

The Capital Region of Denmark

REGION

Urban Development on Contaminated Sites

**- Collaboration Between the Municipalities
and the Capital Region of Denmark**

- 5th April 2019
- Heidi Uttenthal Bay, Environmental Engineer

What does everybody want?



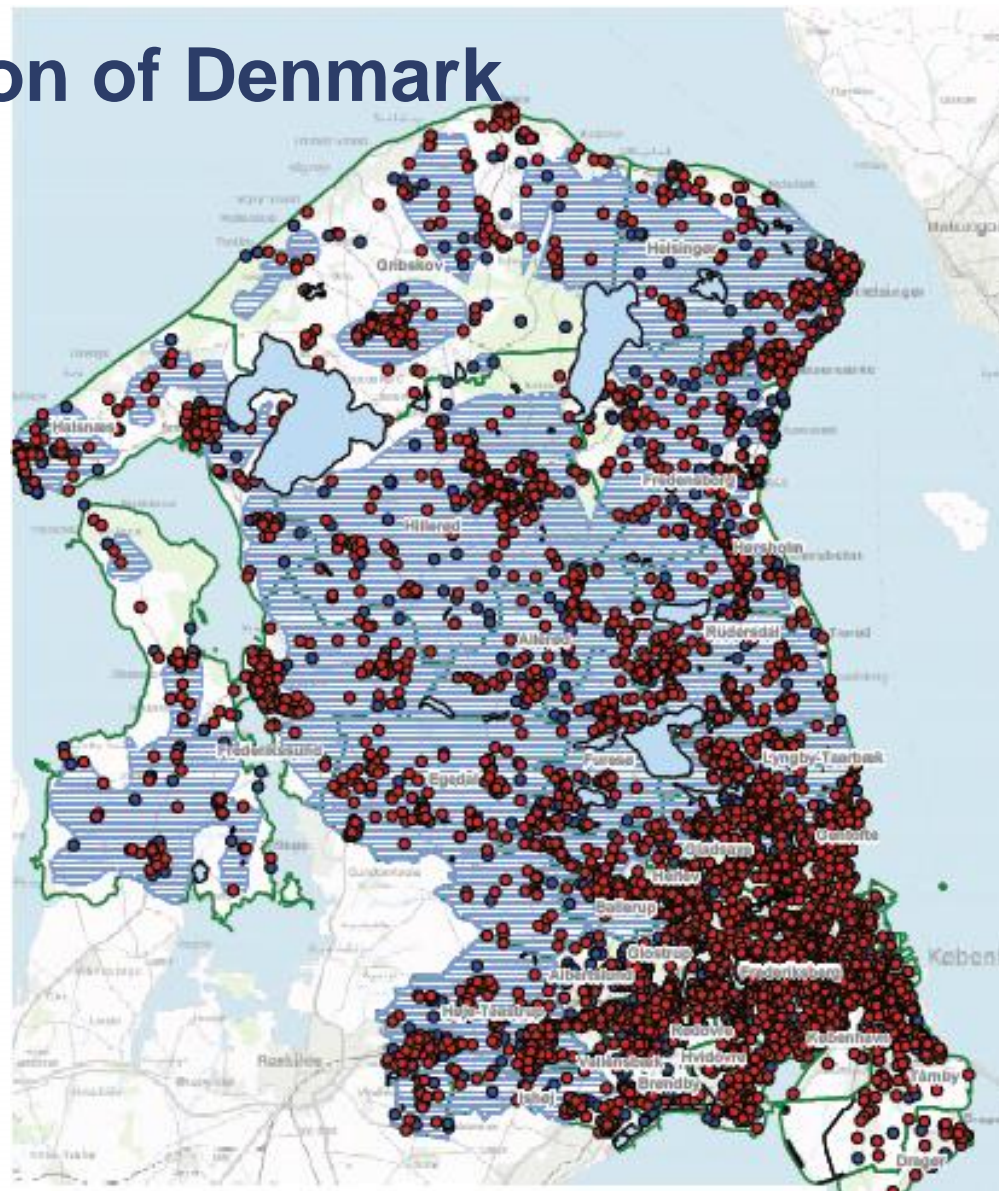
26/MAR/2019

The Capital Region of Denmark

Find

Registrate

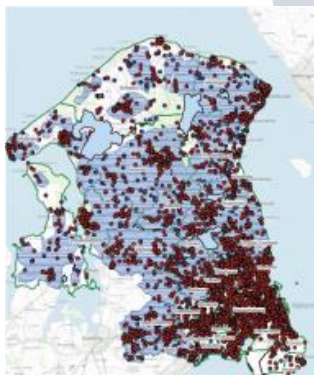
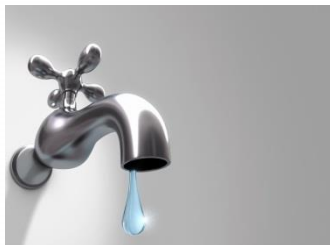
Remediate



Is it possible to build on a contaminated site in Denmark? Yes, But how???



Collaboration in spite of interests



Municipalities



Capital
Region of
Denmark

Constructor



Application



Pre-
investigation



Full
overview



Risk
assessment



A permission with terms



- Remediation
- Ensure climate in-door and outdoor
- Monitoring
- Documentation

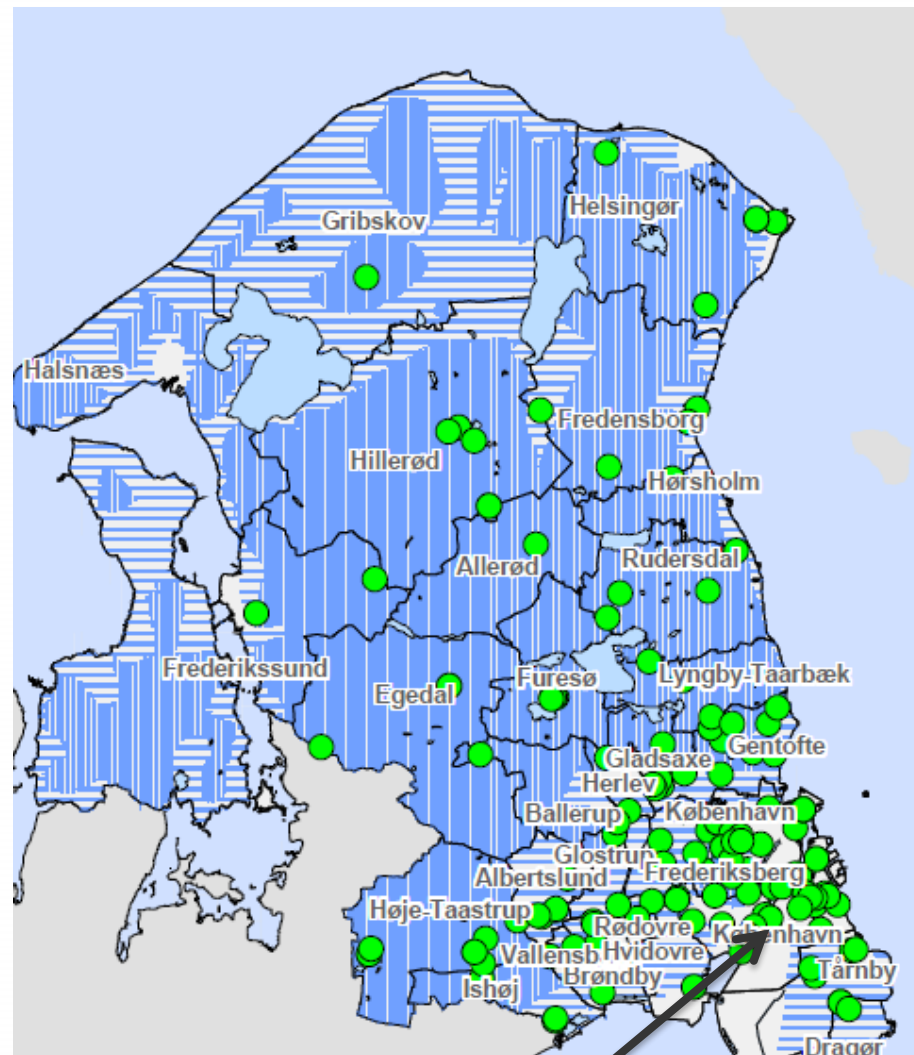
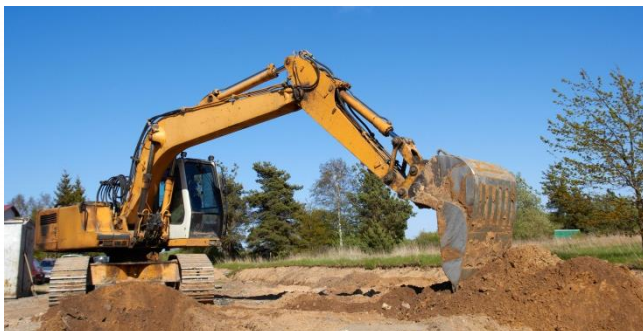
Examples of terms in a permission

"Establish ventilation below the floor to remove toxic vapour from the contaminated soil"



"Supply with 0,5 meters uncontaminated soil or establish tiles upon the soil"

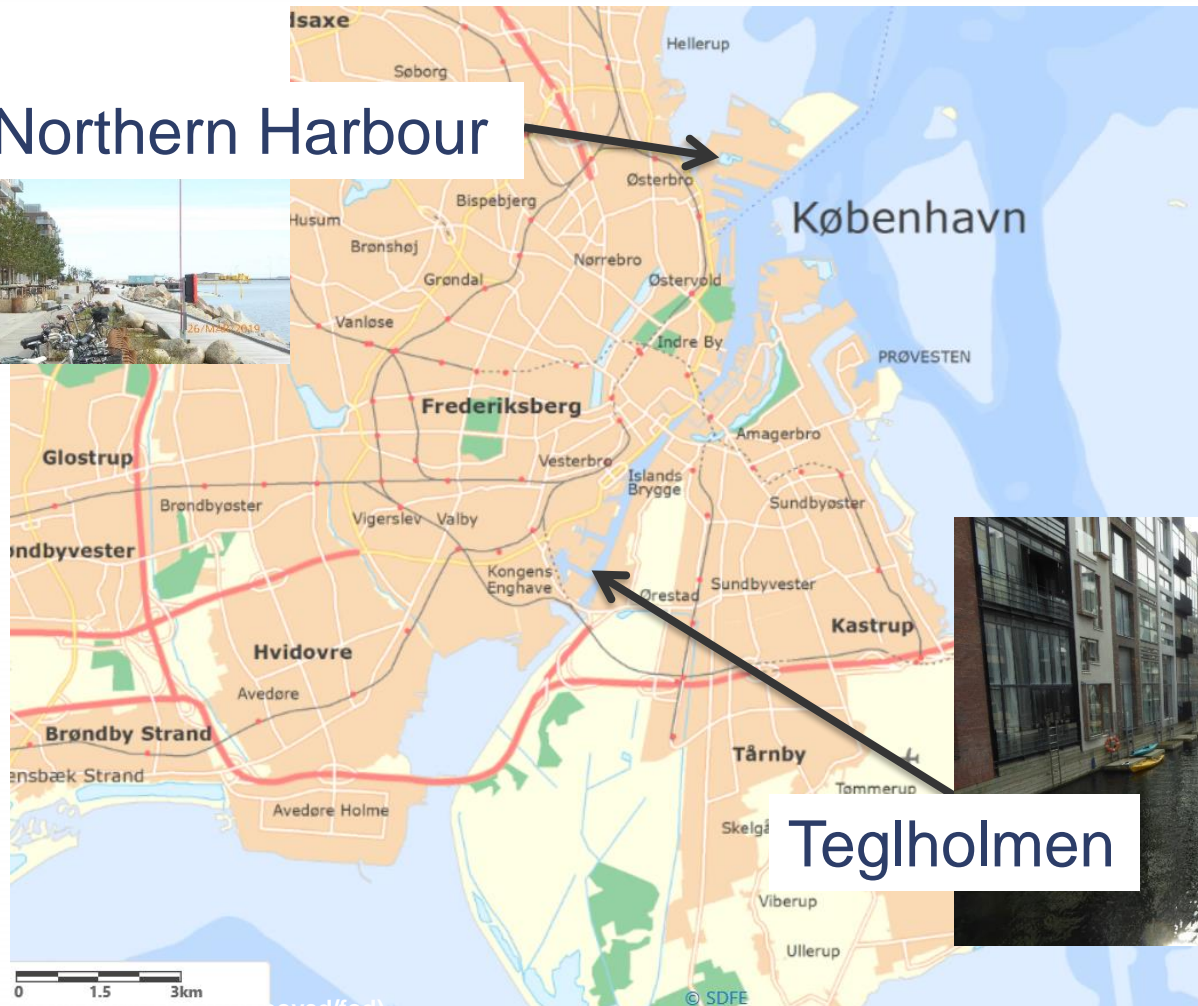
Active projects on a contaminated sites



The central part of Copenhagen

The central of Copenhagen

Northern Harbour



Teglholmen

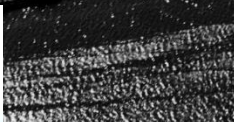
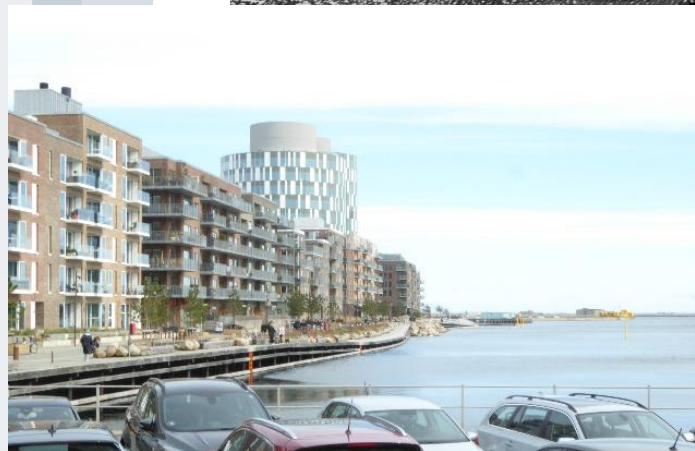


Urban development on a contaminated site

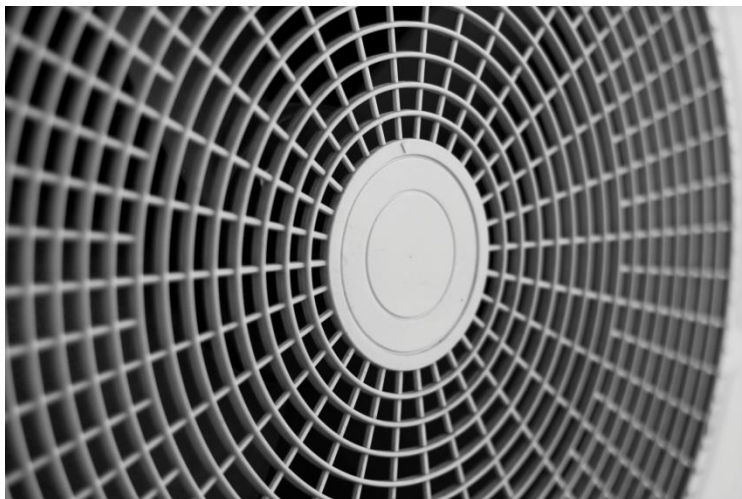
Teglholmen



An example on North Harbour 1940 vs 2019



When it is not possible to clean up



- Further investigations
 - Risk assesment
 - Sketch of ventilation under the floor
 - Monitoring
- ↓
- Change ventilation type
- ↓
- Site remains registrated as a contaminated site

What are the challenges?

- Limitation of the legislation
- Lack of time
- Insufficient surveys
- The municipality is also sometimes the constructor



What have I told you?



Pre-
investigation

Application

Collaboration

Permission
with terms



The Capital Region of Denmark

REGION

Thank you for listening

Any questions?

5th April 2019

Heidi Uttenthal Bay, Environmental Engineer

