



Catalogue of MARS geodatabase vector features, version 2

**Data available in
“MARSgeoDB_vector_v2.gdb” as
ESRI GEODATABASE format at:
<http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/>**

WP 5.1.1

Lidija Globevnik, Maja Koprivšek, Luka Snoj

University of Ljubljana

19.1.2017

Modified feature classes:

- m_countries_full (in the 1st version: m_country_borders)
- m_rivers_tr (in the 1st version: m_ctr_rivers)
- m_rivers_123order (the same name as in the 1st version)
- m_ecoregions (the same name as in the 1st version)
- m_riverquality (the same name as in the 1st version)
- wfd_swb_pt (the same name as in the 1st version)
- m_wfd_rwb_pl (the same name as in the 1st version)
- m_fec_rbdsu_i (in the 1st version: m_fec_rbdsu)

New feature classes:

- m_riversquality_shifted
- m_riversquantity_shifted
- m_eprtr_tr
- m_eprtr_fec
- m_node
- m_uwwtd_dcp
- natura2000_end2014
- m_fec_with_lakes
- m_lakes_geodatabase_extent
- m_lakes
- m_lakes_sel2
- m_lakes_sel2_catchments
- m_lakes_wb_lakes
- m_fec_mo
- m_fec_mo_rbdsu
- m_soe_ecr_lakes
- m_dams
- m_broad_hydroregion
- m_wwf_teow
- m_wwf_feow_hydrosheds
- m_estuaries_hinterlands
- m_fish_sites
- m_riparian_zone_actual

Title	Spatial extent of MARS geodatabase
Name of feature class	m_geodatabase_extent
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	MARS analysed area
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	~ 1 : 250 000
Spatial Extent	EU-28 + NO, IS, CH, LI, AD, RS, BA, AL, MK, ME and XK + Turkey (without Euphrates and Tigris River basins) + part of Syria and Lebanon (Asi River basin) + parts of Russia (Pregolya, Daugava, Neva, Oulujoki, Kovda and Lotta River basins), Belarus (Daugava, Neman, Vistula River basins), Ukraine (Danube and Vistula River basins), Moldova (Danube River basin)
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (C_ZHYD)
Additional Information, Comments	This dataset is aggregated form ECRINS FEC (C_ZHYD) spatial dataset. Spatial extent of MARS geodatabase was agreed at MARS web conference 19.3.2015.
Number of records	1
List of attributes	/

Title	MARS FEC
Name of feature class	m_fec
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	ECRINS FEC-s (c_zhyd) clipped to MARS extent with some corrections in geometry and attributes
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	~ 1 : 250 000
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (C_ZHYD), m_geodatabase_extent
Additional Information, Comments	Multipart ZHYD polygons from ECRINS are divided in single part polygons. New primary key "m_zhyd" has been established. Small coastal FEC-s (< 1 km ²) without "Code_Arbo" attribute are deleted. Geometry modification are labelled with attribute "m_fec_edit" (Legend: 0 - no change, 1 – split, 2 – merge, 3 - parts deleted, 4 - multiple changes). Some FEC-s in ECRINS belong to incorrect catchments. Therefore, new attribute "m_code_arbo", which define correct connections between FEC-s, has been established. Some remarks considering "m_code_arbo" are added in field "m_remarks".
Number of records	101957
List of attributes	zhyd, m_zhyd, code_arbo, m_code_arbo, m_fec_area_km2, m_fec_edit, m_remarks

Title	MARS catchments order 1
Name of feature class	m_catchments_order1
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	ECRINS FEC-s (ZHYD) aggregated into Pfafstetter 1 st order catchments larger than 1000 km ² .
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	~ 1 : 250 000
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (C_ZHYD), m_geodatabase_extent
Additional Information, Comments	ECRINS FEC-s aggregated into Pfafstetter 1 st order catchments larger than 1000 km ² using “Code_Arbo” of outflow FEC, which is the root of “Code_Arbo”-s of all other FEC-s in same catchment. We call it “m_catchment_arbo”.
Number of records	451
List of attributes	m_catchment_area_km2, m_catchment_type, m_catchment_name, m_pfafstetter, m_catchment_arbo, m_river_id

Title	Countries included in MARS analysed area
Name of feature class	m_countries_full
Current version	2.0
Status	
Creation / Publication Date / Last Update	30.9.2015 / 4.1.2016
Abstract / Definition	Full countries that are fully or partially involved in MARS analysed area
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 3 000 000
Spatial Extent	EU-28 + NO, IS, CH, LI, AD, RS, BA, AL, MK, ME, XK, TR, SY, LB, BY, UA, MD + part of RU (cut to geographical Europe)
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	GISCO - Eurostat (European Commission) CNTR_2014_03M_SH.zip, m_geodatabase_extent
Additional Information, Comments	Feature class consists of polygons of full countries that are fully or partially involved in MARS analysed area, except Russia, which has been cut with square to approximate geographical Europe.
Number of records	51
List of attributes	cc, Shape_Length, Shape_Area

Title	Coastline
Name of feature class	m_coastline
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	Europe coastline 20150925 clipped to MARS extent with 10 km buffer zone
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polyline)
Spatial Resolution / Equivalent Scale	1 : 3 000 000
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EEA Europe coastline shapefile (25.9.2015) http://www.eea.europa.eu/data-and-maps/data/eea-coastline-for-analysis-1/gis-data/europe-coastline-shapefile m_geodatabase_extent
Additional Information, Comments	
Number of records	1
List of attributes	

Title	NUTS regions
Name of feature class	m_nuts
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	NUTS regions. Distinct NUTS levels (country, level 1, level 2 and level 3) and NUTS versions (from 2003 to 2013) are compiled into one spatial dataset.
Author / Custodian / Contact	University of Ljubljana, TC VODE
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 3 000 000
Spatial Extent	EU-28 + NO, IS, CH, LI, TR, RS, BA, AL, MK, ME and XK.
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	GISCO - Eurostat (European Commission), EEA NUTSV9_LEAC, Global Administrative areas, m_geodatabase_extent
Additional Information, Comments	<p>The basis for “m_nuts” layer is GISCO NUTS 2010 layer (“NUTS_RG_03M_2010”) downloaded from European Commission’s website (GISCO – geographical information and maps): http://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/administrative-units-statistical-units</p> <p>NUTS 2013 regions were obtained from GISCO NUTS 2013 dataset. NUTS regions older than NUTS 2003 are not available on Eurostat web page, thus they are not included in M_NUTS layer.</p> <p>Missing administrative regions for Western Balkans countries were complemented with Global Administrative Areas spatial data: http://www.gadm.org/country. Missing names of NUTS regions were obtained from NSD website: http://www.nsd.uib.no/european_election_database/index.html</p> <p>Historical NUTS2003 and NUTS2006 data which are not included in “NUTS_RG_03M_2010” spatial dataset were obtained from EEA website: http://www.eea.europa.eu/data-and-maps/data/administrative-land-accounting-units (“NUTSV9_LEAC”).</p>
Number of records	2571
List of attributes	stat_level, nuts_id, nuts_label, cc, nuts_2003, nuts_2006, nuts_2010, nuts_2013, nuts_area_km2

Title	FECs divided by NUTS regions
Name of feature class	m_fec_nuts
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	M_fec polygons intersected by NUTS regions.
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 3 000 000
Spatial Extent	EU-28 + NO, IS, CH, LI, TR, RS, BA, AL, MK, ME and XK.
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (C_ZHYD), GISCO - Eurostat (European Commission), EEA NUTSV9_LEAC, Global Administrative areas, m_geodatabase_extent
Additional Information, Comments	M_fec polygons intersected by NUTS regions. To each m_fec, all the NUTS regions which are fully or partly covered by it are assigned together with corresponding intersected area. Dataset withhold information such as share of different NUTS regions per FEC as well as share of different FEC-s per NUTS region. Dataset presents a basis for calculation of NUTS data to FEC level.
Number of records	543469
List of attributes	m_zhyd, fec_area_km2, stat_level, nuts_id, nuts_label, cc, nuts_2003, nuts_2006, nuts_2010, nuts_2013, nuts_area_km2, fec_intr_nuts_area_km2, share_nuts_per_fec, share_fec_per_nuts

Title	MARS RBDSU
Name of feature class	m_rbd_su
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	WISE River Basin Districts (RBD) and their subunits in EU-28 as implemented by WFD, extended to the other part of MARS geodatabase extent and delineated by the sea regions catchments.
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	WISE River basin districts (RBDs) RBDSU f1v4 ECRINS (C_ZHYD, c_tr), m_coastline, m_country_borders, ETC Water West Balkan 2007/2008, ESRI topographical and imagery base maps, m_geodatabase_extent
Additional Information, Comments	WISE River Basin Districts (RBD) and their subunits (SU) are extended to MARS geodatabase extent considering sea catchments shapefile. To all WISE RBD subunits regional seas and their catchments are assigned. RBDSU outside EU-28 are defined as areas within a country belonging to one regional sea catchment. Some WISE RBD subunits have been split into two regions regarding regional seas catchments. Slovenia has been divided to subunits as reported under WFD Article 3.
Number of records	348
List of attributes	cc, EURBDCcode, RBDName, RBDNameNL, EUSubUnitCode, SubUnitName, SubUnitName_NL, sea_region, sea_subregion, m_rbd_code, m_rbdsu_code, m_rbd_name, m_rbdsu_name, m_rbdsu_area_km2

Title	FECs divided by MARS_RBDSU
Name of feature class	m_fec_rbdsu_i
Current version	2.0
Status	
Creation / Publication Date / Last Update	14.12.2016
Abstract / Definition	Intersection between FECs and RBD subunits
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (C_ZHYD), m_rbdsu, m_geodatabase_extent
Additional Information, Comments	M_fec polygons intersected by RBDSU regions (m_rbdsu feature class). To each m_fec, all the RBDSU regions which are fully or partly covered by it are assigned together with corresponding intersected area. Dataset withhold information such as share of different RBDSU regions per FEC as well as share of different FEC-s per RBDSU region. Dataset presents a basis for calculation of RBDSU data to FEC level. In comparison to the 1 st version the number of object is a little bit smaller because of dissolving polygons by FEC-s and RBD subunits.
Number of records	120835
List of attributes	m_zhyd, fec_area_km2, cc, EURBDCode, RBDName, RBDNameNL, EUSubUnitC, SubUnitNam, SubUnitName1, sea_region, sea_subregion, m_rbd_code, m_rbdsu_code, m_rbd_name, m_rbdsu_name, m_rbdsu_area_km2, intersect_area_km2, share_su_per_fec, share_fec_per_su

Title	FECs with MARS RBD unit, subunit and country assigned
Name of feature class	m_fec_mo_rbdsu
Current version	1.0
Status	
Creation / Publication Date / Last Update	14.12.2016
Abstract / Definition	FECs (“m_fec_mo”) with MARS RBD unit, subunit and country assigned
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (C_ZHYD), m_rbdsu, m_geodatabase_extent
Additional Information, Comments	To each FEC from “m_fec_mo” layer country code, RBD unit and RBD subunit with largest share on FEC is assigned and the share is calculated. RBD subunits with smaller share on FEC are listed. If the share of the main RBD subunit in FEC is more than 0.98, share is set to 1 and RBD subunits with smaller share are not listed. This is to avoid “sawing” at the border caused by different resolutions of FEC and RBD layers.
Number of records	104300
List of attributes	cc, m_zhyd, m_rbd_code, m_rbdsu_co, share_rbdsu, other_rbdsu

Title	Ecoregions
Name of feature class	m_ecoregions
Current version	2.0
Status	
Creation / Publication Date / Last Update	30.9.2015 / 4.1.2016
Abstract / Definition	European ecoregions clipped to MARS extent.
Author / Custodian / Contact	EEA
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	The outline made by J. Illies (1978) in Limnofauna Europaea (G. Fischer Verlag, Stuttgart) and used as a basis for the Ecoregions. http://www.eea.europa.eu/data-and-maps/data/ecoregions-for-rivers-and-lakes#tab-gis-data m_geodatabase_extent
Additional Information, Comments	The data published as a map in Annex XI, Water Framework Directive, in Official Journal of the European Communities. The feature class is the same as in version 1, only coordinate system was changed to ETRS_1989_LAEA.
Number of records	24
List of attributes	limno, area_id, name, french_name, m_area_km2

Title	Biogeographical regions
Name of feature class	m_biogeoregions
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	Biogeographical regions clipped to MARS extent.
Author / Custodian / Contact	EEA, Council of Europe (CoE), Directorate-General for Environment (DG ENV)
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	The scale varies inside the dataset. Some regions, e.g. in EU countries, are 1:1 000 000 while other regions are poorer, i.e. 1:10 000 000.
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	Biogeographical regions (EEA): http://www.eea.europa.eu/data-and-maps/data/biogeographical-regions-europe_m_geodatabase_extent
Additional Information, Comments	Europe 2011 - The biogeographical regions dataset contains the official delineations used in the Habitats Directive (92/43/EEC) and for the EMERALD Network set up under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)
Number of records	10
List of attributes	NAME, ABBRE, code, label

Title	European hydro-ecoregions
Name of feature class	m_hydroecoregions
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	The hydro-ecoregion map is based on geology, relief and climate as a functional, regionalised and prioritised system which responds to these requirements and identifies geographic entities with common characteristics of flowing-water ecosystems.
Author / Custodian / Contact	IRSTEA, Rebecca project
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	European hydro-ecoregions - HER (IRSTEA, Rebecca project): http://www.irstea.fr/en/research/research-units/onema-irstea-centre/regionalisation-and-typology/hydro-ecoregions-functional_m_geodatabase_extent
Additional Information, Comments	
Number of records	174
List of attributes	PARTS, CODEB, HERCODE, FIRST_NAME, SURF_KM2

Title	Broad hydroregions
Name of feature class	m_broad_hydroregion
Current version	1.0
Status	
Creation / Publication Date / Last Update	19.5.2015
Abstract / Definition	Broad hydrological regions derived from biogeographical regions for purpose of MARS Project.
Author / Custodian / Contact	University of Ljubljana, UDE
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	The scale varies inside the dataset. Some regions, e.g. in EU countries, are 1:1 000 000 while other regions are poorer, i.e. 1:10 000 000.
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	Biogeographical regions (EEA): http://www.eea.europa.eu/data-and-maps/data/biogeographical-regions-europe , m_country_borders, m_geodatabase_extent
Additional Information, Comments	Biogeographical regions are merged (and some of them also divided) into 5 broad hydroregions. One of them has 2 subregions, while others are without subregions. Regions are extended so that whole MARS analysing area is covered.
Number of records	6
List of attributes	name, abre, subregion, sub_abbre

Title	Terrestrial ecoregions of the world
Name of feature class	m_wwf_teow
Current version	1.0
Status	
Creation / Publication Date / Last Update	2.8.2016
Abstract / Definition	WWF terrestrial ecoregions of the world clipped to MARSgeoDB extent and dissolved
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	WWF Terrestrial Ecoregions of the World: http://www.worldwildlife.org/publications/terrestrial-ecoregions-of-the-world , m_geodatabase_extent
Additional Information, Comments	
Number of records	55
List of attributes	eco_name, biome, eco_num, eco_id, eco_sym, gbl_stat, g200_region, g200_num, g200_biome, g200_stat, area_km2, eco_code

Title	Freshwater ecoregions of the world
Name of feature class	m_wwf_feow_hydrosheds
Current version	1.0
Status	
Creation / Publication Date / Last Update	10.8.2016
Abstract / Definition	WWF freshwater ecoregions of the world hydrosheds clipped to MARSgeoDB extent
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	WWF Freshwater Ecoregions of the World: http://www.feow.org/ , m_geodatabase_extent
Additional Information, Comments	
Number of records	35
List of attributes	feow_id, area_skm, feow_name, m_area_km2

Title	MARS FEC WSO6 regions
Name of feature class	m_fec_wso6
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	Aggregated spatial objects from m_fec with the best correspondence to spatial objects in CCM2 with the same WSO6.
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	m_fec CCM2 (JRC): http://ccm.jrc.it/php/index.php?action=view&id=23 m_geodatabase_extent
Additional Information, Comments	Spatial objects in m_fec_wso6 are similar to spatial objects in CCM2 with the same WSO6, with the exception of coastal areas. In CCM2 areas along the coastline are defined as one wso6, whereas in m_fec_wso6 neighbouring FEC-s along the coastline are assigned unique WSO6.
Number of records	851
List of attributes	m_wso6id, area_km2

Title	ECRINS river segments
Name of feature class	c_tr_mars_extent
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	ECRINS river segments (c_tr) clipped to MARS spatial extent
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polyline)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (c_tr), m_geodatabase_extent
Additional Information, Comments	Original ECRINS river segment dataset clipped to MARS extent. Neither geometry nor the attributes of objects have been modified.
Number of records	731112
List of attributes	All ECRINS c_tr attributes as reported into ECRINS c_tr spatial dataset.

Title	MARS river segments
Name of feature class	m_rivers_tr
Current version	2.0
Status	
Creation / Publication Date / Last Update	30.9.2015 / 5.2.2016
Abstract / Definition	ECRINS river segments (c_tr) clipped to MARS spatial extent joined with WFD SWB and some other attributes added
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polyline)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (c_tr), m_geodatabase_extent
Additional Information, Comments	<p>Geometry of some objects have been modified. Attributes with prefix “m” are either modified ECRINS attributes or completely new attributes developed for the MARS needs.</p> <p>Sava and Drava river routes were in some parts recognized as incorrect. Geometries of such routes have not been modified. Nevertheless attributes identifying the correct route have been modified and kept in fields “m_river_id”, "m_name", "m_name1" and "m_name2".</p> <p>In comparison to the 1st version attribute name “ecr_name” has been changed to “ecrins_name” and geometry of segment ‘tr’=Z000965226 was corrected. It was split into two parts in the 1st version.</p>
Number of records	731112
List of attributes	tr, strahler, river_id, cgnelin, m_river_id, ecrins_name, m_name, m_name1, m_name2, m_length, m_slope, m_fnode, m_tnode, m_zhyd, m_hinterland

Title	MARS rivers 123 order
Name of feature class	m_rivers_123order
Current version	2.0
Status	
Creation / Publication Date / Last Update	30.9.2015 / 12.4.2016
Abstract / Definition	ECRINS river segments (c_tr) of 1 st Pfafstetter order rivers with catchments larger than 1000 km ² and Pfafstetter 2 nd and 3 rd order rivers with catchments larger than 10000 km ²
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polyline)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (c_tr), m_geodatabase_extent
Additional Information, Comments	Feature class consists of ECRINS river segments (c_tr) of 1st Pfafstetter order rivers with catchments larger than 1000 km ² and Pfafstetter 2nd and 3rd order rivers with catchments larger than 10000 km ² . All segments of same river have unique ID called "m_river_id" and up to three names (international and national). In comparison to the 1 st version some missing rivers are added, links to FEC-s are corrected and length to source from downstream node of each river segment is calculated. Length to mouth is corrected when needed. Length to inflow into higher order river is also calculated.
Number of records	42398
List of attributes	strahler, tr, m_length, m_l2mouth, m_river_id, m_hack_order, m_name, m_catchment_type, m_zhyd, m_river_length, m_l2inflow, river_id, cgnelin, m_name1, m_name2, m_basin_type, ecrins_name, m_slope, m_fnode, m_tnode, m_catchment_area_km2, m_length_source

Title	WISE SoE RiversQuality 2014 stations linked to FEC-s, river segments and hinterlands
Name of feature class	m_riversquality
Current version	2.0
Status	
Creation / Publication Date / Last Update	30.9.2015 / 21.12.2015
Abstract / Definition	WISE SoE quality stations linked to MARS river segments (tr), FEC-s (m_zhyd_fec) and hinterlands (m_zhyd_hinterland)
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (point)
Spatial Resolution / Equivalent Scale	
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	WISE SoE quality stations, ECRINS v1.1 (c_tr), m_geodatabase_extent
Additional Information, Comments	All WISE SoE quality stations are linked MARS FEC-s (fec_zhyd). 16110 of them are linked to river segments (tr). If river segment has its own hinterland, SoE station is also linked to it (hinterland_zhyd). In comparison to version 1 method for matching WISE SoE RiversQuality 2014 stations with river segments (tr) has been changed. Stations are linked with all river segments (main drain or not main drain) in the same step. SoE stations that were matched to river segments by river name in version 1 remain matched as in version 1.
Number of records	16694
List of attributes	cc, s_waterbas, s_river_name, s_catch_name, m_zhyd_fec, tr, m_zhyd_hinterland, strahler, ecrins_name, m_name, m_name1, m_name2, on_main_drain, soe_area_km2, hinterland_area_km2, soe_name, cc, m_wfd_swb, wb_name, wfd_ecological_status, wfd_hydromorph_status, wfd_pressure_type, wfd_impact_type, soe_discharge, soe_altitude, m_river_id, biogeographical_region, ecoregion, hydroecoregion, m_rbd_code, m_rbd_code, national_type, bt_etc, hinterland_size, is_river123, m_altitude, m_hack_order

Title	WISE SoE RiversQuality 2014 stations shifted to river segments
Name of feature class	m_riversquality_shifted
Current version	1.0
Status	
Creation / Publication Date / Last Update	12.2.2016
Abstract / Definition	WISE SoE quality stations linked and shifted to MARS river segments (tr)
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (point)
Spatial Resolution / Equivalent Scale	
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	WISE SoE quality stations, ECRINS v1.1 (c_tr), m_geodatabase_extent
Additional Information, Comments	Points of all WISE SoE quality stations that were linked to river segments (tr) inside 1 km search radius are shifted so that they are actually located on river segments.
Number of records	16129
List of attributes	s_waterbas, tr, distance_to_tr, on_maindrain, m_zhyd, m_zhyd_hin

Title	Rivers quantity stations from different sources shifted to river segments
Name of feature class	m_riversquantity_shifted
Current version	1.0
Creation / Publication Date / Last Update	7.12.2016
Abstract / Definition	Rivers quantity stations from different sources shifted to river segments
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (point)
Spatial Resolution / Equivalent Scale	
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	WISE SoE water quantity: http://dd.eionet.europa.eu/datasets/3223 , EWA and GRDC: http://www.bafg.de/GRDC/EN/02_srvcs/21_tmsrs/riverdischarge_node.html;jsessionid=1AC11BD36C9FA86F73A7BC3C82926CC4.live21304 , f_quan (LISFLOOD: https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/lisflood-distributed-water-balance-and-flood-simulation-model-revised-user-manual-2013), c_quan (EEA), ECRINS v1.1 (c_tr), m_geodatabase_extent
Additional Information, Comments	Points of all quantity stations that were linked to river segments (tr) inside 1 km search radius are shifted so that they are actually located on river segments.
Number of records	39648
List of attributes	id, cc, station_code, station_name, river_name, m_river_name, tr, m_zhyd, mean_annual_q, max_q, t_start, t_end, area_km2, data_source

Title	Fish monitoring sites
Name of feature class	m_fish_sites
Current version	1.0
Creation / Publication Date / Last Update	7.12.2016
Abstract / Definition	Fish monitoring sites
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (point)
Spatial Resolution / Equivalent Scale	
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EFI+: http://efi-plus.boku.ac.at/software/links.php , ECRINS v1.1 (c_tr), m_geodatabase_extent
Additional Information, Comments	EFI+ and intercalibration sites are shifted so that they are actually located on ECRINS river segments.
Number of records	14520
List of attributes	cc, site_code, m_name, river_name, tr, strahler, m_zhyd, f_to_line, wetted_width, m_zhyd_hinterland, data_source

Title	Actual riparian zone
Name of feature class	m_riparian_zone_actual
Current version	1.0
Creation / Publication Date / Last Update	7.12.2016
Abstract / Definition	Actual riparian zone from Copernicus
Author / Custodian / Contact	Copernicus
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	Copernicus: http://land.copernicus.eu/local/riparian-zones , m_geodatabase_extent
Additional Information, Comments	
Number of records	46
List of attributes	objectid, du_id, drza_descr

Title	UWWTD discharge points shifted to river segments
Name of feature class	m_uwwtd_dcp
Current version	1.0
Status	
Creation / Publication Date / Last Update	11.1.2016
Abstract / Definition	UWWTD discharge points linked and shifted to MARS river segments (tr) and UWWTD discharge points, that could not be linked to 'tr', but to FEC-s only
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (point)
Spatial Resolution / Equivalent Scale	
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EEA Waterbase – UWWTD discharge points, version 5: http://www.eea.europa.eu/data-and-maps/data/waterbase-uwwtd-urban-waste-water-treatment-directive-4#tab-european-data , ECRINS v1.1 (c_tr), m_geodatabase_extent
Additional Information, Comments	UWWTD discharge points that were linked to river segments (tr) inside 1 km search radius are shifted so that they are actually located on river segments. Other UWWTD discharge points inside MARS extent have their original locations and are linked to FEC-s only. They either have a discharge into lake or into river not existing in ECRINS (for example canals) or ECRINS rivers are not consistent with UWWTD discharge points at some locations.
Number of records	26794
List of attributes	dcp_code, m_zhyd, tr, tr_link

Title	Dams
Name of feature class	m_dams
Current version	1.0
Status	
Creation / Publication Date / Last Update	11.1.2016
Abstract / Definition	European dams larger than 10 meters
Author / Custodian / Contact	University of Ljubljana, TC VODE
Maintenance / Planned Update	
Spatial representation type	vector (point)
Spatial Resolution / Equivalent Scale	
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (EcrDams, c_tr, c_ZHYD), ICOLD, m_geodatabase_extent
Additional Information, Comments	ECRINS feature class EcrDams is supplemented with some other European dams larger than 10 m, especially on the Western Balkans territory. Dams are linked to rivers (tr and m_river_id) and FECs and have information about ecoregion, slope and alluvial soil assigned.
Number of records	5043
List of attributes	cc, year_first, year_dead, dam_name, ic_river, ic_high_m, area, ecoregion_name, m_river_id, m_hack_order_large, m_name, m_slope, aluv_soil, year_class, m_zhyd, tr, hidropw_hr

Title	MARS node
Name of feature class	m_node
Current version	1.0
Status	
Creation / Publication Date / Last Update	11.1.2016
Abstract / Definition	ECRINS feature class C_Node clipped to MARS geodatabase extent.
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (point)
Spatial Resolution / Equivalent Scale	
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (C_Node), m_geodatabase_extent
Additional Information, Comments	
Number of records	747957
List of attributes	id, wso_id, source, num_seg, elev, window, nod_id

Title	Points of WFD surface waterbodies
Name of feature class	wfd_swb_pt
Current version	2.0
Status	
Creation / Publication Date / Last Update	30.9.2015 / 8.6.2016
Abstract / Definition	Points of WFD surface waterbodies
Author / Custodian / Contact	
Maintenance / Planned Update	
Spatial representation type	vector (point)
Spatial Resolution / Equivalent Scale	1:50 000
Spatial Extent	EU-27 countries
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EEA, WISE WFD masterDatabase20130529
Additional Information, Comments	The feature class is the same as in version 1, only coordinate system is changed to ETRS_1989_LAEA.
Number of records	127874
List of attributes	eu_wb_id, wfd_swb, swb_schema, eu_su_code, swb_ms_cd, wb_name, swb_category, typology_co, ReferenceD, Area, Length, Scale, ScaleExpla, prot_area, Metadata, URL, OtherPresu, OtherImpac, LOV_SWStat

Title	Lines of WFD river waterbodies
Name of feature class	m_wfd_rwb_pl
Current version	2.0
Status	
Creation / Publication Date / Last Update	30.9.2015 / 27. 6. 2015
Abstract / Definition	
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (point)
Spatial Resolution / Equivalent Scale	
Spatial Extent	AT, BE, CY, CZ, DE, DK, EE, EL, ES, FR, HU, IE, LT, NL, LV, PT, SI, SK, LU
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EEA, EIONET CDR: http://cdr.eionet.europa.eu/ , national websites AT, SI, FR, HU, EL m_geodatabase_extent
Additional Information, Comments	Vectors of river water bodies are obtained from EIONET Central Data Repository portal (CDR) and combined in one layer. Not all EU countries have reported river water bodies as vectors and for some countries data are incomplete. In comparison to the 1 st MARSgeoDB version WB vectors for Greece and the Duero river catchment in Spain (only names, without code available) are added, Slovenian WB vectors are replaced and projection is changed.
Number of records	64289
List of attributes	wb_name, cc, wfd_swb

Title	Spatial extent of MARS lakes geodatabase
Name of feature class	m_lakes_geodatabase_extent
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.10.2015 / 26.5.2016
Abstract / Definition	MARS analysed area
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	EU-28 + NO, IS, CH, LI, AD, RS, BA, AL, MK, ME and XK + Turkey (without Euphrates and Tigris River basins) + part of Syria and Lebanon (Asi River basin) + parts of Russia (Pregolya, Daugava, Neva, Oulujoki, Kovda and Lotta River basins), Belarus (Daugava, Neman, Vistula River basins), Ukraine (Danube and Vistula River basins), Moldova (Danube River basin)
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (C_ZHYD)
Additional Information, Comments	Extent as in m_geodatabase_extent, but without gaps where there is no FEC-s – on endorheic lakes Tuz Gölü, Prespansko jezero and Lago Trasimeno.
Number of records	1
List of attributes	/

Title	MARS lakes
Name of feature class	m_lakes
Current version	2.0
Status	
Creation / Publication Date / Last Update	30.10.2015
Abstract / Definition	ECRINS lakes clipped to MARS lakes geodatabase extent
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	m_lakes_geodatabase_extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (EcrLak.mdb: C_Lak), m_geodatabase_extent
Additional Information, Comments	Number of records is a little bit smaller than in first version, because some duplicated lakes from ECRINS were removed (not systematically). Attributes are as in ECRINS, we added additional 3: "size", "on_tr" and "m_zhyd". "Size" tells us the category of lake area (categories are: 0, 1, 5, 10, 20, 50, 100, 200, 300, 500 and 1000; lake is larger than category number × 1000 km ² and smaller than next category). "On_tr" tells us, if lake lies on river segment (1) or not (0). "M_zhyd" is the ID of FEC (m_fec_with_lakes) in which lake lies (if lake extends over more FEC-s the most downstream one is assigned).
Number of records	59001
List of attributes	OBJECTID, lakID, IsCCM, Is_art13, Is_erm, Is_511, Is_512, Is_521, Is_411, Is_Wiki, Is_other, lakSScore, NAMA2, LakVersion, EcrinsVers, name, Area, Area0km2, AreaXkm2, SourceXare, perimeter, Ike_type, ZMxm, Zmim, Zavgm, volavghm3, volmxhm3, Altitude, Wnb, Alt_Score, window, system_cd, sea_cd, comm_cd, langerm, Upstream_a, M_Ctry, Nb_Ctry, M_NUTS, Nb_NUTS, is2Keep, is2Create, Is2Substit, ERMID, Size

Title	MARS FEC with lakes above 50 km2
Name of feature class	m_fec_with_lakes
Current version	1.0
Status	
Creation / Publication Date / Last Update	8.4.2016
Abstract / Definition	MARS FEC-s with ECRINS lakes with area above 50 km2
Author / Custodian / Contact	University of Ljubljana, FVB-IGB
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (C_ZHYD), m_geodatabase_extent
Additional Information, Comments	<p>FEC-s, covering lakes with area above 50 km2, were modified in a way, that one lake is represented by one single FEC. FEC-s surrounding lake are cut by the lake shore, so that only terrestrial area remains. Lake FEC gets attributes 'm_zhyd' and 'm_code_arbo' from outflow FEC assigned with suffix '_L' added to both attributes.</p> <p>Also islands become individual FEC-s, names after the FEC with the highest share with suffixes '_1', '_2', '_3', ... if there exist more islands on the same 'original' FEC.</p> <p>Lake FEC-s are labelled with 'm_lake_fec'=1, island FEC-s are labelled with 'm_island'=1 and all the FEC-s modified because of lakes (lake FEC-s, island FEC-s and FEC-s surrounding lake) are labelled with 'm_lake_edit'=1. To lake FEC-s also 'lak_id' and outflow 'tr' are assigned. ECRINS lakes that are transitional waters regarding WFD SWB are labelled with 'm_lake_is_tw'=1, and lakes that are coastal water with 'm_lake_is_cw'=1.</p> <p>This layer is the basis for drawing multipressure maps.</p>
Number of records	104334
List of attributes	zhyd, m_fec_edit, area_km2, m_remarks, m_zhyd, m_lake_fec, m_lake_edit, lak_id, tr_out, m_lake_is_tw, m_lake_is_cw, m_island, code_arbo, m_code_arbo

Title	MARS FEC for modelling
Name of feature class	m_fec_mo
Current version	1.0
Status	
Creation / Publication Date / Last Update	14.12.2016
Abstract / Definition	MARS FEC-s with ECRINS lakes larger 50 km ² with some additional modifications in comparison to “m_fes_with_lakes” layer
Author / Custodian / Contact	University of Ljubljana, FVB-IGB
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (C_ZHYD), m_geodatabase_extent
Additional Information, Comments	In comparison to “m_fec_with_lakes” there are some merged FEC-s (if there is one lake > 50 km ² in just one FEC, the lake is merged with surrounding FEC; half of lake missing in ECRINS is added from CCM geometry). Nutrient and phosphorus modelling is done using this version.
Number of records	104300
List of attributes	lake, FID_FECs_u, zhyd, area_km2, m_zhyd, ID_1, TO_ID

Title	MARS lakes, selection 2
Name of feature class	m_lakes_sel2
Current version	2.0
Status	
Creation / Publication Date / Last Update	15.9.2016
Abstract / Definition	Catchments (hinterlands) of selected MARS lakes (all larger than 50 km ² and those with selected SoE and WISER stations)
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	m_lakes_geodatabase_extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (EcrLak.mdb: C_Lak), m_fec_with_lakes, CCM2 (WSO1 polygons)
Additional Information, Comments	Selection of lakes is done in collaboration with Task 5.3 team. These are lakes with data on SoE and/or WISER stations used for analyzing multiple stressors on lakes.
Number of records	2658
List of attributes	lak_id, nama2, name, on_tr, area_km2, m_zhyd, share_fec

Title	MARS lakes catchments, selection 2
Name of feature class	m_lakes_sel2_catchments
Current version	2.0
Status	
Creation / Publication Date / Last Update	15.9.2016
Abstract / Definition	Catchments (hinterlands) of selected MARS lakes (all larger than 50 km ² and those with selected SoE and WISER stations)
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	m_lakes_geodatabase_extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (EcrLak.mdb: C_Lak), m_fec_with_lakes, CCM2 (WSO1 polygons)
Additional Information, Comments	Catchments (hinterland) for lakes above 50 km ² are made of 'fec_with_lakes' layer just like ordinary hinterlands of FECs. Catchments for smaller lake are made of CCM2 WSO1 polygons. Lakes not lying on the river are made with 1 km buffer zone.
Number of records	2658
List of attributes	lak_id, object_count, hinterland_area_km2, source

Title	WISE SoE lakes station linked to MARS lakes
Name of feature class	m_soe_ecr_lakes
Current version	2.0
Status	
Creation / Publication Date / Last Update	12.2.2016
Abstract / Definition	Points of WISE SoE lakes station linked to MARS lakes
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (point)
Spatial Resolution / Equivalent Scale	/
Spatial Extent	m_lakes_geodatabase_extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	WISE SoE Lakes_stations_2014, m_lakes, m_lakes_geodatabase_extent
Additional Information, Comments	WISE SoE lakes stations 2014 were clipped to MARS lakes geodatabase extent and linked to the nearest MARS lake using ArcGIS tool 'Spatial join' within 250 m search radius. Some MARS lakes have more than one WISE SoE lake station. 800 WISE SoE stations have not been joined with any of MARS lakes.
Number of records	5230
List of attributes	cc, s_waterbas, s_national_st, s_wfd_swb, s_lake_name, s_waterbody_id, s_waterbody_name, s_catchment_name, s_catchment_area, s_altitude, s_surface_area, s_mean_depth, s_max_depth, lak_id, l_name, l_area_km2, l_area0km2, l_areaxkm2, l_altitude, m_lake_size, on_tr

Title	Points of WFD lake waterbodies linked to MARS lakes
Name of feature class	m_lake_wb_lakes
Current version	2.0
Status	
Creation / Publication Date / Last Update	30.10.2015 / 12.2.2016
Abstract / Definition	Points of WFD lake waterbodies linked to MARS lakes
Author / Custodian / Contact	EEA
Maintenance / Planned Update	
Spatial representation type	vector (point)
Spatial Resolution / Equivalent Scale	1:50 000
Spatial Extent	EU-27 countries
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EEA, WISE WFD masterDatabase20130529, m_lakes
Additional Information, Comments	Points of WFD lake waterbodies were linked to the nearest MARS lakes using ArcGIS tool “Spatial join” within 100 m search radius. Some MARS lakes have more than one WFD lake waterbody point. 3936 Points of WFD lake waterbodies have not been joined with any MARS lake. They are excluded from this feature class.
Number of records	14970
List of attributes	OBJECTID, eu_wb_id, swb_wfd, eu_subunit_code, swb_ms_cd, swb_name, wb_area_km2, lak_id, name, lak_area_km2

Title	E-PRTR discharge points linked to FEC-s
Name of feature class	m_eprtr_fec
Current version	1.0
Status	
Creation / Publication Date / Last Update	3.2.2016
Abstract / Definition	E-PRTR facility report points linked to MARS FEC-s
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (point)
Spatial Resolution / Equivalent Scale	
Spatial Extent	Europe
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	data reporting: http://prtr.ec.europa.eu/ , ECRINS (C_ZHYD)
Additional Information, Comments	E-PRTR facility report points linked to MARS FEC-s and cut to approximate geographical Europe extent, so that discharges to sea are also included.
Number of records	228442
List of attributes	Facility_report_id, pollutant_release_transfer_report_id, facility_id, parent_company_name, facility_name, city, cc, rbd_geocode, rbd_geoname, nuts_id_level2, rbd_source_code, rbd_source_name, nuts_id_level3, nuts_label_level3, nace_code, nace_name, main_ia_sector_code, main_ia_activity_code, main_ia_activity_name, m_zhyd

Title	E-PRTR facility report points linked to TR
Name of feature class	m_eprtr_tr
Current version	1.0
Status	
Creation / Publication Date / Last Update	2.2.2016
Abstract / Definition	E-PRTR facility report points linked to river segments (tr)
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (point)
Spatial Resolution / Equivalent Scale	
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	E-PRTR data reporting: http://prtr.ec.europa.eu/ , MARS geodatabase extent, ECRINS v1.1 (c_tr)
Additional Information, Comments	In this feature class there are only E-PRTR facility report points with direct outflow into river. They have "tr" of river segment assigned. Note that majority of E-PRTR facilities have indirect outflow to river through sewage system and therefore cannot be linked to river segments.
Number of records	15016
List of attributes	m_zhyd_fec, tr, distance_to_tr, facility_report_id, national_id, facility_name, pollutant_code, total_quantity, release_medium, unit_name, reporting_year

Title	NATURA2000 sites
Name of feature class	natura2000_end2014
Current version	1.0
Status	
Creation / Publication Date / Last Update	5.2.2016
Abstract / Definition	NATURA2000 sites
Author / Custodian / Contact	EEA, Directorate-General for Environment (DG ENV)
Maintenance / Planned Update	
Spatial representation type	vector (polygons)
Spatial Resolution / Equivalent Scale	
Spatial Extent	EU countries, including sea
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EEA, Natura 2000 data: http://www.eea.europa.eu/data-and-maps/data/natura-6#tab-european-data
Additional Information, Comments	This feature class was not clipped to the MARS geodatabase extent to avoid the loose of Natura 2000 sites on the sea.
Number of records	27372
List of attributes	site_code, site_name, release_date, cc, site_type

Title	Lithological map
Name of feature class	m_lithology
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	IHME1500 “inwater lithology” map clipped to MARS geodatabase extent.
Author / Custodian / Contact	BGR
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1:1 500 000
Spatial Extent	MARS geodatabase extent (northernmost parts of NO, FI and RU, eastern part of TR and CY and whole SY and LB are not covered)
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	IHME1500 – International Hydrogeological Map of Europe http://www.bgr.bund.de/EN/Themen/Wasser/Projekte/laufend/Beratung/Ihme1500/ihme1500_projektbeschr_en.html ihme1500_inwater_litho1_v11_poly m_geodatabase_extent
Additional Information, Comments	
Number of records	185
List of attributes	Litho1, Litho2, Litho3, Litho4, Litho5, UID, Shape_STAr, Shape_STLe

Title	Soil map
Name of feature class	m_soil_map
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	Soil map
Author / Custodian / Contact	JRC
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	
Spatial Extent	MARS geodatabase extent (without IS, TR, CY, SY and LB)
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	JRC ESDAC: http://esdac.jrc.ec.europa.eu/resource-type/european-soil-database-soil-properties - sgdbe4_0 , m_geodatabase_extent
Additional Information, Comments	
Number of records	26067
List of attributes	AREA, PERIMETER, SOIL, SOIL_ID, SMU, STU_DOM, PCAREA

Title	Aquifer map
Name of feature class	m_aquifer_map
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	IHME1500 “inwater aquifer” map clipped to MARS geodatabase extent.
Author / Custodian / Contact	GBR
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1:1 500 000
Spatial Extent	MARS geodatabase extent (northernmost parts of NO, FI and RU, eastern part of TR and CY and whole SY and LB are not covered)
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	IHME1500 – International Hydrogeological Map of Europe http://www.bgr.bund.de/EN/Themen/Wasser/Projekte/laufend/Beratung/Ihme1500/ihme1500_projektbeschr_en.html ihme1500_inwater_aquif1_v11_poly m_geodatabase_extent
Additional Information, Comments	
Number of records	41587
List of attributes	AQUIF_CODE, auif_name, UID, Shape_STAr, Shape_STLe

Title	WISE WFD groundwater bodies – horizon 0
Name of feature class	m_gwb_h0
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	Polygons of WFD ground water bodies – horizon 0
Author / Custodian / Contact	EEA (Klaus Duscher)
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	EU-27 countries + CH
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EEA, Groundwater GIS reference layer v3 http://www.eea.europa.eu/data-and-maps/data/wise-groundwater#tab-metadata m_geodatabase_extent
Additional Information, Comments	
Number of records	441
List of attributes	EU_CD_GW, HORIZON, GWB_MS, HORIZONORG, POLYGON_ID, EUGroundWa, EUGround_1, GWB_Schema, GWB_MS_CD, Lat, Long, GWB_Name, Out_of_RBD, Transbound, Prot_Area, Metadata, URL, OtherPresu, OtherImpac, Layered, Area, Scale, ScaleExpla, AverageDep, AverageThi, LOV_GWDepth, LinkSurfac, LinkTerres, LOV_GWGeol, LOV_GWVert, Capacity, Quantitati, Quantita_1, Quantita_2, ChemicalSt, Chemical_1, UpwardTren, UpwardTr1, TrendRever

Title	WISE WFD groundwater bodies – horizon 1
Name of feature class	m_gwb_h1
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	Polygons of WFD ground water bodies – horizon 1
Author / Custodian / Contact	EEA (Klaus Duscher), University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	EU-27 countries + CH
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EEA, Groundwater GIS reference layer v3 http://www.eea.europa.eu/data-and-maps/data/wise-groundwater#tab-metadata m_geodatabase_extent
Additional Information, Comments	Data for CH were merged with other European data.
Number of records	10979
List of attributes	EU_CD_GW, HORIZON, GWB_MS, HORIZONORG, POLYGON_ID, EUGroundWa, EUGround_1, GWB_Schema, GWB_MS_CD, Lat, Long, GWB_Name, Out_of_RBD, Transbound, Prot_Area, Metadata, URL, OtherPresu, OtherImpac, Layered, Area, Scale, ScaleExpla, AverageDep, AverageThi, LOV_GWDepth, LinkSurfac, LinkTerres, LOV_GWGeol, LOV_GWVert, Capacity, Quantitati, Quantita_1, Quantita_2, ChemicalSt, Chemical_1, UpwardTren, UpwardTr1, TrendRever

Title	WISE WFD groundwater bodies – horizon 2
Name of feature class	m_gwb_h2
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	Polygons of WFD ground water bodies – horizon 2
Author / Custodian / Contact	EEA (Klaus Duscher), University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	EU-27 countries + CH
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EEA, Groundwater GIS reference layer v3 http://www.eea.europa.eu/data-and-maps/data/wise-groundwater#tab-metadata m_geodatabase_extent
Additional Information, Comments	Data for CH were merged with other European data.
Number of records	1584
List of attributes	EU_CD_GW, HORIZON, GWB_MS, HORIZONORG, POLYGON_ID, EUGroundWa, EUGround_1, GWB_Schema, GWB_MS_CD, Lat, Long, GWB_Name, Out_of_RBD, Transbound, Prot_Area, Metadata, URL, OtherPresu, OtherImpac, Layered, Area, Scale, ScaleExpla, AverageDep, AverageThi, LOV_GWDepth, LinkSurfac, LinkTerres, LOV_GWGeol, LOV_GWVert, Capacity, Quantitati, Quantita_1, Quantita_2, ChemicalSt, Chemical_1, UpwardTren, UpwardTr1, TrendRever

Title	WISE WFD groundwater bodies – horizon 3
Name of feature class	m_gwb_h3
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	Polygons of WFD ground water bodies – horizon 3
Author / Custodian / Contact	EEA (Klaus Duscher), University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	EU-27 countries + CH
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EEA, Groundwater GIS reference layer v3 http://www.eea.europa.eu/data-and-maps/data/wise-groundwater#tab-metadata m_geodatabase_extent
Additional Information, Comments	Data for CH were merged with other European data.
Number of records	293
List of attributes	EU_CD_GW, HORIZON, GWB_MS, HORIZONORG, POLYGON_ID, EUGroundWa, EUGround_1, GWB_Schema, GWB_MS_CD, Lat, Long, GWB_Name, Out_of_RBD, Transbound, Prot_Area, Metadata, URL, OtherPresu, OtherImpac, Layered, Area, Scale, ScaleExpla, AverageDep, AverageThi, LOV_GWDepth, LinkSurfac, LinkTerres, LOV_GWGeol, LOV_GWVert, Capacity, Quantitati, Quantita_1, Quantita_2, ChemicalSt, Chemical_1, UpwardTren, UpwardTr1, TrendRever

Title	WISE WFD groundwater bodies – horizon 4
Name of feature class	m_gwb_h4
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	Polygons of WFD ground water bodies – horizon 4
Author / Custodian / Contact	EEA (Klaus Duscher), University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	EU-27 countries + CH
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EEA, Groundwater GIS reference layer v3 http://www.eea.europa.eu/data-and-maps/data/wise-groundwater#tab-metadata m_geodatabase_extent
Additional Information, Comments	Data for CH were merged with other European data.
Number of records	120
List of attributes	EU_CD_GW, HORIZON, GWB_MS, HORIZONORG, POLYGON_ID, EUGroundWa, EUGround_1, GWB_Schema, GWB_MS_CD, Lat, Long, GWB_Name, Out_of_RBD, Transbound, Prot_Area, Metadata, URL, OtherPresu, OtherImpac, Layered, Area, Scale, ScaleExpla, AverageDep, AverageThi, LOV_GWDepth, LinkSurfac, LinkTerres, LOV_GWGeol, LOV_GWVert, Capacity, Quantitati, Quantita_1, Quantita_2, ChemicalSt, Chemical_1, UpwardTren, UpwardTr1, TrendRever

Title	WISE WFD groundwater bodies – horizon 5
Name of feature class	m_gwb_h5
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	Polygons of WFD ground water bodies – horizon 5
Author / Custodian / Contact	EEA (Klaus Duscher), University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	EU-27 countries + CH
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EEA, Groundwater GIS reference layer v3 http://www.eea.europa.eu/data-and-maps/data/wise-groundwater#tab-metadata m_geodatabase_extent
Additional Information, Comments	Data for CH were merged with other European data.
Number of records	5
List of attributes	EU_CD_GW, HORIZON, GWB_MS, HORIZONORG, POLYGON_ID, EUGroundWa, EUGround_1, GWB_Schema, GWB_MS_CD, Lat, Long, GWB_Name, Out_of_RBD, Transbound, Prot_Area, Metadata, URL, OtherPresu, OtherImpac, Layered, Area, Scale, ScaleExpla, AverageDep, AverageThi, LOV_GWDepth, LinkSurfac, LinkTerres, LOV_GWGeol, LOV_GWVert, Capacity, Quantitati, Quantita_1, Quantita_2, ChemicalSt, Chemical_1, UpwardTren, UpwardTr1, TrendRever

Title	WISE WFD groundwater bodies – horizons 6 and 7
Name of feature class	m_gwb_h6_7
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	Polygons of WFD ground water bodies – horizons 6 and 7
Author / Custodian / Contact	EEA (Klaus Duscher), University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	EU-27 countries + CH
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EEA, Groundwater GIS reference layer v3 http://www.eea.europa.eu/data-and-maps/data/wise-groundwater#tab-metadata m_geodatabase_extent
Additional Information, Comments	Data for CH were merged with other European data.
Number of records	31
List of attributes	EU_CD_GW, HORIZON, GWB_MS, HORIZONORG, POLYGON_ID, EUGroundWa, EUGround_1, GWB_Schema, GWB_MS_CD, Lat, Long, GWB_Name, Out_of_RBD, Transbound, Prot_Area, Metadata, URL, OtherPresu, OtherImpac, Layered, Area, Scale, ScaleExpla, AverageDep, AverageThi, LOV_GWDepth, LinkSurfac, LinkTerres, LOV_GWGeol, LOV_GWVert, Capacity, Quantitati, Quantita_1, Quantita_2, ChemicalSt, Chemical_1, UpwardTren, UpwardTr1, TrendRever

Title	WISE WFD groundwater chemical status
Name of feature class	m_gwb_chem
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	Chemical status of groundwater bodies
Author / Custodian / Contact	CHMI (Vit Kodes), University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 km
Spatial Extent	EU-27 countries
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	Directorate-General for Environment (DG ENV) http://www.eea.europa.eu/data-and-maps/data/wise-groundwater#tab-gis-data http://www.izvrs.si/pregledovalnik_vtpv/ m_geodatabase_extent
Additional Information, Comments	Data of chemical status of all layers used to produce one chemical status for the need of regression analyses (WP 4.2). Legend for chemical status: 0 - unknown, 1 - good, 2 – poor Data for Slovenia has been added by University of Ljubljana.
Number of records	3
List of attributes	Id, chemical_status

Title	MARS estuaries hinterlands
Name of feature class	m_estuaries_hinterlands
Current version	1.0
Status	
Creation / Publication Date / Last Update	7.6.2016
Abstract / Definition	Hinterlands (catchments) of estuaries involved in MARS analyses
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 : 250 000
Spatial Extent	m_lakes_geodatabase_extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	ECRINS v1.1 (C_ZHYD), m_fec
Additional Information, Comments	Hinterlands of estuaries consist of hinterland of all FEC-s surrounding one estuary.
Number of records	91
List of attributes	estuary_name, m_hinterland, area_km2, fec_count

Title	10 km² grid
Name of feature class	eea_10km2_grid
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	10 km ² reference grid for all 1km ² raster datasets
Author / Custodian / Contact	EEA
Maintenance / Planned Update	
Spatial representation type	vector (polyline)
Spatial Resolution / Equivalent Scale	10 km × 10 km
Spatial Extent	Europe
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EEA reference grids: http://www.eea.europa.eu/data-and-maps/data/eea-reference-grids
Additional Information, Comments	

Title	1 km² polygon
Name of feature class	m_1km2_grid_polygon
Current version	1.0
Status	
Creation / Publication Date / Last Update	30.9.2015
Abstract / Definition	1 km ² reference grid for all 1km ² raster datasets (1km × 1 km polygons)
Author / Custodian / Contact	University of Ljubljana
Maintenance / Planned Update	
Spatial representation type	vector (polygon)
Spatial Resolution / Equivalent Scale	1 km × 1 km
Spatial Extent	MARS geodatabase extent
Distribution Format	ESRI geodatabase feature class
Dataset Location	MARSgeoDB_vector_v2.gdb http://www3.fgg.uni-lj.si/~mars/MARSgeoDB/
Data Sources	EEA reference grids: http://www.eea.europa.eu/data-and-maps/data/eea-reference-grids m_geodatabase_extent
Additional Information, Comments	