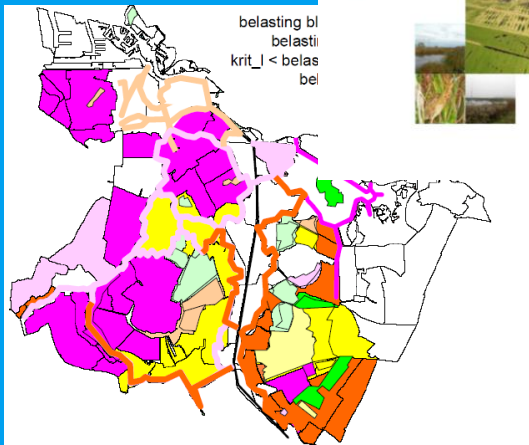
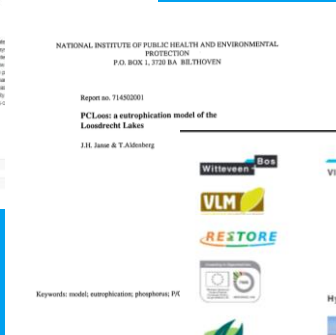
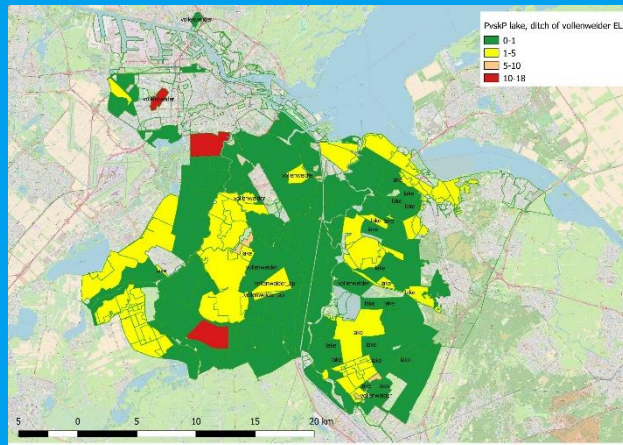
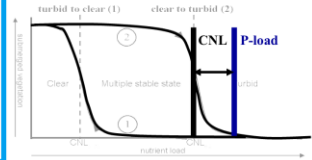
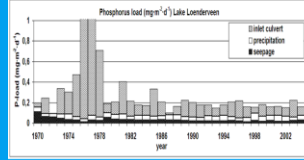
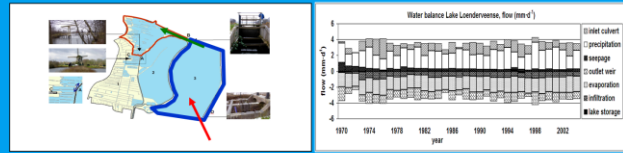




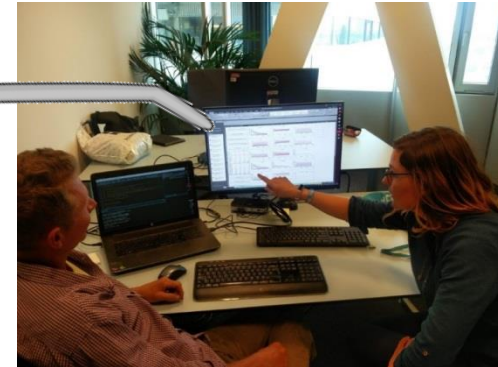
Toepassen PCLake/Ditch: uitdagingen en knelpunten



Loenderveen



We willen het ook zelf kunnen...



Naardermeer

- Effect peilbesluit
- Lozingseisen defosfatering
- Mogelijke herstelmaatregelen in Bovenste Blik

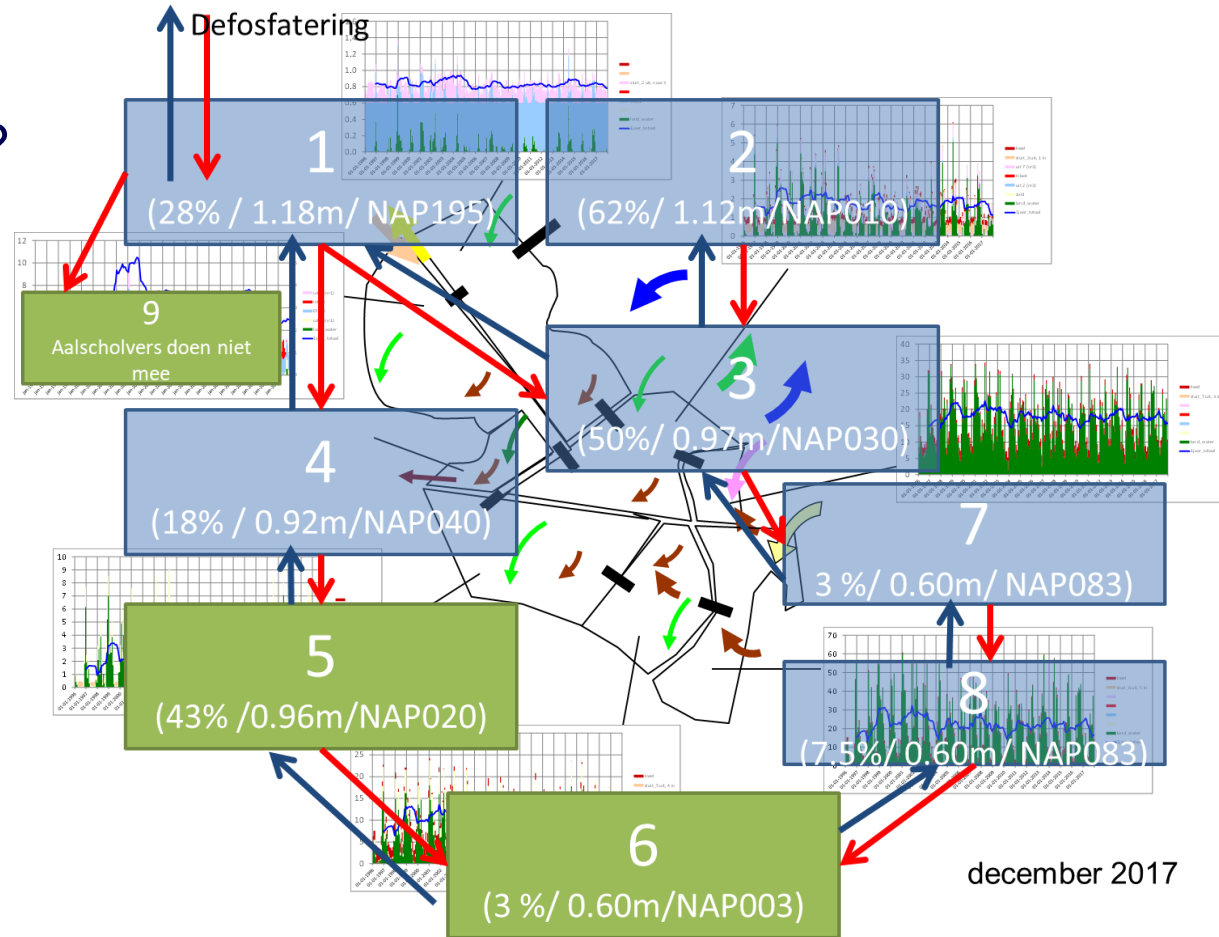


Wat hebben we gedaan?

- Aanpak
- Technisch: knoppen (excel en R)
- Input model
- Interpretatie gegevens

Aanpak

- Heldere vragen!
- Welke data hebben we?
 - Te veel data vertroebelt
 - Gebiedsschematisatie
- En weer terug naar de vraag...
- Van grof naar fijn



De knoppen

The image displays an Excel spreadsheet with a green header bar and a ribbon menu. The spreadsheet contains several buttons and a table. The buttons are:

- Save Source for C++ and Compile Model
- Save Input and Run Model
- Save Input and Perform Elasticity Analysis
- Save Input and Perform Bifurcation Analysis
- Open Output
- Save Source for C++
- Save Source for ACSL
- Save Source for DUFLOW

The table below the buttons has the following data:

EAG ->	self	1237	4
RunID	Set 0	Set 1	Set 2
IntType	0	1	2
iStateSet	0	0	0
iParamSet	0	1	2
IntAuxilSe	0	0	0
iAuxilSet	0	0	0
iCalibType	0	0	0
iCalibMaxIt	50	50	50
dReady	22	22	22
dIntStep	0.001	0.001	0.001
dIntAccur	0.0001	0.0001	0.0001
dRepStart	0	0	0
dRepStep	9	9	9
dAvgStep	7	7	7
dAvgStart	10	10	10
dAvgEndV	150	150	150
dAvgEndV	210	210	210
dSensitiv	0.01	0.01	0.01
dCalibScal	0.05	0.05	0.05
dCalibAcc	0.001	0.001	0.001
viewper	24.65753	24.65753	24.65753

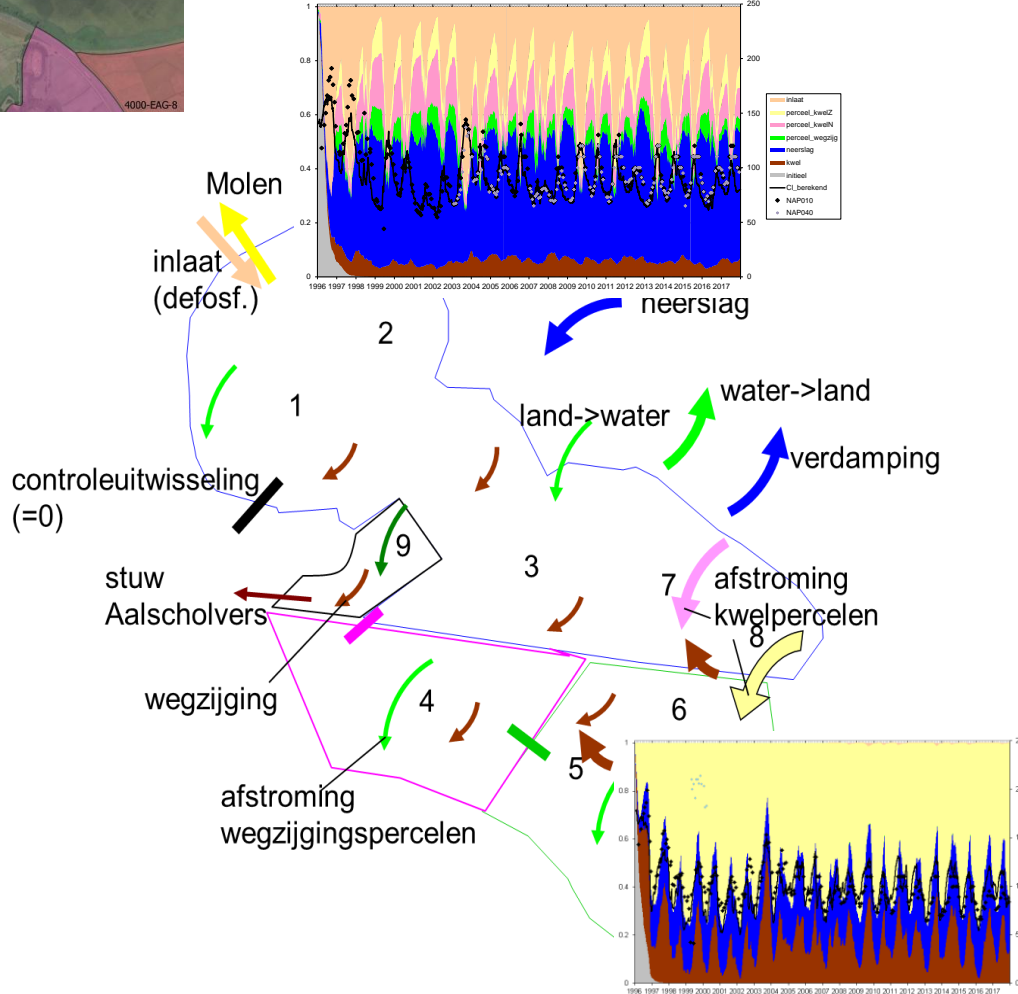
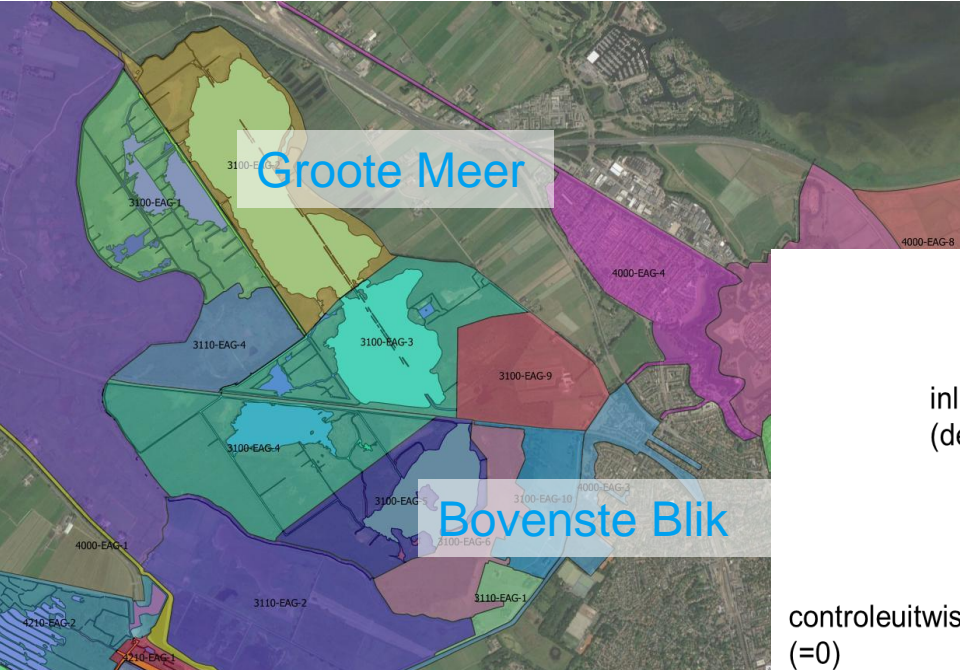
The RStudio window shows the following R code:

```
1 rm(list=ls())
2
3 # user defined settings
4 #
5 dirHOME = "C:/Users/wnet/stack/PLLakeDitch/" # location of the PCModel1350 folder
6 fileDATM = "PL613162_NAP_20171123_reeks.xls" # file name of the DATM implementation
7 fileParameters <- read.csv("C:/Users/wnet/stack/PLLakeDitch/PCModel1350/PCModel/3.00/Models/PLLake/6.13.16/R_base_work_case_Naardermeer
8 AMNqcvLoad <- read.csv("C:/Users/wnet/stack/PLLakeDitch/PCModel1350/PCModel/3.00/Models/PLLake/6.13.16/R_base_work_case_Naardermeer/1
9
10 #load all the functions
11 source(paste(dirHOME, "PCModel1350/PCModel/3.00/Models/PLLake/6.13.16/PCShell/scripts/R_system/functions_PLLake.R", sep=""))
12
13 #load settings from the DATM file
14 DATM_SETTINGS = PCModelReadDATMFile(dirHOME-dirHOME,
15 fileDATM-fileDATM)
16
17 #hier een loop over de EAGs voor alle Forcings
18 # je zou hier per EAG dan een single run kunnen doen en dan alles weer onder elkaar plakken
19 # maak a list to store all inputs
20 lFORCINGS_EAGS = list()
21 # dan moet je de NPARAM_SET en de NSTATE_SET in pcode1singlerun instellen op de index van de eag set (zie onder voor multirun)
22
23 for (SEAG_SET in 1:8){ #maak hier zelf iets mooiers van
24
25 #aanpassen van Forcings (gemeten tijdsries)
26 # voorbeeld van m01n
27 # om alle namen of forcings
28 vFORCING_NAMES = names(DATM_SETTINGS$forcings)
29 # change a given forcing by name
30 #for(i in 1:length(vFORCING_NAMES)){ # dit is 2:length omdat 1 altijd de 'time' bevat
31 #FORCING2=change to loop through forcing names
32 #laad hier je tijdsrie uit een bestand voor desbetreffende EAG en desbetreffende variabele
33 #VTIME_SERIES = dftime_series_per_eag(sFORCING) #bijvoorbeeld op zo'n manier, pas aan naar datastructuur
34 #VTIME_SERIES = seq(from=0, to=3, length=365) #example time series for one year
35 #VTIME_SERIES = 1:DATM_SETTINGS$forcings$time[1] #got a vector with the forcing time steps used in PLLake (i.e. the number of day
36 #now we add the time series to the forcing list.
37 # this means we select the DATM_SETTINGS forcing by name (from vFORCING_NAMES) and select the value column (column number 2)
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
```

The console shows an error message:

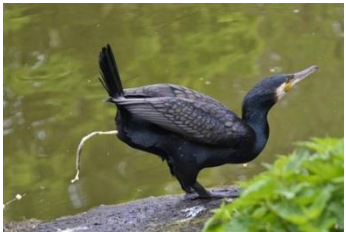
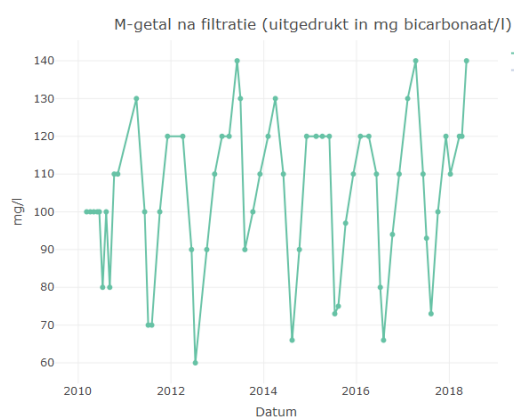
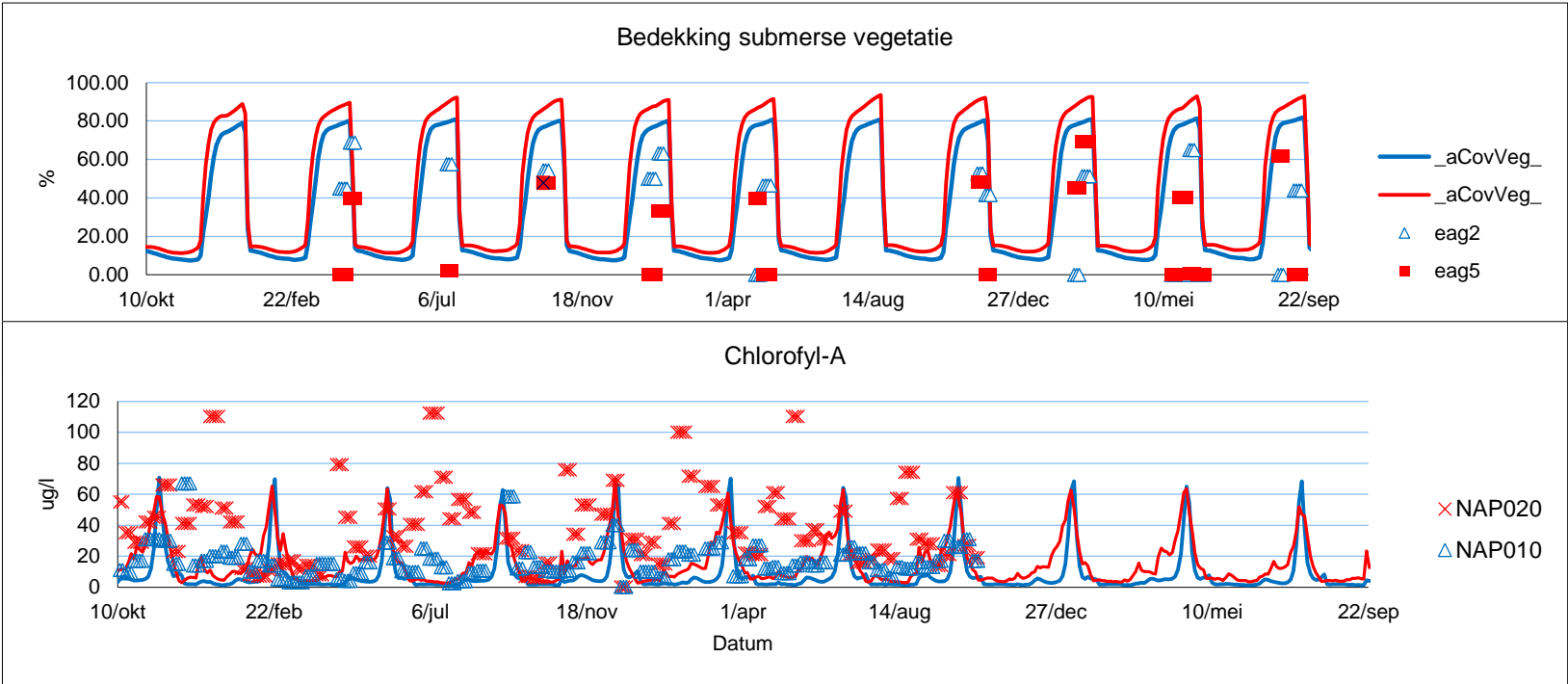
```
Error in install.packages(unique()) applies only to vectors
> source("scripts/postProcess.R")
> source("scripts/createOutput.R")
> proj4_rd_new <- CRS("+proj=stere4 +lat_0=52.15616055555555 +lon_0=5.287638888888889 +k=0.9999079 +x_0=153000 +y_0=463000 +ellps=bessel +unit
+no_defs")
> cols = c("red", "orange", "rgb(240,240,0,maxcolorvalue = 256)", "green", "blue", "purple", "violet")
> #### DATA INLEZEN #####
> ptb <- read.csv("data/PTN2017.csv", header = TRUE, na.strings = "", sep=";", dec = ".",
+ stringsAsFactors = F)
> source("D:/stack/KRW/in uitvoer_toetsing_2017/v3/scripts/createOutput.R")
quitting from lines 77-104 (AnalyseNaardermeer.Rmd)
quitting from lines 77-104 (AnalyseNaardermeer.Rmd)
```

Invullen model

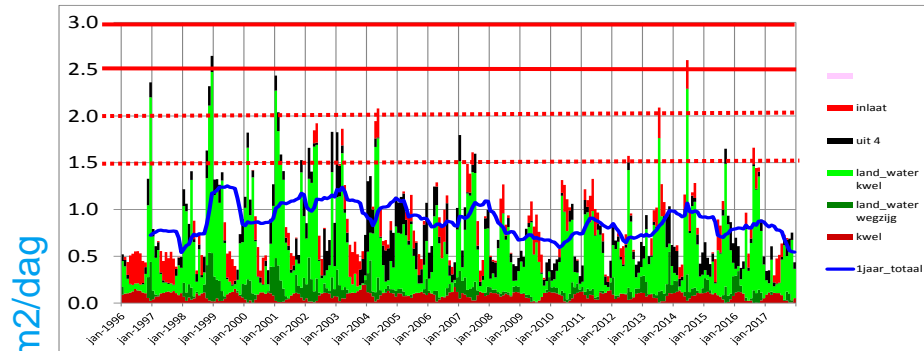


voorstel PCLake

Interpreteren gegevens



Interpreteren gegevens



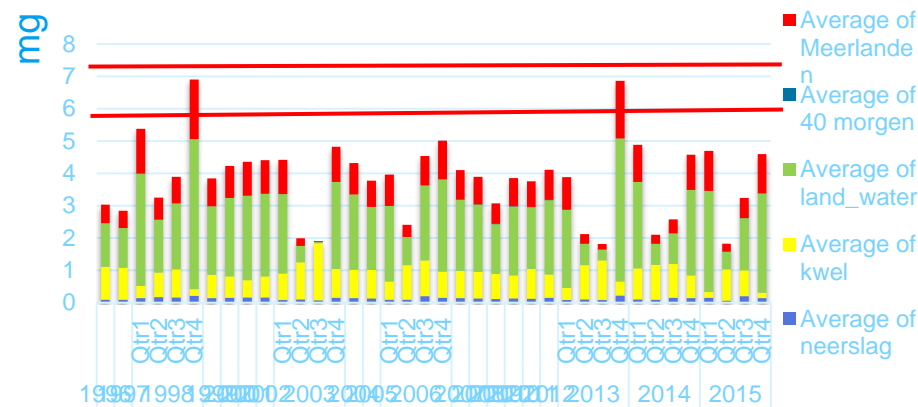
Groote Meer

P-, N- en C-bron = percelen met kwel

Invloed peilaanpassing op uitspoeling ?

↑ verblijftijd klein risico voor ↓ kritische grenzen

Hoge ecologische kwaliteitscore



Bovenste Blik

P-bron = percelen & Meerlanden.

Submerse vegetatiebedekking en soortensamenstelling onvoldoende

Afkoppelen achterland en baggeren

Lessen & wensen

- Samen zie je meer
- Pclake helpt bij watersysteemanalyse
- Modelleren werpt nieuw licht op monitoring
- Wensen
 - Toepassen R
 - Meer output met simpele invoer (metamodel)
 - Toepassen PClake+
 - Effect van onderhoud en baggeren in sloten

