

# Eindhoven: detailed information & replication conditions for the NBS: daylight water course



## Eindhoven Topics Agenda

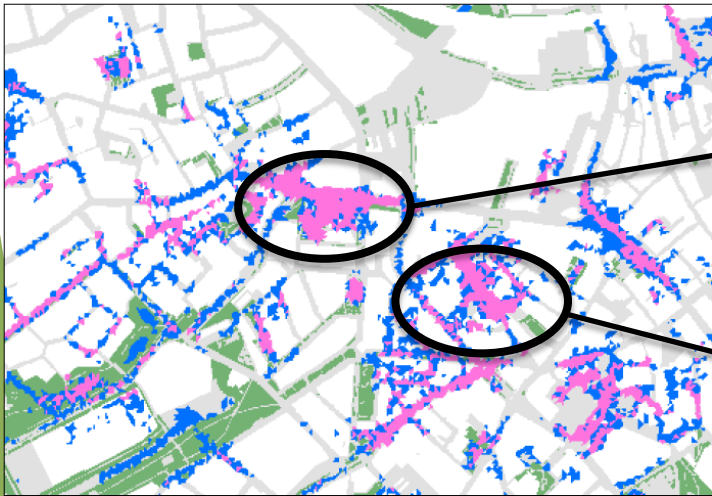
- ▶ Introduction: description of the studied area and of the water related challenges that had to be faced
- ▶ Description of the different water related NBS adopted
- ▶ Successful stories that inspired the water related NBS implemented
- ▶ Conclusions: suggestions related to the previous reported experiences that could be helpful to the other cities

# Eindhoven Topics Agenda

- Introduction: Eindhoven started almost 20 years ago with the reconstruction of water courses in order to make the watersystem visible and to create a more robust and as natural as possible watersystem.

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- ▶ Introduction: Eindhoven started almost 20 years ago with the reconstruction of water courses in order to make the watersystem visible and to create a more robust and as natural as possible watersystem.
- ▶ Part of the 'Gender' is already constructed as well as a few other water as will be shown
- ▶ Conclusions: suggestions related to the previous reported experiences that could be helpful to the other cities



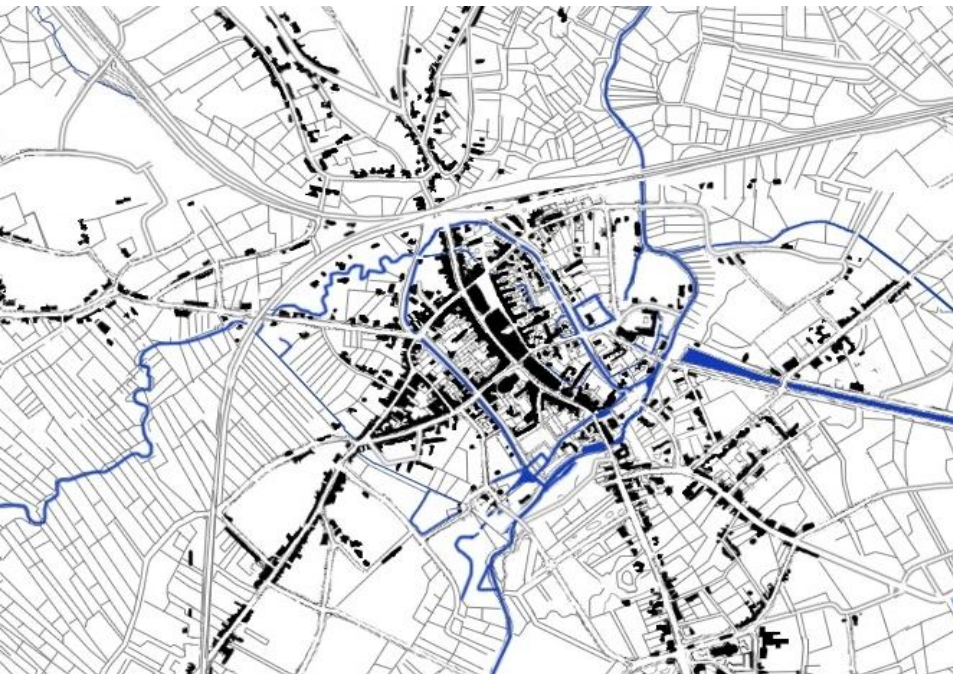


# Eindhoven

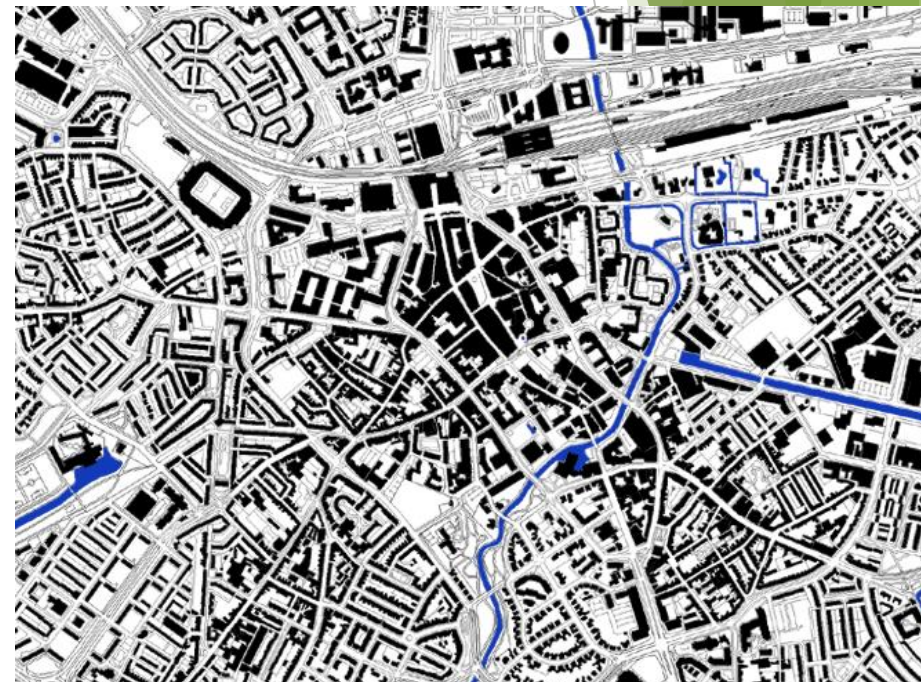
Description of the studied area

In the past the 'Gender' was covered and finally changed into a sewage. How to daylight the 'Gender' again.

## Eindhoven 1899

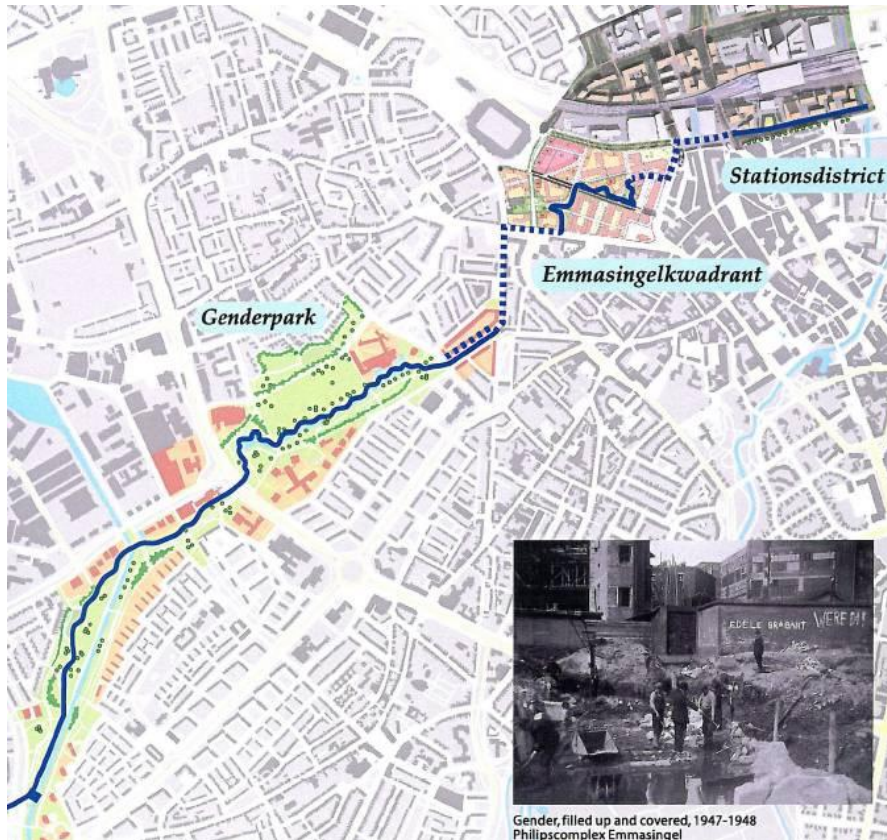


## Eindhoven 2012



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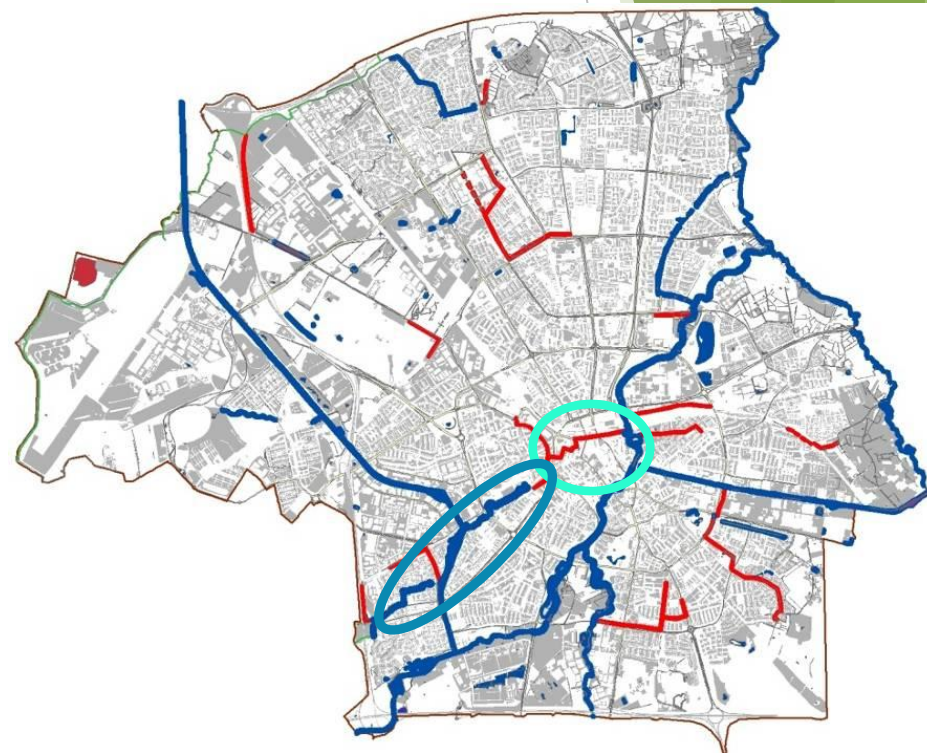
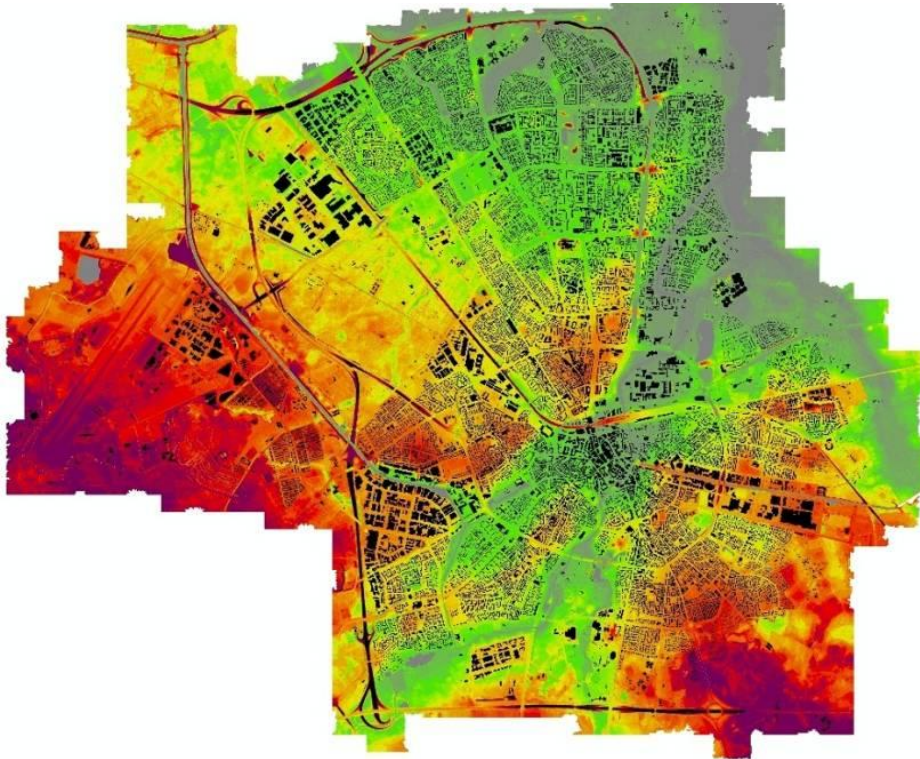




# Eindhoven

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## Eindhoven

# NBS: Daylight Watercourse

### NBS 1: daylighting water course

Objectives	Making the water system visible
Description	Because the city has grown it's hard to find places to create a water course
Relation with grey infrastructures	Mostly water courses will be situated next to a road. The wider a road is the easier it is to create a water course
Actors involved	Citizens, the Waterboard, politicians, civil engineers
Role of the community	They will be given the opportunity to produce input and discuss the designs

## Eindhoven

# NBS: Daylight Watercourse

### NBS 1: daylighting water course

#### Technical & legislative pre-conditions

Sometimes available space is not enough to create the ideal solution  
The waterboard demands special solution

#### Cost & financing

Who's going to pay:

- Municipality (water department)
- Waterboard

#### Barriers

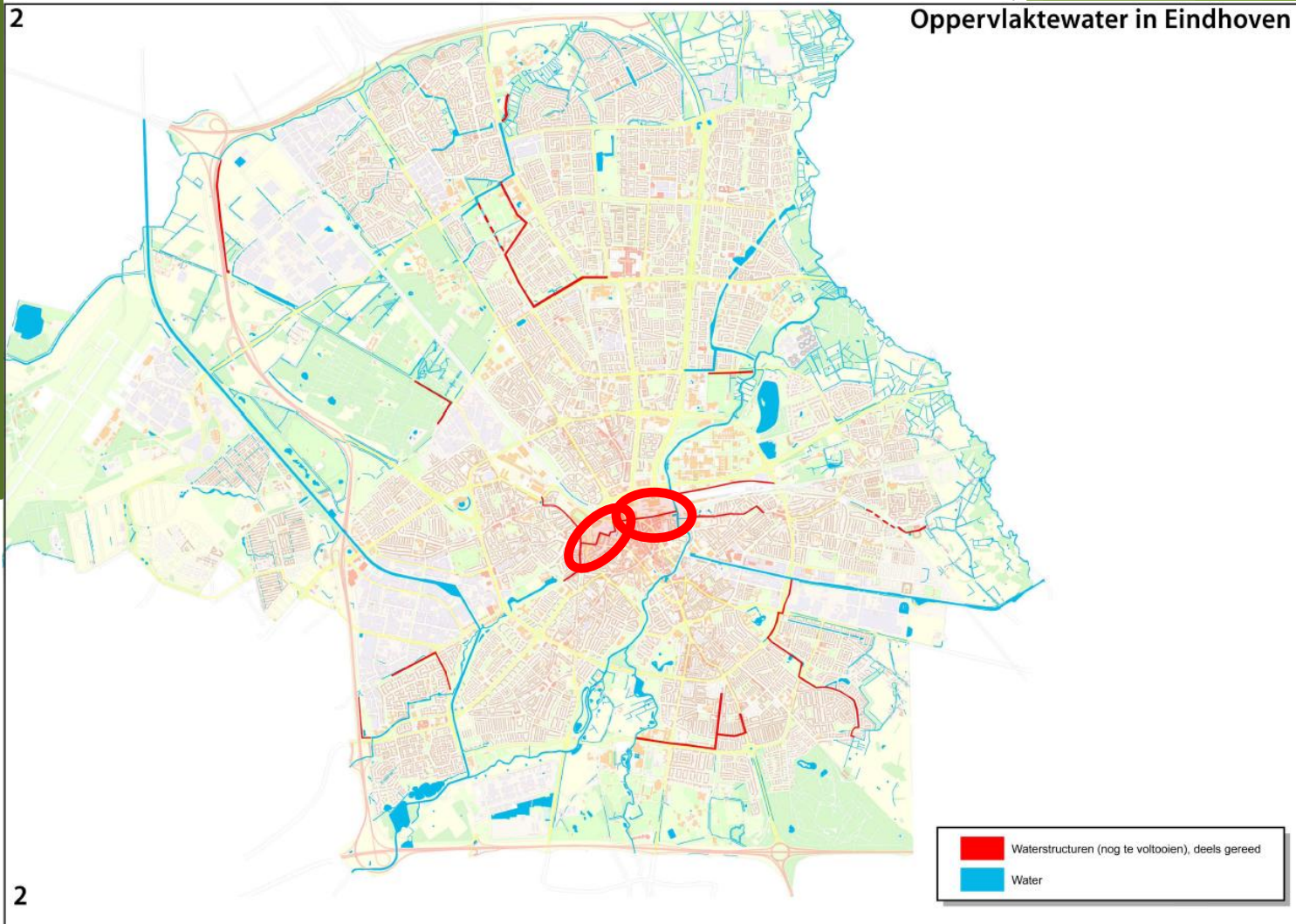
Ownership of the area  
Value of a water course is underestimated  
Space can only be used ones

# Eindhoven

## Successful Study Case: Gender

Daylighting of  
the river  
«Gender»

For  
stormwater  
management  
and making  
watersystem  
visible



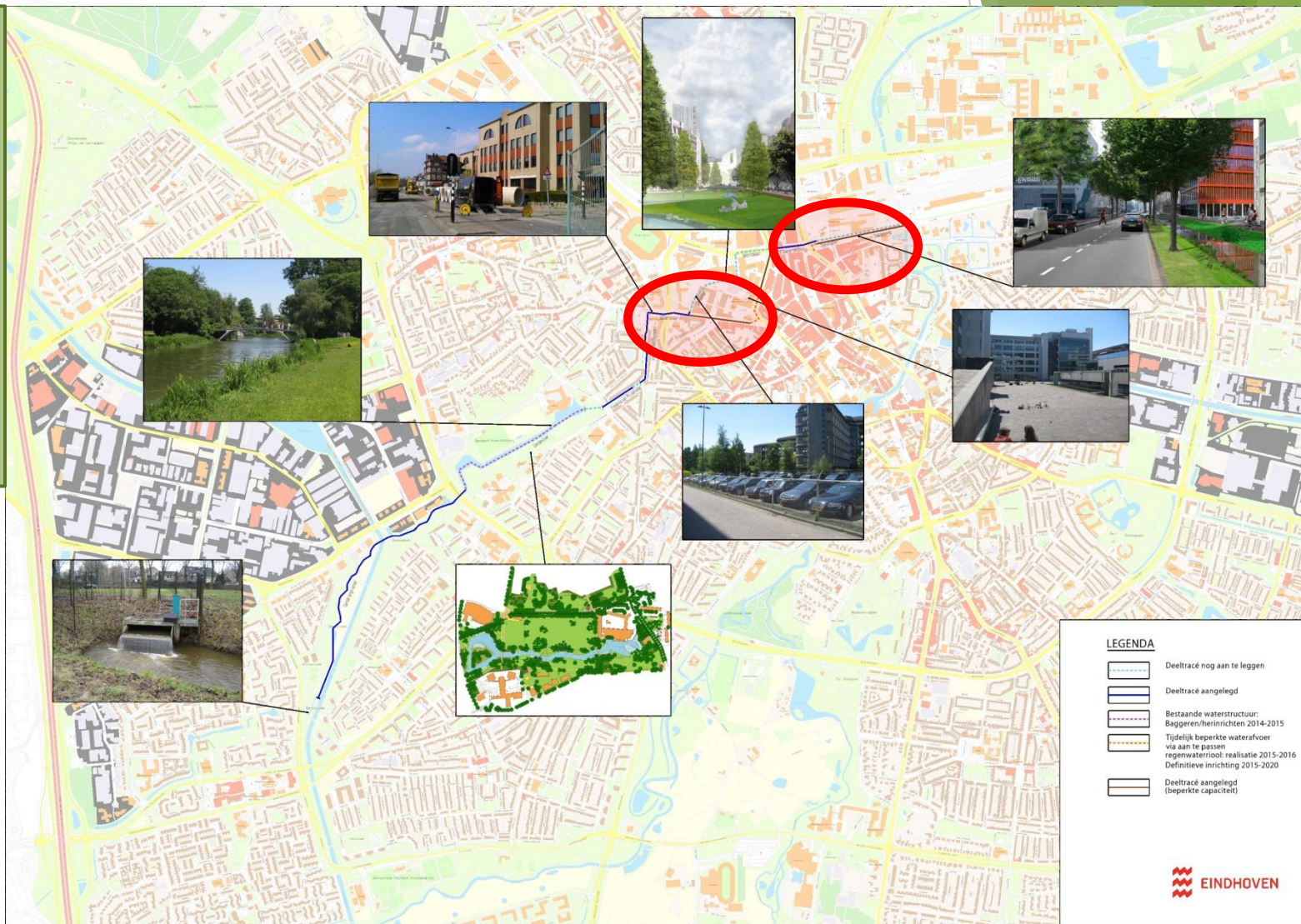


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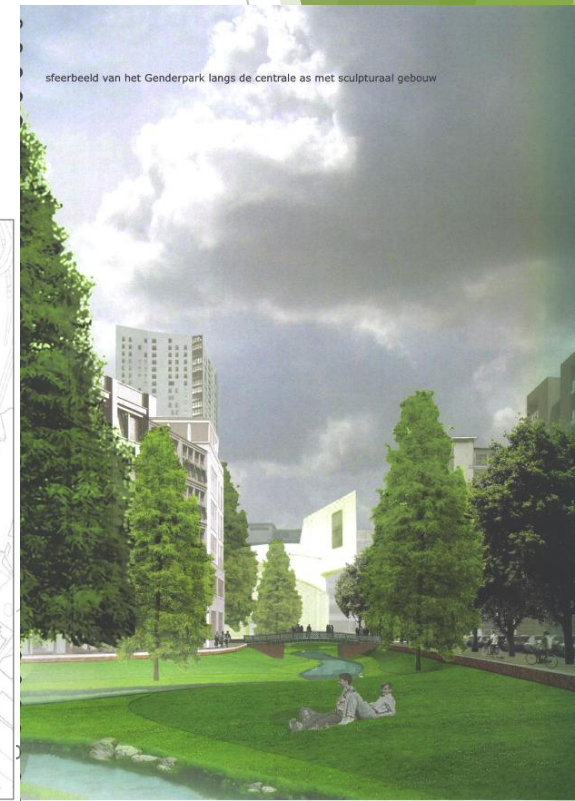




# Eindhoven

## NBS: Daylight Watercourse

### NBS 1: creating water storage



# Eindhoven

## Successful Study Case

**Water system  
«De Burgh»  
Connecting  
water bodies  
and  
disconnecting  
from sewage  
plant**

*De pompvijver aan de Hugo van der Goeslaan. Het water loopt ondergronds van de Plusloot naar de pompvijver, van hieruit wordt het water na een regenbui het kanaal in gepompt.*



*De Hadewichsingel verbindt de Bonifaciusvijver met de Plusloot.*

*Instroomput van waaruit het water van de Neushoornloop ondergronds naar de Bonifaciusvijver loopt.*



*De Neushoornloop: meestal droog, verbindt de vijvers Gijzenrooi met de Bonifaciusvijver.*



*Aansluiting kanaal. Hier wordt het water vanuit de pompvijver naartoe gepompt.*



*De Bonifaciusvijver is groter gemaakt voor een betere water kwaliteit, het verbinden van de vijvers en meer waterberging.*



*Een schildpad heeft een thuis gevonden in de Bonifaciusvijver.*



*Overloopconstructie van waaruit het water uit de vijver Gijzenrooi naar de Neushoornloop stroomt. Dit gebeurt alleen na regenval.*

— duiker (verbindingsbuis)  
⊗ pomp



## Eindhoven Helpful Suggestions

Suggestions related to the previous reported experiences that could be helpful to the other cities:

More examples (designs and constructed) of water systems are available







Transferring a ditch next to the railway into a stormwater storage





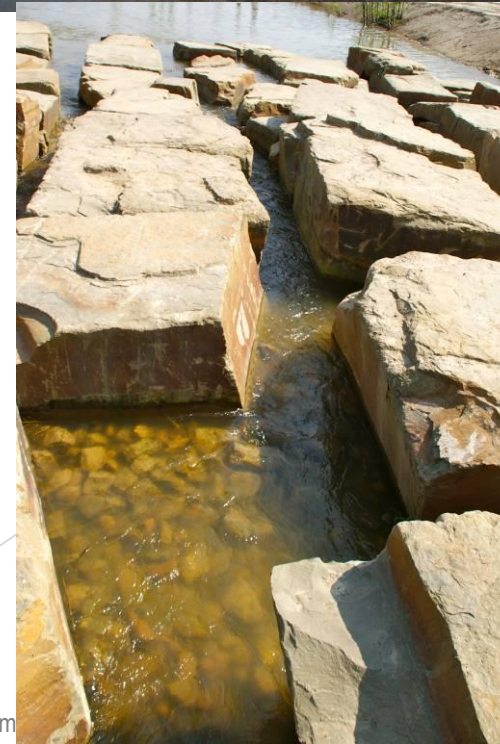
# A new created water system: Meerhoven



pump



Water system  
artificial flow







A new created water system:  
Meerhoven





A new created water system:  
Meerhoven grondlevel elevation

