2024-08-20

PRODUCT DESCRIPTION

Land Regulation Download, vector

DOCUMENT VERSION: 1.8

Figure 1 Section from Land Regulation Download, vector
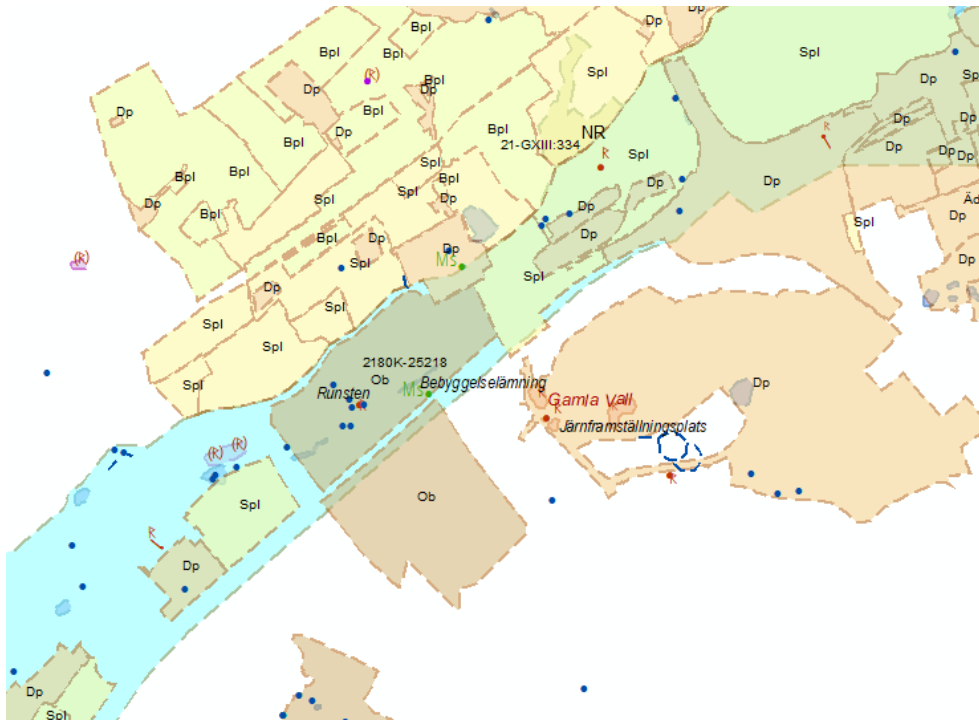
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1 General description

Land regulations are presented in the general section of the Real Property Register. The general section contains a textual 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, textual section. Read more about the Real Property Register and the Cadastral Index Map at [Lantmäteriet's website](#).

1.1 Contents

The product contains plans and regulations about land use from the Cadastral Index Map and is a complement to Cadastral Parcels Download, vector, which contains property boundaries from the Cadastral Index Map. The product also contains ancient remains and other cultural-historical remains. Please note that boundaries on the Cadastral Index Map does not have any legal effect.

1.2 Geographic coverage

Nationwide.

1.3 Geographic section

Sweden, county, municipality, grid index, and optional polygon.

1.4 Coordinate system

Plane:

- SWEREF 99 TM (EPSG 3006)
- SWEREF 99 local zones:

  o SWEREF 99 1200 (EPSG 3007)
  o SWEREF 99 1330 (EPSG 3008)
  o SWEREF 99 1415 (EPSG 3012)
  o SWEREF 99 1500 (EPSG 3009)
  o SWEREF 99 1545 (EPSG 3013)
  o SWEREF 99 1630 (EPSG 3010)
  o SWEREF 99 1715 (EPSG 3014)
  o SWEREF 99 1800 (EPSG 3011)
  o SWEREF 99 1845 (EPSG 3015)
  o SWEREF 99 2015 (EPSG 3016)
  o SWEREF 99 2145 (EPSG 3017)
  o SWEREF 99 2315 (EPSG 3018)

1.5 Miscellaneous

Currently, the product does not include information on shoreland protection due to quality issues. Reconstruction of shoreland protection information is underway but the timing for re-entry into the product has not been

determined. Information of when it will be re-entered into the product will be communicated well in advance. For more detailed information on the location of shoreland protection, please contact the respective county administrative board.

2 Quality description

The quality marking aims to provide information about the quality of stored objects. Based on the method of measurement, an expected positional accuracy has been set for the object types.

The objects in the database are stored with information about, amongst other things, history, and positional uncertainty.

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

2.1 Purpose and utility

Land Regulation Download, vector can be used in addition to Cadastral Parcels Download, vector. Land Regulation Download, vector contains information from the Real Property Register's map part, the Cadastral Index map. The product provides information about the plans and land regulations applicable to a specific area or property, such as detailed development plans, nature reserves, and governmental listed buildings. The product also includes ancient remains and other cultural-historical remains.

The vector format allows you to customize the map to your own business needs.

You can:

- create an overview of plans and land regulations in relation to real property areas.
- add and link your own information to objects on the map.
- integrate map information in your own system.
- display information as required using the layer division.

It is important to remember that the content in **the Cadastral Index map does not have any legal effect**. The legal documents that apply are the decision documents of the plans. These documents are archived at Lantmäteriet as well as the authorities responsible for the information regarding the plans.

2.2 Data capture

2.2.1 LINEAGE

Plans and regulations are retrieved from a variety of original materials. For example, they may be digitized from old maps or measured with high accuracy using GPS. Therefore, the content varies in quality.

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

With the introduction of an object-oriented method of displaying information, these notes and maps were used to build a new information base. In addition to this, the content was supplemented with plans and regulations that were not yet included but needed to be. This meant that Lantmäteriet contacted municipalities and county administrative boards etc., to complement the content as much as possible using their materials.

Plans usually follow real property boundaries. In the current digital handling, many new plan boundaries have been created by duplicating the real property boundary, inheriting the quality of the property boundary. The plan boundary also inherits any deficiencies in quality that the real property boundary might have. When collecting plan geometries from Municipal Cadastral Authorities (Kommunala Lantmäterimyndigheter, KLM), KLM sometimes did not specify the quality of the boundaries. When stored in the Cadastral Index map, then assigned a general quality.

Regulations sometimes follow real property boundaries and may, in some cases, have been created/changed in conjunction with real property formation actions and thereby been accurately measured. These cases primarily concern certain types of regulations, such as nature reserves. Otherwise, the capture of regulation geometries could have been conducted through separate methods and often has acquired a general quality.

2.3 Maintenance

2.3.1   MAINTENANCE FREQUENCY

The information is continuously updated by Lantmäteriet and municipal cadastral authorities. The goal is that plans and regulations should be stored in the Real Property Register within 2 weeks from the date they gain legal force.

Information for plans and land regulations, which are to be presented both in the Cadastral Index map and in the Real Property register's textual section, should be added to the Real Property register map no later than two working days after the information has been added to the textual section. However, delays may occur.

The database for land regulations is updated every night. Land regulations ordered through Lantmäteriet, is either retrieved from pre-produced data or directly from the database. Pre-produced data is updated weekly.

For pre-produced data, delivery of county and Sweden extractions with SWEREF99 TM or municipal extractions with local SWEREF zone is available. Other deliveries are made with extractions directly from the database.

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

2.4 Data quality

2.4.1 COMPLETENESS

According to the standard, the quality parameters for the quality theme completeness is "commission" and "omission". Since there are few measurements of completeness for the objects at Lantmäteriet, completeness is instead described in the product description as very high, high, and low. The classification of completeness of the various detail types have been assessed by those working with collection and updating of the objects.

The presentation of current plans in the Real Property register is largely complete. The most likely reason for omissions in the presentation is that notification of the plan has not come to the attention Lantmäteriet or municipal cadastral authorities.

Omissions may occur where a plan is in the textual section of Real Property register but not in the Cadastral Index map, and vice versa. If a plan is present in the map but not in the textual section Real Property register, it may result in lack of information for some attributes.

It may also occur that a plan has been deregistered but is still present in the Cadastral Index map.

For regulations, completeness varies regionally across the country. Some types of information are more complete while others may be more incomplete.

The most likely reason for omissions in the presentation is that notifications of decisions have not come to the attention of Lantmäteriet or municipal cadastral authorities.

Omissions may occur where a regulation is in the textual section of Real Property register but not in the Cadastral Index map, and vice versa. If a regulation is present in the map but not in the textual section of Real Property register, it may result in lack of information for some attributes.

It may also occur that a regulation has been deregistered but still exists in the Cadastral Index map.

For some types of regulations, a simplified geometric representation (point or line) is sometimes used. Regulations with line representation is in the Line layer with line objects for regulations. Point occurrences are in the layer Point layer with point objects for regulations.

2.4.2 LOGICAL CONSISTENCY

The structure of point objects, line objects, and area objects has such requirements for geometric positions that it should be possible to easily create topology.

When storing objects in the database at Lantmäteriet, it is checked that the objects follow the geometric and topological rules that are in place, and that the information corresponds to OGC's (Open Geospatial Consortium) requirements for geometries. Value ranges and object types are also checked for validity before being stored in the database.

For polygon objects the identity is carried by the identity point. For point or line objects the identity is stored directly on the object.

Cartographic informative text is placed without a connection to the object.

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

Logical consistency is continuously checked and corrected. Some errors caused by a lack synchronization between databases cannot be avoided. However, they are corrected within a few days.

Plans are stored as polygons. Micro polygons or overlaps can therefore occur between adjacent plans that should share a boundary. Some types of plans are not allowed to overlap, but deficiencies in data or other reasons can cause such unallowed overlaps.

Each regulation is stored with its own boundary. Micro polygons or overlaps can therefore occur between adjacent regulations that should share a boundary. Regulations with the same regulation type are not allowed to overlap, but deficiencies in data can cause such unallowed overlaps.

The coordinates of the boundary point and the coordinates for the breaking points on the boundary line should match.

The identity of regulations consists of a dossier designation that can also be found in the textual section of the general section of the Real Property register.

2.4.3 THEMATIC ACCURACY

In general, thematic accuracy is high.

2.4.4 POSITIONAL UNCERTAINTY

Information on positional uncertainty depends on the measurement method, generalization and how distinct the object is.

Positional uncertainty describes how well a given position corresponds to the actual position in the terrain for the object that has been positioned in relation to the principal coordinate system.

Geometrical requirements for positional uncertainty depend on the objects' distinctness within a geographically limited area.

The mean square error is almost always calculated or estimated based on the measurement methods used for data capture (**metodplan**). The value may be considered as an assumed value for the applied measurement method. The value may be better or worse but provides some understanding of the positional uncertainty of boundaries. The mean square error is specified with millimetre accuracy.

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

Table 1 Value range for the attribute metodplan

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	Photogrammet-ric	Analogue photogramme-try	
202	Photogrammet-ric	Analytical photogram-metry	
203	Photogrammet-ric	Digital photogrammetry – analogue camera	

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

3 Contents of the delivery

3.1 Folder structure at delivery

The files delivered are Geopackage files with containing data, and a JSON-file with a description of the contents of the data file.

The Geopackage files can be ordered from Geotorget.

Other files for styling and symbols are available for download on the [product page](#).

3.2 Delivery format

The information is delivered in the [Geopackage](#) format.

3.3 File sets

The information is delivered in a gpkg file, and a description of the data content is delivered in a json file.

3.4 Layering

The information is divided into different layers and are named according to theme affiliation and geometry type.

Layer names begin with product affiliation and extent before the layer name during entry into software.

Example: **markreglering_xxxx bestammelse_yta**, xxxx can for example be extent coordinates, municipality code or county code.

The set of attributes varies between the different layers.

4 Layout and plotting of data

4.1 On-screen presentation

The styling of the product is optimized for scales ranging from 1:5,000 to 1:50,000.

For styling, a LYR file is provided for ArcGIS/ArcMap and a LYRX file for ArcGIS Pro. In ArcGIS/ArcMap, data should be saved in a geodatabase to achieve full functionality.

For QGIS, a QLR file is provided for styling.

The styling files contain a proposed drawing order for the layers.

Symbols specific to Lantmäteriet's data are provided in a symbol file, LMTopografisymboler.ttf.

The styling file and symbol file are available for download on the product page.

4.1.1 TEXT

In plotting text, the attribute **detaljtyp** determines the style and colour, while **thojd** determines the size. Other attributes used are **tjust** (insertion point) and **trikt** (orientation). Text strings are not drawn with spaced characters. This is only indicated in the **tsparr** attribute as a percentage of how much the delivered text represents in relation to the original text. The recommended point size of the text is included as information in the **thojd** attribute.

4.2 Installation of fonts

The text in the style file uses the Windows standard font, *Arial.*

4.2.1 SYMBOLS

Regardless of which software is being used, the included font in the file *LMTopogradisymboler.ttf* must be installed in the Windows font catalogue (c:\\Windows\Fonts), to obtain a correct symbol presentation.

During symbol styling the attribute SRIKT has been used to obtain correct orientation of the symbols.

5 Layer description and code list

5.1 Plans

In the Cadastral Index Map plans are presented according to the Planning and Construction Act (2010:900), or corresponding older statute, except for comprehensive plans and regional plans. Only valid plans included in the textual part of the Real Property Register's general section are presented.

Table 2. Plans presented in connection to law spaces.

Plan	Law space
- Area regulation - Amendment to area regulation - Detailed development plan - Amendment to detailed development plan	Planning and Building Act (2010:900)
- Established general plan - City Plan - Building Plan - Subdivision Plan - Plot division - Real property plan	Corresponding earlier regulations

Real Property Register contains information about plans in according to planning legislation. One part of the Real Property Register is the digital Cadastral Index Map (DRK). There, information is presented according to Section 37 in the Real Property Register Ordinance (FRF), including plans, etc. according to Section 27 first paragraph 2-8 and second paragraph.

Even deregistered plans must be presented in the textual part of Real Property Register. However, they are removed from the Cadastral Index Map.

If a plan, regulation, decision, or investigation affects a number of cadastral authorities, it should be divided. Each cadastral authority reports the part that falls within its responsibility as a reporting unit.

If plan geometries are intended to be used as 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 the current plan decision documents. Refer to Lantmäteriets website for more information.

Table 3 Layers included for plans.

Plans	Layer name
Plans (polygons)	plan_yta

Plans	Layer name
Boundaries (lines)	plan_begransningslinje
Identity points for polygons (point)	plan_idpunkt

5.1.1 POLYGON LAYER FOR PLANS

The layer contains the extent of plans in polygons. On the objects, there is information about the plan's geometric quality and designation.

Table 4 Layer description for plans (Layer name: plan_yta)

Detail type	Name	Description	Selection
PLANAPL	Subdivision plan		Included completely, in accordance with the Planning and Building Act (PBL). The plan must be in the plan section of the Real Property Register.
PLANBPL	Building plan		Included completely, in accordance with the Planning and Building Act (PBL). The plan must be in the plan section of the Real Property Register.
PLANDP	Detailed development plan		Included completely, in accordance with the Planning and Building Act (PBL). The plan must be in the plan section of the Real Property Register.
PLANGPL	Development plan		Included completely, in accordance with the Planning and Building Act (PBL). The plan must be in the plan section of the Real Property Register.
PLANOB	Area regulations		Included completely, in accordance with the Planning and Building Act (PBL). The plan must be in the plan section of the Real Property Register.
PLANSPL	City plan		Included completely, in accordance with the Planning and Building Act (PBL). The plan must be in the

Detail type	Name	Description	Selection
			plan section of the Real Property Register.
PLANFP	Property regulation plan	Property regulation plans are part of the detailed plans according to the Planning and Building Act (PBL) since 2011.	Existing property regulation plans are presented if they are valid.
PLANGATU	Area for distribution of street costs	Area where a decision on street cost reimbursements has been made.	Included according to the assessment by a municipal surveying authority.
PLANTI	Plot division	Plot division is part of the detailed development plans according to the Planning and Building Act (PBL) since 2011.	Existing plot divisions are presented if they are valid.
PLANÄDP	Amendments to detailed development plan		Included only when applicable. The detailed development plan may have changed without being presented in PLANÄDP. The plan must be in the plan section of the Real Property Register.
PLANÄOB	Amendments to area regulations		Included only when applicable. Area regulations may have changed without being presented in PLANÄOB. The plan must be in the plan section of the Real Property Register.

Table 5 Set of attributes for plans

Attribute	Type	Length	Description
objekt_id	Text	36	Globally unique identity (UUID) for each plan.

Attribute	Type	Length	Description
externid	Text	64	External ID from Lantmäteriet's basic data-base: for example, '12-BJS-55A'.
detaljtyp	Text	10	Code for detail type.
ytkval	Integer	2	Geometric polygon quality. 0 treated as a null value. Refer to detailed description below.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
planbet	Text	64	Designation of plan: for example, '12-BJS-55A'
plantyp	Text	6	Type of plan. Refer to detailed description in table 7.
plnamn	Text	300	Name of plan.
bdat	Text	8	Decision date for creation/adoption.
ldat	Text	8	Date of legal effect for creation/adoption.
gtill	Text	8	Valid until date.
planfk	Text	6	Plan abbreviation, type of reporting unit according to the general part of the Real Property Register; refer to detailed description in table 7.

Table 6 Value range for the attribute ytkval

Code	Description	Comment/sketch
1	The polygon is geometrically correct	
2	The polygon has geometric dupli-cates.	There are several polygons with identical geom-etries, one for each point in the **plan_idpunkt** layer, and every polygon receives the identity of the corresponding point.
6	The polygon is not geometrically correct	Polygons containing errors in the structure such as gaps, overhang, missing ID point or are other-wise incorrect. These polygons may also have multiple ID points or lack identity.

Table 7 Value range for the attribute planfk and the attribute 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 (Detailed development plan)
ÄOB	Amendments to area regulations

5.1.2   BOUNDARY LINES FOR PLANS' POLYGONS

Contains boundary lines for plans presented as polygons in the layer Polygon layer for plans. Objects provide information about the quality of the plan in form of a mean square error in plane.

Plan boundaries are used as the boundary line for area regulations, detailed development plans, city plans, building plans, subdivision 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.

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 completely presented.

Table 8 Layer description for boundary lines (Layer name: plan_begransningslinje)

Detail type	Name
PLANFPGR	Property regulation plan boundary
PLANGR	Plan boundary

Detail type	Name
PLANTÄTGR	Enclosing boundary for plan

Table 9 Set of attributes for boundary lines

Attribute	Type	Length	Description
internid	Integer	9	Internal identity in Lantmäteriet's basic data storage.
detaljtyp	Text	10	Code for detail type.
gdat	DateTime	23	Date/time when the object was created. Specified in format: 2019-04-26T11:28:03.000.
adat	DateTime	23	Date/time of the latest changeSpecified in the format: 2019-04-26T11:28:03.000.
xyfel	Floating point	6,3	Mean square error in specified measurement method. Specified in unit meter. 0 is treated as a null value.
metodplan	Integer	5	Method of measurement in plane; refer to table 1 in chapter 2.2.4.
flyghojd	Integer	7	Flight altitude during photogrammetric data collection.
undskala	Integer	7	Scale factor of the base material during digitization.

5.1.3 POINT LAYER WITH ID-POINTS FOR PLANS' POLYGONS

Contains identity point for plans represented by polygons in the layer Polygon layer for plans. Information about the designation of the plan is found on the objects.

Table 10 Layer description for id-point to plan polygon (planyta). (Layer name: plan_idpunkt).

Detail type	Name
PLANID	Plan area, ID point
PLANID	Plan area, ID point

Table 11 Set of attributes for id-points to the plan's polygon

Attribute	Type	Length	Description
objekt_id	Text	36	Globally unique identity (UUID) for each plan.
externid	Text	64	External ID from Lantmäteriet's basic data-base: for example,'05-HÅL-1343.4'
detaljtyp	Text	10	Code for detail type.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
planbet	Text	64	Designation of plan: for example, '12-BJS-55A'
plantyp	Text	6	Type of plan. Refer to detailed description in table 7.
plnamn	Text	300	Name of plan.
bdat	Text	8	Decision date for creation/adoption.
ldat	Text	8	Date of legal effect for creation/adoption.
gtill	Text	8	Valid until date.
planfk	Text	6	Plan abbreviation, type of reporting unit according to the general part of the Real Property Register; refer to detailed description in table 7.

5.2 Land Regulations

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

The regulations presented include 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 textual part of the Real Property Register are presented.

Land-use regulations presented in connection with legal provisions.

Table 12. Land regulations presented in connection with legal space.

Land Management Regulation	Reference to legislation	Comment
Nature and culture conservation areas	Environmental Code (1998:808) or corresponding older regulation.	
Shoreland protection	Environmental code	**The product does not contain any shoreland protection information at present.** The information has been removed since it was no longer reliable. For more information about shoreland protection, please contact the respective county administrative board.
Areas for ground water and surface water protection	Environmental code, ordinance (1998:899) on environmentally hazardous activities and public health protection or corresponding previous regulation.	The outer boundary of the area must always be presented.
Road plan and construction ban	Roads Act (1971:948)	
Cultural history	Heritage Conservation Act (1988:950) or corresponding previous regulation.	Government listed buildings according to the ordinance (1988: 1229) are not presented.
Railway plans	Railway Building Act (1995:1649)	
Development concession or designated land	Minerals Act (1991:45), Certain Peat Deposits Act (1985:620) or	

Land Management Regulation	Reference to legislation	Comment
	corresponding previous regulation.	
Excavation, building and felling prohibition	In accordance with the older Building Act (1947:385)	

Regulations regarding maintenance obligations and fence breach in accordance with the Environmental Code as well as time-limited directives, questions raised about governmental listed buildings and notification obligations under the Heritage Conservation Act (1988:950) are not presented.

Real Property Register contains information about regulations regarding land use 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), it includes, among other things:

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

Even deregistered regulations must be presented in the textual part of the Real Property Register, although they are removed from the Cadastral Index Map.

A plan, regulation, decision, or investigation must be divided if it concerns a number of cadastral authorities. Each cadastral authority reports the part that falls within its area of responsibility as a reporting unit.

If regulation geometries are intended to be used for authority decisions requiring the highest level of updating and positional accuracy, it is recommended to contact the respective responsible for more information.

Table 13 Layer included for land regulation.

Land regulation	Layer name
Land regulations (polygons)	bestammelse_yta
Boundaries (lines)	bestammelse_begransningslinje
Identity points for polygons (point)	bestammelse_idpunkt
Line-represented regulations (lines)	bestammelse_linje
Point-presented regulations (point)	bestammelse_punkt

Land regulation	Layer name
Regulation boundary points (point)	bestammelse_granspunkt
Informational text (text)	plan_bestammelse_text

5.2.1 POLYGON LAYER FOR LAND REGULATION

Contains regulations presented as polygons. Information about the designation of the regulation is found on the objects.

For information about shoreland protection refer to section 1.5 Miscellaneous.

Table 14 Layer description for polygon layer for land regulation (Layer name: bestammelse_yta)

Detail type	Name
NATBIOTOP	Biotope protection
NATDSO	Animal and plant protection area
NATINT	Interim prohibition
NATLBILD	Landscape protection
NATNM	Natural monument
NATNP	National Park
NATNR	Nature reserve
NATNVO	Nature conservation area
NATKR	Culture reserve
NATMRO	Environmental hazard area
NATSO	Consultation area
NATSTRAND	Shoreland protection
NATTÄKT	Quarrying permit
GRUVMINBK	Exploitation concession, Mineral
GRUVANVMAM	Designated land

Detail type	Name
TÄKTTORBK	Exploitation concession, Peat
VATTGRU	Groundwater protection
VATTYT	Surface water protection
BYGGSCF	Excavation prohibition
BMINNEMB	Governmental listed building
BYGGBLBYF	Building prohibition
JVGPL	Railway plan
KYRKO	Church plot, established boundaries
FORNFOG	Area of ancient remains, established boundaries
FORNSKYF	Protection regulation for ancient remains
VÄGARB	Road plan
VÄGBYF	Extended new construction prohibition

Table 15 Set of attributes for regulation polygons

Attribute	Type	Length	Description
objekt_id	Text	36	Globally unique identity (UUID) for each plan.
externid	Text	64	External ID from Lantmäteriet's basic database: for example, '1407-P48'
detaljtyp	Text	10	Code for detail type.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
bestbet	Text	18	Regulation designation; for example. '1407-P48'
besttyp	Text	6	Type of regulation.

Attribute	Type	Length	Description
plnamn	Text	300	Name of plan
bdat	Text	8	Decision date for creation/adoption.
ldat	Text	8	Date of legal effect for creation/adoption.
gtill	Text	8	Valid until date.
planfk	Text	6	Plan abbreviation, type of reporting unit according to the general part of the Real Property Register; refer to detailed description in table 7.

Table 16 Value range for the attribute planfk for land regulations

Code	Description
BYF	New construction prohibition
BLBYF	New construction prohibition
FOG	Area of ancient remains with established boundaries
FVO	Fishing conservation area
FÖRFRV	Question raised about ordinance
GATU	Street cost compensation
JVGPL	Railway Building Act
VVO	Game conservation area
MB	Governmental listed building
MBANM	Ordinance on obligation to report
MBFRV	Question raised on governmental listed building
SCF	Excavation prohibition
SKYF	Safety regulation
TBYF	New construction prohibition with time limit

Code	Description
TSCF	Excavation prohibition with time limit
VÄGPL	Road plan for public road
VÄGBYF	Extended new construction prohibition
BIOTOP	Biotope protection
DSO	Animal and plant protection area
GRU	Groundwater protection
INT	Interim prohibition
KR	Culture reserve
LBILD	Landscape protection
MRO	Environmental hazard area
NM	Natural monument
NP	National Park
NR	Nature reserve
NVO	Nature conservation area
SO	Consultation area
STRAND	Shoreland protection, for information about shoreland protection refer to section 1.5
STÄNG	Fence breach
TÄKT	Quarrying permit
UHS	Maintenance obligation for water facility
YT	Surface water protection
KYRKO	Church plot with established boundaries

Code	Description
FORNL	Ancient remains
ANVMAM	Designated land according to the Minerals Act
MINBK	Exploitation concession in accordance with the Minerals Act
TORBK	Exploitation concession in accordance with the Peat Act

5.2.2   LINE LAYER WITH BOUNDARY LINES FOR REGULATION POLYGONS

Contains boundary lines for regulations presented as polygons in the layer Polygon layer for land regulations. Objects provide information on quality in terms of a mean square plane error.

Regulation boundary is used as a boundary line for all regulations except for areas with shoreland protection. For information about shoreland protection refer to section 1.5 Miscellaneous.

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

Table 17 Layer description for boundary lines (Layer name: bestammelse_begransningslinje)

Detail type	Name
BESTTÄTGR	Enclosing boundary for regulation
BESTÄMGR	Regulation boundary

Table 18 Set of attributes for boundary lines

Attribute	Type	Length	Description
internid	Integer	9	Internal identity in Lantmäteriet's basic data storage.
detaljtyp	Text	10	Code for detail type.
gdat	DateTime	23	Date/time when the object was created. Specified in format: 2019-04-26T11:28:03.000.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
xyfel	Floating point	6,3	Mean square error in specified measurement method. Specified in unit meter. 0 is treated as a null value.

Attribute	Type	Length	Description
metodplan	Integer	5	Method of measurement in plane; refer to table 1 in chapter 2.2.4.
flyghojd	Integer	7	Flight altitude during photogrammetric data collection.
undskala	Integer	7	Scale factor of the base material during digitization.

5.2.3 POINT LAYER WITH ID-POINTS FOR REGULATION POLYGONS

Contains identity points for regulations represented by polygons in the layer Polygon layer for land regulation. Information about the designation of the regulation is found on the objects.

Table 19 Layer description for id-point for regulation polygon (Layer name: bestammelse_idpunkt)

Layer name	Detail type	Name
bestammelse_idpunkt	BESTÄMID	Regulation area (id-point)

Table 20 Set of attributes for id-point for regulation polygon

Attribute	Type	Length	Description
objekt_id	Text	36	Globally unique identity (UUID) for each plan.
externid	Text	64	External ID from Lantmäteriet's basic database: for example, '1407-P48'
detaljtyp	Text	10	Code for detail type.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
bestbet	Text	18	Regulation designation; for example. '1407-P48'
besttyp	Text	6	Type of regulation.
plnamn	Text	300	Name of plan.
bdat	Text	8	Decision date for creation/adoption.
ldat	Text	8	Date of legal effect for creation/adoption.
gtill	Text	8	Valid until date.

Attribute	Type	Length	Description
planfk	Text	6	Plan abbreviation, type of reporting unit according to the general part of the Real Property Register; refer to detailed description in table 7.

5.2.4 LINE LAYER WITH LINE OBJECTS FOR LAND REGULATIONS

Contains line-shaped regulations where the extent is unknown. Objects provide information about the quality of the regulation in the form of a mean square horizontal error and designation.

There may be a generalised presentation of a regulation when information about the extent of the regulation is lacking, or when it has been extracted from material with a simplified representation.

Table 21 Layer description for line-represented regulations (Layer name: bestammelse_linje)

Detail type	Name
NATBIOTOP	Biotope protection
NATINT	Interim prohibition
BMINNEMB	Governmental listed building
JVGPL	Railway plan
FORNSKYF	Protection regulation for ancient remains
VÄGARB	Road plan
VÄGBYF	Expanded prohibition of construction according to road plan
NATNR	Nature reserve
NATNVO	Nature conservation area
NATNM	Natural monument
NATTÄKT	Quarrying permit

Table 22 Set of attributes for line-represented regulations

Attribute	Type	Length	Description
objekt_id	Text	36	Globally unique identity (UUID) for each plan.

Attribute	Type	Length	Description
internid	Integer	9	Internal identity in Lantmäteriet's basic data storage.
externid	Text	64	External ID from Lantmäteriet's basic database: for example, '1407-P48'
detaljtyp	Text	10	Code for detail type.
gdat	DateTime	23	Date/time when the object was created. Specified in format: 2019-04-26T11:28:03.000.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
xyfel	Floating point	6,3	Mean square error in specified measurement method. Specified in unit meter. 0 is treated as a null value.
bestbet	Text	18	Regulation designation; for example. '1407-P48'
besttyp	Text	6	Type of regulation.
metodplan	Integer	5	Method of measurement in plane; refer to table 1 in chapter 2.2.4.
flyghojd	Integer	7	Flight altitude during photogrammetric data collection.
undskala	Integer	7	Scale factor of the base material during digitization.
plnamn	Text	300	Name of plan.
bdat	Text	8	Decision date for creation/adoption.
ldat	Text	8	Date of legal effect for creation/adoption.
gtill	Text	8	Valid until date.
planfk	Text	6	Plan abbreviation, type of reporting unit according to the general part of the Real Property Register; refer to detailed description in table 7.

5.2.5   POINT LAYER WITH POINT OBJECTS FOR LAND REGULATIONS

Contains regulations with small or unknown extent. Objects provide information about the quality of the regulation in terms of a mean square plane error and designation.

There may be a generalised presentation of a regulation when information about the extent of the regulation is lacking, or when it has been extracted from material with a simplified representation.

Table 23. Layer description for point-represented regulations (Layer name: bestammelse_punkt)

Detail type	Name
NATBIOTOP	Biotope protection
NATNM	Natural monument
NATINT	Interim prohibition
BMINNEMB	Governmental listed building
FORNSKYF	Protection regulation for ancient remains

Table 24 Set of attributes for point-represented regulations

Attribute	Type	Length	Description
objekt_id	Text	36	Globally unique identity (UUID) for each plan.
internid	Integer	9	Internal identity in Lantmäteriet's basic data storage.
externid	Text	64	External ID from Lantmäteriet's basic data-base: for example, '1407-P48'
detaljtyp	Text	10	Code for detail type.
gdat	DateTime	23	Date/time when the object was created. Specified in format: 2019-04-26T11:28:03.000.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
xyfel	Floating point	6,3	Mean square error in specified measurement method. Specified in unit meter. 0 is treated as a null value.

Attribute	Type	Length	Description
bestbet	Text	18	Regulation designation; for example. '1407-P48'
besttyp	Text	6	Type of regulation.
metodplan	Integer	5	Method of measurement in plane; refer to table 1 in chapter 2.2.4.
flyghojd	Integer	7	Flight altitude during photogrammetric data collection.
undskala	Integer	7	Scale factor of the base material during digitization.
plnamn	Text	300	Name of plan.
bdat	Text	8	Decision date for creation/adoption.
ldat	Text	8	Date of legal effect for creation/adoption.
gtill	Text	8	Valid until date.
planfk	Text	6	Plan abbreviation, type of reporting unit according to the general part of the Real Property Register; refer to detailed description in table 7.

5.2.6 POINT LAYER WITH BOUNDARY POINTS FOR LAND REGULATIONS

The layer contains boundary points for regulations.

Table 25 Layer description for regulation boundary points (Layer name: bestammelse_granspunkt)

Detail type	Name
BGRÄ	Regulation boundary point

Table 26 Set of attributes for regulation boundary points

Attribute	Type	Length	Description
internid	Integer	9	Internal identity in Lantmäteriet's basic data storage.
externid	Text	64	Designation of boundary points; consists of area*type*serial number.
detaljtyp	Text	10	Code for detail type.

Attribute	Type	Length	Description
mtyp	Text	6	Type of marker: refer to detailed description in table 28.
mlage	Text	6	Position of marking 0 = No information 1 = On breakpoint 2 = On polygon 3 = Detached
gdat	DateTime	23	Date/time when the object was created. Specified in format: 2019-04-26T11:28:03.000.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
xyfel	Floating point	6,3	Mean square error in specified measurement method. Specified in unit meter. 0 is treated as a null value.
metodplan	Integer	5	Method of measurement in plane; refer to table 1 in chapter 2.2.4.
kvalforb	Integer	2	Quality improvement measure: refer to detailed description in table 27.
flyghojd	Integer	7	Flight altitude during photogrammetric data collection.
undskala	Integer	7	Scale factor of the base material during digitization.

Table 27 Value range for attribute kvalforb

Code	Description	Comment
0	No information	
1	Remeasurement	The position accuracy of the point has been improved by conducting a new measurement.
2	Transformation/Alignment	The boundary points positional accuracy has been improved by a transformation or alignment using points of higher accuracy as control points.

Table 28 Value range for the attribute mtyp.

Code	Description
	No information
db	Peg in rock
dg	Peg in concrete casting
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 casting
hs	Drill hole in earthbound stone
jk	Iron bracket
js	Iron bar
kv	Bracket for wall marker
mp	Target point (spire etc.)
ms	Brass screw
om	Unmarked boundary point
rb	Pipe in rock
rg	Pipe in concrete casting

Code	Description
rgd	Pipe in casting 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 casting
ss	Spike in earthbound stone
st	Fence post
tp	Wooden pole

5.2.7 TEXT LAYER FOR PLANS AND LAND REGULATIONS

Contains informative text for regulations.

Note! Informative text is successively being removed from Lantmäteriet's base data.

Table 29 Layer description for plan and regulation text (Layer name: plan_bestammelse_text)

Detail type	Name
B-UPPLYTX	Informative text for regulation
PL-UPPLYTX	Informative text for plan

Table 30 Set of attributes for plan and regulation text

Attribute	Type	Length	Description
karttext	Text	64	Abbreviated or hyphenated text string, e.g., 'Strand.14-FA-661:15'
tdelidx	Integer	1	Hyphenating part 0 = not hyphenated, otherwise 1-9 for each substring.

Attribute	Type	Length	Description
regtext	Text	64	
detaljtyp	Text	10	Code for detail type.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
trikt	Floating point	6,2	Text orientation. Stated in unit of degrees (0.00 – 360.00, increases anti-clockwise). 0.00=Unoriented text.
tjust	Integer	1	Insertion point of text (1-9). Insertion point in NUMERICAL point.
thojd	Integer	4	Text height in the form of code. 0 is treated as null value. Refer to detailed description in chapter 4.1.
trepr	Integer	1	Scale area for text. Refer to detailed description in Chapter 4.1
ttyp	Text	1	Type of text. 'N' = name, 'U' = informative text.
tsparr	Integer	3	Letter spacing as a percentage of original string length (0-100 %).

Table 31 Value range for informational text

Plan abbreviation	Type of plan or land management regulation
Anvmam	Designated land according to the Minerals Act
Vägpl	Road plan
Minbk	Exploitation concession in accordance with the Minerals Act
Torbk	Exploitation concession in accordance with the Peat Act
Biotop	Biotope protection
Blbyf	Construction prohibition

Plan abbreviation	Type of plan or land management regulation
Mb	Governmental listed building under the Heritage Conservation Act
Dso	Animal and plant protection area
Fog	Area of ancient remains with established boundaries
Gru	Groundwater protection
Int	Interim prohibition (e.g., nature reserve)
Jvgpl	Railway plan
Kr	Culture reserve
Lbild	Landscape protection
Mro	Environmental hazard area
Np	National Park
Nm	Natural monument
Nr	Nature reserve (and previously nature conservation area)
Vägbyf	Extended new construction prohibition under the Roads Act.
So	Consultation area
Scf	Excavation prohibition, tree felling prohibition
Skyf	Protection regulation for ancient remains under the Heritage Conservation Act
Strand	Shoreland protection, for information on shoreland protection refer to section 1.5
Täkt	Quarrying permit
Yt	Surface water protection

5.3   Cultural-historical remains

The layers with cultural-historical remains contain objects with the antiquarian assessment of *ancient remains* as well as *other cultural-historical remains.*

Cultural historical remains are registered in the Swedish National Heritage Board's (RAÄ) Cultural Environment Register, KMR. Note that only objects with the antiquarian assessment of *ancient remains* are presented in the textual part of the Real Property Register.

The Swedish National Heritage Board notifies Lantmäteriet about the ancient remains. Ancient remains are protected by the Historic Environment Act (1988:950). Through the Historic Environment Act, ancient remains have automatic protection. This means that ancient remains are protected even if they are not discovered or registered.

In the new Historic Environment Act from 1 January 2014, the concept of ancient remains has been clarified, i.e., what is classified as ancient remains. This has resulted in uncertainty in the antiquarian assessment for certain types of site information in KMR, which means that remains registered as *other cultural-historical remains* in KMR may be *ancient remains* according to the new legislation. To ensure that the correct data has been obtained for a decision, always verify data concerning remains with the county administrative board.

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

For each object, an identity is provided that can be used in [RAÄ:s Fornsök](#) to find additional information about the ancient remains.

Table 32. Layers included for cultural-historical remains.

Type of remains information	Layer name
Ancient remains (polygon)	fornlamning_yta
Ancient remains (lines)	fornlamning_linje
Identity point for polygons (point)	fornlamning_idpunkt
Ancient remains (point)	fornlamning_punkt
Other cultural-historical remains (Polygons)	kultur_lamning_yta
Identity point for polygon (point)	kultur_lamning_idpunkt

Type of remains information	Layer name
Other cultural-historical remains (lines)	kutur_lamning_linje
Other cultural-historical remains (point)	kultur_lamning_punkt
Name and informative text on ancient remains and other cultural-historical remains (text)	forn_kultur_lamning_text

5.3.1   DATA CAPTURE

LINEAGE

The information primarily comes from inventories made by Swedish National Heritage Board (RAÄ). The collection at RAÄ has been ongoing since the 1930s.

5.3.2   MAINTENANCE FREQUENCY

Lantmäteriet retrieves information from RAÄ every month, the first working day after the 15th. This frequency may be higher in RAÄ's system, Fornsök, since data are updated more frequently there.

5.3.3   DATA QUALITY

COMPLETENESS

Ancient remains may exist without being presented in the Real Property Register. The completeness of information is difficult to assess.

Other cultural-historical remains may exist without being presented on the map. The completeness of information is difficult to assess.

LOGICAL CONSISTENCY

Cultural-historical remains are presented as independent objects that are not connected to any other object.

The objects have an identity which consists of their ancient remains number from Cultural Environment Register (KMR) at the Swedish National Heritage Board.

Example of identity of cultural-historical remains:

> efa2d510-789a-4ccc-8c29-2c137c7161d0:G:00
>
> unique universal identifier (from KMR):object type: serial number

THEMATIC ACCURACY

Thematic accuracy is considered to be high.

POSITIONAL UNCERTAINTY

The margin of error on the position of objects can be up to 20 meters.

Table 33 Requirements on the object types of positional uncertainty

Object type	Require- ments for po- sitional accu- racy 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 visible mark above ground, line-shaped (centre line)	10
Ruin (edge line)	10
Ancient remains, small (point)	10
Ancient remains without visible mark above ground, small (point)	10
Milestone (point)	10
Ancient remains, information symbol	-
Ancient remains, small information symbol	-
Ancient remains without visible mark above ground, infor- mation symbol	-
Name of ancient remains and other cultural-historical re- mains	-

Object type	Requirements for positional accuracy in plane (m)
Informational text for ancient remains and other cultural-historical remains	-
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
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
Governmental listed building, house foundation (point)	10
Memorial stone, information symbol	-
Memorial stone, small information symbol	-

5.3.4   POLYGON LAYER FOR ANCIENT REMAINS

Contains ancient remains. On the objects, there is information about identity in the Archaeological Sites and Monuments Registry, type of ancient remains, its quality in the form of mean square plane error.

Table 34 Layer description for ancient remains (Layer name: fornlamning_yta)

Detail type	Name	Description
FORN	Ancient remains, large (polygon)	Polygon for large ancient remains.
FORNU	Ancient remains without visible mark above ground, large (polygon)	Polygon for large ancient remains without visible mark above ground.

Table 35 Set of attributes for ancient remains.

Attribute	Type	Length	Description
objekt_id	Text	41	Globally unique identity (UUID) for ancient remains including type and serial number. Format: uuid:type:serial no., e.g., efa2d510-789a-4ccc-8c29-2c137c7161d0:G:00 UUID can be linked to The National Heritage Board's service Fornsök with the link https://pub.raa.se/visa/objekt/lamning/{uuid}. Read more about how UUID can be linked to The National Heritage Board's service Fornsök on their website raa.se.
detaljtyp	Text	10	Code for detail type.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
xyfel	Floating point	6,3	Mean square error in specified measurement method. Specified in unit meter. 0 is treated as a null value.

5.3.5 POINT LAYER FOR ID POINTS FOR ANCIENT REMAINS POLYGONS

Contains identity points for ancient remains which are presented with polygons in the layer Polygon layer for ancient remains. On the objects, there is information about identity in the Archaeological Sites and Monuments Registry, type of ancient remains, its quality in the form of mean square plane error.

Table 36 Layer description for the ancient remains polygon's ID point (Layer name: fornlamning_id-punkt)

Detail type	Name	Description
FORNID	Ancient monument, large (ID point)	Identity point for large ancient remains.

Detail type	Name	Description
FORNUID	Ancient remains without visible mark above ground, large (ID point)	Identity point for large ancient remains without visible mark above ground.

Table 37 Set of attributes for the ancient remains polygon's ID point.

Attribute	Type	Length	Description
objekt_id	Text	41	Globally unique identity (UUID) for ancient remains including type and serial number. Format: uuid:type:serial no., e.g., efa2d510-789a-4ccc-8c29-2c137c7161d0:G:00 UUID can be linked to The National Heritage Board's service Fornsök with the link https://pub.raa.se/visa/objekt/lamning/{uuid}. Read more about how UUID can be linked to The National Heritage Board's service Fornsök on their website raa.se.
detaljtyp	Text	10	Code for detail type.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
xyfel	Floating point	6,3	Mean square error in specified measurement method. Specified in unit meter. 0 is treated as a null value.

5.3.6 LINE LAYER FOR ANCIENT REMAINS

Contains boundary lines for ancient remains that are presented as polygons in the Polygon layer for ancient remains as well as line-shaped ancient remains. On the objects, there is information about identity in the Archaeological Sites and Monuments Registry and its quality in the form of mean square plane error.

Table 38 Layer description for boundary lines and line-represented ancient remains (Layer name: fornlamning_linje)

Detail type	Name	Description
FORN.B	Ancient remains, large (boundary line)	Boundary line for large ancient remains.
FORNU.B	Ancient remains with no visible mark above ground, large (boundary line)	Boundary line for large ancient remains with no visible mark above ground.

Detail type	Name	Description
FORN.M	Ancient remains, line-shaped (centre line)	Centre line for narrow ancient remains. For example, sunken lane (old way, bridle path) or stone walls (old enclosures between fields and pastures).
FORNU.M	Ancient remains without visible mark above ground, line-shaped	Boundary line for large ancient remains with no visible mark above ground.
RUIN.K	Ruin (edge line)	Edge line of an old, mostly historical, large buildings in stone or brick.

Table 39 Set of attributes for boundary lines and line-shaped ancient remains.

Attribute	Type	Length	Description
internid	Integer	9	Internal identity in Lantmäteriet's basic data storage.
objekt_id	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., efa2d510-789a-4ccc-8c29-2c137c7161d0:G:00 UUID can be linked to The National Heritage Board's service Fornsök with the link https://pub.raa.se/visa/objekt/lamning/{uuid}. Read more about how UUID can be linked to The National Heritage Board's service Fornsök on their website raa.se.
detaljtyp	Text	10	Code for detail type.
gdat	DateTime	23	Date/time when the object was created. Specified in format: 2019-04-26T11:28:03.000.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
xyfel	Floating point	6,3	Mean square error in specified measurement method. Specified in unit meter.

Attribute	Type	Length	Description
			0 is treated as a null value.
metodplan	Integer	5	Method of measurement in plane; refer to table 1 in chapter 2.2.4.
flyghojd	Integer	7	Flight altitude during photogrammetric data collection.
undskala	Integer	7	Scale factor of the base material during digitization.

5.3.7 POINT LAYER FOR ANCIENT REMAINS

Contains ancient remains, governmental listed buildings and memorial stones with a small extent, which are presented as point objects. On the objects, there is information about identity in the Archaeological Sites and Monuments Registry and its quality in the form of mean square plane error.

Table 40 Layer description for point-represented ancient remains (Layer name: fornlamning_punkt)

Detail type	Name	Description
FORN.C	Ancient remains, small (point)	Centre point for a smaller ancient remains.
FORNU.C	Ancient remains without visible mark above ground, small (point)	Centre point for a smaller ancient remains without visible mark above ground.
MILST.C	Milestone	Centre point of protected milestone in its original location.
FORN.S	Ancient remains, information symbol.	Large information symbol for ancient remains, also known as an R-symbol.
FORNL.S	Ancient remains, small information symbol.	Information symbol by ancient remains, also known as an R-symbol.
FORNUS.C	Ancient remains without visible mark above ground, information symbol.	Information symbol at ancient remains without visible mark above ground, also known as an R-symbol.

Table 41 Set of attributes for point-represented ancient remains.

Attribute	Type	Length	Description
internid	Integer	9	Internal identity in Lantmäteriet's basic data storage.
objekt_id	Text	41	Globally unique identity (UUID) for ancient remains including type and serial number. Format: uuid:type:serial no., e.g., 993c5c8c-8a77-4131-882e-ef0a5e79d384:G:00

UUID can be linked to The National Heritage Board's service Fornsök with the link https://pub.raa.se/visa/objekt/lamning/{uuid}.

Read more about how UUID can be linked to The National Heritage Board's service Fornsök on their website raa.se. |
detaljtyp	Text	10	Code for detail type.
gdat	DateTime	23	Date/time when the object was created. Specified in format: 2019-04-26T11:28:03.000.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
srikt	Floating point	6,2	Symbol orientation. Stated in unit degrees (0.00 – 360.00, increasing anti-clockwise).
xyfel	Floating point	6,3	Mean square error in specified measurement method. Specified in unit meter.

0 is treated as a null value. |
metodplan	Integer	5	Method of measurement in plane; refer to table 1 in chapter 2.2.4.
flyghojd	Integer	7	Flight altitude during photogrammetric data collection.
undskala	Integer	7	Scale factor of the base material during digitization.

5.3.8 POLYGON LAYER FOR OTHER CULTURAL-HISTORICAL REMAINS

The layer contains polygons for other cultural-historical remains. On the objects, there is information about identity in the Cultural Heritage Register (KMR) and quality in terms of mean error in plane.

Table 42 Layer description for other cultural-historical remains (Layer name: kultur_lamning_yta)

Detail type	Name	Description
KULT	Other cultural-historical remains (polygon)	Polygon for other large cultural-historical remains of the type found in the value repository for cultural informative text.
KULTÖ	Other cultural-historical remains [other] (polygon)	Polygon for other large cultural-historical remains of the type not found in the value repository for cultural informative text.

Table 43. Set of attributes for other cultural-historical remains.

Attribute	Type	Length	Description
objekt_id	Text	41	Globally unique identity (UUID) for each other cultural-historical remains including type and serial number. Format: uuid:type:serial no., e.g., 993c5c8c-8a77-4131-882e-ef0a5e79d384:G:00 UUID can be linked to The National Heritage Board's service Fornsök with the link https://pub.raa.se/visa/objekt/lamning/{uuid}. Read more about how UUID can be linked to The National Heritage Board's service Fornsök on their website raa.se.
detaljtyp	Text	10	Code for detail type.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
xyfel	Floating point	6,3	Mean square error in specified measurement method. Specified in unit meter. 0 is treated as a null value.

5.3.9 POINT LAYER WITH ID POINTS FOR OTHER CULTURAL-HISTORICAL REMAINS

The layer contains identity points for other cultural-historical remains which are presented with polygons in the layer Polygon layer for cultural-historical remains. On the objects, there is information about identity in the Cultural Heritage Register (KMR) and quality in terms of mean error in plane.

Table 44 Layer description for ID points to polygons for other cultural-historical remains (Layer name: kul-tur_lamning_idpunkt)

Detail type	Name	Description
KULTID	Other cultural-historical remains (ID point)	Identity point for other large cultural-historical remains of the type found in the value repository for cultural information text.
KULTÖID	Other cultural-historical remains [other] (ID point)	Identity point for other large cultural-historical remains of the type not found in the value repository for cultural information text.

Table 45 Set of attributes for ID points to polygons for other cultural-historical remains.

Attribute	Type	Length	Description
objekt_id	Text	41	Globally unique identity (UUID) for each other cultural-historical remains including type and serial number. Format: uuid:type:serial no., e.g., 993c5c8c-8a77-4131-882e-ef0a5e79d384:G:00 UUID can be linked to The National Heritage Board's service Fornsök with the link https://pub.raa.se/visa/objekt/lamning/{uuid}. Read more about how UUID can be linked to The National Heritage Board's service Fornsök on their website raa.se.
detaljtyp	Text	10	Code for detail type.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
xyfel	Floating point	6,3	Mean square error in specified measurement method. Specified in unit meter. 0 is treated as a null value.

5.3.10 LINE LAYER FOR OTHER CULTURAL-HISTORICAL REMAINS

Contains the boundary lines for other cultural-historical remains which are presented as polygons in the layer Polygon layer for cultural-historical remains as well as line-shaped other cultural historical remains. On the objects, there is information about identity in the Cultural Heritage Register (KMR) and quality in terms of mean error in plane.

Table 46 Layer description for boundary lines and line-represented other cultural historical remains (Layer name: kutur_lamning_linje)

Detail type	Name	Description
KULT.B	Other cultural-historical remains (boundary line)	Boundary line for other large cultural-historical remains of the type found in the value repository for cultural information text.
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 repository for cultural information text.
GRUVHÅL.K	Mine shaft (edge line)	Edge line of mine shaft after discontinued mining activities.
GRUVOMR.B	Mining shaft area (boundary line)	Boundary line for area of land after discontinued mining activities.
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 repository for cultural information text.
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 repository for cultural information text.

Table 47 Set of attributes for boundary lines and line-represented other cultural-historical remains.

Attribute	Type	Length	Description
internid	Integer	9	Internal identity in Lantmäteriet's basic data storage.
objekt_id	Text	41	Identity for other cultural-historical remains with detail type KULT.M, KULTÖ.M and GRUVHÅL.K. Globally unique identity (UUID) for each other cultural-historical remains including type and serial number. Format: uuid:type:serial no., e.g., 993c5c8c-8a77-4131-882e-ef0a5e79d384:G:00 UUID can be linked to The National Heritage Board's service Fornsök with the link https://pub.raa.se/visa/objekt/lamning/{uuid}.

Attribute	Type	Length	Description
			Read more about how UUID can be linked to The National Heritage Board's service Fornsök on their website raa.se.
detaljtyp	Text	10	Code for detail type.
gdat	DateTime	23	Date/time when the object was created. Specified in format: 2019-04-26T11:28:03.000.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
xyfel	Floating point	6,3	Mean square error in specified measurement method. Specified in unit meter. 0 is treated as a null value.
metodplan	Integer	5	Method of measurement in plane; refer to table 1 in chapter 2.2.4.
flyghojd	Integer	7	Flight altitude during photogrammetric data collection.
undskala	Integer	7	Scale factor of the base material during digitization.

5.3.11 POINT LAYER FOR OTHER CULTURAL-HISTORICAL REMAINS

Contains other cultural-historical remains, remains of built-up areas and memorial stones presented as point objects. On the objects, there is information about identity in the Cultural Heritage Register (KMR) and quality in terms of mean error in plane.

Table 48 Layer description for point-represented other cultural-historical remains (Layer name: kultur_lamning_punkt)

Detail type	Name	Description
KULT.C	Other cultural-historical remains, small	Centre point for other small cultural-historical remains of the type found in the value repository for cultural information text.
KULTÖ.C	Other cultural-historical remains [other], small	Centre point for other small cultural-historical remains of the type not found in the value repository for cultural information text.
BEBLÄMN.C	Building remains, foundations	Centre point for building remains.

Detail type	Name	Description
MINNES.S	Memorial stone, information symbol	Large information symbol by memorial stone, landmark, or monument, also known as an Ms symbol.
MINNESL.S	Memorial stone, small, informative symbol	Small information symbol by memorial stone, landmark, or monument, also known as an Ms symbol.

Table 49 Set of attributes for point-represented other cultural-historical remains.

Attribute	Type	Length	Description
internid	Integer	9	Internal identity in Lantmäteriet's basic data storage.
objekt_id	Text	41	Globally unique identity (UUID) for each other cultural-historical remains including type and serial number. Format: uuid:type:serial no., e.g. 993c5c8c-8a77-4131-882e-ef0a5e79d384:G:00 UUID can be linked to The National Heritage Board's service Fornsök with the link https://pub.raa.se/visa/objekt/lamning/{uuid}. Read more about how UUID can be linked to The National Heritage Board's service Fornsök on their website raa.se.
detaljtyp	Text	10	Code for detail type.
gdat	DateTime	23	Date/time when the object was created. Specified in format: 2019-04-26T11:28:03.000.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
srikt	Floating point	6,2	Symbol orientation. Stated in unit degrees (0.00 – 360.00, increasing anti-clockwise).
xyfel	Floating point	6,3	Mean square error in specified measurement method. Specified in unit meter. 0 is treated as a null value.
metodplan	Integer	5	Method of measurement in plane; refer to table 1 in chapter 2.2.4.

Attribute	Type	Length	Description
flyghojd	Integer	7	Flight altitude during photogrammetric data collection.
undskala	Integer	7	Scale factor of the base material during digitization.

5.3.12 TEXT LAYER FOR ANCIENT REMAINS AND OTHER CULTURAL-HISTORICAL REMAINS

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

Table 50 Layer description for remains text (Layer name: forn_kultur_lamning_text)

Detail type	Name	Description
KULTURTX	Name of ancient remains etc.	Name of ancient remains or other cultural-historical remains
KULTURUTX	Informative text, other cultural-historical remains etc.	Informative text for ancient remains or other cultural-historical remains

Table 51 Set of attributes for remains text.

Attribute	Type	Length	Description
karttext	Text	64	Abbreviated or hyphenated text string, e.g., 'KARS-'
tdelidx	Integer	1	Hyphenating part 0 = not hyphenated, otherwise 1-9 for each substring.
regtext	Text	64	
detaljtyp	Text	10	Code for detail type.
adat	DateTime	23	Date/time of the latest change. Specified in the format: 2019-04-26T11:28:03.000.
trikt	Floating point	6,2	Text orientation. Stated in unit of degrees (0.00 – 360.00, increases anti-clockwise). 0.00=Unoriented text.
tjust	Integer	1	Insertion point of text (1-9). Insertion point in NUMERICAL point.

Attribute	Type	Length	Description
thojd	Integer	4	Text height in the form of code. 0 is treated as null value. Refer to detailed description in chapter 4.1.
trepr	Integer	1	Scale area for text. Refer to detailed description in Chapter 4.1
ttyp	Text	1	Type of text. 'N' = name, 'U' = information text.
tsparr	Integer	3	Letter spacing as a percentage of original string length (0-100 %).

6 List of changes

Table 52 List of changes.

Version	Date	Reason and change from previous version
1.8	2024-08-20	Removal of some outdated information. A couple of web links have been updated. The text about what coordinate systems the product can be delivered in has been adjusted.
1.7	2024-01-10	First established version in English.