (NASA Shuttle Radar Topographic Mission). The mosaic covers the area of Greece and neighbouring countries.