

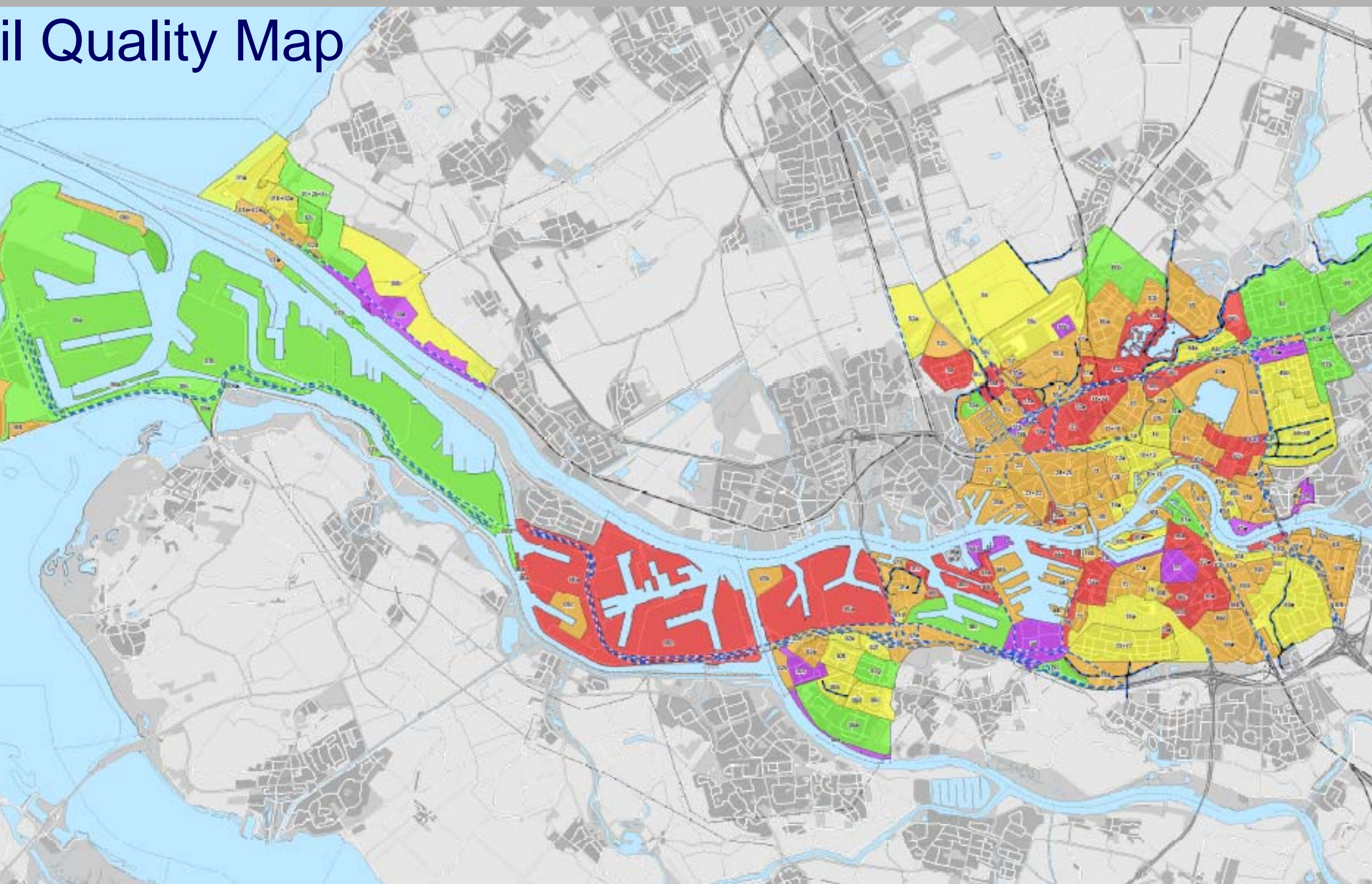
Conditions: *Implementation of Policy*

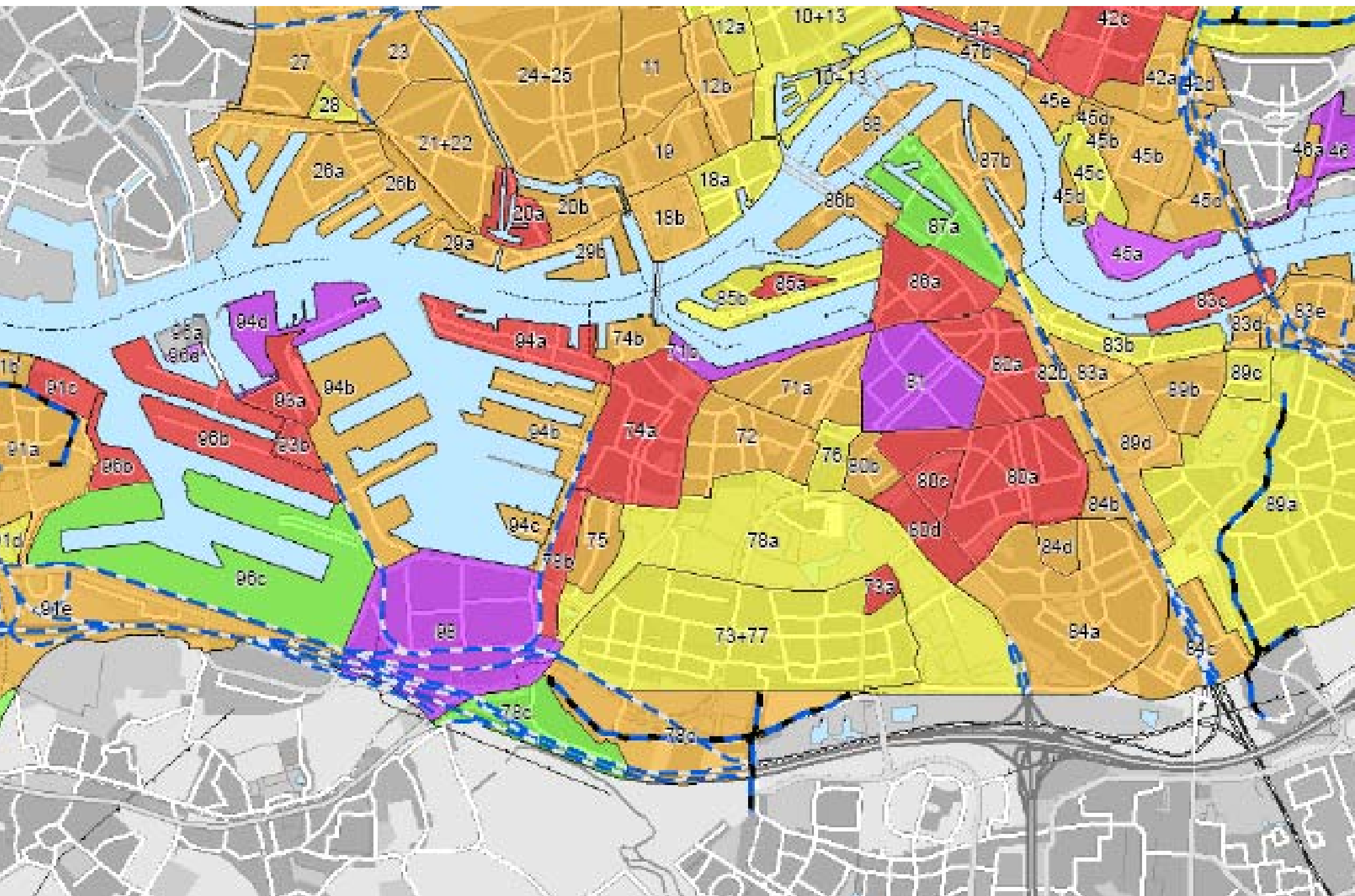
Henri Groeneveld
City of Rotterdam – Soil Bank



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1. Soil Quality and Soil Function Maps, conditions for reuse
 2. Dutch Soil Quality Decree
 3. Legislation for transportation and registration
 4. Lessons learned

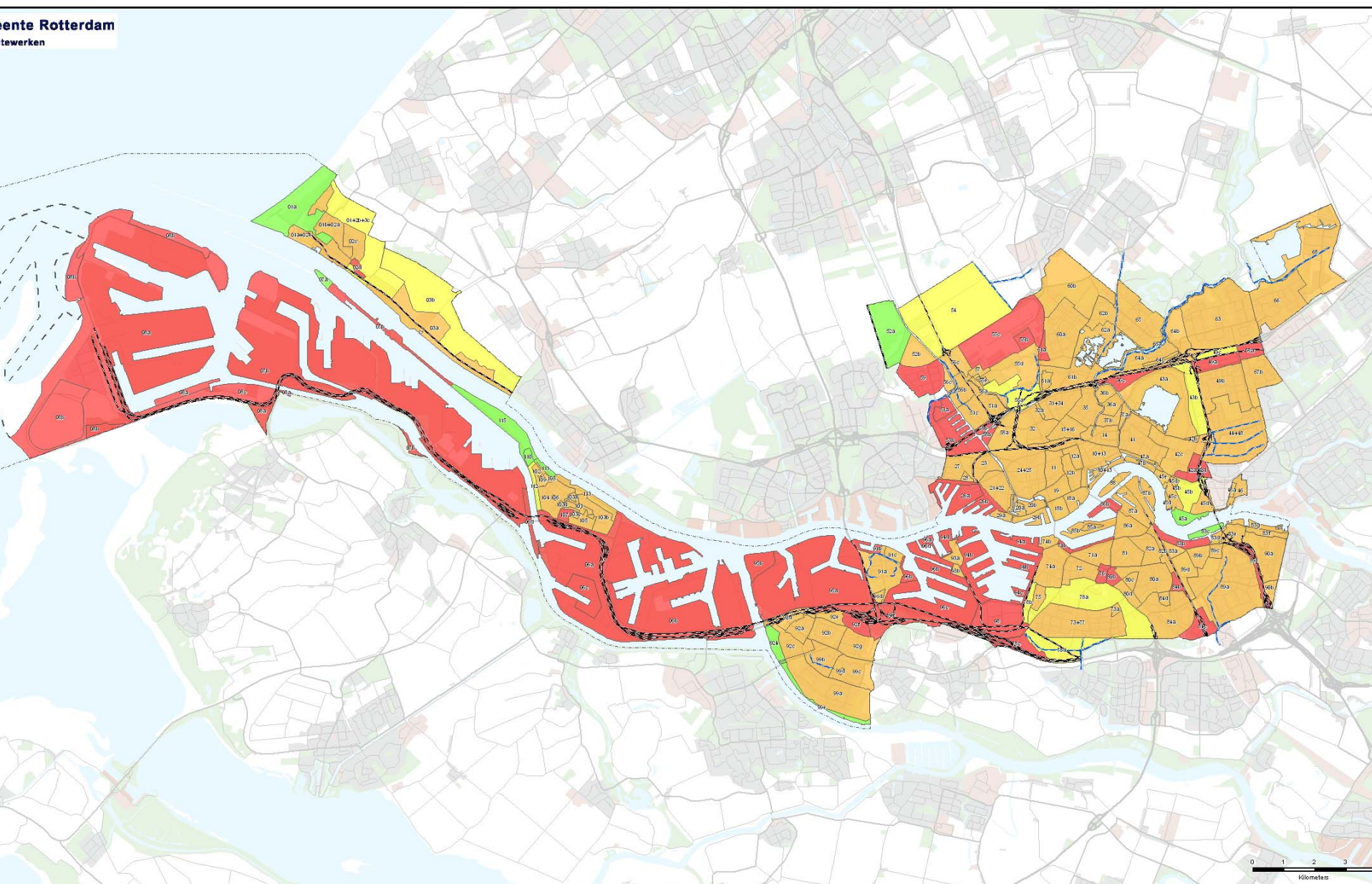
il Quality Map





BODEMKWALITEITSKAART ROTTERDAM 2010

ente Rotterdam
tewerken



Bodemfunctie

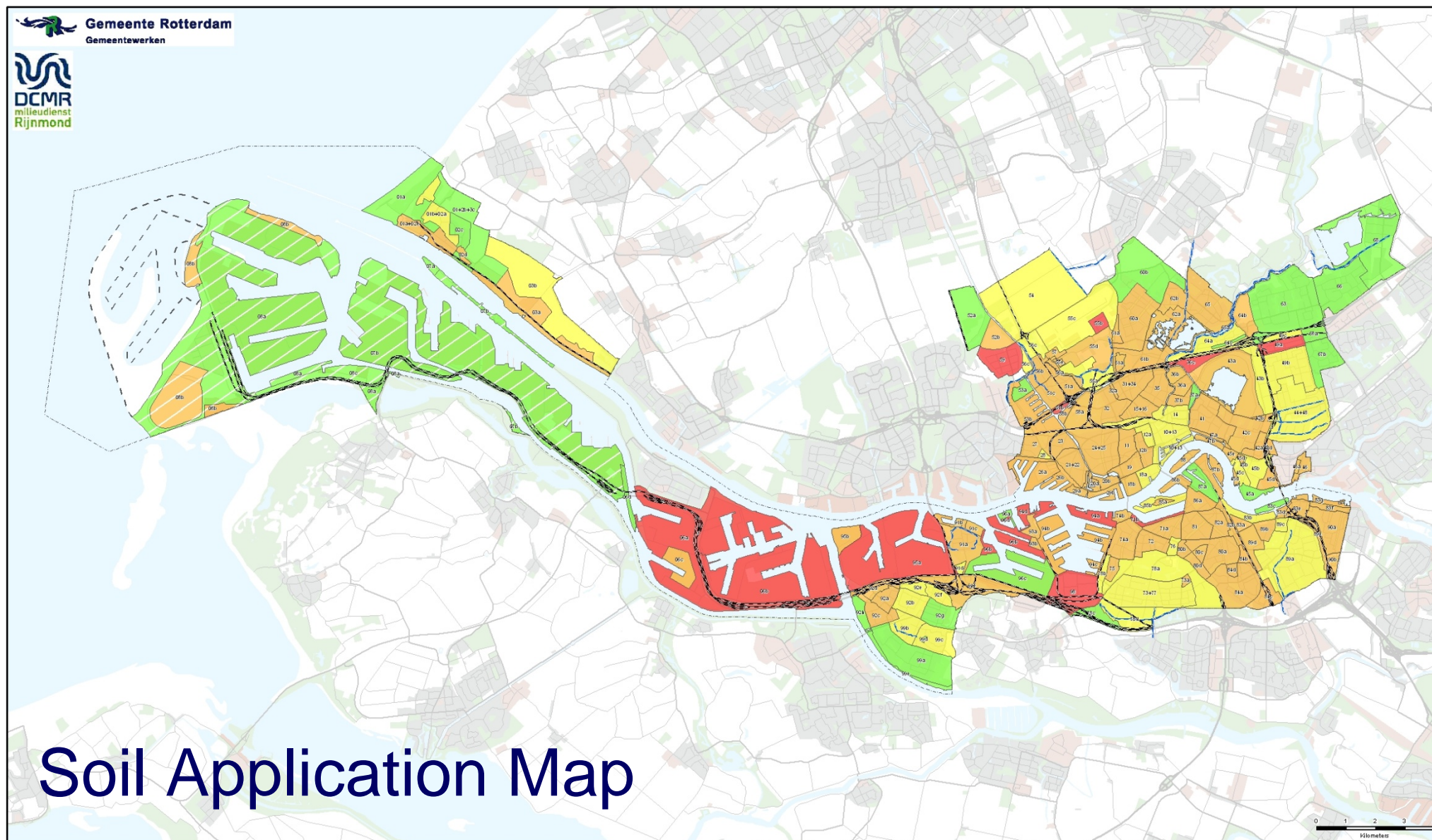
- Natuur
- Landbouw
- Wonen
- Industrie
- Sporen en Snelwegen
- Lintbebouwing
- Maasvlakte 2



BODEMKWALITEITSKAART ROTTERDAM 2010

Gemeente Rotterdam
Gemeentewerken

DCMR
milieudienst
Rijnmond



Thema: Bodemtoepassing

■ LAGW
■ LAGW-Bagger/landbouw
■ LMW-Wonen
■ LMW-Industrie
■ Sporen en Snelwegen
■ Lintbebouwing
■ Maasvakte 2
■ Lokale normen havenbagger

Soil Quality Map



+ Soil Function Map

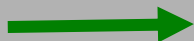
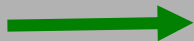


Soil Application Map



Origin

Destination



Treatment possible ?

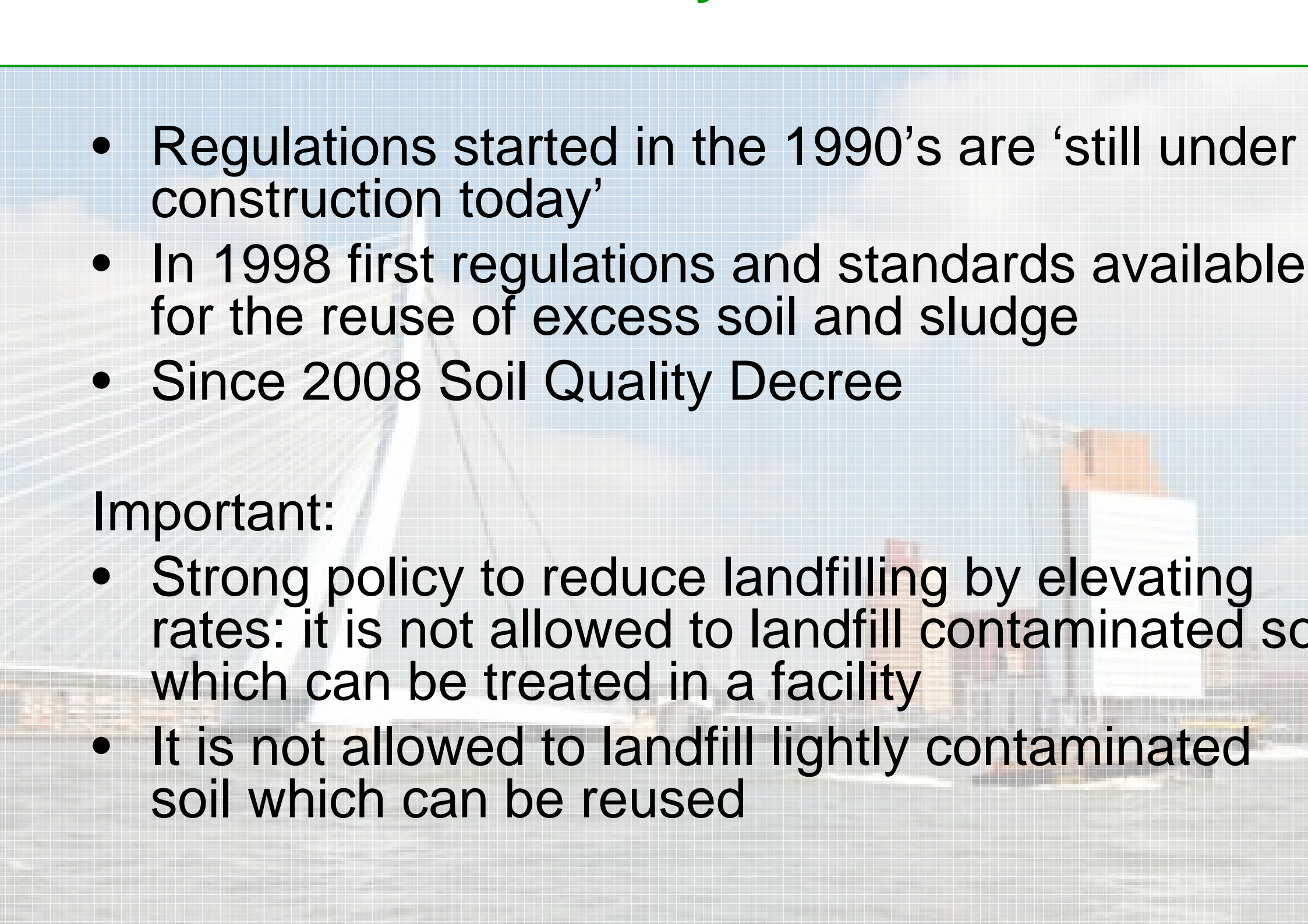


Soil Washing
(e.g. Boskalis)



Landfill



- 
- Regulations started in the 1990's are 'still under construction today'
 - In 1998 first regulations and standards available for the reuse of excess soil and sludge
 - Since 2008 Soil Quality Decree

Important:

- Strong policy to reduce landfilling by elevating rates: it is not allowed to landfill contaminated soil which can be treated in a facility
- It is not allowed to landfill lightly contaminated soil which can be reused

Soil Protection Act

- Overall law, applying, among others, to Soil Banks, treatment facilities (e.g. soil washing), landfills, and reuse locations

Soil Quality Decree

- Rules and conditions for the permanent reuse of soil

Soil Bank needs

- national license (Soil+ Agency) for batch sampling
- national permit for transportation
- local permit for every temporary storage site

To operate a Soil Bank a policy encouraging the reuse of soil is needed



- Demand for soil
- Surplus of soil (excess)



- To operate a Soil Bank a law which enables the treatment of contaminated soil or landfill is needed



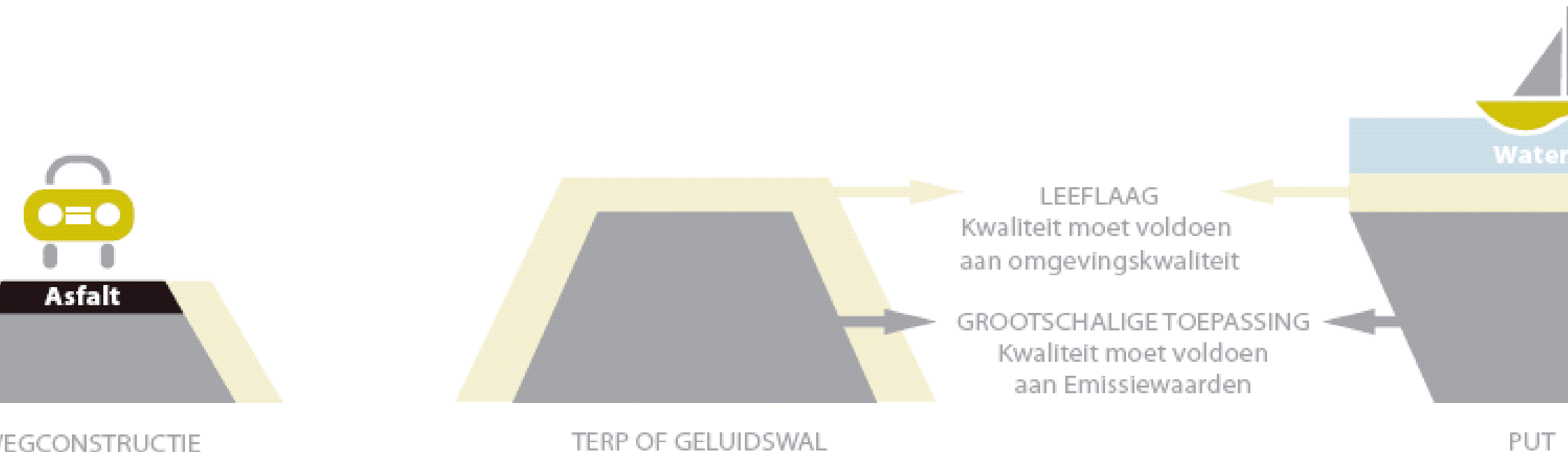
Treatment possible ?

**Soil Washing
(e.g. Boskalis)**

Landfill



- Protection of soil and surface water
- Encouraging reuse of soil
- Creating a framework for applying dry or wet soil and sludge



Origin



Destination



**Transportation forms
and registration**

Only a licensed organisation can print transport forms (professional certificate of waste transport)

- Every batch has an unique number for the transportation between origin and final destination
- Every truck has a transport document
- Every transport document is registered in the Soil Bank computer system
- Transport document contains various data



Origin

Destination

Permit number

Tonnage in the truck

Signature sender

Signature disposer

Signature transporter

Signature receiver

BEGELEIDINGSBRIEF
INTERNE COPIE (D) / EXTRA BEWIJS VAN ONTVANGST (B2) (voor ontdoener)
Verplicht te gebruiken voor transport van afvalstoffen

Gemeente Rotterdam
Gemeentewerken
MRO Grond- en Reststoffenbank
Galvanistraat 15
Postbus 6633
3002 AP Rotterdam
Telefoon: 010-4894976
Telefax: 010-4897007

1° (primaire) ontdoener 2° ontvanger 3° handelaar 4° bemiddelaar
afzender
straat + nr
postc. + woonpl.
VIHB-nummer

2°
factuuradres
bus of straat + nr
postc. + woonpl.

3°
ontdoener: Stadsontwikkeling (Obr)
straat + nr: GALVANISTRAAT 15
postc. + woonpl.: 3029 AD ROTTERDAM

4°
uitbesteed vervoerder
straat + nr
postc. + woonpl.

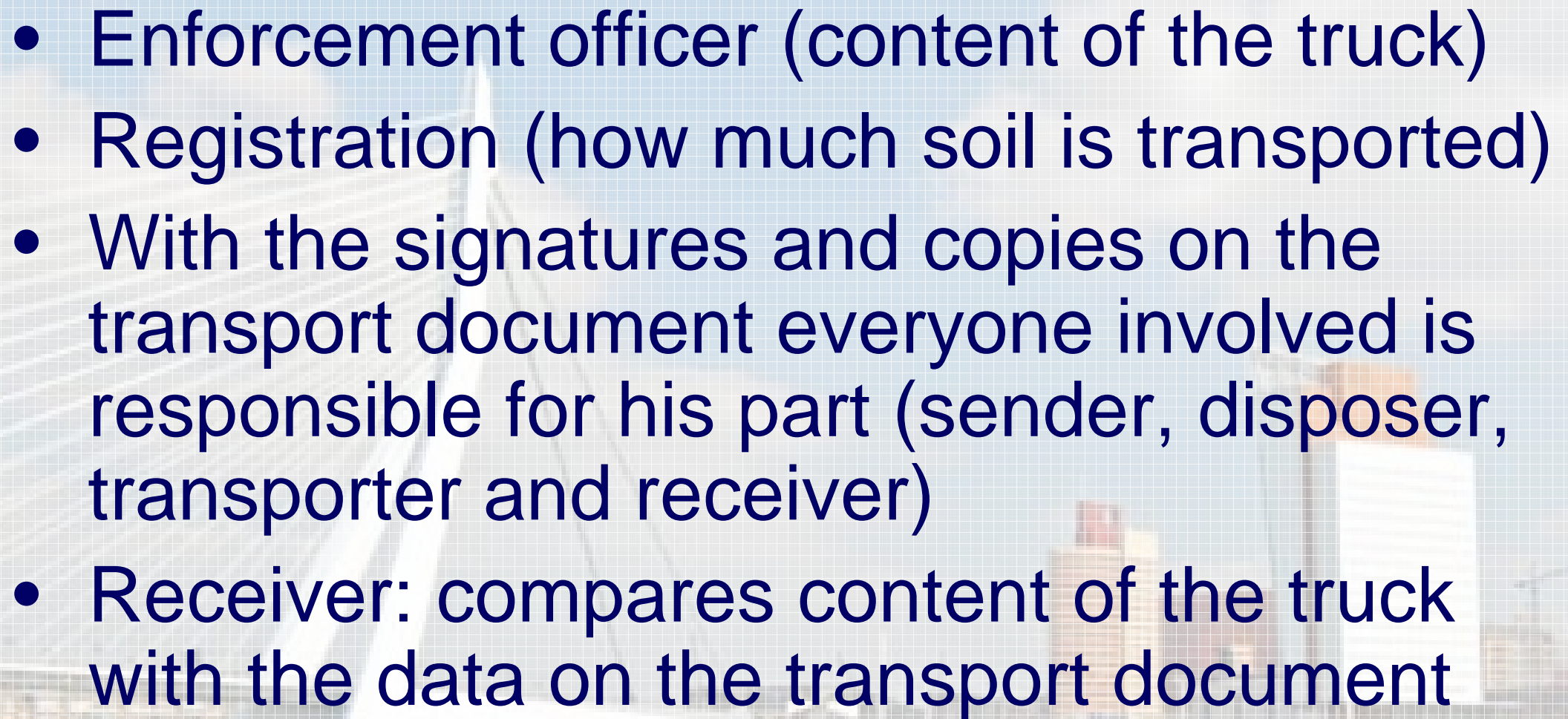
5°
vervoerd door: 1° afzender 2° ontdoener 3° ontvanger 4° inzamelaar 5° vervoerder 6° uitbesteed vervoerder
Btl Realisatie B.V.
straat + nr: RIJKSWEG 1
postc. + woonpl.: 5076 PB HAAREN

6°
afvalstroomnummer
gebruikelijke benaming van de afvalstoffen
aantal/verpakking
eural code
verw. meth.
geschatte hoeveelheid (kg)

00493102740 | Grond, organisch en anorganisch verontreinigd... | 17.05.04 A02 | 15000

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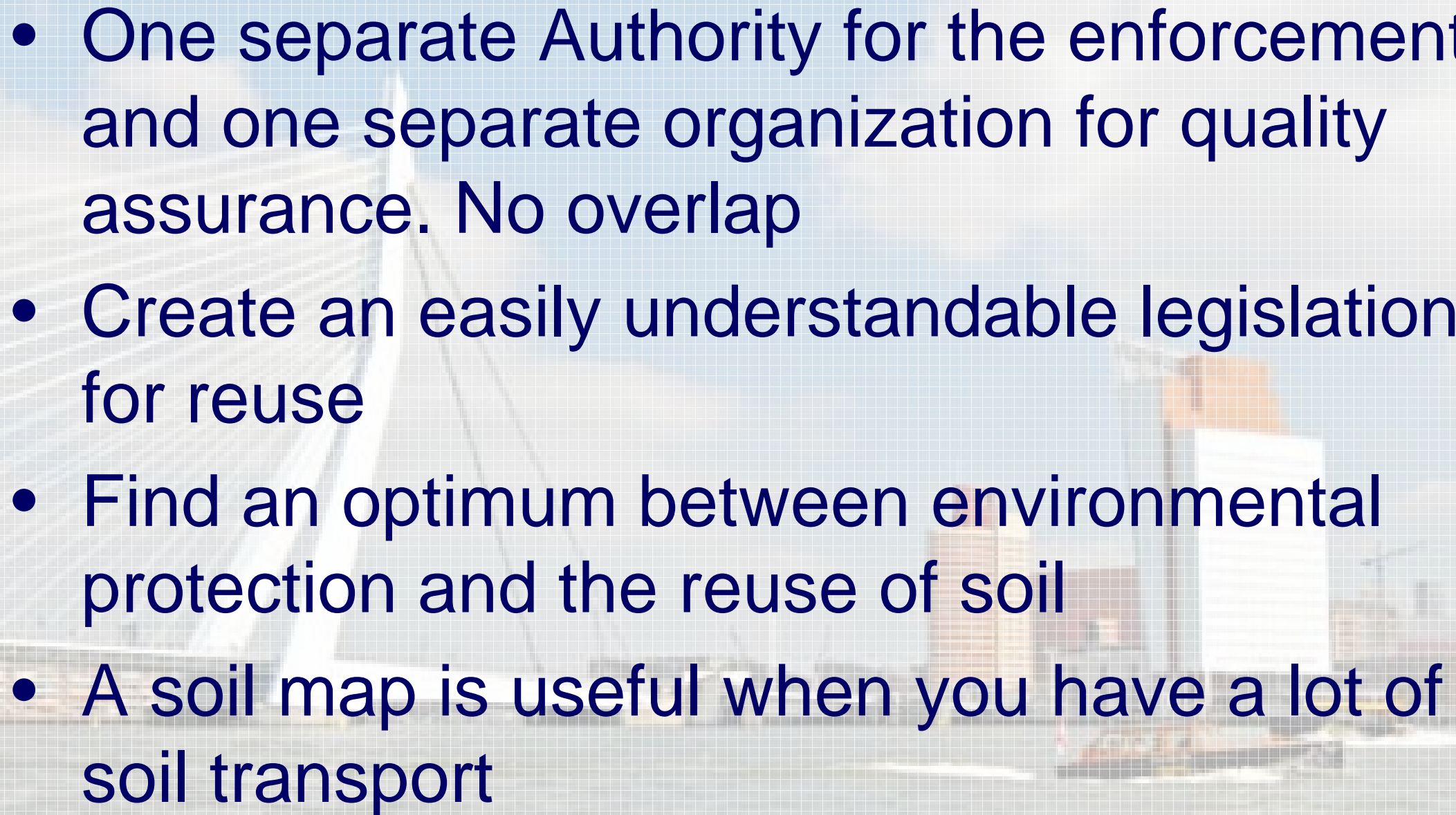
Auteursrecht: sVa / Stichting Vervoeradres, Den Haag
Handtekening afzender
Handtekening vervoerder (z.g.d.)
Handtekening ontvanger (geadresseerde) voor goedge ontvangst der zending met gelijk genummerde vrachtbijl.

- 
- Enforcement officer (content of the truck)
 - Registration (how much soil is transported)
 - With the signatures and copies on the transport document everyone involved is responsible for his part (sender, disposer, transporter and receiver)
 - Receiver: compares content of the truck with the data on the transport document





- Enforcement officer can check the Soil Bank computer system for registration data
- Enforcement is applied throughout the entire chain (from origin to final destination, including temporary storage places).
- Enforcement in the Rotterdam area is performed by DCMR (Regional Environmental Protection Agency)

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- The background of the slide features a blurred image of a large bridge with white cables and a city skyline with various buildings under a blue sky.
- One separate Authority for the enforcement and one separate organization for quality assurance. No overlap
 - Create an easily understandable legislation for reuse
 - Find an optimum between environmental protection and the reuse of soil
 - A soil map is useful when you have a lot of soil transport