



Latvia land reclamation cadastre GIS

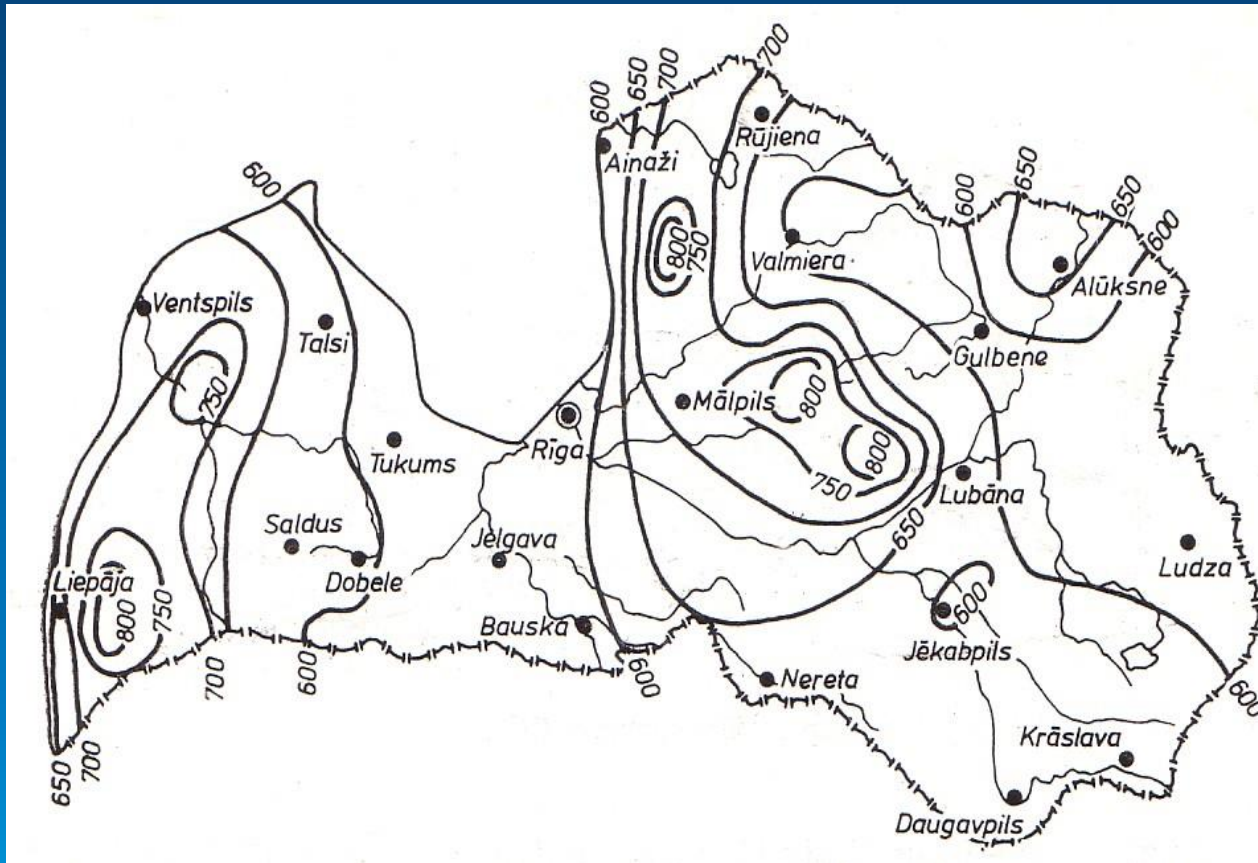




Understanding our world.

How land reclamation systems maps in Latvia are created from paper format to digital format and delivered to public using ESRI software, web API and ArcGIS Online

Why land reclamation is necessary in Latvia?



Latvia climate is characterized by high humidity. Average amount of precipitation (mm)







Summary evaporation is less than precipitation!

It is necessary to drain redundant humidity



If redundant humidity is not drained, the result can be like this



Land reclamation systems are built widely in Latvia



Open ditch for water collection

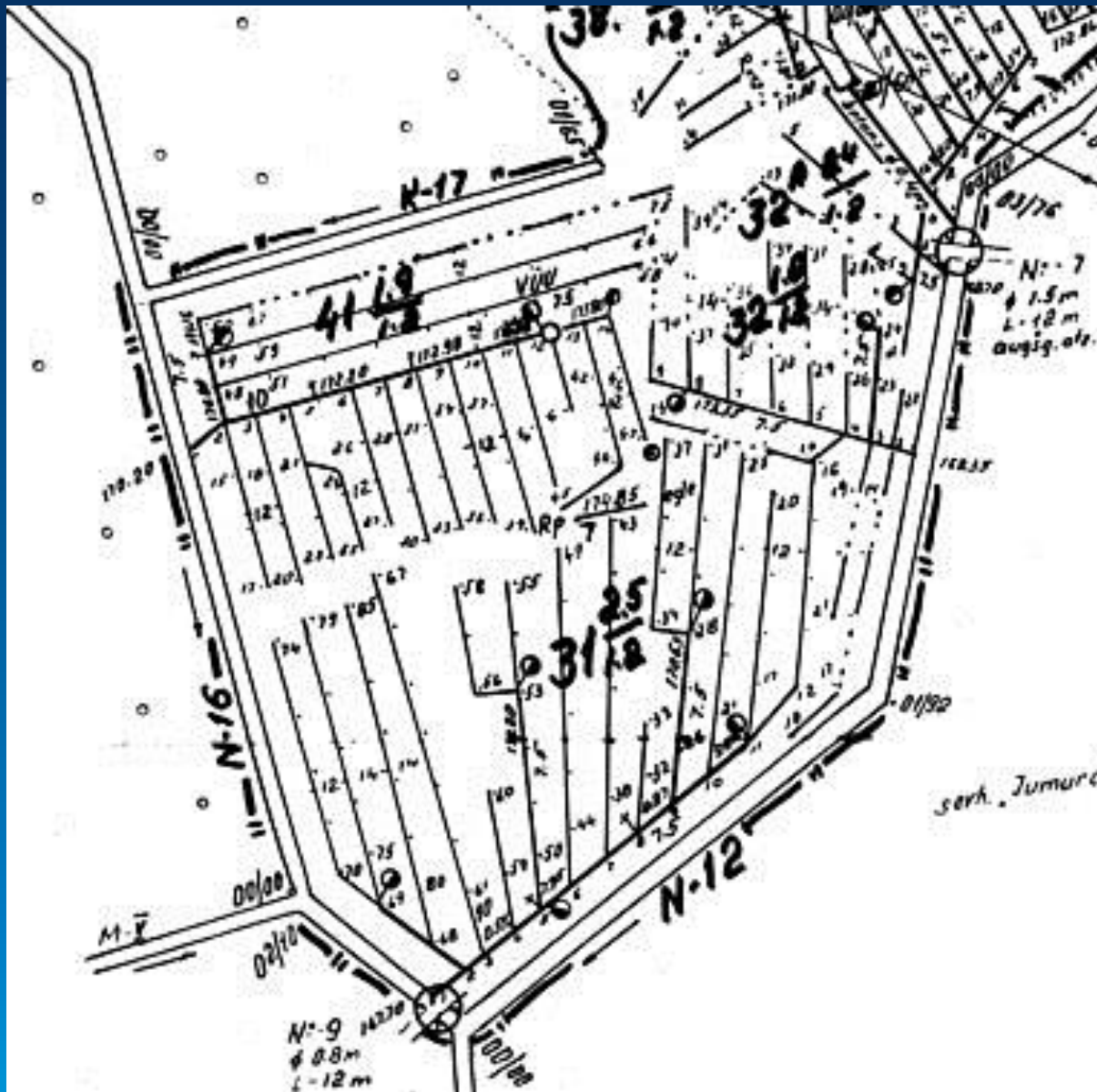


Closed drainage pipes network –
building moment

Land reclamation systems maps

Most of land reclamation systems are built in last century, their maps are in paper format only

Agricultural land drainage maps usually are drawn in scale 1:2000, so often maps are quite big



Agricultural land drainage map fragment



Sometimes drainage systems paper format maps are in very big size

Why digital land reclamation systems maps are necessary?

To make information accessible and distributed for professionals and general public

Land reclamation systems maps digitizing



ArcGIS software are used, customs solutions by ESRI partner in Latvia Envirotech Ltd.

The digitizing process

Maps scanning with large format scanner

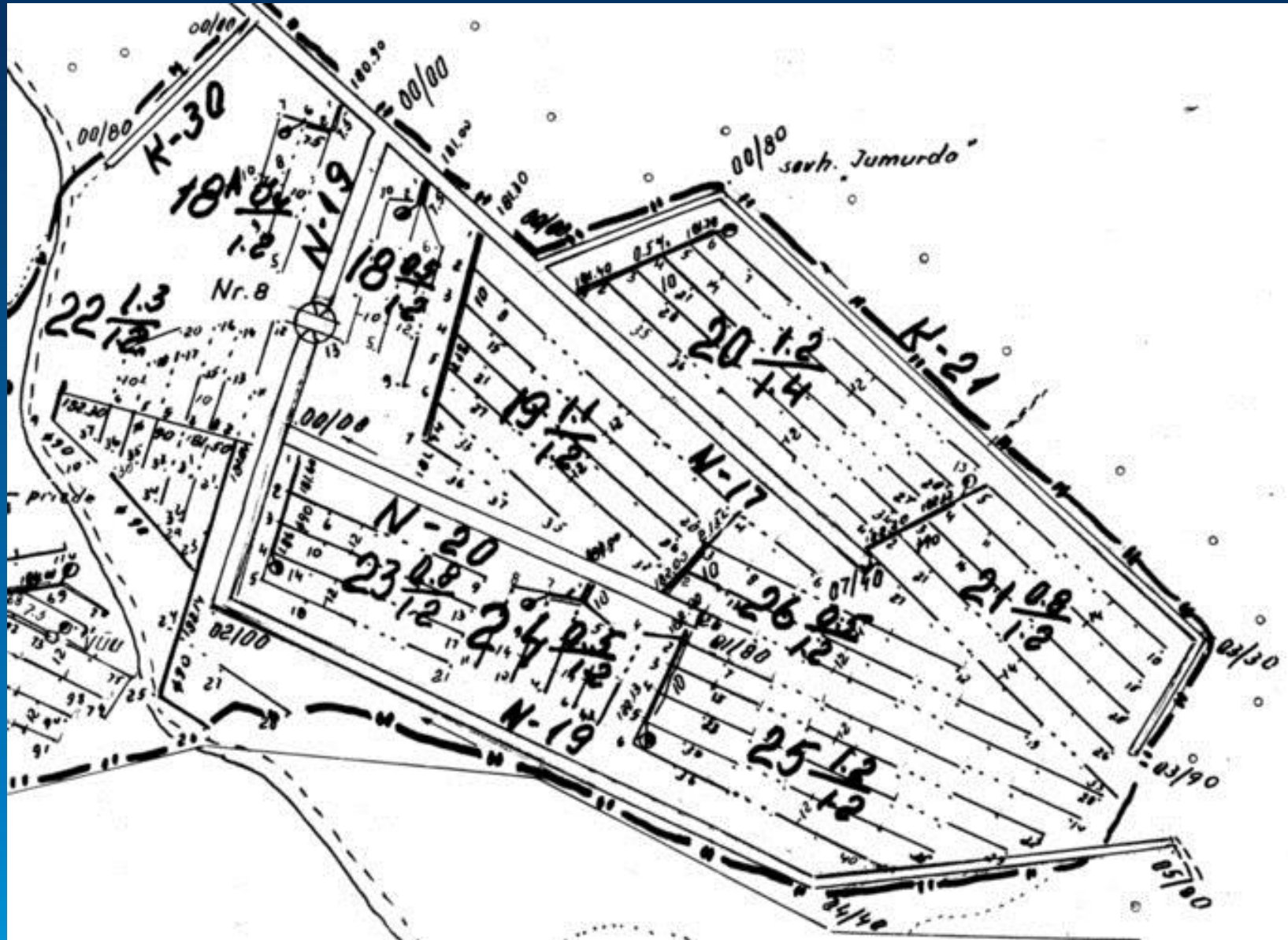


Georeferencing using ArcGIS for Desktop tools



Digitizing using ArcMap Editor tools

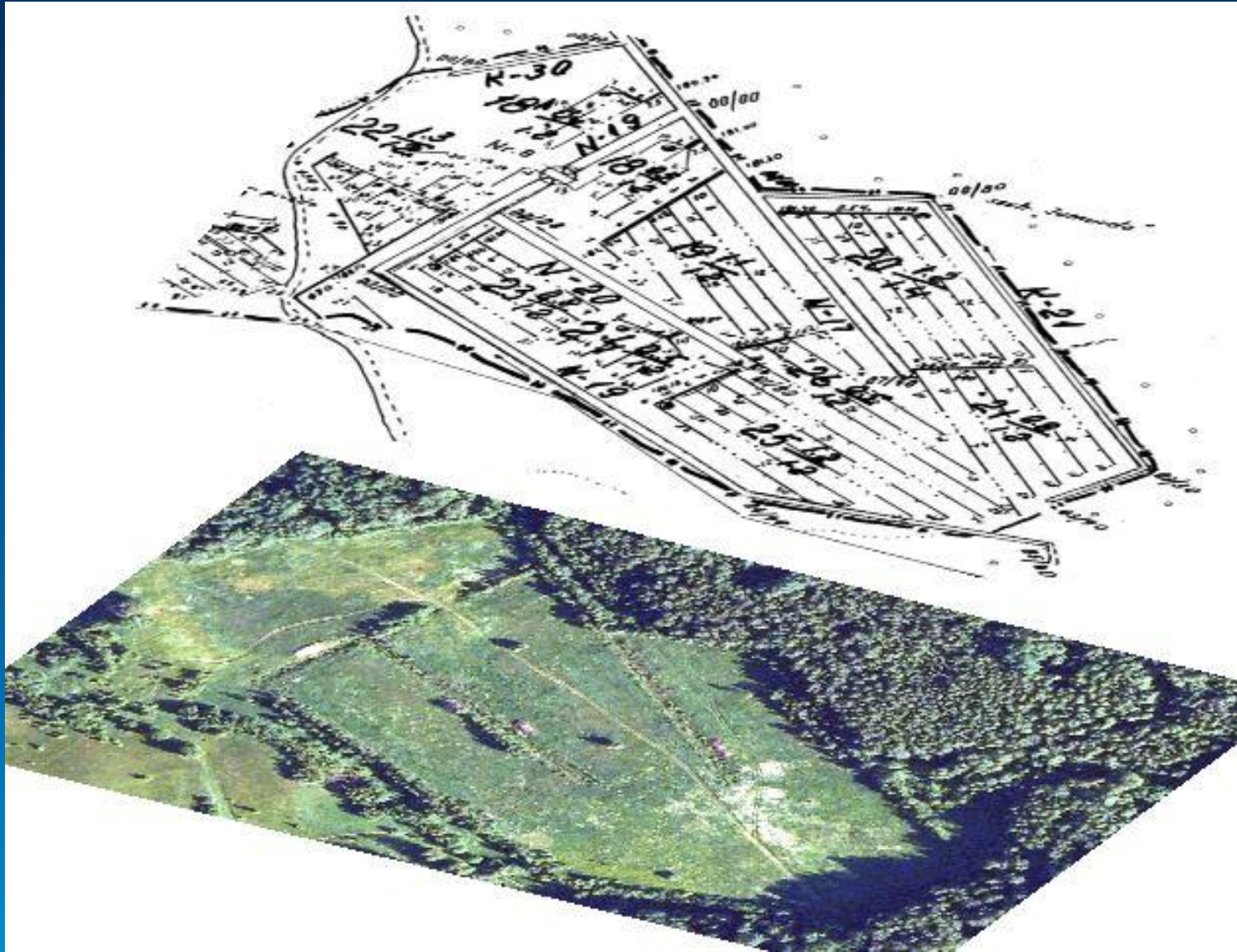




The scanned map fragment



The corresponding orthophoto



The georeferencing



The result

Latvia land reclamation cadastre GIS public availability

The web address www.melioracija.lv

The website is built using ArcGIS API for JavaScript, ArcGIS Server 10.1 services are used

The logo for ArcGIS for Server, featuring the text "ArcGIS for Server" in a white, sans-serif font on a green-to-blue gradient background. Below the main text is the tagline "Enable ArcGIS within Your Infrastructure" in a smaller, lighter font.

ArcGIS for Server

Enable ArcGIS within Your Infrastructure

The logo for ArcGIS API for JavaScript, featuring the text "ArcGIS API for JavaScript" in a white, sans-serif font on a purple-to-blue gradient background.

ArcGIS API for JavaScript

Meliorācija. Meliorācijas digitālais kadastrs

Informācija par lauksaimniecības zemju nosusināšanas sistēmām

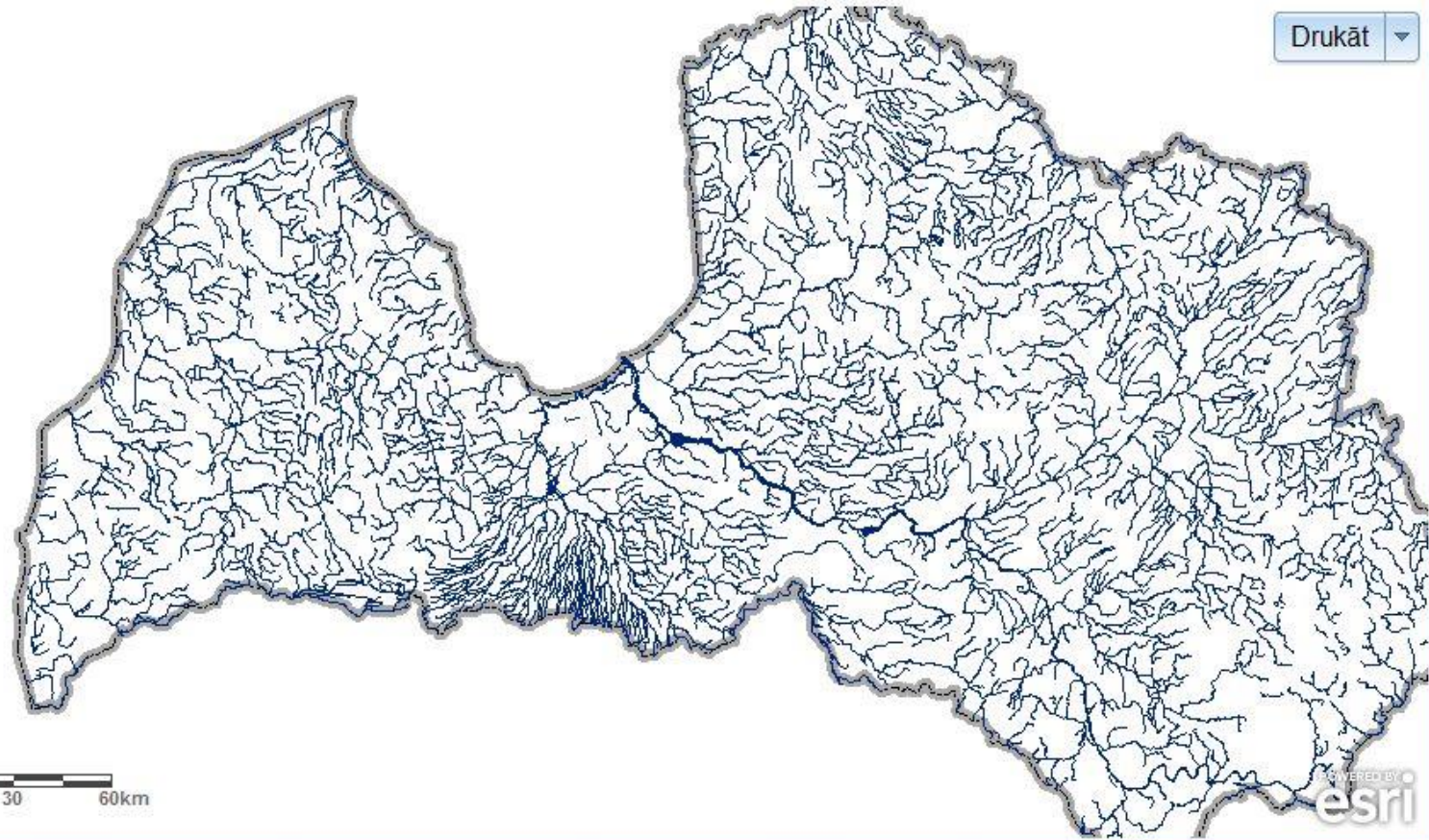
Apzīmējumi

Ūdensnotekas



Drukāt

0 30 60km



© Valsts SIA "Zemkopības ministrijas nekustamie īpašumi" Rīgā, Republikas laukumā 2, www.zmni.lv; ortofoto karte - Latvijas ģeotelpiskās informācijas aģentūra, www.lgia.gov.lv

Kartē attēlotajai informācijai ir informatīvs raksturs. Lai apskatītu karti, pārlūkprogrammai jābūt atļautam JavaScript.

Informācija par drenāžas sistēmām patlaban pieejama Aglonas, Aknīstes, Alūksnes, Apes, Ādažu, Baltnavas, Babītes, Balvu, Bauskas, Carnikavas, Cesvaines, Ciblas, Dagdas, Daugavpils, Ērgļu, Gulbenes, Iecavas, Ilūkstes, Inčukalna, Jaunpils, Kārsavas, Kocēnu, Krāslavas, Krustpils, Ķekavas, Līvānu, Lubānas, Ludzas, Mazsalacas, Mālpils, Mārupes, Mērsraga, Olaines, Ozolnieku, Priekule, Rojas, Rugāju,

The initial view

Meliorācija. Meliorācijas digitālais kadastrs

Informācija par lauksaimniecības zemju nosusināšanas sistēmām

Apzīmējumi

Meklēšana

Ūdensnotekas



0 0.5 1km

Lubāna

When zooming in the map – more information

Meliorācija. Meliorācijas digitālais kadastrs

Informācija par lauksaimniecības zemju nosusināšanas sistēmām

Apzīmējumi

Meklēšana

Ūdensnoteku regulētie posmi
(valsts nozīmes meliorācijas
būves)

..

Ūdensnotekas



Aizsargdambji



Sūkņu stacijas



Grāvji



Koplietošanas
ūdensnoteka



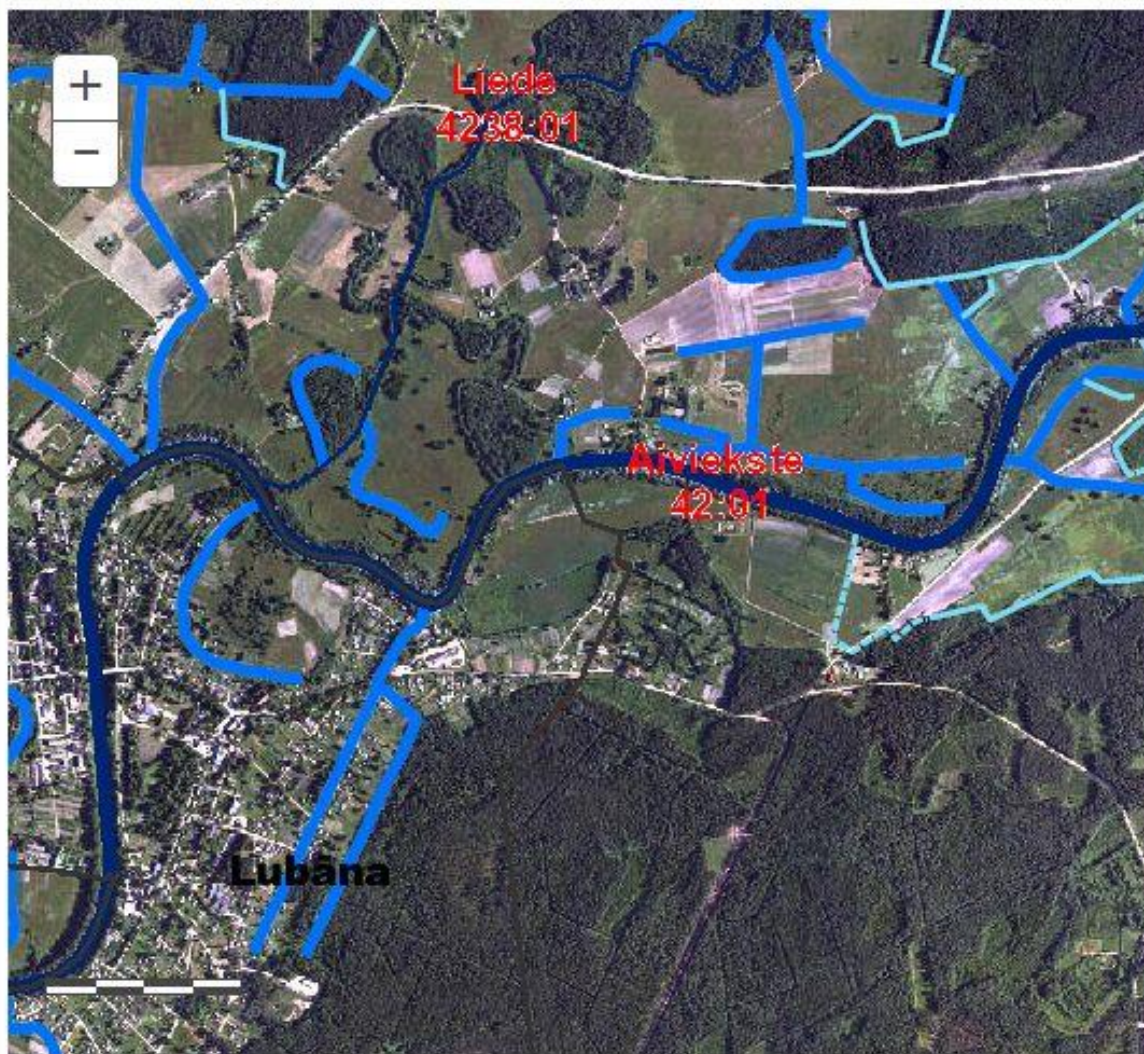
Viena īpašuma
ūdensnoteka



Kontūrgrāvis



Nosusināšanas grāvis



Meliorācija. Meliorācijas digitālais kadastrs

Informācija par lauksaimniecības zemju nosusināšanas sistēmām

Apzīmējumi

Ūdensnoteku regulētie posmi
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Ūdensnotekas

Aizsargdambji

Sūkņu stacijas

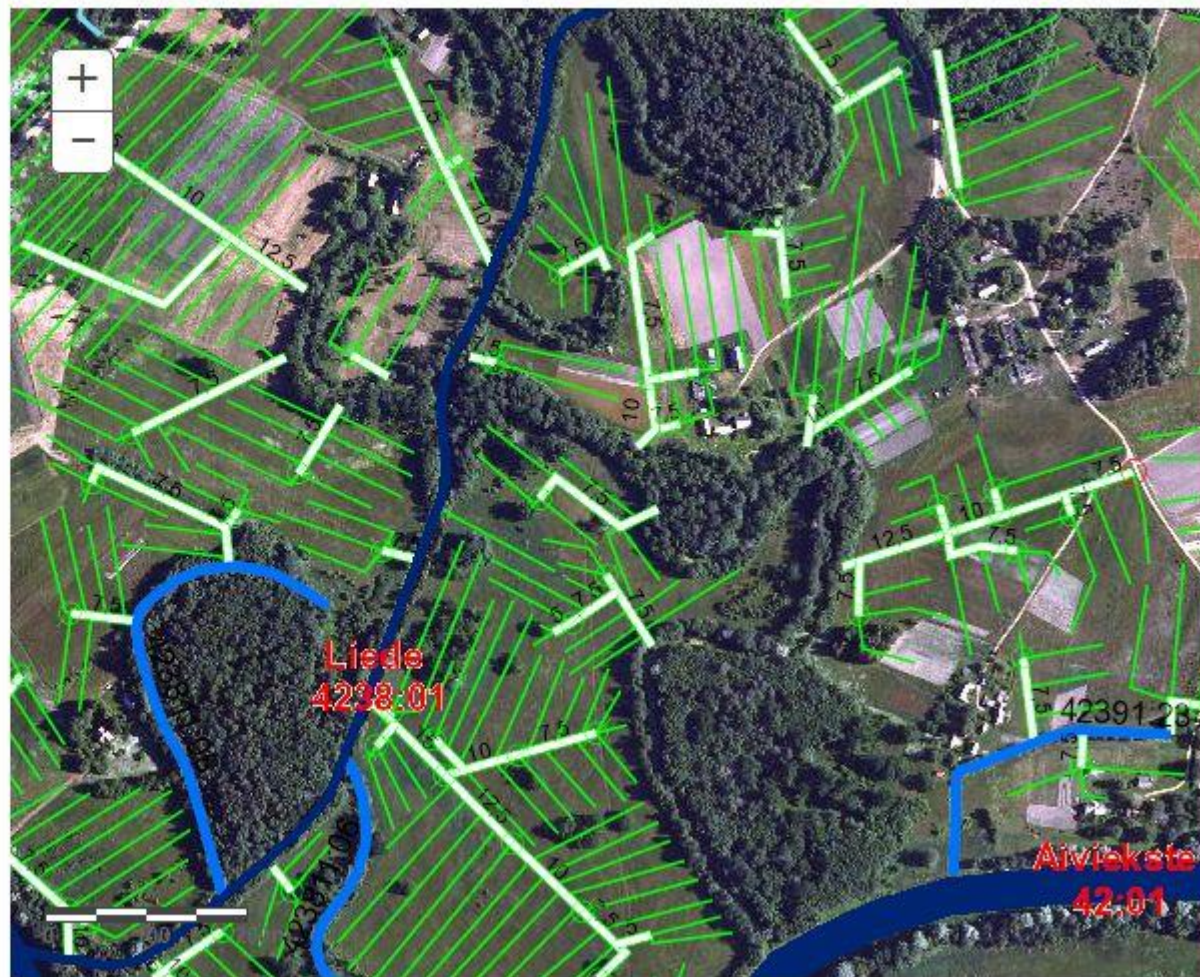
Grāvji

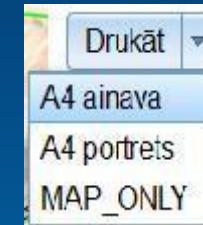
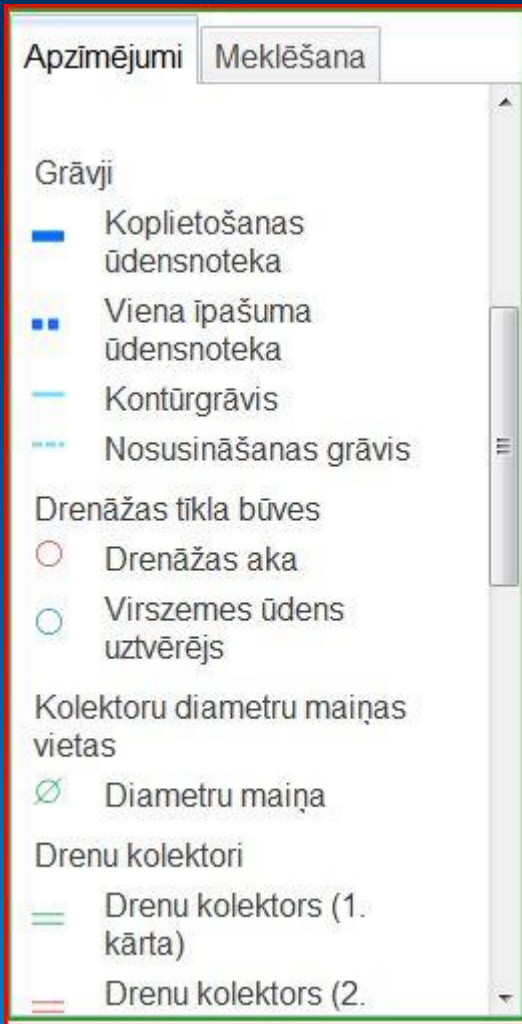
— Koplietošanas ūdensnoteka

— Viena īpašuma ūdensnoteka

— Kontūrgrāvis

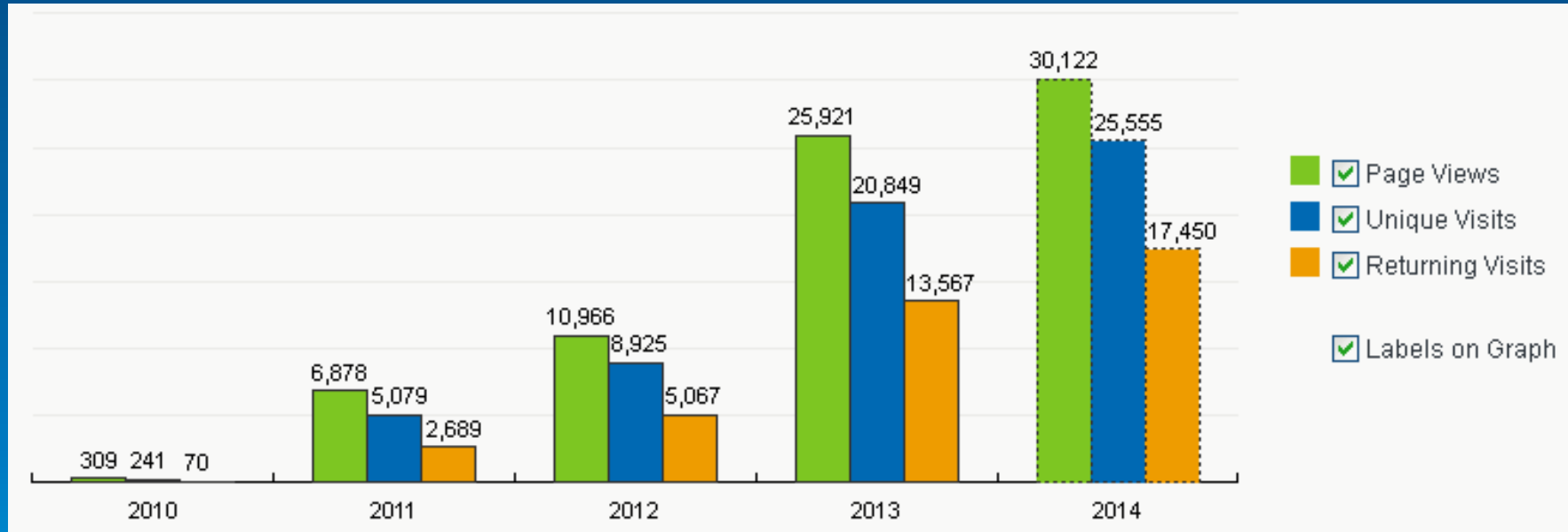
— Nosusināšanas grāvis





The table of content, the Find and the Print webmap options in the web site

The web page visiting statistics



ArcGIS Online

The Mapping Platform for Your Organization

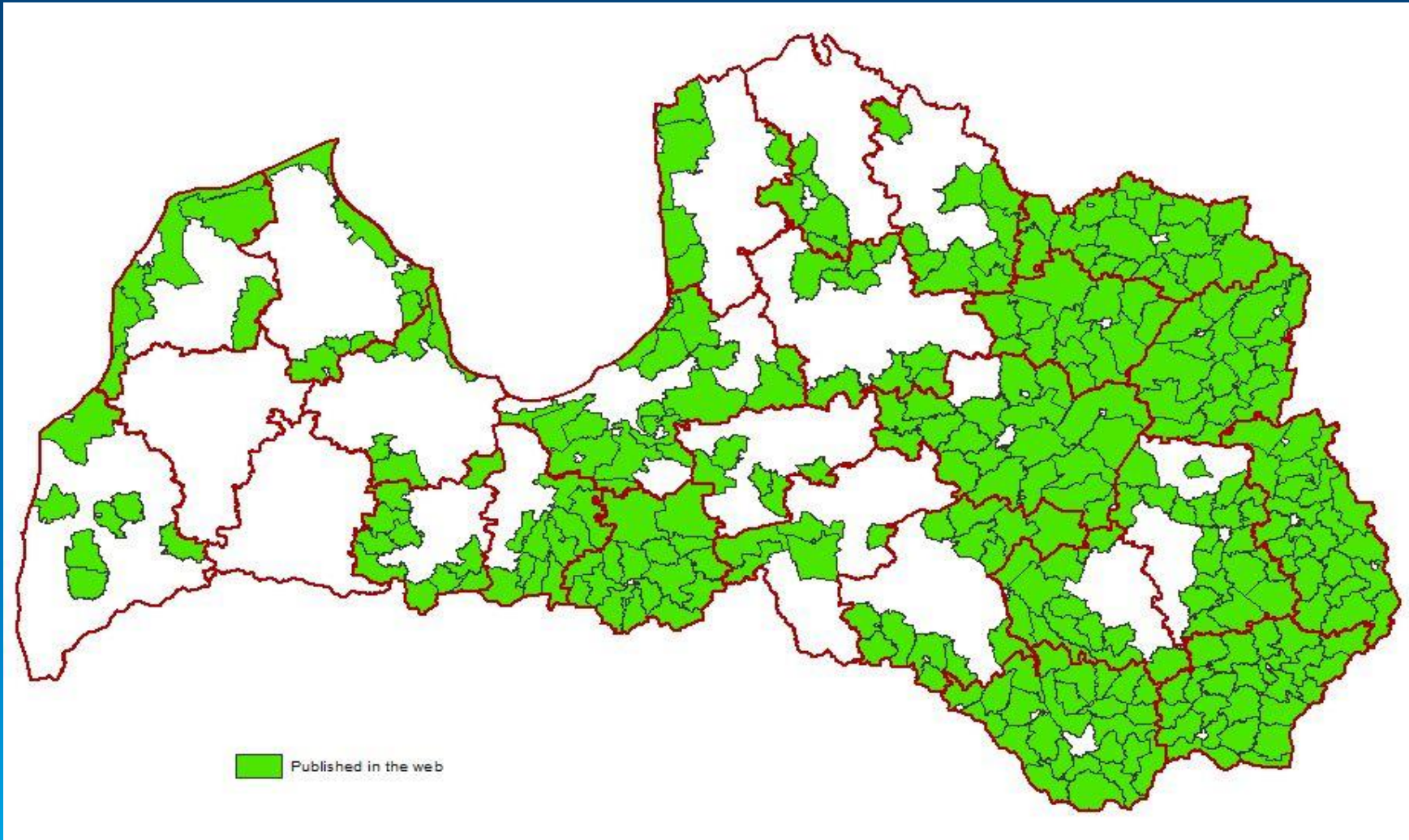


ArcGIS Online map with land reclamation cadastre information is widely used on mobile devices with ArcGIS for Android



Mobile devices users highly appreciate possibility to see land reclamation cadastre data together with geolocation

Data accessibility at the present



What we gain from GIS

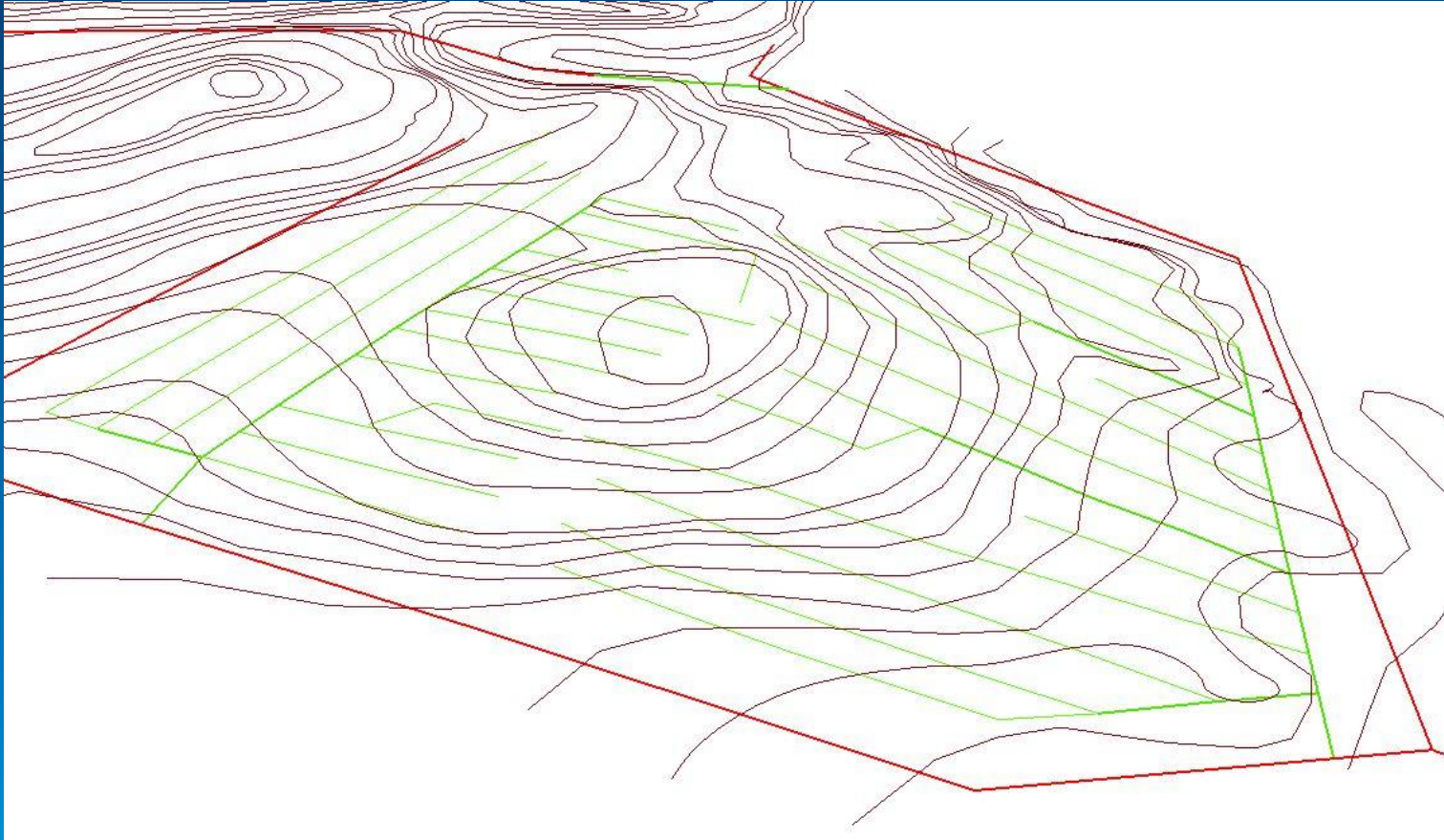
Possibility to spread and to share geographical information

Possibility to find land reclamation systems communications on map

Possibility to find underground land reclamation systems communications using geolocation with mobile devices

Better decision making based on obtained GIS information

The future vision



3D data



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