

PRODUCT DESCRIPTION

Plans, Regulations and Rights

DOCUMENT VERSION: 4.2.1

Figure 1. Example image for the Property Map in scale 1:10 000.

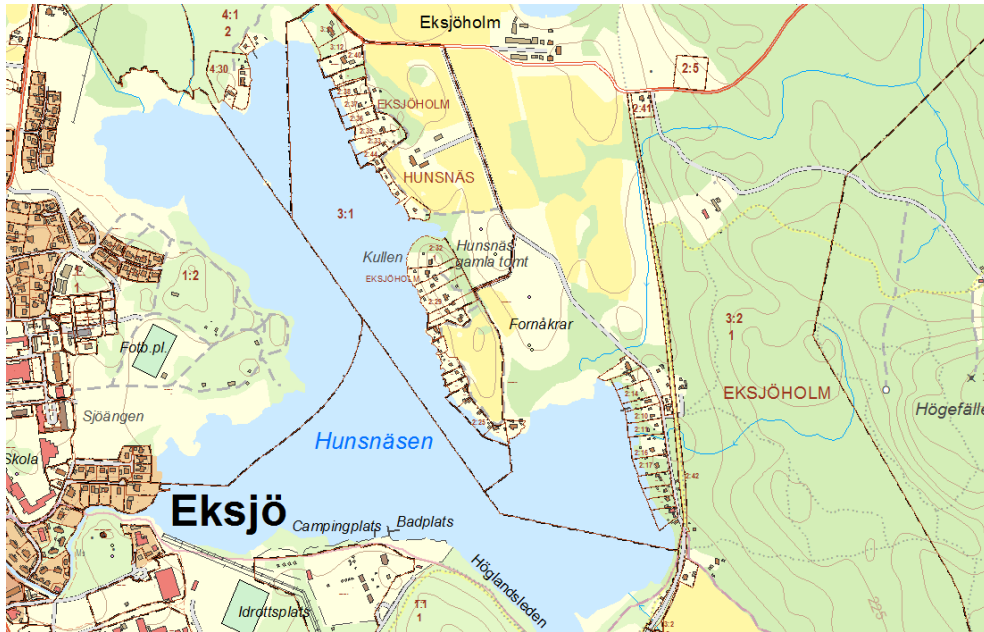


Table of contents

1	GENERAL DESCRIPTION	4
1.1	CONTENTS	4
1.2	GEOGRAPHIC COVERAGE	4
1.3	COORDINATE SYSTEM	4
2	QUALITY DESCRIPTION	5
2.1	PURPOSE AND UTILITY	5
2.2	DATA CAPTURE	5
2.2.1	<i>Lineage</i>	5
2.3	MAINTENANCE	6
2.3.1	<i>Maintenance frequency</i>	6
2.4	DATA QUALITY	6
2.4.1	<i>Completeness</i>	6
2.4.2	<i>Logical consistency</i>	6
2.5	THEMATIC ACCURACY	7
2.5.1	<i>Positional accuracy</i>	7
3	CONTENTS OF THE DELIVERY	9
3.1	FOLDER STRUCTURE AT DELIVERY	9
3.1.1	<i>Documents</i>	9
3.1.2	<i>Fastighk</i>	9
3.1.3	<i>Fonts</i>	9
3.2	FILE SETS	9
3.2.1	<i>Shape format</i>	9
3.2.2	<i>MapInfo format</i>	10
3.3	LAYERING	10
3.4	ON-SCREEN PRESENTATION	10
4	LAYER DESCRIPTION AND CODE LIST	11
4.1	RIGHTS AND JOINT FACILITIES	12
4.1.1	<i>Rights</i>	12
4.1.2	<i>Joint facilities</i>	13
4.1.3	<i>Data capture</i>	14
4.1.4	<i>Maintenance frequency</i>	14
4.1.5	<i>Data quality</i>	14
4.1.6	<i>RY Polygons with rights and joint facilities</i>	16
4.1.7	<i>RL Boundary lines with rights and joint facility polygon areas</i>	18
4.1.8	<i>RP ID points with rights and joint facilities polygons</i>	20
4.1.9	<i>RO lines with rights and joint facilities</i>	21
4.1.10	<i>RS Points with rights and joint facilities</i>	23
4.1.11	<i>RQ Boundary points with rights and joint facilities</i>	25
4.1.12	<i>RT Text with rights and joint facilities</i>	28
4.1.13	<i>RI Symbol with rights and joint facilities</i>	30
4.2	PLANS	31
4.2.1	<i>Data capture</i>	32
4.2.2	<i>Maintenance frequency</i>	33
4.2.3	<i>Data quality</i>	34
4.2.4	<i>PY Polygons with planes</i>	36
4.2.5	<i>PL Boundary lines with polygons in plans</i>	39
4.2.6	<i>PP ID points with plans' polygons</i>	41
4.3	REGULATIONS	43
4.3.1	<i>Data capture</i>	45
4.3.2	<i>Maintenance frequency</i>	45
4.3.3	<i>Data quality</i>	46
4.3.4	<i>EY Polygons with regulations</i>	48

4.3.5	<i>EL Boundary lines with regulation polygons</i>	53
4.3.6	<i>EP ID points with regulations</i>	54
4.3.7	<i>EO Lines with regulations</i>	56
4.3.8	<i>ES Point objects with regulations</i>	58
4.3.9	<i>EQ Boundary points with regulations</i>	60
4.3.10	<i>ET Text with regulations</i>	63
4.3.11	<i>EI Symbols with regulations</i>	66
4.4	ANCIENT REMAINS	67
4.4.1	<i>Data capture</i>	68
4.4.2	<i>Maintenance frequency</i>	68
4.4.3	<i>Data quality</i>	68
4.4.4	<i>LY Polygons with ancient remains</i>	70
4.4.5	<i>LL Lines with ancient remains</i>	71
4.4.6	<i>LP ID points with ancient remains polygons</i>	73
4.4.7	<i>LS Points with ancient remains</i>	74
4.4.8	<i>LT Text with ancient remains and other cultural-historical remains</i>	76
4.5	OTHER CULTURAL-HISTORICAL REMAINS	78
4.5.1	<i>Data capture</i>	78
4.5.2	<i>Maintenance frequency</i>	78
4.5.3	<i>Data quality</i>	79
4.5.4	<i>GY Polygons with other cultural-historical remains</i>	80
4.5.5	<i>GL Lines with other cultural-historical remains</i>	81
4.5.6	<i>GP ID points with polygons of other cultural-historical remains</i>	83
4.5.7	<i>GS Points with other cultural-historical remains</i>	85
5	LIST OF CHANGES	87
	APPENDIX 1: PROPOSED DRAWING ORDER OF LAYERS	88

I General description

Real property, rights, joint facilities, plans and regulations are presented in the general section of the Real Property Register. The general section contains a text section and a map section - the Cadastral Index Map. The Cadastral Index Map displays a selection of the information found in the Real Property Register's general section, text section. Read more about the Real Property Register and the Cadastral Index Map at [Lantmäteriet's website](#).

I.1 Contents

The product contains rights, joint facilities, plans, as well as regulations on the use land from the Cadastral Index Map. It is a complement to the GSD Property Map, Vector, which contains real property boundaries from the Cadastral Index Map. The product also contains ancient remains and other cultural-historical remains. Boundaries presented have no legal effect, however.

For a more detailed description of how information is processed in the Cadastral Index Map, please refer to the Swedish handbook for the Cadastral Index Map: Handbok Registerkarta, LMV Rapport 2004:6, ISSN 0280-5731. The above manual is available for downloading in Swedish at [Lantmäteriet's website](#).

I.2 Geographic coverage

The whole of Sweden.

I.3 Coordinate system

Plane: SWEREF 99 TM

Height system: the Swedish national RH 2000 height system

For information on what other coordinate systems the product can be delivered with, refer to the Swedish document on fees and delivery information [Avgifter och leveransinformation för Lantmäteriets geodata \(pdf\)](#) at Lantmäteriet's website.

2 Quality description

Content and updates vary around the country. Quality deficiencies are partly due to historical reasons, but updating and storage of information may also cause certain shortcomings. There are constant improvements, however. Work is ongoing to complement the map and text with information which, for various reasons, is missing.

The objects in the database are stored with data on history and positional accuracy.

For more information about the various quality parameters used in the product description, refer to [HMK Ordlista \(pdf\)](#) and [HMK Geodatakvalitet \(pdf\)](#). For terms and definitions of these, refer to the [termdatabasen Ekvator](#).

2.1 Purpose and utility

Plans, Regulations and Rights is a supplement to the GSD Property Map, Vector, which is Lantmäteriet's most detailed map. Plans, Regulations and Rights contains information from the Real Property Register's map part, the Cadastral Index map. The product gives information on what plans and land management regulations apply to a particular area or property, e.g. detailed development plans, nature reserves and building memorials. It also includes any easement, fishing rights, public road right or other rights that are associated with a specific property. The product also includes ancient remains and other cultural-historical remains.

The vector format allows you to tailor the map to your own operations.

You can:

- add and link your own information to objects on the map
- integrate map data in your own system
- display information as required using the layer division

2.2 Data capture

2.2.1 LINEAGE

Rights, joint facilities, plans and regulations are retrieved from a variety of original materials. For example, they may be digitized from old maps or measured with great accuracy using GPS. The contents are thus of varying quality.

The current accounting of plans and regulations in the Real Property Register was in connection with the introduction of the Planning and Building Act in 1987 and the display system that was then introduced in the Real Property Register. Prior to this date, certain plans and regulations were only presented in text information as a note on the real properties concerned. There was a note on the real property that it was affected by a plan, for example, and it also included a reference to the decision document in the archive. Several plans and regulations were also presented on old, partly original maps.

With the introduction of an object-oriented method of displaying information, these notes and maps were used to build up a new information base. In addition to this, the contents were supplemented with plans and regulations which had not been inserted but which should be included. This meant that Lantmäteriet contacted municipalities and county administrative boards etc. so that they could complement the content with their materials as much as possible.

2.3 Maintenance

2.3.1 MAINTENANCE FREQUENCY

The information is continuously updated by Lantmäteriet and municipal surveying authorities or other authorities, depending on the type of information. The aim is that plans and regulations should be stored in the Real Property Register within 3 weeks of them gaining legal force.

The date is noted when each object is stored or changed in the database.

2.4 Data quality

2.4.1 COMPLETENESS

Completeness is related to the selection of each detail type. Refer to the sections that describe the layers included in the product description to learn more about the selection of each detail type. There are also some rules regarding generalisation of information in Plans, Regulations and Rights that restrict the number of items presented on the map.

According to the norms, quality parameters for the quality theme of completeness are commission and omission. Since there are few measurements made of the completeness of objects included in Plans, Regulations and Rights at Lantmäteriet, completeness is often referred to as very high, high, and low in the product description. The class of completeness that the different detail types fall into is assessed by those involved in the collection and updating of objects.

2.4.2 LOGICAL CONSISTENCY

Demands placed on the structures and geometrical positions of point objects, line objects and polygons must enable the easy creation of topology.

When storing objects in the Lantmäteriet database they are first checked for compliance with the established geometric and topological rules and that the information is consistent with OGC (Open Geospatial Consortium) requirements for geometries. Value quantities and detail types are also checked for validity before being stored in the database.

The ID point is the carrier of identity for polygon objects. For point or line objects, the identity is stored directly on the object.

Cartographic information text is located without links to the object.

2.5 Thematic accuracy

In general, thematic accuracy is high in Plans, Regulations and Rights.

2.5.1 POSITIONAL ACCURACY

Information on positional accuracy depends on the measurement method, generalisation and how distinct the object is.

Positional accuracy describes how well a given position corresponds to its real position in the terrain for an object positioned in relation to the principal coordinate system.

Geometrical requirements on positional accuracy depend on the objects' distinctness with-in a geographically limited area.

Table 1. METODPLAN – codes for which measurement methods were used for data capture.

Code	Type of method	Technique	Type of basic data for digitization
000	Unspecified	Unspecified	
100	Geodetic	Unspecified	
101	Geodetic	Total station	
102	Geodetic	GPS	
103	Geodetic	DGNSS	
104	Geodetic	Absolute GNSS	
107	Geodetic	Inertial technology	
108	Geodetic	Adjusted	
109	Geodetic	Network RTK	
110	Geodetic	Network DGNSS	
111	Geodetic	Static GNSS	
201	Photogrammetric	Analogue photogrammetry	
202	Photogrammetric	Analytical photogrammetry	
203	Photogrammetric	Digital photogrammetry – analogue camera	
204	Photogrammetric	Unspecified technology	

Code	Type of method	Technique	Type of basic data for digitization
205	Photogrammetric	Digital photogrammetry – digital camera	
300	Digitization	Unspecified	Unspecified
310	Digitization	Table digitization	Unspecified
314	Digitization	Table digitization	Orthophotography
320	Digitization	Screen digitization	Unspecified
324	Digitization	Screen digitization	Orthophotography
330	Digitization	Scanning	Unspecified
500	Cartographic position	Unspecified	
600	Interpreted through JB 1:5		

3 Contents of the delivery

A section of a selected area is made on delivery of rights, plans, regulations, ancient remains and other cultural-historical remains. If a polygon has an identity point out-side the section, the identity point will not be included in the delivery but the external identity comes with the polygon.

Gaps in boundary lines on polygons may occur. This means that the polygon will not be included in the delivery, but boundary lines of the polygon and the identity point will be included.

3.1 Folder structure at delivery

3.1.1 DOCUMENTS

This folder comes with every delivery and contains the documents that describe the product.

3.1.2 FASTIGHK

This folder contains one or more sub-folders with data and a grid created from the polygon, *rutnat.**. The grid has an attribute, RUTA, which contains a designation of the index grid. Each sub-folder contains data for the area ordered (e.g. data for a certain municipality or an area defined by coordinates). In addition to the files with map information, this folder also contains a file in which the total number of objects in each layer are listed.

3.1.3 FONTS

TrueType fonts are attached in the file *GSDsymbols.ttf*.

3.2 File sets

3.2.1 SHAPE FORMAT

When delivered in Shape format, there are 4 files per layer (5 if SWEREF 99 TM is used):

Table 2. List of which 4 files are delivered for the shape format.

*.shp	Geometry file.
*.dbf	Attribute files in Dbase format.
*.shx	Index file.
*.prj	Projection file.

A geometry index is not created for Shape files.

An attribute index is not created for Dbase files.

Text files are also delivered in ArcInfo Coverage format:

Table 3. List of text layers in the Coverage format.

*	ArcInfo Coverage with rendered text.
---	--------------------------------------

3.2.2 MAPINFO FORMAT

When delivered in MapInfo format (tab) there are 4 files per layer:

Table 4. List of which 4 files are delivered for the MapInfo format.

*.tab	Main file/Table definitions.
*.dat	Attribute file.
*.map	Geometry file.
*.id	Index file for graphic objects.

Neither geometry nor attribute indexes are created.

3.3 Layering

When the rights, plans, regulations, ancient remains and other cultural-historical remains are delivered in MapInfo format, the information is divided into a number of layers based on the type of geometry and the theme to which it belongs. The files are primarily named with this logic: the first letter indicates the theme and the second indicates geometry type (e.g. l for line, p/s for point/symbol and t for text). The second part of the name (after "_") is common to all files in a folder.

The set of attributes varies between different layers.

3.4 On-screen presentation

There is no portrayal included in the Shape format.

There is one simple portrayal in MapInfo. To obtain the correct display of symbols, TrueType font GSD symbols must be installed. It is attached in the delivery as the GSDSymbol.ttf file.

GSDSymbol.ttf is installed via Control Panel - Fonts, in order to obtain the correct presentation of symbols.

4 Layer description and code list

This chapter describes layer by layer which details are included and what attributes they contain.

The layers are described as below:

- The column *Layer Name* contains the layer name/file name is stated that the files have on delivery. XXXXX = sheet code/area name.
- The *Detail type* column contains the alphanumeric code for the object is stated.
- The *Name* column contains the detail type is stated in plain text.
- The *Description* column contains the detail type is described more clearly. This is used for some attributes.
- The *Selection* column contains limits for which items are included in the map are described. This is used for some attributes.

The attributes are described as follows:

- The *No.* column contains a serial number is given for the layer's attributes.
- The *Attribute* column contains the attribute's name is specified.
- The *Type* column contains the type of data used is stated, e.g. text/numeric.
- The *Length* column contains the number of characters allocated to this field are stated.
- The *Description* column contains a short description of the attribute is given.

4.1 Rights and joint facilities

4.1.1 RIGHTS

With respect to rights, only official rights are presented, i.e. entitlements acquired through an authority's decision or a court order. Rights brought about by agreement, i.e. easement agreements and contractual rights, are not presented.

Official rights are not fully presented. Official rights adopted prior to 1972 were not recorded at all in the general part of the Real Property Register. When new rights began to be registered in 1972 they were only registered in the text part. Not until the 1990s when map processing became digital were new rights added, including in the Cadastral Index Map.

Table 5. List of different types of official rights linked to legal space.

Official rights	Reference to legislation
The Official Easement Act	<ul style="list-style-type: none"> • The Act (1902:71 p. 1), contains certain regulations on electrical installations • the Act (1933:269) concerning Trespass Prevention. • Private Roads Act (1939:608) • Real Property Formation Act (1970:988) • Expropriation Act (1972:719) • Joint Facilities Act (1973:1149) • Planning and Building Act (2010:900) • or corresponding previous regulation
Official Usufruct	<ul style="list-style-type: none"> • Act, including certain regulations on electrical installations • Planning and Building Act • Expropriation Act • Railway Building Act (1995:1649) • or corresponding previous regulation
Utility Easement	<ul style="list-style-type: none"> • Utility Easements Act (1973:1144)
Public road right	<ul style="list-style-type: none"> • Roads Act (1971:948)
e.g. boundary for crown land, i.e. reindeer husbandry rights on land that previously belonged to the state	<ul style="list-style-type: none"> • Real Property Register Ordinance, Section 23, and Lantmäteriets Statutes 2004:1 Sections 1-37

Besides official rights, individual and collective independent fishing is presented. Independent fishing refers to special fishing lots, fishing according to the Land Book and joint fishery units.

Table 6. List with description of different types of fishing rights.

Fishing rights	Explanation
Special fishing lots	area where ownership of fishing is distinguished from ownership of the water
Joint fishery unit	area where fishing is collective

A right may have boundary points, detail type RGRÄ. Boundary points also have an at-tribute, MTYP (marking type), which shows the type of the marker on the ground in cases where boundary points are marked.

4.1.2 JOINT FACILITIES

Areas with permanent units for joint facilities are also presented.

Table 7. List of different types of community facilities connected to law rooms.

Joint facility	Reference to legislation
Joint facilities	<ul style="list-style-type: none"> Joint Facilities Act (1973:1149) Act concerning certain Joint facilities (1966:700)
Road maintenance association	<ul style="list-style-type: none"> Private Roads Act (1939:608), Chapter 3.
Jointly-owned road system	<ul style="list-style-type: none"> Private Roads Act (1939:608), Chapters 2 or 4. or corresponding previous regulation

A joint facility (abbreviated to ga in Swedish) is a facility for the benefit of several buildings, created in accordance with the Facilities Act. A joint facility is managed either by a joint property association or by part-owner administration. Examples of joint facilities are: roads, water facilities or sewage facilities, green areas, playgrounds, garages or parking space, energy facilities, shared harbours, swimming areas, stairways and lifts.

The theme Rights and joint facilities contains the following layers:

Table 8. Layers for rights and community facilities.

Rights and joint facilities	Layer name
Rights and joint facilities (polygons)	RY
Boundary lines for rights and joint facilities (lines)	RL
ID points for polygons (point)	RP
Line displays of rights and joint facilities (lines)	RO
Point displays of rights and joint facilities (point)	RS

Rights and joint facilities	Layer name
Boundary points for rights and joint facilities (point)	RQ
Information text (text)	RT
Symbol (text arrow)	RI

4.1.3 DATA CAPTURE

LINEAGE

Data on rights and joint facilities are retrieved from a number of different sources. They could be digitized from old maps, for example, or measured with high accuracy, which is why the content may vary in quality. GPS is now used as a method of measurement, which ensures high quality.

4.1.4 MAINTENANCE FREQUENCY

Information is updated by the government agency, Lantmäteriet, as well as municipal surveying authorities (KLM). Data to be presented in both the Cadastral Index Map and in the text part of the Real Property Register must be stored in the Cadastral Index Map within two working days of its entry in the text part. Delays may occur, however. Work is also carried out continuously to complement the Cadastral Index Map with official rights that were not entered before 1972.

4.1.5 DATA QUALITY

COMPLETENESS

Some older rights are missing in the Real Property Register since prior to 1972 there was no requirement that these should be presented. An existing right in the text part may be missing or presented incompletely in the Cadastral Index Map.

Areas for easements are not presented on the Cadastral Index Map since they are agreements between persons and not between real properties.

Joint facilities formed prior to the Joint Facilities Act which entered into force in 1974, may not be found in the register.

A few municipal surveying authorities deliver their rights with a one month delay. For this reason, there may be a temporary difference between the map and the register.

LOGICAL CONSISTENCY

Every right and joint facility has its own object in the form of polygons, lines or points. They may overlap with other rights and joint facilities. Utility rights may cross other utility rights and easements.

There is one important exception, however. Two or more partial geometries belonging to the same right may not overlap each other.

There are certain exceptions for joint facilities. They may have lines and points presented on a polygon even though the polygon has the same designation as the other point or line. Two ga polygons with the same designation may not overlay each other, however. In other cases, the above rules apply.

Rights and joint facilities' identity consists of a designation or file designation which can also be found in the text part of the general section in the Real Property Register.

Example of rights identity:

2187-90/102.2

20-GAG-934.1

2181K-66.1

2180-98/65.3

A File in which the right is formed; after the point there is a serial number

Boundary points for rights are stored with an external ID, which is nationally unique. It is built up as in the following example:

*1730EDAS*RGRÄ*1348*

*Municipality code + area * type * serial number*

In general, rights are presented in their entirety. In other cases they are presented as a line or a point. The designation is presented in brackets if the position of an easement is known approximately (uncertain position).

Example of identity of a joint facility:

Gävle Brottbby ga:4

1080>TORSTÄVA>GA:1

Municipality, district, registration number

The general rule is that all rights and joint facilities are presented as a polygon if possible. Depending on the accuracy of the data, rights and joint facilities may be presented as a polygon, line or point. A ga, on the other hand, can never have an uncertain position. Rights or joint facilities are presented as a point or line only if their extent is not known. Only a line is used for public road rights with uncertain extent.

THEMATIC ACCURACY

Thematic accuracy is high for rights and joint facilities.

POSITIONAL ACCURACY

All boundaries and points for rights have a value specified for positional accuracy, which is stored in the form of a mean square error. The mean square

error is stated with millimetre accuracy and refers to the positional accuracy in relation to the principal coordinate system, e.g. SWEREF 99 TM, in which it is presented. The mean square error is almost always calculated or estimated on the basis of the measurement methods used for data capture (METODPLAN). The value may be regarded as an assumed value for the measurement method used.

Rights are measured in connection with cadastral procedure and therefore have the same positional accuracy as real property division.

4.1.6 RY POLYGONS WITH RIGHTS AND JOINT FACILITIES

The layer contains the extents of rights and joint facilities as polygons. There is information in the details about the geometric quality of the right or joint facility, as well as its designation and the real property on which it is located.

Table 9. Contents in RY polygons with rights and joint facilities.

Layer name	Detail type	Name	Description	Selection
RY_xxxx	GAANLÄGG N	Joint facility	Polygon for joint facility.	Included completely for permanent joint facilities in accordance with Section 37 of FRF.
RY_xxxx	LEDNRÄTT	Utility easement	Polygon for utility easement	Included if public road right is active in the text part of the Real Property Register.
RY_xxxx	NYTTRÄTT	Usufruct	Polygon for usufruct	Included if usufruct is active in the text part of the Real Property Register.
RY_xxxx	SERVITUT	Easement	Polygon for easement. Prior to 1972, no easements were included on the Cadastral Index Map. Work to supplement the information is in progress.	Included if easement is active in the text part of the Real Property Register.
RY_xxxx	VÄGRÄTT	Public road right	Polygon for public road right	Included through assessment by the cadastral authorities.
RY_xxxx	FISKELOTT	Special fishing lots	Polygon for special fishing lot, i.e. where ownership of fishing is separated from ownership of the water.	Included if the fishing is in the text part of the Real Property Register

Layer name	Detail type	Name	Description	Selection
RY_xxxx	FISKESAMF	Joint fishery unit	Polygon for joint fishery unit	Included if the fishing is in the text part of the Real Property Register

Table 10. Set of attributes for RY polygons with rights and joint facilities.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	EXTERNID	Text	64	Text	64	External ID from Lantmäteriet's basic database; e.g. '05-HÅL-1343.4'
2	DETALJTYP	Text	10	Text	10	Code for detail type
3	YTKVAL	Numerical	2.0	Numerical	2.0	Geometric polygon quality. 0 treated as null value. Refer to detailed description below.
4	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
5	RATBET	Text	23	Text	23	Designation of right; e.g. '05-HÅL-1343.4'
6	RATTYP	Numerical	1.0	Numerical	1.0	Type of right Refer to detailed description below.
7	KOMMUNKOD	Text	4	Text	4	County and municipal code; e.g. '2180'.
8	TRAKT	Text	40	Text	40	District name
9	BLOCKENHET	Text	9	Text	9	Block and unit; e.g. '1:3'.
10	REGTYP	Text	2	Text	2	Type of register unit Refer to detailed description below.
11	FNR_FDS	Text	10	Text	10	Real property key in the text part of the general section in the Real Property Register. (210002312)
12	OBJEKT_ID	Text	36	Text	36	Globally unique identity (UUID) for every register unit.

Table 11. YTKVAL.

Code	Description	Comment
1	The polygon is geometrically correct	
2	The polygon has geometric duplicates.	There are several polygons with identical geometries, one for each point in the AP layer, and every polygon has the identity of the corresponding point.
6	The polygon is not geometrically correct	Polygons that contain errors in the structure such as gaps, overhang, missing ID point or are otherwise incorrect. These polygons may also have multiple ID points or lack identity.

Table 12. RATTYP.

Code	Description
1	Official easement
3	Official usufruct
4	Utility easement

Table 13. REGTYP.

Code	Description
F	Real property
GA	Joint facility
S	Joint property unit
FS	Joint fishery unit

4.1.7 RL BOUNDARY LINES WITH RIGHTS AND JOINT FACILITY POLYGON AREAS

Contains the boundary lines for rights areas and joint facilities that are presented with polygons in the RY layer. The details show information on quality in the form of mean square horizontal error.

An enclosing boundary is only used to form a closed figure when rights or joint facilities are not fully presented.

Table 14. Contents in RL boundary lines with rights and joint facility polygon areas.

Layer name	Detail type	Name	Description	Selection
RL_xxxx	FDSTATGR	Boundary of previously state-owned land	Applies to land with specific rules on reindeer grazing	
RL_xxxx	GAGR	Joint facility boundary		
RL_xxxx	LEDNRÄTGR	Utility easement boundary		
RL_xxxx	NYTTRÄTGR	Usufruct boundary		
RL_xxxx	RÄTTÄTGR	Enclosing boundary for rights		
RL_xxxx	SERVGR	Easement boundary		
RL_xxxx	VÄGRÄTTGR	Boundary for public road right		
RL_xxxx	FISKEGR	Fishing boundary		
RL_xxxx	FISKETÄTGR	Enclosing boundary for fishing		

Table 15. Set of attributes for RL boundary lines with rights and joint facility polygon areas.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	INTERNID	Numerical	9	Numerical	9	Internal identity in Lantmäteriet's basic data storage
2	DETALJTYP	Text	10	Text	10	Code for detail type
3	GDAT	Text	16	Text	16	Date/time when detail was created. Stated in format: 2005-10-11 12:04
4	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
5	XYFEL	Numerical	6.0	Numerical	6.0	Mean square error. Stated in unit mm. The value varies between 25 – 999,999. 0 treated as null value.
6	METODPLAN	Numerical	5.0	Numerical	5.0	Method of measuring position in plane; refer to table in Chapter 2.4.4
7	FLYGHOJD	Numerical	7.0	Numerical	7.0	Flying height when collecting photogrammetric data
8	UNDSKALA	Numerical	7.0	Numerical	7.0	Document scale factor when digitizing

4.1.8 RP ID POINTS WITH RIGHTS AND JOINT FACILITIES POLYGONS

Contains identity points for rights and joint facilities which are presented with polygons in the RY layer. There is information in the details about the rights or joint facilities' designation and the real property where they are located.

Table 16. Contents in RP ID points with rights and joint facilities polygons.

Layer name	Detail type	Name	Description	Selection
RP_XXXX	RÄTTIGID	Right or joint facility, ID point		
RP_XXXX	FISKEID	Independent fishing, ID point		

Table 17. Set of attributes for RP ID points with rights and joint facilities polygons.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	EXTERNID	Text	64	Text	64	External ID from Lantmäteriet's basic database; e.g. '05-HÅL-1343.4'
2	DETALJTYP	Text	10	Text	10	Code for detail type
3	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
4	XYFEL	Numerical	6.0	Numerical	6.0	Mean square horizontal error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 treated as null value.
5	RATBET	Text	23	Text	23	Designation of right; e.g. '05-HÅL-1343.4'
6	RATTYP	Numerical	1.0	Numerical	1.0	Type of right For detailed description refer to Chapter 4.1.
7	KOMMUNKOD	Text	4	Text	4	County and municipal code; e.g. '2180'.
8	TRAKT	Text	40	Text	40	District name
9	BLOCKENHET	Text	9	Text	9	Block and unit; e.g. '1:3'.
10	REGTYP	Text	2	Text	2	Type of register unit. Refer to detailed description in Chapter 4.1.
11	FNR_FDS	Text	10	Text	10	Real property key in FR (210002312)
12	OBJEKT_ID	Text	36	Text	36	Globally unique identity (UUID) for every register unit.

4.1.9 RO LINES WITH RIGHTS AND JOINT FACILITIES

Contains line-shaped rights and joint facilities where the extent is unknown. There is information in the details about the rights or joint facilities' quality in the form of mean square horizontal error, designation and the real property where it is located.

Table 18. Contents in RO lines with rights and joint facilities.

Layer name	Detail type	Name	Description	Selection
RO_xxxx	GAANLÄGGN	Joint facility		
RO_xxxx	LEDNRÄTT	Utility Easement		
RO_xxxx	NYTTRÄTT	Usufruct		
RO_xxxx	SERVITUT	Easement		

Layer name	Detail type	Name	Description	Selection
RO_xxxx	VÄGRÄTT	Area for public road right		
RO_xxxx	FISKELOTT	Special fishing lots		
RO_xxxx	FISKESAMF	Joint fishery unit		

Table 19. Set of attributes for RO lines with rights and joint facilities.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	INTERNID	Numerical	9	Numerical	9	Internal identity in Lantmäteriet's basic data storage
2	EXTERNID	Text	64	Text	64	External ID from Lantmäteriet's basic data storage; e.g. '05-HÅL-1343.4'
3	DETALJTYP	Text	10	Text	10	Code for detail type
4	G DAT	Text	16	Text	16	Date/time when detail was created. Stated in format: 2005-10-11 12:04
5	A DAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
6	XYFEL	Numerical	6.0	Numerical	6.0	Mean square error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 is counted as a null value
7	RATBET	Text	23	Text	23	Designation of right; e.g. '05-HÅL-1343.4'
8	RATTYP	Numerical	1.0	Numerical	1.0	Type of right For detailed description refer to Chapter 4.1.
9	KOMMUNKOD	Text	4	Text	4	County and municipal code; e.g. '2180'.
10	TRAKT	Text	40	Text	40	District name

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
11	BLOCKENHET	Text	9	Text	9	Block and unit; e.g. '1:3'.
12	REGTYP	Text	2	Text	2	Type of register unit. Refer to detailed description in Chapter 4.1.
13	FNR_FDS	Text	10	Text	10	Real property key in FR (210002312)
14	OBJEKT_ID	Text	36	Text	36	Globally unique identity (UUID) for every register unit.
15	METODPLAN	Numerical	5.0	Numerical	5.0	Measurement method in plane
16	FLYGHÖJD	Numerical	7.0	Numerical	7.0	Flying height when collecting photogrammetric data
17	UNDSKALA	Numerical	7.0	Numerical	7.0	Document scale factor when digitizing

4.1.10 RS POINTS WITH RIGHTS AND JOINT FACILITIES

Contains rights and joint facilities where the extent is small or unknown. The layer also contains the symbol for joining two geometries as one object and end of line-section rights. There is information in the details about the rights or joint facilities' quality in the form of mean square horizontal error, designation and the real property where it is located.

Table 20. Contents in RS points with rights and joint facilities.

Layer name	Detail type	Name	Description	Selection
RS_XXXX	GAANLÄGGN	Joint facility		
RS_XXXX	LEDNRÄTT	Utility easement		
RS_XXXX	NYTTRÄTT	Usufruct		
RS_XXXX	SERVITUT	Easement		
RS_XXXX	FISKELOTT	Special fishing lots		
RS_XXXX	FISKESAMF	Joint fishery unit		
RS_XXXX	RSTOPP.S	End of line-section right		

Layer name	Detail type	Name	Description	Selection
RS_XXXX	R-SINKA	“Dovetail” for right	Symbol for joining two geometries as one object for right	

Table 21. Set of attributes for RS points with rights and joint facilities.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	INTERNID	Numerical	9	Numerical	9	Internal identity in Lantmäteriet's basic data storage
2	EXTERNID	Text	64	Text	64	External ID from Lantmäteriet's basic data storage; e.g. '05-HÅL-1343.4'
3	DETALJTYP	Text	10	Text	10	Code for detail type
4	GDAT	Text	16	Text	16	Date/time when detail was created. Stated in format: 2005-10-11 12:04
5	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
6	XYFEL	Numerical	6.0	Numerical	6.0	Mean square error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 is counted as a null value
7	RATBET	Text	23	Text	23	Designation of right; e.g. '05-HÅL-1343.4'
8	RATTYP	Numerical	1.0	Numerical	1.0	Type of right For detailed description refer to Chapter 4.1.
9	KOMMUNKOD	Text	4	Text	4	County and municipal code; e.g. '2180'.
10	TRAKT	Text	40	Text	40	District name
11	BLOCKENHET	Text	9	Text	9	Block and unit; e.g. '1:3'.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
12	REGTYP	Text	2	Text	2	Type of register unit. Refer to detailed description in Chapter 4.1.
13	FNR_FDS	Text	10	Text	10	Real property key in FR (210002312)
14	OBJEKT_ID	Text	36	Text	36	Globally unique identity (UUID) for every register unit.
15	METODPLAN	Numerical	5.0	Numerical	5.0	Method of measurement in plane; refer to table in Chapter 2.4.4
16	FLYGHÖJD	Numerical	7.0	Numerical	7.0	Flying height when collecting photogrammetric data
17	UNDSKALA	Numerical	7.0	Numerical	7.0	Document scale factor when digitizing

4.1.11 RQ BOUNDARY POINTS WITH RIGHTS AND JOINT FACILITIES

The layer contains boundary points for rights and joint facilities.

Table 22. Contents in RQ boundary points with rights and joint facilities.

Layer name	Detail type	Name	Description	Selection
RQ_xxxx	RGRÄ	Right boundary point		

Table 23. Set of attributes for RQ boundary points with rights and joint facilities.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	INTERNID	Numerical	9	Numerical	9	Internal identity in Lantmäteriet's basic data storage
2	EXTERNID	Text	64	Text	64	Designation of boundary points; consists of area*type*serial number
3	DETALJTYP	Text	10	Text	10	Code for detail type
4	MTYP	Text	6	Text	6	Type of marker

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
5	MLAGE	Text	6	Text	6	Position of marking; refer to detailed description below.
6	GDAT	Text	16	Text	16	Date/time when detail was created. Stated in format: 2005-10-11 12:04
7	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
8	XYFEL	Numerical	6.0	Numerical	6.0	Mean square error. Stated in unit mm. The value varies between 25 - 999,999 mm. 0 treated as null value.
9	METODPLAN	Numerical	5.0	Numerical	5.0	Method of measuring position specification in plane; refer to detailed description below.
10	KVALFORB	Numerical	2.0	Numerical	2.0	Quality improvement measure: refer to detailed description below.
11	FLYGHOJD	Numerical	7.0	Numerical	7.0	Flying height when collecting photogrammetric data
12	UNDSKALA	Numerical	7.0	Numerical	7.0	Document scale factor when digitizing

Table 24. KVALFORB.

Code	Description	Comments/sketch
0	No information	
1	New measurement	The position specification of the point has been improved by new measurement
2	Transformation/Alignment	The position specification of the point has been improved by transformation or alignment with points of higher positional accuracy.

Table 25. MLAGE.

Code	Description
0	No information
1	On breakpoint
2	On polygon
3	Detached

Table 26. MTYP.

Code	Description
	No information
Db	Peg in rock
Dg	Peg in concrete
Dh	Peg in building
Dm	Peg in wall
Ds	Peg in earthbound stone
Fr	Boundary mark (Five stone cairn)
Fs	Fixed signal (photogrammetry)
Gr	Glazed pipe
Graf	Graphic point
Hb	Drill hole in rock
Hg	Drill hole in concrete
Hs	Drill hole in earthbound stone
Jk	Iron bracket
Js	Iron bar
Kv	Console for wall marker
Mp	Target point (spire etc.)

Code	Description
Ms	Brass screw
Om	Unmarked boundary point
Rb	Pipe in rock
Rg	Pipe in concrete
Rgd	Pipe in concrete with cover
Rm	Pipe in ground
Rmd	Pipe in ground with cover
Rn	Hoar stone (border stone)
Rs	Pipe in earthbound stone
Sa	Spike in asphalt
Sb	Spike in rock
Sg	Spike in concrete
Ss	Spike in earthbound stone
St	Fencepost
Tp	Pole of wood

4.1.12 RT TEXT WITH RIGHTS AND JOINT FACILITIES

Contains information text on rights and joint facilities.

Table 27. Contents in RT text with rights and joint facilities.

Layer name	Detail type	Name	Description	Selection
RT_xxxx	R-UPPLYTX	Information text for right	Used for both rights and joint facilities.	

Table 28. Set of attributes for RT text with rights and joint facilities.


No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KARTTEXT	Text	64	Text	64	Abbreviated or hyphenated text string; e.g. 'ga:1'
2	TDELIDX	Numerical	2.0	Numerical	2.0	Hyphenating part 0 = not hyphenated otherwise 1-9 for each substring.
3	TDELID	Numerical	9.0	Numerical	9.0	Coherent identity of all included substrings for hyphenated/abbreviated text.
4	REGTEXT	Text	64	Text	64	
5	DETALJTYP	Text	10	Text	10	Code for detail type
6	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
7	TRIKT	Numerical	8.2	Numerical	8.2	Text orientation. Stated in unit degrees (0.00 – 360.00, increasing anti-clockwise). 0.00=Unoriented text
8	TJUST	Numerical	1.0	Numerical	1.0	Insertion point of text (1-9). Insertion point in NUMERICAL point. <i>Figure 2. Figure showing nine possible anchor points for text.</i> 
9	THOJD	Numerical	4.0	Numerical	4.0	Text height in the form of code. 0 treated as null value. Refer to detailed description below.
10	TREPR	Numerical	1.0	Numerical	1.0	Scale area for text. Refer to detailed description below.
11	TTYP	Text	1	Text	1	Type of text. 'N' = name, 'U' = information text.
12	TSPARR	Numerical	3.0	Numerical	3.0	Text spacing of text in per cent of original length of text string (0-100 %).

Table 29. THOJD.

Code	Description
6	6 points (1.59 mm) when the text is adapted for presentation in a scale of 1:10,000
8	8 points (2.12 mm) when the text is adapted for presentation in a scale of 1:10,000
10	10 points (2.65 mm) when the text is adapted for presentation in a scale of 1:10,000
12	12 points (3.18 mm) when the text is adapted for presentation in a scale of 1:10,000
14	14 points (3.71 mm) when the text is adapted for presentation in a scale of 1:10,000
16	16 points (4.24 mm) when the text is adapted for presentation in a scale of 1:10,000
20	20 points (5.30 mm) when the text is adapted for presentation in a scale of 1:10,000
30	30 points (7.95 mm) when the text is adapted for presentation in a scale of 1:10,000

Table 30. TREPR.

Code	Description
1	Text adapted for location and appearance in small-scale displays (1:2,000 - 1:20,000)
2	Text adapted for location and appearance in large-scale displays (> 1:2,000)
3	Text not presented
9	No information

4.1.13 RI SYMBOL WITH RIGHTS AND JOINT FACILITIES

Contains text arrow used to clarify text plotting where there are limited options for clear displays; e.g. due to lack of space.

Table 31. Contents in RI Symbol with rights and joint facilities.

Layer name	Detail type	Name	Description	Selection
RI_xxxx	R-TEXTPIL	Text arrow for text on rights		

Table 32. Set of attributes for RI Symbol with rights and joint facilities.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	DETALJTYP	Text	10	Text	10	Boundary line Detail type
2	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
3	XYFEL	Numerical	6.0	Numerical	6.0	Mean square error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 is counted as a null value

4.2 Plans

In the Cadastral Index Map plans are presented in accordance with the Planning and Construction Act (2010:900), or corresponding older statute, with the exception of comprehensive plans and regional plans. The plans presented are presented in the table below. Only active plans found in the text part of the Real Property Register's general section are presented.

Table 33. List of different types of plans linked to current or older law spaces.

Plan	Reference to legislation
Area regulation Amendment to area regulation Detailed development plan Amendment to detailed development plan	<ul style="list-style-type: none"> Planning and Building Act (2010:900)
Established general plan City Plan Building Plan Partition plan Plot division	<ul style="list-style-type: none"> corresponding earlier regulations

Plan	Reference to legislation
Property regulation plan	

[Real Property Register](#) contains information about plans in accordance with planning legislation. One part of the Real Property Register is the digital Cadastral Index Map (DRK). In accordance with Section 37 in the Real Property Register Ordinance (FRF), this includes:

- Plans, etc. in accordance with Section 27 first paragraph 2-8 and second paragraph

De-registered plans must also be presented in the text part of the Real Property Register, although they are removed from the Cadastral Index Map.

A plan, regulation, decision or investigation must be divided up if it concerns a number of cadastral authorities. Each cadastral authority reports that part which is the responsibility of the authority as a display unit.

If plan geometries are intended to be the basis for use or authority decision requiring the highest level of updating and positional accuracy, it is recommended to contact Lantmäteriet's customer centre to obtain access to decision documents for the plan in question. Refer to [Lantmäteriets website](#) for more information.

The Plans theme contains the following layers:

Table 34. Layers for plans.

Plans	Layer name
Plans (polygons)	PY
Boundaries (lines)	PL
Identity points for polygons (point)	PP

4.2.1 DATA CAPTURE

LINEAGE

The plans' geometries are retrieved from the Cadastral Index Map. Plans in the Cadastral Index Map have been added over a long time period and have been produced with different methods. This means that the data are of very mixed quality. In the forced database structure at Lantmäteriet, plans were digitized from the analogue Cadastral Index Map original and had a general quality. Plans usually follow real property boundaries. In the current digital management, many new plan boundaries have been created by duplicating real property boundaries and they then inherit the quality of the real property boundary. Plan boundaries also inherit any shortcomings in the quality the real property boundary may have. In the collection of plan geometries

from municipal surveying authorities (KLM), the quality of boundaries has not always been specified by KLM. When storing plans in the Cadastral Index Map, Lantmäteriet has then set a general quality.

Plan boundaries from the Cadastral Index Map are suitable for use to obtain an overview of the plans relative to each other and which buildings are concerned, but it is important to remember that the contents of **the Cadastral Index Map do not have legal effect**. The decision documents constitute the legal documents that apply. These documents are archived at Lantmäteriet and at the authorities who hold responsibility for information in the plans.

4.2.2 MAINTENANCE FREQUENCY

Those who take decisions which are to be presented in the Real Property Register must send the decisions to Lantmäteriet or the municipal surveying authorities as soon as possible, and at the latest within two weeks, in accordance with the relevant statutes.

Updating in the Real Property Register must take place continuously and at the latest within three weeks from the date on which the plan gained legal effect.

Data to be presented in both the Cadastral Index Map and in the text part of the Real Property Register must be stored in the Cadastral Index Map **within two working days** of its entry in the text part. Delays may occur, however.

Data storage for plans is updated every night. The Property Map plans, which are ordered through Lantmäteriet, are retrieved directly from this layer.

At Lantmäteriet's retrieval place, [Geodataplatsen](#), data are updated once a week on Sundays.

If you need to see a more up-to-date property division, you can use Lantmäteriet's display service, [Plans, Regulations and Rights](#). The information there is updated within two hours of the content in the Cadastral Index Map being updated.

When changes to data are made at Lantmäteriet, the attribute for the change date (ADAT) is updated.

Plans in the Cadastral Index Map are updated continuously within the national Lantmäteriet's area of authority. Within the municipal surveying authorities' areas of authority, the maintenance frequency between the different KLMs varies. For many years, KLMs sent changes of information in plans once a month to Lantmäteriet, which then entered the updates in the centrally stored Cadastral Index Map at Lantmäteriet. By the beginning of 2018, Lantmäteriet has been tasked to have a centrally stored, nationwide Cadastral Index Map that is continuously updated. All KLMs must have started continuous updating of plans and regulations by this time for the centrally stored Cadastral Index Map at Lantmäteriet.

4.2.3 DATA QUALITY

COMPLETENESS

Reporting of relevant plans in the Real Property Register are largely complete. The most likely reason for any shortcomings in reports is that notification of the plan has not come to the awareness of Lantmäteriet or the municipal surveying authorities.

At the moment, there are certain delays in reports to the Cadastral Index Map since many municipal surveying authorities still send updates once a month to Lantmäteriet. Before the beginning of 2018, all municipal surveying authorities must have started updating plans continuously for the centrally stored Cadastral Index Map at Lantmäteriet.

There may be delays when a plan exists in the text part of the Real Property Register but not in the Cadastral Index Map, and vice versa. If a plan is in the map but not in the text part of the Real Property Register, this may result in a lack of information for some attributes.

It may also happen that a plan has been de-registered but still remains in the Cadastral Index Map.

LOGICAL CONSISTENCY

There may be deficiencies in logical consistency, i.e. the structure of the data is not correct.

Logical consistency is being checked and corrected continuously. Certain faults caused by a lack of synchronisation between databases cannot be prevented, however. They are corrected within two days.

Plans are stored as polygons. As a result, micro-surfaces or overlapping may occur between adjacent plans which really should share a boundary. Certain types of plans must not overlap each other, but deficits of data or other factors may cause unauthorised overlaps. The ID point is the carrier of identity for polygon objects.

The identity of plans consists of a file reference that is also found in the text part of the Real Property Register's general section.

THEMATIC ACCURACY

Individual errors may occur, e.g. a plan may have been assigned the wrong type.

In general, though, thematic accuracy is high.

POSITIONAL ACCURACY

Positional accuracy is stored in the form of a mean square error. The mean square error is stated with millimetre accuracy and refers to the positional accuracy in relation to the principal coordinate system, e.g. SWEREF 99 TM, in which it is presented. A value for positional accuracy is specified for all boundary lines.

The mean square error is almost always calculated or estimated on the basis of the measurement methods used for data capture (METODPLAN). The value may be regarded as an assumed value for the measurement method used. The value may be better or worse, but gives some idea of the positional accuracy of boundaries.

4.2.4 PY POLYGONS WITH PLANES

The layer contains the extent of planes in polygons. The details contain information about the planes' geometric quality and designation.

Table 35. Contents in PY polygons with planes.

Layer name	Detail type	Name	Description	Selection
PY_xxxx	PLANAPL	Subdivision plan		Included completely, in accordance with the Plan and Building Act (PBL). The plan must be in the Real Property Register's plan part.
PY_xxxx	PLANBPL	Building plan		Included completely, in accordance with PBL. The plan must be in the Real Property Register's plan part.
PY_xxxx	PLANDP	Detailed development plan		Included completely, in accordance with PBL. The plan must be in the plan part of the Real Property Register.
PY_xxxx	PLANGPL	Development plan		Included completely, in accordance with PBL. The plan must be in the plan part of the Real Property Register.
PY_xxxx	PLANOBS	Area regulations		Included completely, in accordance with PBL. The plan must be in the plan part of the Real Property Register.
PY_xxxx	PLANSPL	City plan		Included completely, in accordance with PBL. The plan must be in the plan part of the Real Property Register.
PY_xxxx	PLANFP	Property regulation plan	Property regulation plans have been part of the detailed development plans since 2011, in accordance with PBL.	Existing property regulation plans are presented as long as they are valid.

Layer name	Detail type	Name	Description	Selection
PY_xxxx	PLANGATU	Area for distribution of street costs	Area where a decision on street cost compensation has been made.	Included through assessment by a municipal surveying authority.
PY_xxxx	PLANTI	Plot division	Plot division has been part of the detailed development plans since 2011, in accordance with PBL.	Existing plot divisions are presented as long as they are applicable.
PY_xxxx	PLANÄDP	Amendments to detailed development plan		Included completely, in accordance with PBL. The plan must be in the plan part of the Real Property Register.
PY_xxxx	PLANÄOB	Amendments to area regulations		Included completely, in accordance with PBL. The plan must be in the plan part of the Real Property Register.

Table 36. Set of attributes for PY polygons with planes.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	EXTERNID	Text	64	Text	64	External ID from Lantmäteriet's basic database: e.g. '12-BJS-55A'.
2	DETALJTYP	Text	10	Text	10	Code for detail type
3	YTKVAL	Numerical	2.0	Numerical	2.0	Geometric polygon quality. 0 treated as null value. Refer to detailed description in Chapter 4.1.4.
4	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
5	PLANBET	Text	64	Text	64	Designation of plan: e.g. '12-BJS-55A'
6	PLANTYP	Text	6	Text	6	Type of plan. Refer to detailed description below.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
7	BNKL	Text	9	Text	9	Decision key. Connection to table 70x in FR.
8	PLNAMN	Text	300	Text	300	Name of plan
9	BDAT	Text	8	Text	8	Decision date
10	LDAT	Text	8	Text	8	Date of legal effect
11	GTILL	Text	8	Text	8	Valid until date
12	PLANFK	Text	6	Text	6	Plan abbreviation, type of display unit in accordance with the general part of the Real Property Register; refer to detailed description in the table below
13	OBJEKT_ID	Text	36	Text	36	Globally unique identity (UUID) for each plan.

Table 37. PLANFK – plans.

Code	Description
APL	Subdivision plan
BPL	Building plan
DP	Detailed development plan
FP	Property regulation plan
GPL	Development plan
OB	Area regulation
SPL	City plan
TI	Plot division
ÄDP	Amendments to DP
ÄOB	Amendments to area regulations

Table 38. PLANTYP.

Code	Description
APL	Subdivision plan
BPL	Building plan
DP	Detailed development plan
FP	Property regulation plan
GPL	Development plan
OB	Area regulation
SPL	City plan
TI	Plot division
ÄDP	Amendments to DP
ÄOB	Amendments to area regulations

4.2.5 PL BOUNDARY LINES WITH POLYGONS IN PLANS

Contains boundary lines for plans that are presented as polygons in the PY layer. There is information in the details about the quality of the plan in the form of a mean square horizontal error.

Plan boundaries are used as the boundary line for area regulations, detailed development plans, city plans, building plans, partitioning plans, development plan, amendment to area regulations, amendment to the detailed development plan, and areas such as those related to decisions on the allocation of street costs.

The property regulation plan boundary is used as the boundary line for the property regulation plan and plot division.

The enclosing boundary is only used to form a closed figure when the plan is not fully presented.

Table 39. Contents in PL boundary lines with polygons in plans.

Layer name	Detail type	Name	Description	Selection
PL_XXXX	PLANFPGR	Property regulation plan boundary		
PL_XXXX	PLANGR	Plan boundary		
PL_XXXX	PLANTÄTGR	Enclosing boundary for plan		

Table 40. Set of attributes for PL boundary lines with polygons in plans

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	INTERNID	Numerical	9	Numerical	9	Internal identity in Lantmäteriet's basic data storage
2	DETALJTYP	Text	10	Text	10	Code for detail type
3	GDAT	Text	16	Text	16	Date/time when detail was created. Stated in format: 2005-10-11 12:04
4	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
5	XYFEL	Numerical	6.0	Numerical	6.0	Mean square horizontal error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 is counted as a null value
6	METODPLAN	Numerical	5.0	Numerical	5.0	Method of measurement in plane; refer to table in Chapter 2.4.4
7	FLYGHÖJD	Numerical	7.0	Numerical	7.0	Flying height when collecting photogrammetric data
8	UNDSKALA	Numerical	7.0	Numerical	7.0	Document scale factor when digitizing

4.2.6 PP ID POINTS WITH PLANS' POLYGONS

Contains ID points for plans that are represented by polygons in the PY layer. Information about the designation of the plan is found on the details.

Table 41. Contents in PP ID points with plans' polygons.

Layer name	Detail type	Name	Description	Selection
PP_XXXX	PLANID	Plan area, ID point		

Table 42. Set of attributes for PP ID points with plans' polygons.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	EXTERNID	Text	64	Text	64	External ID from Lantmäteriet's basic database; e.g. '05-HÅL-1343.4'
2	DETALJTYP	Text	10	Text	10	Code for detail type
3	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
4	PLANBET	Text	64	Text	64	Designation of plan: e.g. '12-BJS-55A'
5	PLANTYP	Text	6	Text	6	Type of plan. Refer to the detailed description in Chapter 4.2.4.
6	BNKL	Text	9	Text	9	Decision key. Connection to table 70x in FR.
7	PLNAMN	Text	300	Text	300	Name of plan
8	BDAT	Text	8	Text	8	Decision date
9	LDAT	Text	8	Text	8	Date of legal effect
10	GTILL	Text	8	Text	8	Valid until date
11	PLANFK	Text	6	Text	6	Plan abbreviation, type of display unit in the Real Property Register's general part, refer to detailed description in the table in section 4.2.4

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
12	OBJEKT_ID	Text	36	Text	36	Globally unique identity (UUID) for each plan.

4.3 Regulations

Regulations on the use of the land are decided by authorities such as county administrative boards, municipalities and the Transport Administration. The different authorities must send their decisions to Lantmäteriet or the municipal surveying authorities for registration in the general part of the Real Property Register.

The regulations presented are those in current regulations, such as the Environmental Code, the Roads Act, the Heritage Conservation Act and corresponding older statutes. Only active regulations in the text part of the Real Property Register are presented.

Table 43. List of regulations linked to legal space.

Regulation	Reference to legislation	Comment
Nature and culture conservation areas	<ul style="list-style-type: none"> • Environmental Code (1998:808) • or corresponding previous regulation 	
Shore protection	<ul style="list-style-type: none"> • Environmental Code 	The product does not contain any shore protection information at present. The information was removed since it was no longer reliable. For more information on where new decisions on extended shore protection have been taken, refer to each county administrative board.
Areas for ground and surface waterprotection	<ul style="list-style-type: none"> • Environmental Code • Ordinance (1998:899) on environmentally hazardous activities and public health protection • or corresponding previous regulation 	The outer boundary of the area shall always be presented.
Road plan and construction ban	<ul style="list-style-type: none"> • Roads Act (1971:948) 	
Cultural history	<ul style="list-style-type: none"> • Heritage Conservation Act (1988:950) • or corresponding previous regulation 	Government listed buildings in the ordinance (1988: 1229) are not presented.
Railway plans	<ul style="list-style-type: none"> • Railway Building Act (1995:1649) 	

Regulation	Reference to legislation	Comment
Development concession or referred land	<ul style="list-style-type: none"> • Minerals Act (1991:45) • Certain Peat Deposits Act (1985:620) • or corresponding previous regulation 	
Excavation, building and felling ban	<ul style="list-style-type: none"> • In accordance with the earlier Building Act (1947:385) 	

Regulations on maintenance obligations and fence breaks in accordance with the Environmental Code and directives with time-limits, questions raised about building monuments and notification obligations under the Heritage Conservation Act (1988:950) are not presented.

[Real Property Register](#) contains information about regulations relating to the use of land under a number of statutes. One part of the Real Property Register is the digital Cadastral Index Map (DRK). In accordance with Section 37 in the Real Property Register Ordinance (FRF), this presents:

- Plans, etc. in accordance with Section 27 first paragraph 2-8 and second paragraph

Unregistered regulations must also be presented in the text part of the Real Property Register, although they are removed from the Cadastral Index Map.

A plan, regulation, decision or investigation must be divided up if it concerns a number of cadastral authorities. Each cadastral authority reports that part which is the responsibility of the authority as a display unit.

If regulation geometries are intended to be used for authority decision that requires the highest level of updating and positional accuracy, then it is recommended to contact the authority responsible for more information.

Theme Regulations contains the following layers:

Table 44. Layers for regulations.

Regulations	Layer name
Regulations (polygons)	EY
Boundaries (lines)	EL
Identity points for polygons (point)	EP
Line-presented regulations (lines)	EO
Point-presented regulations (point)	ES

Regulations	Layer name
Regulations boundary points (point)	EQ
Information text (text)	ET
Symbols (text)	EI

4.3.1 DATA CAPTURE

Regulation geometries are retrieved from the Cadastral Index Map. Decisions in the Cadastral Index Map have been added over a long time period and have been produced with different methods. This means that the data are of very mixed quality. In the forced database construction, regulations were digitized from the analogue Cadastral Index Map's part-original and were assigned a general quality. The regulations sometimes follow property boundaries and in certain cases they may have been created/changed in connection with the registration of property and thus thoroughly entered. These cases are primarily in certain types of regulations, such as nature reserves. In other respects, the capture of regulation geometries has taken place using different methods and they have often been assigned a general quality.

Regulation boundaries from the Cadastral Index Map are suitable for use to obtain an overview of the regulations relative to each other and which properties are concerned, but it is important to remember that the contents of **the Cadastral Index Map do not have legal effect**. The decision documents for each regulation constitute the legal documents that apply. These documents are archived at Lantmäteriet and at the authorities who hold responsibility for regulations.

4.3.2 MAINTENANCE FREQUENCY

Those who take decisions which are to be presented in the Real Property Register must send the decisions to Lantmäteriet or the municipal surveying authorities as soon as possible, and at the latest within two weeks, in accordance with the relevant statutes.

Updates in the Real Property Register must take place continuously and at the latest with-in three weeks from the date the regulation gained legal effect.

Data to be presented in both the Cadastral Index Map and in the text part of the Real Property Register must be stored in the Cadastral Index Map within two working days of its entry in the text part. Delays may occur, however.

The regulations database is updated every night. The regulations in the Property Map that are ordered through Lantmäteriet are taken directly from this database.

At Lantmäteriet's retrieval site, [Geodataplatsen](#), data are updated once a week on Sundays.

If you need to see more up-to-date plan information, you can use Lantmäteriet's display service: [Plans, Regulations and Rights](#). The information is updated within two hours of updated content in the Cadastral Index Map.

When changes to data are made at Lantmäteriet, the attribute for the change date (ADAT) is updated.

4.3.3 DATA QUALITY

COMPLETENESS

Completeness varies from region to region around the country. Certain types of information are more complete, whereas others may be more incomplete.

Work is ongoing with quality improvements within certain types of information in respect of regulations. It is primarily those regulations which are also presented in the nature conservation register. A review has been successfully carried out in several counties for quarries, too. The main task there was to de-register those quarries which were no longer in operation.

The most likely reason for any shortcomings in reports is that notification of decisions has not come to the awareness of Lantmäteriet or the municipal surveying authorities.

Reporting in the Cadastral Index Map may have shortcomings in completeness during the period 1996-2009 and municipal surveying authorities store the regulations separately in different environments. Before the beginning of 2018, all municipal surveying authorities must have started updating regulations continuously to the centrally stored Cadastral Index Map at Lantmäteriet. In connection with the collection of basic information, certain improvements in completeness take place.

There may be shortcomings when a regulation exists in the text part of the Real Property Register but not in the Cadastral Index Map, and vice versa. If a regulation is found in the map but not in the text part of the Real Property Register, it may result in a lack of information for certain attributes.

It may also happen that a regulation has been de-registered but still remains in the Cadastral Index Map.

For certain types of regulations there are sometimes simplified geometric displays (point or line). Regulations presented as a line are in the EO layer. Points are found in the ES layer.

LOGICAL CONSISTENCY

There may be deficiencies in logical consistency, i.e. the structure of the data is not correct.

Logical consistency is being checked and corrected continuously. Certain faults caused by a lack of synchronisation between databases cannot be prevented, however. They are corrected within two days.

Each regulation is stored with its own boundary. As a result, micro-surfaces or overlapping may occur between adjacent regulations which really should share a boundary. Regulations with the same regulation type must not overlap each other, but deficits of data or other factors may cause unauthorised overlaps.

Boundary coordinates and coordinates of inflection points on the boundary line should match each other.

The identity of regulations consists of a file reference that is also found in the text part of the Real Property Register's general section.

The main rule is that all regulations are presented as a polygon if possible. Depending on the accuracy of the underlying data, however, regulations may be presented as a polygon, line or point. A regulation is only presented as a point or a line if its extent is not known.

THEMATIC ACCURACY

Occasional errors may occur, e.g. a regulation may have been assigned the wrong type.

In general, though, thematic accuracy is high.

POSITIONAL ACCURACY

Positional accuracy is stored in the form of a mean square error. The mean square error is stated with millimetre accuracy and refers to the positional accuracy in relation to the principal coordinate system, e.g. SWEREF 99 TM, in which it is presented. A value for positional accuracy is specified for all boundary lines and boundary points. If there are boundary points entered, the boundary lines have been given a mean square error derived from these boundary points. The principle is that the mean square error of the lines originates from the boundary point which has the highest mean square error.

A value for positional accuracy is specified for all line and point objects.

The mean square error is almost always calculated or estimated on the basis of the measurement methods used for data capture (METODPLAN). The value may be regarded as an assumed value for the measurement method used. The value may be better or worse, but gives some idea of the positional accuracy of boundaries.

The mean square error for boundary points are derived from the measurement methods used during data capture.

4.3.4 EY POLYGONS WITH REGULATIONS

Contains regulations that are presented as polygons. Information about the designation of the regulation is found on the details.

For information about shore protection, refer to the table in section 1.1.3, Regulations.

Table 45. Contents in EY polygons with regulations.

Layer name	Detail type	Name	Description	Selection
EY_xxxx	NATBIOTOP	Biotope protection		Fully included pursuant to the Environmental Code (1998: 808)
EY_xxxx	NATDSO	Animal protection area		Fully included pursuant to the Environmental Code (1998: 808)
EY_xxxx	NATINT	Interim ban	Nature conservation regulation concerning a temporary ban e.g. for a nature reserve.	Fully included pursuant to the Environmental Code (1998: 808)
EY_xxxx	NATLBILD	Landscape image protection		Completely included under a previous regulation under the transitional rules in the current regulations.
EY_xxxx	NATNM	Natural monument		Fully included pursuant to the Environmental Code (1998: 808)
EY_xxxx	NATNP	National park		Fully included pursuant to the Environmental Code (1998: 808)
EY_xxxx	NATNR	Nature reserve	Nature reserves also include previous nature conservation areas.	Fully included pursuant to the Environmental Code (1998: 808)
EY_xxxx	NATKR	Culture reserve		Fully included pursuant to the Environmental Code (1998: 808)
EY_xxxx	NATMRO	Environmental hazard area		Fully included pursuant to the Environmental Code (1998: 808)
EY_xxxx	NATSO	Consultation area		Fully included pursuant to the Environmental Code (1998: 808)

Layer name	Detail type	Name	Description	Selection
EY_xxxx	NATSTRAND	Shore protection	For more information on where new decisions on extended shore protection have been taken, refer to each county administrative board.	The product does not contain any shore protection information at present. The information was removed since it was no longer reliable.
EY_xxxx	NATTÄKT	Extraction condition		Fully included pursuant to the Environmental Code (1998: 808)
EY_xxxx	NATVSO	Plant protection area		Fully included pursuant to the Environmental Code (1998: 808)
EY_xxxx	GRUVMINBK	Exploitation concession	Mineral exploitation	Completely included in accordance with regulations in the Minerals Act (1991:45)
EY_xxxx	GRUVANVMAM	Allotted land	Land allotted for mineral exploitation.	Completely included in accordance with regulations in the Minerals Act (1991:45)
EY_xxxx	TÄKTORBK	Exploitation concession	The Peat Act has ceased to apply.	Objects already decided are presented as long as they are valid.
EY_xxxx	VATTGRU	Groundwater protection		Fully included pursuant to the Environmental Code (1998: 808)
EY_xxxx	VATTYT	Surface water protection		Fully included pursuant to the Environmental Code (1998: 808)
EY_xxxx	BYGGSCF	Excavation prohibition		Completely included in accordance with an older regulation under the transitional rules in the current statutes.
EY_xxxx	BMINNEMB	Historical building		Completely included in accordance with the Cultural Heritage Act (1988:950) etc.

Layer name	Detail type	Name	Description	Selection
EY_xxxx	BYGGBLBYF	Building prohibition		Completely included in accordance with an older regulation under the transitional rules in the current statutes.
EY_xxxx	JVGPL	Railway plan		Completely included in accordance with the Railway Building Act (1995:1649)
EY_xxxx	FORNFOG	Area of ancient remains with established boundary		Completely included in accordance with the Cultural Heritage Act (1988:950) etc.
EY_xxxx	FORNSKYF	Protection regulation for ancient remains		Included completely in accordance with the Cultural Heritage Act (1988:950) etc.
EY_xxxx	VÄGARB	Road plan		Included completely in accordance with the Roads Act (1971:948).
EY_xxxx	VÄGBYF	Extended new construction prohibition		Included completely in accordance with the Roads Act (1971:948).

Table 46. Set of attributes for EY polygons with regulations.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	EXTERNID	Text	64	Text	64	External ID from Lantmäteriet's basic database; e.g. '1407-P48'
2	DETALJTYP	Text	10	Text	10	Code for detail type
3	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
4	BESTBET	Text	18	Text	18	Regulation designation; e.g. '1407-P48'
5	BESTTYP	Text	6	Text	6	Type of regulation.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
6	BNKL	Text	9	Text	9	Decision key. Connection to table 70x in FR.
7	PLNAMN	Text	300	Text	300	Name of plan
8	BDAT	Text	8	Text	8	Decision date
9	LDAT	Text	8	Text	8	Date of legal effect
10	GTILL	Text	8	Text	8	Valid until date
11	PLANFK	Text	6	Text	6	Plan abbreviation, type of displaying unit in accordance with the general part of the Real Property Register; refer to detailed description in the table below.
12	OBJEKT_ID	Text	36	Text	36	Globally unique identity (UUID) for each regulation.

Table 47. PLANFK – regulations.

Code	Description
BYF	New construction ban
BLBYF	New construction ban
FOG	Area of ancient remains with established boundary
FVO	Fishing conservation area
FÖRFRV	Question raised regarding provision
GATU	Street cost compensation
JVGPL	Railway Building Act
VVO	Game conservation area
MB	Notable building
MBANM	Provision on obligation to notify
MBFRV	Question raised on historical building

Code	Description
SCF	Excavation ban
SKYF	Safety regulation
TBYF	New construction ban with time limit
TSCF	Excavation ban with time limit
VÄGPL	Road plan for public road
VÄGBYF	Extended new construction ban
BIOTOP	Biotope protection.
DSO	Animal protection area
GRU	Groundwater protection
INT	Temporary ban
KR	Culture reserve
LBILD	Landscape image protection
MRO	Environmental hazard area
NM	Natural monument
NP	National park
NR	Nature reserve
SO	Consultation area
STRAND	Shore protection: for information about shore protection refer to the table in section 1.1.3
STÄNG	Fence break
TÄKT	Quarry permit
UHS	Maintenance obligation for water facility
VSO	Plant protection area
YT	Surface water protection

Code	Description
FORNL	Ancient remains
ANVMAM	Land referred to under the Minerals Act
MINBK	Exploitation concession in accordance with the Minerals Act
TORBK	Exploitation concession in accordance with the Peat Act

4.3.5 EL BOUNDARY LINES WITH REGULATION POLYGONS

Contains boundary lines for regulations presented as polygons in the EY layer. The details show information on quality in the form of a mean square horizontal error.

The regulation boundary is used as a boundary line for all regulations except for areas with shore protection. For information on shore protection refer to the table in section 1.1.3 Regulations.

The enclosing boundary is only used to form a closed figure when the regulation is not fully presented.

Table 48. Contents in EL boundary lines with regulation polygons.

Layer name	Detail type	Name	Description	Selection
EL_XXXX	BESTTÄTGR	Enclosing boundary for regulation		
EL_XXXX	BESTÄMGR	Regulation boundary		
EL_XXXX	NATSTRBGR	Boundary for shore protection - established (Trial)	For more information on where new decisions on extended shore protection have been taken, refer to each county administrative board.	The product does not contain any shore protection information at present. The information was removed since it was no longer reliable.
EL_XXXX	NATSTRGR	Boundary for shore protection	See above	See above
EL_XXXX	NATSTRFGR	Boundary for shore protection - free (Trial)	See above	See above
EL_XXXX	NATSTROGR	Boundary for simplified display of shore protection	See above	See above

Table 49. Set of attributes for EL boundary lines with regulation polygons.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	INTERNID	Numerical	9	Numerical	9	Internal identity in Lantmäteriet's basic data storage
2	DETALJTYP	Text	10	Text	10	Code for detail type
3	G DAT	Text	16	Text	16	Date/time when detail was created. Stated in format: 2005-10-11 12:04
4	A DAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
5	XYFEL	Numerical	6.0	Numerical	6.0	Mean square horizontal error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 is counted as a null value
6	METODPLAN	Numerical	5.0	Numerical	5.0	Method of measurement in plane; refer to table in Chapter 2.4.4
7	FLYGHÖJD	Numerical	7.0	Numerical	7.0	Flying height when collecting photogrammetric data
8	UNDSKALA	Numerical	7.0	Numerical	7.0	Document scale factor when digitizing

4.3.6 EP ID POINTS WITH REGULATIONS

Contains ID points for regulations that are represented by polygons in the EY layer. Information about the designation of the regulation is found on the details.

Table 50. Contents in EP ID points with regulations.

Layer name	Detail type	Name	Description	Selection
EP_XXXX	BESTÄMID	Regulation area (ID point)		

Table 51. Set of attributes for EP ID points with regulations.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	EXTERNID	Text	64	Text	64	External ID from Lantmäteriet's basic database; e.g. '1407-P48'
2	DETALJTYP	Text	10	Text	10	Code for detail type
3	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
4	BESTBET	Text	18	Text	18	Regulation designation; e.g. '1407-P48'
5	BESTTYP	Text	6	Text	6	Type of regulation.
6	BNKL	Text	9	Text	9	Decision key. Connection to table 70x in FR.
7	PLNAMN	Text	300	Text	300	Name of plan
8	BDAT	Text	8	Text	8	Decision date
9	LDAT	Text	8	Text	8	Date of legal effect
10	GTILL	Text	8	Text	8	Valid until date
11	PLANFK	Text	6	Text	6	Plan abbreviation, type of display unit in accordance with the general part of the Real Property Register; refer to detailed description in Chapter 4.3.3
12	OBJEKT_ID	Text	36	Text	36	Globally unique identity (UUID) for each regulation.

4.3.7 EO LINES WITH REGULATIONS

Contains line-shaped regulations where the extent is unknown. The details show information on the regulations' quality in the form of a mean square horizontal error and designation.

There may be a generalised display of a regulation when there is no underlying data on the extent of the regulation, or when it has been taken from material with a simplified display.

Table 52. Contents in EO lines with regulations.

Layer name	Detail type	Name	Description	Selection
EO_xxxx	NATBIOTOP	Biotope protection		
EO_xxxx	NATINT	Temporary ban	Nature conservation regulation concerning a temporary ban e.g. for a nature reserve.	
EO_xxxx	BMINNEMB	Historical building		
EO_xxxx	JVGPL	Railway plan		
EO_xxxx	FORNSKYF	Protection regulation for ancient remains		
EO_xxxx	VÄGARB	Road plan		
EO_xxxx	VÄGBYF	Expanded prohibition of road construction according to road plan		
EO_xxxx	NATNR	Nature reserve	Nature reserves also include previous nature conservation areas.	
EO_xxxx	NATNM	Natural monument		
EO_xxxx	NATTÄKT	Quarry permit		

Table 53. Set of attributes for EO lines with regulations.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	INTERNID	Numerical	9	Numerical	9	Internal identity in Lantmäteriet's basic data storage
2	EXTERNID	Text	64	Text	64	External ID from Lantmäteriet's basic database; e.g. '1407-P48'
3	DETALJTYP	Text	10	Text	10	Code for detail type
4	GDAT	Text	16	Text	16	Date/time when detail was created. Stated in format: 2005-10-11 12:04
5	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
6	XYFEL	Numerical	6.0	Numerical	6.0	Mean square horizontal error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 is counted as a null value
7	BESTBET	Text	18	Text	18	Regulation designation; e.g. '1407-P48'
8	BESTTYP	Text	6	Text	6	Type of regulation.
9	BNKL	Text	9	Text	9	Decision key. Connection to table 70x in FR.
10	METODPLAN	Numerical	5.0	Numerical	5.0	Method of measurement in plane; refer to table in Chapter 2.4.4
11	FLYGHÖJD	Numerical	7.0	Numerical	7.0	Flying height when collecting photogrammetric data
12	UNDSKALA	Numerical	7.0	Numerical	7.0	Document scale factor when digitizing
13	PLNAMN	Text	300	Text	300	Name of plan
14	BDAT	Text	8	Text	8	Decision date
15	LDAT	Text	8	Text	8	Date of legal effect

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
16	GTILL	Text	8	Text	8	Valid until date
17	PLANFK	Text	6	Text	6	Plan abbreviation, type of display unit in accordance with the general part of the Real Property Register; refer to detailed description in Chapter 4.3.3
18	OBJEKT_ID	Text	36	Text	36	Globally unique identity (UUID) for each regulation.

4.3.8 ES POINT OBJECTS WITH REGULATIONS

Contains regulations with small or unknown extent and symbols for joining two geometries as one object (“dovetail”). The details show information on the regulations’ quality in the form of a mean square horizontal error and designation.

There may be a generalised display of a regulation when there is no underlying data on the extent of the regulation, or when it has been taken from material with a simplified display.

Table 54. Contents in ES point objects with regulations.

Layer name	Detail type	Name	Description	Selection
ES_XXXX	NATBIOTOP	Biotope protection		
ES_XXXX	NATNM	Natural monument	Midpoint for natural monument according to the environmental Code (SFS 1998:808) 7 chapter 10 § or corresponding older regulations.	
ES_XXXX	NATINT	Temporary ban	Nature conservation regulation concerning a temporary ban e.g. for a nature reserve.	
ES_XXXX	BMINNEMB	Historical building		
ES_XXXX	FORNSKYF	Protection regulation for ancient remains		
ES_XXXX	B-SINKA	“Dovetail” for regulation		

Layer name	Detail type	Name	Description	Selection
ES_xxxx	PL-SINKA	“Dovetail” for plan regulation		

Table 55. Set of attributes for ES point objects with regulations.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	INTERNID	Numerical	9	Numerical	9	Internal identity in Lantmäteriet's basic data storage
2	EXTERNID	Text	64	Text	64	External ID from Lantmäteriet's basic database; e.g. '1407-P48'
3	DETALJTYP	Text	10	Text	10	Code for detail type
4	GDAT	Text	15	Text	15	Date/time when detail was created. Stated in format: 2005-10-11 12:04
5	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
6	XYFEL	Numerical	6.0	Numerical	6,0	Mean square error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 is counted as a null value
7	BESTBET	Text	18	Text	18	Regulation designation; e.g. '1407-P48'
8	BESTTYP	Text	6	Text	6	Type of regulation.
9	BNKL	Text	9	Text	9	Decision key. Connection to table 70x in FR.
10	METODPLAN	Numerical	5.0	Numerical	5.0	Method of measurement in plane; refer to table in Chapter 2.4.4
11	FLYGHÖJD	Numerical	7.0	Numerical	7.0	Flying height when collecting photogrammetric data
12	UNDSKALA	Numerical	7.0	Numerical	7.0	Document scale factor when digitizing

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
13	PLNAMN	Text	300	Text	300	Name of plan
14	BDAT	Text	8	Text	8	Decision date
15	LDAT	Text	8	Text	8	Date of legal effect
16	GTILL	Text	8	Text	8	Valid until date
17	PLANFK	Text	6	Text	6	Plan abbreviation, type of display unit in accordance with the general part of the Real Property Register; refer to detailed description in Chapter 4.3.3
18	OBJEKT_ID	Text	36	Text	36	Globally unique identity (UUID) for each regulation.

4.3.9 EQ BOUNDARY POINTS WITH REGULATIONS

This layer contains boundary points for regulations.

Table 56. Contents in EQ boundary points with regulations.

Layer name	Detail type	Name	Description	Selection
EQ_xxxx	BGRÄ	Boundary point for regulation		

Table 57. Set of attributes for EQ boundary points with regulations.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	INTERNID	Numerical	9	Numerical	9	Internal identity in Lantmäteriet's basic data storage
2	EXTERNID	Text	64	Text	64	Designation of boundary points; consists of area*type*serial number
3	DETALJTYP	Text	10	Text	10	Code for detail type
4	MTYP	Text	6	Text	6	Type of marker: refer to detailed description below.
5	MLAGE	Text	6	Text	6	Position of marking; refer to detailed description below.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
6	GDAT	Text	16	Text	16	Date/time when detail was created. Stated in format: 2005-10-11 12:04
7	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
8	XYFEL	Numerical	6.0	Numerical	6.0	Mean square error. Stated in unit mm. The value varies between 25 - 999,999 mm. 0 treated as null value.
9	METODPLAN	Numerical	5.0	Numerical	5.0	Method of measuring position specification in plane; refer to table in Chapter 2.4.4
10	KVALFORB	Numerical	2.0	Numerical	2.0	Quality improvement measure: refer to detailed description below.
11	FLYGHOJD	Numerical	7.0	Numerical	7.0	Flying height when collecting photogrammetric data
12	UNDSKALA	Numerical	7.0	Numerical	7.0	Document scale factor when digitizing

Table 58. KVALFORB.

Code	Description	Comments/sketch
0	No information	
1	New survey	The position specification of the point has been improved by new survey
2	Transformation/Alignment	The boundary points positional accuracy has been improved by a transformation using points of higher accuracy as control points.

Table 59. MLAGE.

Code	Description
0	No information
1	On breakpoint
2	On polygon
3	Detached

Table 60. MTYP.

Code	Description
	No information
Db	Peg in rock
Dg	Peg in concrete
Dh	Peg in building
Dm	Peg in wall
Ds	Peg in earthbound stone
Fr	Boundary mark (Five stone cairn)
Fs	Fixed signal (photogrammetry)
Gr	Glazed pipe
Graf	Graphic point
Hb	Drill-hole in rock
Hg	Drill-hole in concrete
Hs	Drill hole in earthbound stone
Jk	Iron bracket
Js	Iron bar
Kv	Console for wall marker
Mp	Target point (spire etc.)

Code	Description
Ms	Brass screw
Om	Unmarked boundary point
Rb	Pipe in rock
Rg	Pipe in concrete
Rgd	Pipe in concrete with cover
Rm	Pipe in ground
Rmd	Pipe in ground with cover
Rn	Hoar stone (border stone)
Rs	Pipe in earthbound stone
Sa	Spike in asphalt
Sb	Spike in rock
Sg	Spike in concrete
Ss	Spike in fixed stone
St	Fencepost
Tp	Pole of wood


4.3.10 ET TEXT WITH REGULATIONS

Contains information text with regulations.

Table 61. Contents in ET text with regulations.

Layer name	Detail type	Name	Description	Selection
ET_xxxx	B-UPPLYTX	Informative text for regulation		
ET_xxxx	PL-UPPLYTX	Informative text for plan		

Table 62. Set of attributes for ET text with regulations.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KARTTEXT	Text	64	Text	64	Abbreviated or hyphenated text string; e.g. 'Strand.14-FA-661:15'
2	TDELIDX	Numerical	1.0	Numerical	1.0	Hyphenating part 0 = not hyphenated otherwise 1-9 for each substring.
3	TDELID	Numerical	9.0	Numerical	9.0	Coherent identity of all included substrings for hyphenated/abbreviated text.
4	REGTEXT	Text	64	Text	64	
5	DETALJTYP	Text	10	Text	10	Code for detail type
6	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
7	TRIKT	Numerical	8.2	Numerical	8.2	Text orientation. Stated in unit degrees (0.00 – 360.00, increasing anti-clockwise). 0.00=Unoriented text
8	TJUST	Numerical	1.0	Numerical	1.0	Insertion point of text (1-9). Insertion point in NUMERICAL point. <i>Figure 3. Figure showing nine possible anchor points for text.</i> 
9	THOJD	Numerical	4.0	Numerical	4.0	Text height in the form of code. 0 treated as null value. Refer to detailed descriptions in Chapter 4.1.10
10	TREPR	Numerical	1.0	Numerical	1.0	Scale area for text. Refer to detailed description in Chapter 4.1.10
11	TTYP	Text	1	Text	1	Type of text. 'N' = name, 'U' = information text.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
12	TSPARR	Numerical	3.0	Numerical	3.0	Spacing of text in per cent of original length of text string (0-100 %).

Table 63. INFORMATIVE TEXT.

Plan abbreviation	Type of regulation
Anvmam	Land referred to under the Minerals Act
Vägpl	Road plan
Minbk	Exploitation concession in accordance with the Minerals Act
Torbk	Exploitation concession in accordance with the Peat Act
Biotope	Biotope protection
Blbyf	Building ban
Mb	Historical building under the Heritage Conservation Act
Dso	Animal protection area
Fog	Area of ancient remains with established boundary
Gru	Groundwater protection
Int	Temporary ban (e.g. nature reserve)
Jvgpl	Railway plan
Kr	Culture reserve
Lbild	Landscape image protection
Mro	Environmental hazard area
Np	National park
Nm	Natural monument
No.	Nature reserve (and previously nature conservation area)
Vägbyf	Extended new construction ban under the Roads Act.

Plan abbreviation	Type of regulation
So	Consultation area
Scf	Excavation ban, ban on felling of trees
Skyf	Protection regulation for ancient remains under the Heritage Conservation Act
Strand	Beach protection: for information on shore protection refer to the table in section 1.1.3
Quarry	Quarry permit
Vso	Plant protection area
Yt	Surface water protection

4.3.11 EI SYMBOLS WITH REGULATIONS

Contains text arrow used to clarify text plotting where there are limited options for clear displays; e.g. due to lack of space.

Table 64. Contents in EI symbols with regulations.

Layer name	Detail type	Name	Description	Selection
EI_xxxx	B-TEXTPIIL	Text arrow for regulation text		
EI_xxxx	PL-TEXTPIIL	Text arrow for plan text		

Table 65. Set of attributes for EI symbols with regulations.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	DETALJTYP	Text	10	Text	10	Code for detail type

4.4 Ancient remains

Ancient remains are registered in the Swedish National Heritage Board (Riksantikvarieämbetet, RAÄ) system for ancient remains information, FMIS. Changes are transferred from FMIS to Lantmäteriet twice a year. Note that only remains of the type assessed as being *ancient remains* are presented in the text part of the Real Property Register.

The Swedish National Heritage Board notifies Lantmäteriet of the ancient remains. Ancient remains are protected by the Heritage Conservation Act (1988:950). Through the Heritage Conservation Act, ancient remains are automatically protected. This means that ancient remains are protected even if they have not been detected or registered.

In the new Heritage Conservation Act from 1 January 2014, the concept of ancient remains has been clarified, i.e. what is classified as ancient remains. This has had the consequence that the antiquarian assessment is uncertain for certain types of remains in FMIS, which means that remains registered as *ancient remains* in FMIS may be *other cultural-historical remains* under the new legislation. To ensure that the correct data has been obtained for a decision, always check data concerning remains with the county administrative board.

Ancient remains are presented on the Cadastral Index Map as a point, line or polygon/area with a boundary line. The symbol for run-R is always presented in connection with ancient remains. Ancient remains with an uncertain extent are only presented with the symbol for run-R in brackets.

An identity is delivered for every object, which can be used in [RAÄ:s Fornsök](#) to find additional information about ancient remains.

The theme of ancient remains contains the following layers:

Table 66. Layers for Ancient remains.

Ancient remains	Layer names
Ancient remains (polygons)	LY
Ancient remains (lines)	LL
Identity point for polygons (point)	LP
Ancient remains (point)	LS
Names and information text for ancient remains and other cultural-historical remains (text)	LT

4.4.1 DATA CAPTURE

LINEAGE

The information comes mainly from inventories made by RAÄ. The RAÄ has collected information since the 1930s.

4.4.2 MAINTENANCE FREQUENCY

Lantmäteriet retrieves information from RAÄ twice a year, in April and November. This frequency may be higher in RAÄ's system, Forsök, since data are updated more often there.

4.4.3 DATA QUALITY

COMPLETENESS

Ancient remains are also presented in the plan part of the Real Property Register. Ancient remains may exist without being presented on the map or in plan part of the Real Property Register. The completeness of information is difficult to assess.

LOGICAL CONSISTENCY

Ancient remains are independent objects that are not connected to any other object.

Ancient remains have an identity which consists of their ancient remains number from FMIS (Ancient Remains Information System) at the Swedish National Heritage Board.

Example of the identity of ancient remains:

10 0324 0123 0001:G:00

Origin code, parish code, serial number, sub-number, object type, serial number

THEMATIC ACCURACY

The thematic accuracy is assessed as high.

POSITIONAL ACCURACY

The position of ancient remains may have a margin of error of up to 20 metres.

Table 67. Requirements for object types' positional accuracy.

Object type	Requirements for positional accuracy in plane (m)
Ancient remains, large (polygon)	10
Ancient remains, large (boundary line)	10
Ancient remains, large (ID point)	-
Ancient remains without clear mark above ground, large (polygon)	10
Ancient remains without clear mark above ground, large (boundary line)	10
Ancient remains without clear mark above ground, large (ID point)	-
Ancient remains, line-shaped (centre line)	10
Ancient remains without distinct mark above ground, line-shaped (centre line)	10
Ruin (edge line)	10
Ancient remains, small (point)	10
Ancient remains without clear mark above ground, small (point)	10
Milestone (point)	10
Ancient remains, information symbol	-
Ancient remains, small information symbol	-
Ancient remains without clear mark above ground, information symbol	-
Name of ancient remains and other cultural-historical remains	-
Information text for ancient remains and other cultural-historical remains	-

4.4.4 LY POLYGONS WITH ANCIENT REMAINS

Contains ancient remains. The details show information about identity in the Archaeological Sites and Monuments Registry, type of ancient remains, its quality in the form of mean square horizontal error.

Table 68. Contents in LY polygons with ancient remains.

Layer name	Detail type	Name	Description	Selection
LY_xxxx	FORN	Ancient remains, large (polygon)	Polygon for large ancient remains.	Presented in accordance with selection from RAÄ.
LY_xxxx	FORNU	Ancient remains without clear mark above ground, large (polygon)	Polygon for large ancient remains without clear mark above ground.	Presented in accordance with selection from RAÄ.

Table 69. set of attributes for LY polygons with ancient remains.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	OBJEKT_ID	Text	41	Text	41	Globally unique identity (UUID) for ancient remains including type and serial number. Format: uuid:type:serial no., e.g. 12345678-1234-1234-1234-123456789012:G:00. UUID in the identity can be linked to The National Heritage Board's register KMR.
2	DETALJTYP	Text	10	Text	10	Code for detail type
3	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
4	XYFEL	Numerical	6.0	Numerical	6.0	Mean square horizontal error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 treated as null value.

4.4.5 LL LINES WITH ANCIENT REMAINS

Contains boundary lines for ancient remains that are presented as polygons in the LY layer as well as line-shaped ancient remains. The details show information about identity in the Archaeological Sites and Monuments database and quality in the form of mean square horizontal error.

Table 70. Contents in LL lines with ancient remains.

Layer name	Detail type	Name	Description	Selection
LL_xxxx	FORN.B	Ancient remains, large (boundary line)	Boundary line for large ancient remains.	Presented in accordance with selection from RAÄ.
LL_xxxx	FORNU.B	Ancient remains with no clear sign above ground, large (boundary line)	Boundary line for large ancient remains with no visible sign above ground.	Presented in accordance with selection from RAÄ.
LL_xxxx	FORN.M	Ancient remains, line-shaped (centre line)	Centre line for narrow ancient remains. E.g. sunken lane (old way, bridle path) or stone walls (old enclosures between fields and pastures).	Presented in accordance with selection from RAÄ.
LL_xxxx	FORNU.M	Ancient remains with no visible sign above ground, line-shaped (centre line)	Boundary line for large ancient remains with no visible sign above ground.	Presented in accordance with selection from RAÄ.
LL_xxxx	RUIN.K	Ruin (edge line)	Edge line from old, mostly historical, large buildings in stone or brick.	Presented in accordance with selection from RAÄ.

Table 71. Set of attributes for LL lines with ancient remains.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	INTERNID	Numerical	9	Numerical	9	Internal identity in Lantmäteriet's basic data storage
2	OBJEKT_ID	Text	41	Text	41	Identity for ancient remains with detail type FORN.M, FORNU.M and RUIN.K. Globally unique identity (UUID) for ancient remains including type and serial number. Format: uuid:type:serial no., e.g. 12345678-1234-1234-1234-123456789012:G:00. UUID in the identity can be linked to The National Heritage Board's register KMR.
3	DETALJTYP	Text	10	Text	10	Code for detail type
4	GDAT	Text	16	Text	16	Date/time when detail was created. Stated in format: 2005-10-11 12:04
5	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
6	XYFEL	Numerical	6.0	Numerical	6.0	Mean square horizontal error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 treated as null value.
7	METODPLAN	Numerical	5.0	Numerical	5.0	Method of measuring position specification in plane; refer to table in Chapter 2.4.4
8	FLYGHOJD	Numerical	7.0	Numerical	7.0	Flying height when collecting photogrammetric data
9	UNDSKALA	Numerical	7.0	Numerical	7.0	Document scale factor when digitizing

4.4.6 LP ID POINTS WITH ANCIENT REMAINS POLYGONS

Contains the identity points for ancient remains which are presented with polygons in the LY layer. The details show information about identity in the Archaeological Sites and Monuments database and quality in the form of mean square horizontal error.

Table 72. Contents in LP ID points with ancient remains polygons.

Layer name	Detail type	Name	Description	Selection
LP_xxxx	FORNID	Ancient monument, large (ID point)	Identity point for large ancient remains.	Presented in accordance with selection from RAÄ.
LP_xxxx	FORNUID	Ancient remains without visible mark above ground, large (ID point)	Identity point for large ancient remains without visible mark above ground.	Presented in accordance with selection from RAÄ.

Table 73. Set of attributes for LP ID points with ancient remains polygons.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	OBJEKT_ID	Text	41	Text	41	Globally unique identity (UUID) for ancient remains including type and serial number. Format: uuid:type:serial no., e.g. 12345678-1234-1234-1234-123456789012:G:00. UUID in the identity can be linked to The National Heritage Board's register KMR.
2	DETALJTYP	Text	10	Text	10	Code for detail type
3	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
4	SRIKT	Numerical	8.2	Numerical	8.2	Symbol orientation. Stated in unit degrees (0.00 – 360.00, increasing anti-clockwise).
5	XYFEL	Numerical	6.0	Numerical	6.0	Mean square horizontal error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 treated as null value.

4.4.7 LS POINTS WITH ANCIENT REMAINS

Contains ancient remains, historical buildings and memorial stones with a small extent, which are presented as point objects. The details show information about identity in the Archaeological Sites and Monuments database and quality in the form of mean square horizontal error.

Table 74. Contents in LS points with ancient remains.

Layer name	Detail type	Name	Description	Selection
LS_XXXX	FORN.C	Ancient remain, small (point)	Middle point for small ancient remains.	Presented in accordance with selection from RAÄ.
LS_XXXX	FORNU.C	Ancient remains without visible mark above ground, small (point)	Centre point for small ancient remains without visible mark above ground.	Presented in accordance with selection from RAÄ.
LS_XXXX	MILST.C	Milestone	Centre point of protected milestone in its original position.	
LS_XXXX	FORN.S	Ancient remains, information symbol	Large information symbol for ancient remains, so-called R symbol.	Presented in accordance with selection from RAÄ.
LS_XXXX	FORNLS.S	Ancient remains, small information symbol	Information symbol by ancient remains, so-called R symbol.	Presented in accordance with selection from RAÄ.
LS_XXXX	FORNUS.C	Ancient remains without visible mark above ground, information symbol	Information symbol by ancient remains without visible mark above ground, so-called R symbol.	Presented in accordance with selection from RAÄ.

Table 75. Set of attributes for LS points with ancient remains.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	INTERNID	Numerical	9	Numerical	9	Internal identity in Lantmäteriet's basic data storage
2	OBJEKT_ID	Text	41	Text	41	Globally unique identity (UUID) for ancient remains including type and serial number. Format: uuid:type:serial no., e.g. 12345678-1234-1234-1234-123456789012:G:00. UUID in the identity can be linked to The National Heritage Board's register KMR.
3	DETALJTYP	Text	10	Text	10	Code for detail type
4	GDAT	Text	16	Text	16	Date/time when detail was created. Stated in format: 2005-10-11 12:04
5	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
6	SRIKT	Numerical	8.2	Numerical	8.2	Symbol orientation. Stated in unit degrees (0.00 – 360.00, increasing anti-clockwise).
7	XYFEL	Numerical	6.0	Numerical	6.0	Mean square horizontal error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 treated as null value.
8	METODPLAN	Numerical	5.0	Numerical	5.0	Method of measuring position specification in plane; refer to table in Chapter 2.4.4
9	FLYGHOJD	Numerical	7.0	Numerical	7.0	Flying height when collecting photogrammetric data
10	UNDSKALA	Numerical	7.0	Numerical	7.0	Document scale factor when digitizing

4.4.8 LT TEXT WITH ANCIENT REMAINS AND OTHER CULTURAL-HISTORICAL REMAINS


Contains text with name and information text for ancient remains and other cultural-historical remains.

Table 76. Contents in LT text with ancient remains and other cultural-historical remains.

Layer name	Detail type	Name	Description	Selection
LT_xxxx	KULTURTX	Name of ancient remains etc.	Name of ancient remains or other cultural-historical remains	Established by Lantmäteriet's place names section.
LT_xxxx	KULTURUTX	Information text, other cultural-historical remains etc.	Information text for ancient remains or other cultural-historical remains	Presented in accordance with the established list of information texts.

Table 77. Set of attributes for LT text with ancient remains and other cultural-historical remains.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	KARTTEXT	Text	64	Text	64	Abbreviated or hyphenated text string; e.g. 'ARS-'
2	TDELIDX	Numerical	1.0	Numerical	1.0	Hyphenating part 0 = not hyphenated otherwise 1-9 for each substring.
3	TDELID	Numerical	9.0	Numerical	9.0	Coherent identity of all included substrings for hyphenated/abbreviated text.
4	REGTEXT	Text	64	Text	64	
5	DETALJTYP	Text	10	Text	10	Code for detail type
6	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
7	TRIKT	Numerical	8.2	Numerical	8.2	Text orientation. Stated in unit degrees (0.00 – 360.00, increasing anti-clockwise). 0.00=Unoriented text

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
8	TJUST	Numerical	1.0	Numerical	1.0	<p>Insertion point of text (1-9). Insertion point in NUMERICAL point.</p> <p><i>Figure 4. Figure showing nine possible anchor points for text.</i></p> 
9	THOJD	Numerical	4.0	Numerical	4.0	Text height in the form of code. 0 treated as null value. Refer to detailed descriptions in Chapter 4.1.10
10	TREPR	Numerical	1.0	Numerical	1.0	Scale surface for text: refer to detailed description in Chapter 4.1.10
11	TTYP	Text	1	Text	1	Type of text. 'N' = name, 'U' = information text.
12	TSPARR	Numerical	3.0	Numerical	3.0	Spacing of text in per cent of original length of text string (0-100%).

4.5 Other cultural-historical remains

Other cultural-historical remains are registered in the National Heritage Board's ancient remains information system, FMIS. Changes are transferred from FMIS to Lantmäteriet twice a year. Note that ancient remains with an antiquarian assessment of other cultural-historical remains are not presented in the general section of the Real Property Register.

In the new Heritage Conservation Act from 1 January 2014, the concept of ancient remains has been clarified, i.e. what is classified as ancient remains. This has made the antiquarian assessment uncertain for certain types of remains in FMIS - which means that re-mains that have been registered as other cultural-historical remains in FMIS may be ancient remains under the new legislation. In order to ensure that the correct decision data is used, information about remains must always be checked with the county administrative board.

Other cultural-historical remains are presented as a point, line or polygon/area with boundary line.

An identity is delivered for every object which can be used in the [RAÄ:s Fornsök](#) to find more information about other cultural-historical remains.

The theme of other cultural-historical remains contains the following layers:

Table 78. Layers for other cultural-historical remains.

Other cultural-historical remains	Layer Name
Other cultural-historical remains (Polygons)	GY
Identity point for polygon (point)	GP
Other cultural-historical remains (lines)	GL
Other cultural-historical remains (point)	GS

4.5.1 DATA CAPTURE

LINEAGE

The information comes mainly from inventories made by the Swedish National Heritage Board (RAÄ). Data collection by RAÄ has taken place since the 1930s.

4.5.2 MAINTENANCE FREQUENCY

Lantmäteriet retrieves information from RAÄ twice a year, in April and November. The RAÄ Fornsök may be more current since data is updated more frequently there.

4.5.3 DATA QUALITY

COMPLETENESS

Other cultural-historical remains may exist even though they are not presented on the map. Completeness is difficult to assess.

LOGICAL CONSISTENCY

Other cultural-historical remains are independent objects that are not linked to any other object.

Other cultural-historical remains have an ID which consists of its transfer number from FMIS (Ancient Remains Information System) at RÅA.

Example of identity of other cultural-historical remains:

10 0324 0123 0001:G:00

Original code, parish code, serial number, sub-number, object type, serial number

THEMATIC ACCURACY

Thematic accuracy is judged to be high.

POSITIONAL ACCURACY

The margin of error in the position of the remains may be up to 20 meters.

Table 79. Requirements for object types' positional accuracy.

Object type	Requirements for positional accuracy in plane (m)
Other cultural-historical remains (polygon)	10
Other cultural-historical remains (boundary line)	10
Mining area (boundary line)	10
Other cultural-historical remains (ID point)	-
Other cultural-historical remains [other] (polygon)	10
Other cultural-historical remains [other] (boundary line)	10
Other cultural-historical remains [other] (ID point)	-
Other cultural-historical remains, line shaped (centre line)	10

Object type	Requirements for positional accuracy in plane (m)
Other cultural-historical remains [other], line shaped (centre line)	10
Other cultural-historical remains, small (point)	10
Other cultural-historical remains [other] small (point)	10
Mine shaft (edge line)	10
Remains of built-up area, foundations (point)	10
Memorial stone, information symbol	-
Memorial stone, small, informative symbol	-

4.5.4 GY POLYGONS WITH OTHER CULTURAL-HISTORICAL REMAINS

The layer contains polygons for other cultural-historical remains. The details show information about the FMIS identity and quality in the form of mean square horizontal error.

Table 80. Contents in GY polygons with other cultural-historical remains.

Layer name	Detail type	Name	Description	Selection
GY_xxxx	KULT	Other cultural-historical remains (polygon)	Polygon for other large cultural-historical remains of the type found in the value store for cultural information text.	Presented in accordance with selection from RAÄ.
GY_xxxx	KULTÖ	Other cultural-historical remains [other] (polygon)	Polygon for other large cultural-historical remains of the type not found in the value store for cultural information text.	Presented in accordance with selection from RAÄ.

Table 81. Set of attributes for GY polygons with other cultural-historical remains.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	OBJEKT_ID	Text	41	Text	41	Globally unique identity (UUID) for cultural-historical remains including type and serial number. Format: uuid:type:serial no., e.g. 12345678-1234-1234-1234-123456789012:G:00. UUID in the identity can be linked to The National Heritage Board's register KMR.
2	DETALJTYP	Text	10	Text	10	Code for detail type
3	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
4	XYFEL	Numerical	6.0	Numerical	6.0	Mean square horizontal error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 is treated as a null value.

4.5.5 GL LINES WITH OTHER CULTURAL-HISTORICAL REMAINS

Contains the boundary lines for other cultural-historical remains which are presented as polygons in the GY layer and line-shaped other cultural-historical remains. The details show information about identity in the Archaeological Sites and Monuments database and quality in the form of mean square horizontal error.

Table 82. Contents in GL lines with other cultural-historical remains.

Layer name	Detail type	Name	Description	Selection
GL_xxxx	KULT.B	Other cultural-historical remains (boundary line)	Boundary line for other large cultural-historical remains of the type found in the value store for cultural information text.	Presented in accordance with selection from RAÄ.
GL_xxxx	KULT.M	Other cultural-historical remains (line-shaped)	The centre line for line-shaped other cultural-historical remains of the type found in the value store for cultural information text.	Presented in accordance with the selection from RAÄ

Layer name	Detail type	Name	Description	Selection
GL_xxxx	GRUVHÅL.K	Mine shaft (edge line)	Edge line of mine shaft after discontinued mining activities.	Presented in accordance with selection from RAÄ. Pits and quarries of later origin are also presented.
GL_xxxx	GRUVOMR.B	Mining shaft area (boundary line)	Boundary line for area of land after discontinued mining activities.	Presented in accordance with selection from RAÄ.
GL_xxxx	KULTÖ.B	Other cultural-historical remains [other] (boundary line)	Boundary line for other large cultural-historical remains of the type not found in the value store for cultural information text.	Presented in accordance with selection from RAÄ.
GL_xxxx	KULTÖ.M	Other cultural-historical remains [other], (line-shaped)	Centre line for line-shaped other cultural-historical remains of the type not found in the value store for cultural information text.	Presented in accordance with selection from RAÄ.

Table 83. Set of attributes for GL lines with other cultural-historical remains.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	INTERNID	Numerical	9	Numerical	9	Internal identity in Lantmäteriet's basic data storage
2	OBJEKT_ID	Text	41	Text	41	Identity for ancient remains with detail type FORN.M, FORNU.M and RUIN.K. Globally unique identity (UUID) for cultural-historical remains including type and serial number. Format: uuid:type:serial no., e.g. 12345678-1234-1234-1234-123456789012:G:00. UUID in the identity can be linked to The National Heritage Board's register KMR.
3	DETALJTYP	Text	10	Text	10	Code for detail type

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
4	GDAT	Text	16	Text	16	Date/time when detail was created. Stated in format: 2005-10-11 12:04
5	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
6	XYFEL	Numerical	6.0	Numerical	6.0	Mean square horizontal error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 is treated as a null value.
7	METODPLAN	Numerical	5.0	Numerical	5.0	Method of measuring position specification in plane; refer to table in Chapter 2.4.4
8	FLYGHOJD	Numerical	7.0	Numerical	7.0	Flying height when collecting photogrammetric data
9	UNDSKALA	Numerical	7.0	Numerical	7.0	Document scale factor when digitizing

4.5.6 GP ID POINTS WITH POLYGONS OF OTHER CULTURAL-HISTORICAL REMAINS

The layer contains identity points for other cultural-historical remains which are presented with polygons in the GY layer. The details show information about the FMIS identity and quality in the form of mean square horizontal error.

Table 84. Contents in GP ID points with polygons of other cultural-historical remains.

Layer name	Detail type	Name	Description	Selection
GP_XXXX	KULTID	Other cultural-historical remains (ID point)	Identity point for other large cultural-historical remains of the type found in the value store for cultural information text.	Presented in accordance with selection from RAÄ.
GP_XXXX	KULTÖID	Other cultural-historical remains [other] (ID point)	Identity point for other large cultural-historical remains of the type not found in the value store for cultural information text.	Presented in accordance with selection from RAÄ.

Table 85. Set of attributes for GP ID points with polygons of other cultural-historical remains.

No.	Attribute	Type shape	Length shape	Type MapInfo	Length MapInfo	Description
1	OBJEKT_ID	TEXT	41	TEXT	41	Globally unique identity (UUID) for cultural-historical remains including type and serial number. Format: uuid:type:serial no., e.g. 12345678-1234-1234-1234-123456789012:G:00. UUID in the identity can be linked to The National Heritage Board's register KMR.
2	DETALJTYP	TEXT	10	TEXT	10	Code for detail type
3	ADAT	TEXT	16	TEXT	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
4	SRIKT	Numerical	8.2	Numerical	8.2	Symbol orientation. Stated in unit degrees (0.00 – 360.00, increasing anti-clockwise).
5	XYFEL	Numerical	6.0	Numerical	6.0	Mean square horizontal error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 is treated as a null value.

4.5.7 GS POINTS WITH OTHER CULTURAL-HISTORICAL REMAINS

Contains other cultural-historical remains, remains of built-up areas and memorial stones presented as point objects. The details show information about the FMIS identity and quality in the form of mean square horizontal error.

Table 86. Contents in GS points with other cultural-historical remains.

Skiktnamn	Detaljtyp	Namn	Beskrivning	Urval
GS_xxxx	KULT.C	Other cultural-historical remains, small	Centre point for other small cultural-historical remains of the type found in the value store for cultural information text.	Presented in accordance with selection from RAÄ.
GS_xxxx	KULTÖ.C	Other cultural-historical remains [other], small	Centre point for other small cultural-historical remains of the type not found in the value store for cultural information text.	Presented in accordance with selection from RAÄ.
GS_xxxx	BEBLÄMN.C	Remains of built-up area, foundations	Centre point for remains of built-up area.	Presented in accordance with selection from RAÄ.
GS_xxxx	MINNES.S	Memorial stone, information symbol	Large information symbol by memorial stone, landmark or monument, called an Ms symbol	Presented in accordance with selection from RAÄ.
GS_xxxx	MINNESL.S	Memorial stone, small, informative symbol	Small information symbol by memorial stone, landmark or monument, called an Ms symbol	Presented in accordance with selection from RAÄ.

Table 87. Set of attributes for GS points with other cultural-historical remains.

Nr	Attribut	Typ shape	Längd shape	Typ MapInfo	Längd MapInfo	Beskrivning
1	INTERNID	Numerical	9	Numerical	9	Internal identity in Lantmäteriet's basic data storage
2	OBJEKT_ID	Text	41	Text	41	Globally unique identity (UUID) for cultural-historical remains including type and serial number. Format: uuid:type:serial no., e.g. 12345678-1234-1234-1234-123456789012:G:00. UUID in the identity can be linked to The National Heritage Board's register KMR.
3	DETALJTYP	Text	10	Text	10	Code for detail type
4	GDAT	Text	16	Text	16	Date/time when detail was created. Stated in format: 2005-10-11 12:04
5	ADAT	Text	16	Text	16	Date/time of last change. NB not necessarily the latest update. Stated in format: 2005-10-11 12:04
6	SRIKT	Numerical	8.2	Numerical	8.2	Symbol orientation. Stated in unit degrees (0.00 – 360.00, increasing anti-clockwise).
7	XYFEL	Numerical	6.0	Numerical	6.0	Mean square horizontal error. Stated in unit mm. The value varies between 25 - 9,999,999 mm. 0 is treated as a null value.
8	METODPLAN	Numerical	5.0	Numerical	5.0	Method of measuring position specification in plane; refer to table in Chapter 2.4.4
9	FLYGHOJD	Numerical	7.0	Numerical	7.0	Flying height when collecting photogrammetric data
10	UNDSKALA	Numerical	7.0	Numerical	7.0	Document scale factor when digitizing

5 List of changes

The most recent changes include a detailed description. This is removed when new changes are made. The table indicates which version the change has been made in. The date specified represents the day from which the change applies.

Table 88. List of changes.

Version	Date	Reason and change from previous version
4.2.1	2020-11-10	Changed content All Land book fishing are recoded to Special fishing lots.
4.2	2019-04-10	Changed content In sections 4.4.4 - 4.4.7 och 4.5.4 - 4.5.7 has the attribute FMIID been replaced with the attribute OBJEKT_ID.
4.1.1	2018-07-02	Updated links in the document
4.1	2018-05-23	Changed content In sections 4.2.4, 4.2.6, 4.3.4, 4.3.6, 4.3.7 and 4.3.8 has the attribute OBJEKT_ID been added.
4.0	2017-11-02	Document changes Appendix 1 has been added. The entire document has been supplemented with information on data quality. Changed content In sections 4.1.4, 4.1.6, 4.1.7 and 4.1.8 the attribute OBJEKT_ID has been added to the attribute table. In the table for PLANFK regulations in section 4.3.3 some abbreviations have been re-moved since they do not exist any more.

Appendix I: Proposed drawing order of layers

The following drawing order is proposed, irrespective of the software program. When data is used in ArcMap, layers can be connected to the supplied LYR file that controls the order of drawing and what scale interval the different layers are presented in.

Table 89. Proposed drawing order of layers.

Description of layer	Layer name	Geometry	Set scale area of LYR file	On
Administrative name	AT	Text	1:15,050 and larger	X
Large scale register numbers	AX	Text	1:2,550 and larger	X
Register numbers	AR	Text	1:15,050 and larger	X
Place names and information text	TX	Text	1:15,050 and larger	X
Contour height text	OT	Text	Always presented	X
Text for rights and joint facilities (addition PBR)	RT	Text	1:15,050 and larger	
Text for regulations (addition PBR)	ET	Text	1:15,050 and larger	
Administrative symbols	AS	Point	1:5,050 and larger	X
Surveyed boundary points	AQ	Point	1:5,050 and larger	
Joint properties and real properties, ID points	AI	Point	Not presented	
Joint properties and real properties, points	AP	Point	Not presented	
Administrative name, points (not MapInfo)	AT	Point	Not presented	
Large scale register numbers, points (not MapInfo)	AX	Point	Not presented	
Register numbers, points (not MapInfo)	AR	Point	Line	
Place name, points (not MapInfo)	TX	Point	1:15,050 and larger	X
Railway symbols	JS	Point	1:15,050 and larger	X
Symbol for rights and joint facilities (addition PBR)	RI	Point	1:15,050 and larger	
Symbol for regulations (addition PBR)	EI	Point	1:15,050 and larger	

Description of layer	Layer name	Geometry	Set scale area of LYR file	On
Railways	JL	Line	Always presented	X
Administrative boundaries (Cadastral Index Map)	AL	Line	1:25,050 and larger	X
Administrative boundaries (light background)	AL	Line	1:25,050 and larger	
Joint properties presented with centre lines	AM	Line	1:75,050 and larger	X
Other administrative boundaries	AO	Line	1:75,050 and larger	X
Power lines	KL	Line	1:100,050 and larger	X
Point objects for rights and joint facilities (addition PBR)	RS	Point	1:15,050 and larger	
Point objects for regulations (addition PBR)	ES	Point	1:15,050 and larger	
Lines for rights and joint facilities (addition PBR)	RO	Line	1:15,050 and larger	
Lines for regulations (addition PBR)	EO	Line	1:15,050 and larger	
Real properties and joint properties	AY	Polygon	Always on, but without portrayal	X
Other facilities	BO	Line	1:50,050 and larger	X
Other facilities or areas	BA	Polygon	1:50,050 and larger	X
Building symbols	BS	Point	1:50,050 and larger	X
Conventional sign for depression	OS	Point	1:50,050 and larger	X
Nature conservation	NL	Line	1:50,050 and larger	X
Road symbols	VS	Point	1:50,050 and larger	X
Military zone	QL	Line	1:50,050 and larger	X
Buildings	BY	Polygon	1:15,050 and larger	X
Buildings with Illustrative position	BY	Polygon	1:15 050 and larger	
Ancient remains (Addition PBR)	LS	Point	1:50,050 and larger	X

Description of layer	Layer name	Geometry	Set scale area of LYR file	On
Cultural/historical symbols (Addition PBR)	GS	Point	1:50,050 and larger	X
Nature conservation symbols	NS	Point	1:50,050 and larger	X
Other roads	VO	Line	1:50,050 and larger	X
Roads	VL	Line	Always presented	X
Hydrography symbols	HS	Point	1:50,050 and larger	X
Hydrography	HL	Line	1:50,050 and larger	X
Height contour lines	OH	Line	Always presented	X
Nature conservation polygons	NY	Polygon	Not presented	
Military zone polygons	QY	Polygon	Not presented	
Polygons for rights and joint facilities (addition PBR)	RY	Polygon	1:50,050 and larger	
Polygons for regulations (addition PBR)	EY	Polygon	1:50,050 and larger	
Polygon classification points	MP	Point	Not presented	
Land lines	ML	Line	Not presented	
Cultivated land	MA	Polygon	Not presented	
Marshland	MS	Polygon	Not presented	
Open land and forest	MO	Polygon	Not presented	
Buildings	MB	Polygon	Not presented	
Water (lakes and large watercourses)	MV	Polygon	Not presented	
Land types, all	MY	Polygon	Always presented	X
Locality polygons	AG	Polygon	Always presented	X
Municipality polygons	AK	Polygon	Always presented	X
County polygons	AN	Polygon	Always presented	X