

Oversigtskort over drænvirkemidler

● Minivådområde ● Matrice-minivådområde ● Vandmættet randzone ● Afbrudte dræn ● Intelligent bufferzone

GIS-tools for more cooperative nutrient management

Etableringsstads

- Projekter med tilsagn
- Virkemiddel etableret

Sebastian P. Zacho 14.9.2021 - Transnational Online Workshop: Tools for improving co-governance in water management

På oversigtskortet ser du, hvor de forskellige drænvirkemidler, der er etableret samt de der har fået tilsagn til etablering, er placeret. Ovenfor kan du filtrere efter type

SEGES Promilleafgiftsfonden for landbrug

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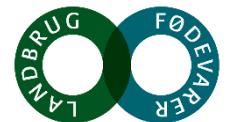
Outline of today - Presentation of 3 tools



- 1) *Kollecto*: Catchment Officer registration and coordination tool
- 2) *Drain Filter Platform*: Overview and status on drain filter solutions in DK
- 3) *Nitrate App*: Catchment Officer and farmer nitrate measurement tool

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Brief background info: Local Catchment Officers in DK

23 Catchment Officers organized across Denmark since 2017.

The current main target is to find suitable locations for constructed wetlands, help the wetland process and advisory regarding forestation



Team Sealand Catchment Officers

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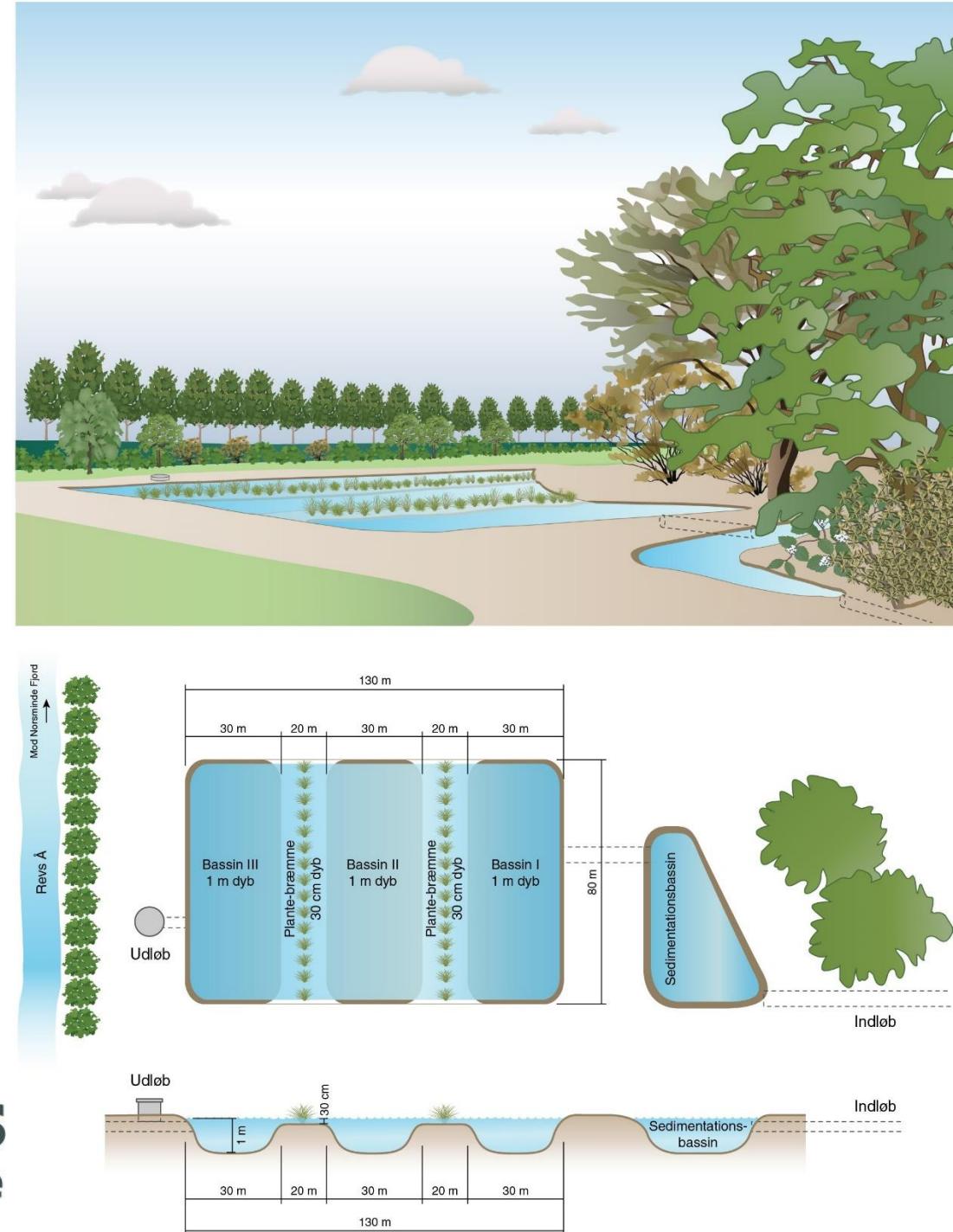


Constructed wetlands in DK

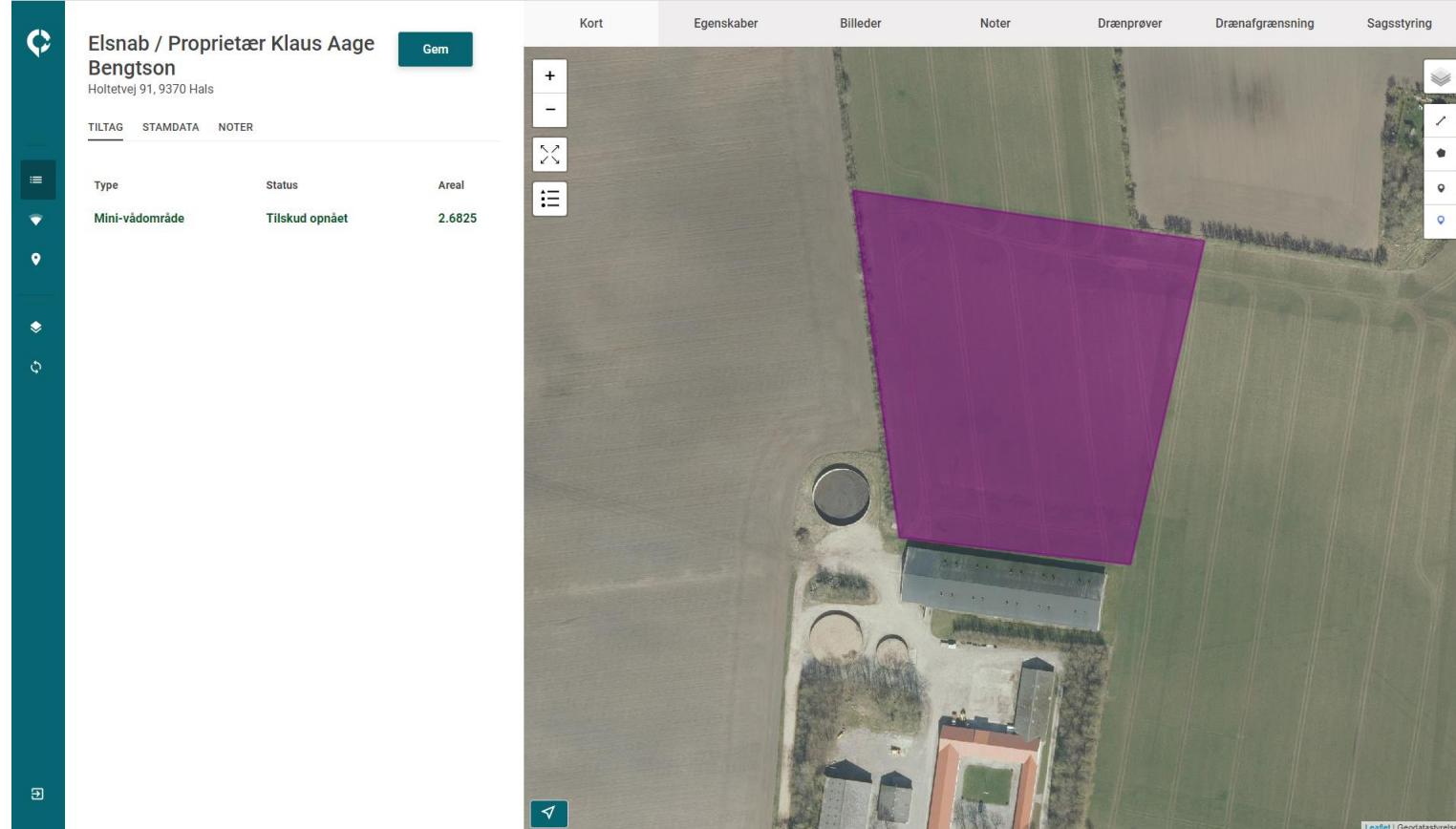
- Main target is to reduce nitrogen loads to Danish fjords by 900 tonnes N before 2021
- The Catchment Officers assists the farmer regarding:
 - Possible location
 - Design of constructed wetland
 - Administrative permits (municipality)
 - Making application for funds

Results

- Approx. 600 applications handed in from 2018-2020 (another 100 applications are expected for the 2021 round)
- Around 100 constructed wetlands have established so far



1) Kollecto: Catchment Officer web application



Web application with multiple purposes

- 1) Registration
- 2) Data collection
- 3) Coordination

1) Kollecto: Registration and data collection

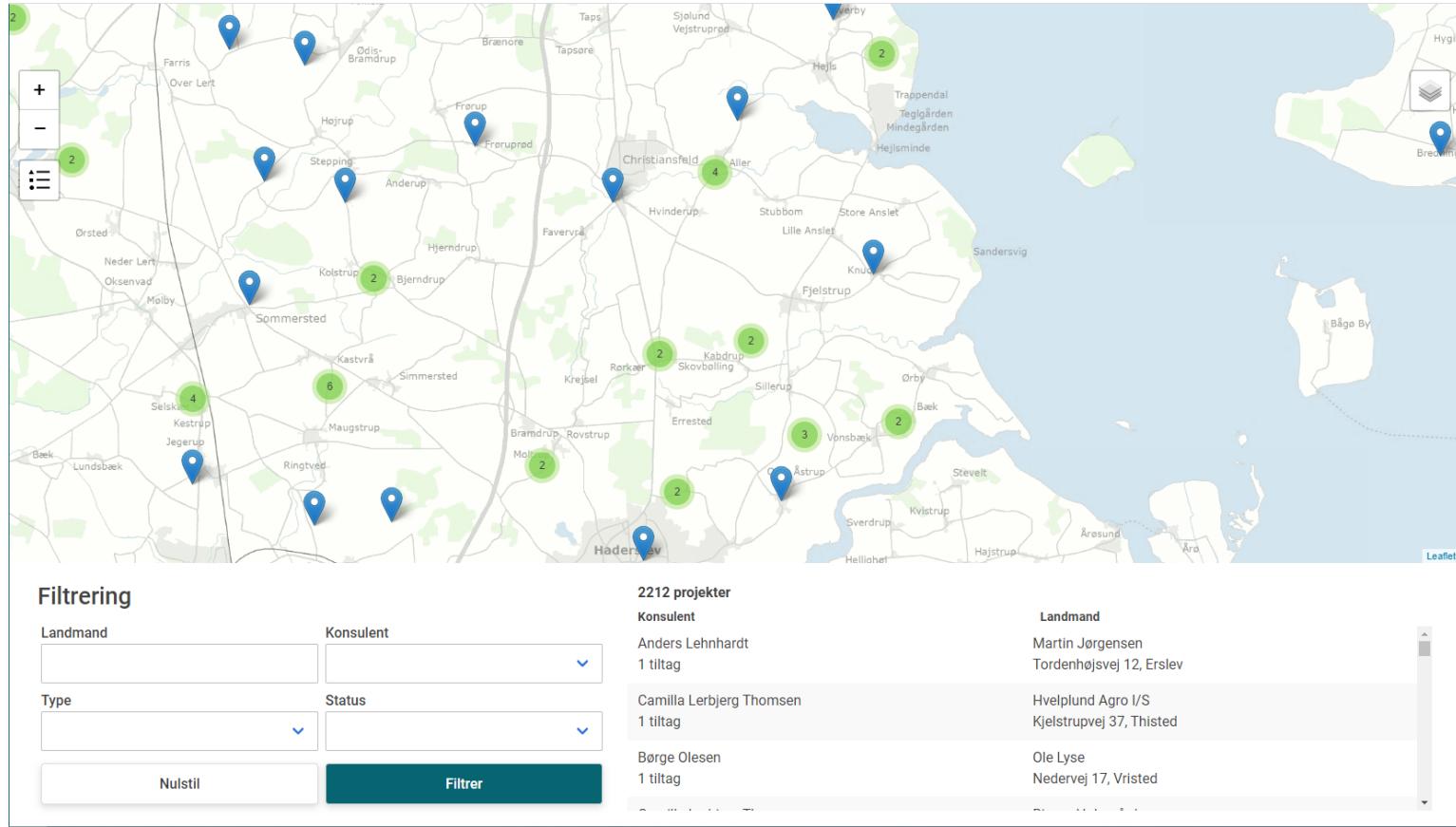
The screenshot shows the Kollecto software interface for registering environmental measures. On the left, there's a sidebar with icons for location, search, and other functions. The main area has a header with the user information: Elsnab / Proprietær Klaus Aage Bengtson, address Holtevej 91, 9370 Hals, and a 'Gem' button. Below this, tabs for TILTAK, STAMDATA, and NOTER are visible. The TILTAK tab is active, showing fields for Type (Mini-vådområde), Status (Tilskud opnået), and Areal (2.6825). The main form contains sections for 'Slet tiltag' (Delete measure), 'Navn på tiltag' (Name of measure: Constructed wetland), 'Type' (Type: Mini-vådområde), 'Status' (Status: Tilskud opnået), 'Udpegnings' (Assignment: Ikke valgt), 'N-effekt (kg N pr år)' (N-effect (kg N per year)), 'Virkemidlets areal (ha)' (Area of influence (ha): 2,6825, calculated area: 2,6825), 'Drænoplandsstørrelse (ha)' (Drainage area (ha): 225), 'Bemærkning ved opgivet tiltag' (Note on proposed measure: Tilknyttet bemærkning ved opgivet tiltag.), 'Bemærkning ved afslag fra myndigheder' (Note on rejection from authority: Bemærkning ved afslag fra myndigheder), 'Ansigningsår for tilskud' (Application year for subsidy: 2021), and a checkbox for accepting terms and conditions. A note at the bottom states: 'Landmanden har givet accept til at oplysninger om placering, størrelse, effekt mv samt evt. fotos må offentliggøres'.

Registration and data collection of

- 1) Type of environmental measure
- 2) Size and catchment area
- 3) Storage of pictures
- 4) Content of nitrate in drainage water
- 5) Catchment boundary findings

And many more data

1) Kollecto: Coordination between Catchment Officers



The web application helps coordinate work being done by Catchment Officers

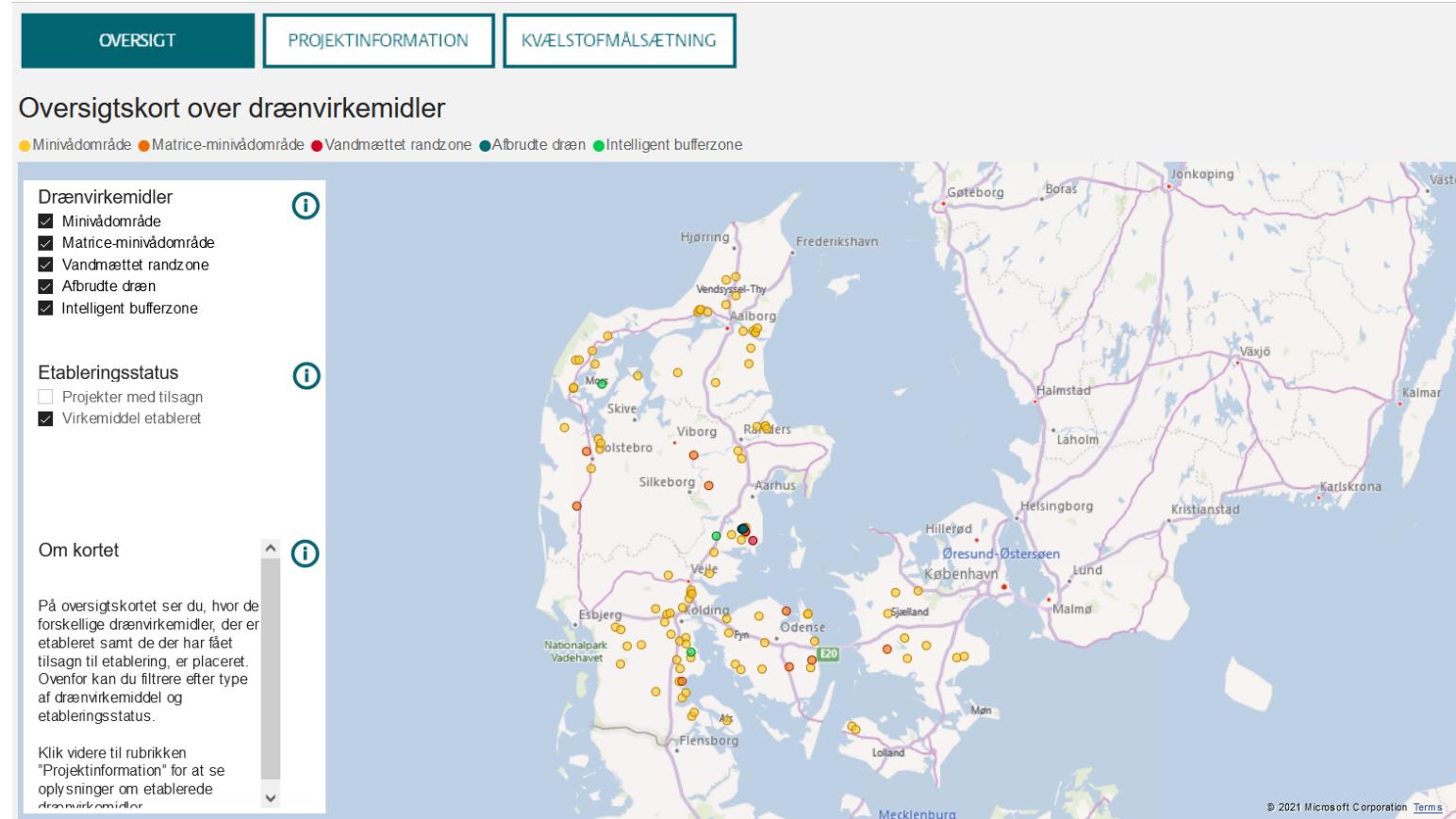
Project overlaps are avoided

Keep track of status in the single catchment

Possible to follow the process from SEGES

Allows to continue the work if a Catchment Officer

2) Drain-filter platform website: Environmental measures overview



Web application with three main purposes:

- 1) Overview over established environmental measures in DK (such as constructed wetlands, matrice-wetlands, saturated bufferzones, drain blocking and intelligent bufferzones)
- 2) Inspiration for farmers considering a constructed wetland of their own
- 3) Implementation status of constructed wetland status for every coast water catchment in DK

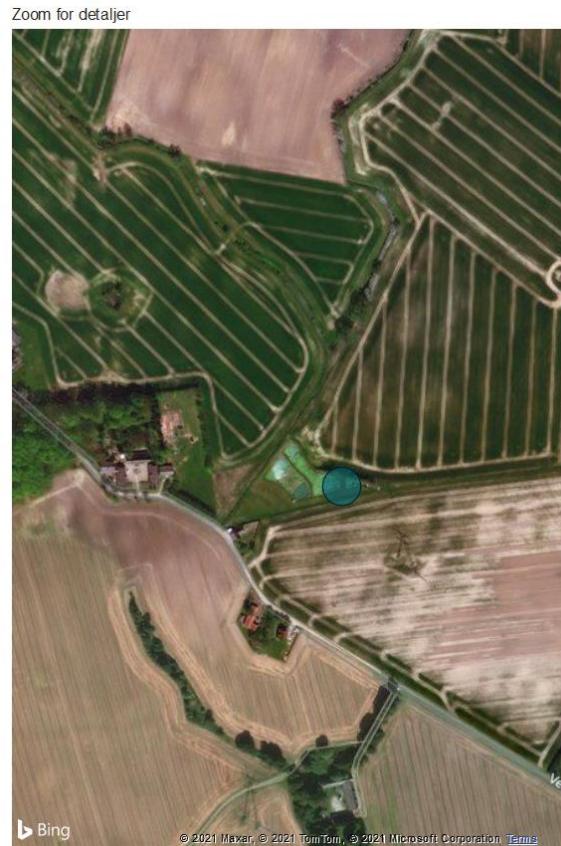
2) Drain-filter platform website: Inspiration and information

The screenshot shows a web page for a drainage filter project. At the top left is a back arrow icon. Below it, the text "Minivådområde" is displayed. On the right side, there is an information icon (a circle with an 'i'). The main content area contains a table with project details:

Lodsejer	Christian Pries Andersen
Bæableringsår	2015
Tilskudsordning	iDræn
Hovedvandoplant	Horsens Fjord
Pumpe	Nej
Drænopland, ha	33
Virkemidlets areal, ha	0.25
Virkemiddelsareal i forhold til opland (%)	0.8 %
Kvælstoeffekt kg N/ha	543
Kvælstoeffekt (%)	16,0 %
Fosforeffekt (%)	35,0 %

Below the table, a message says "Du må besøge drænvirkemidlet efter aftale med lodsejer". There is also an "E-mail" link and a phone number "Tlf 86546405". A small image of the agricultural landscape is shown below the contact information.

Reference: SEGES

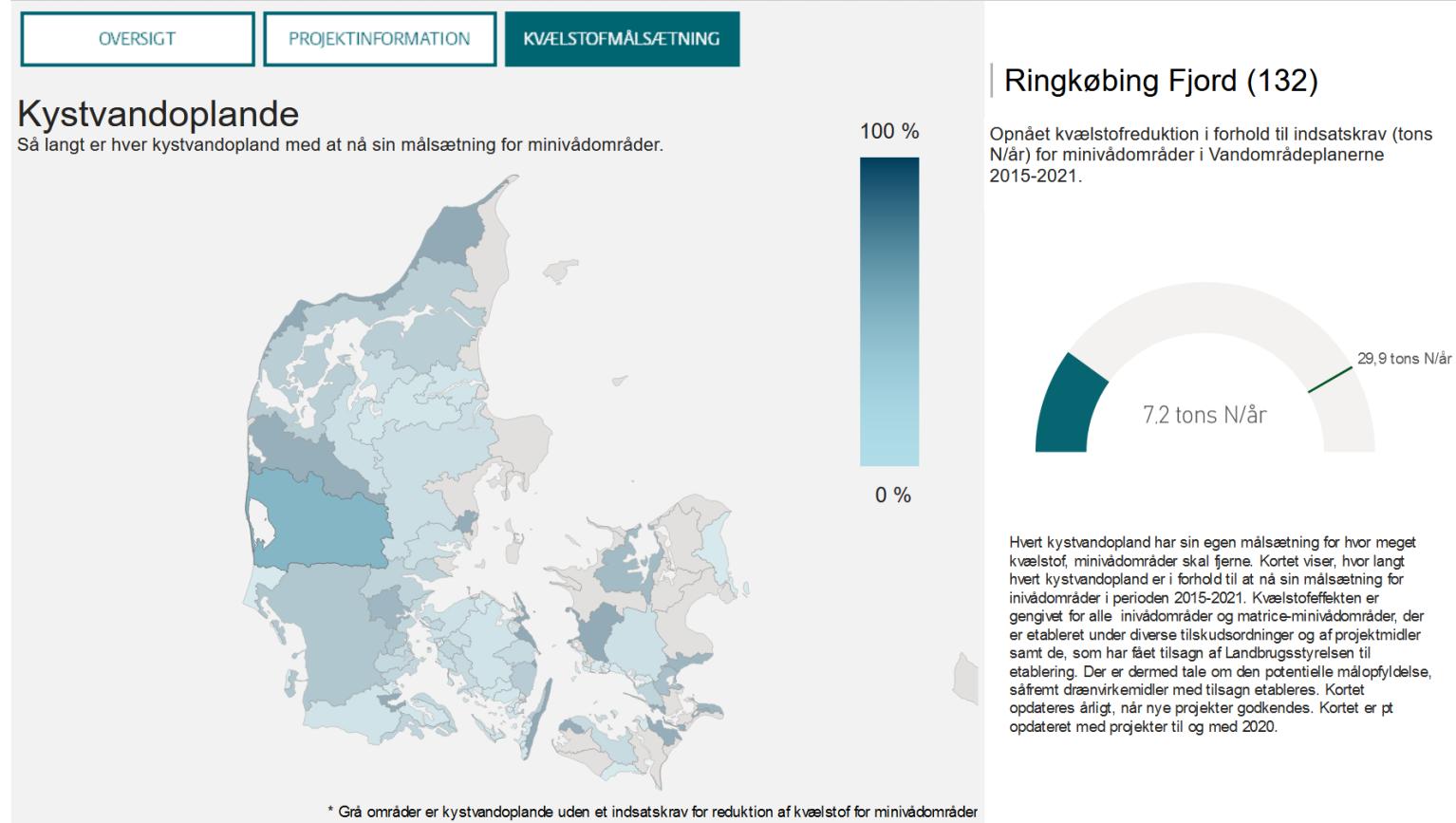


The website also gives an option for getting more information the single established constructed wetland such as:

- Year of establishment
- Name of coastal water catchment
- Size and catchment area
- Effect in terms of nitrogen removal (kg/N/ha)

Moreover, some projects have contact information so farmers can visit after appointment with the project owner

2) Drain-filter platform website: Overall catchment status



The website gives a status regarding the overall target for implementation of constructed wetlands – individual target for each coastal water catchment.

Could engage farmer in the race for the achieving the target for their own coastal water catchment.

3) Nitrate App

Developed by Dutch company Deltares and SEGES and is based on HACH nitrate strips

Used by Danish Catchment Officers to examine if there is a potential for constructed wetlands on sandy soil

Farmers gets better understanding of nitrate loss from their field + option for log data (location and concentration)



SEGES



An aerial photograph of a rural landscape. In the foreground, several yellow tractors are working on a large, rectangular agricultural field. The field is divided into several smaller plots by dark, winding paths. The surrounding land consists of various other fields and some greenery. A small town or cluster of houses is visible in the upper left corner.

Thank you for
your attention

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