

# **Legal perspectives on flood protection management**

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# Content:

Lucrative and defensive operations

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protection zones

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## Lucrative water operations

Using water for profitable purposes, for example

- Building dams and other structures in water
- Digging and cleansing for better use of water
- Diversion of surface water for profitable use
- Diversion or recharge of ground water
- Other measures that alter the depth or position of the water

# Defensive water operations

Getting rid of excess water or protecting against water.

Legal term: Land drainage

Definition: Measures to **drain land**, ..., or measures to **lower or empty a water area** or to **provide protection against water**, where the **purpose** is to **increase permanently** the **suitability of a property** for a certain purpose.

## Specific rules for land drainage operations

The Environmental Code:

The general exemption rule for water operation permits (permit not required if public or private interests are manifestly not harmed) does not apply to land drainage. **Permit is always required.**

**Land drainage is prohibited in southern Sweden.**

Operation allowance here needs grant of exemption from the prohibition followed by permit.

# Ownership of land drainage structures

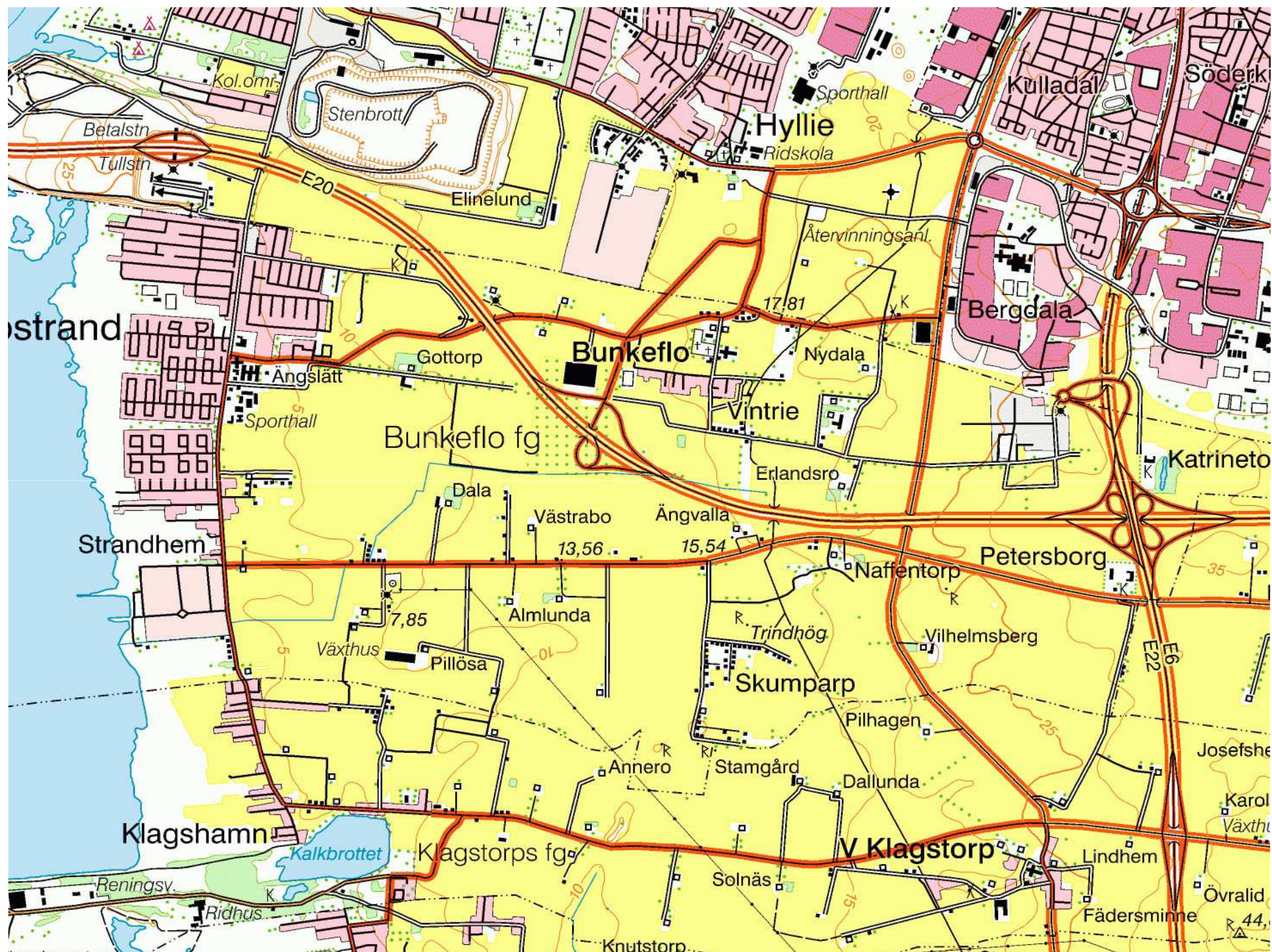
Land drainage structures, ditches and dykes, are traditionally owned by joint property societies. Members are those landowners having advantage of the structure.

Defensive water structures in the open landscape are typically affecting several landowners, all of them forced into the collaboration of the property society.

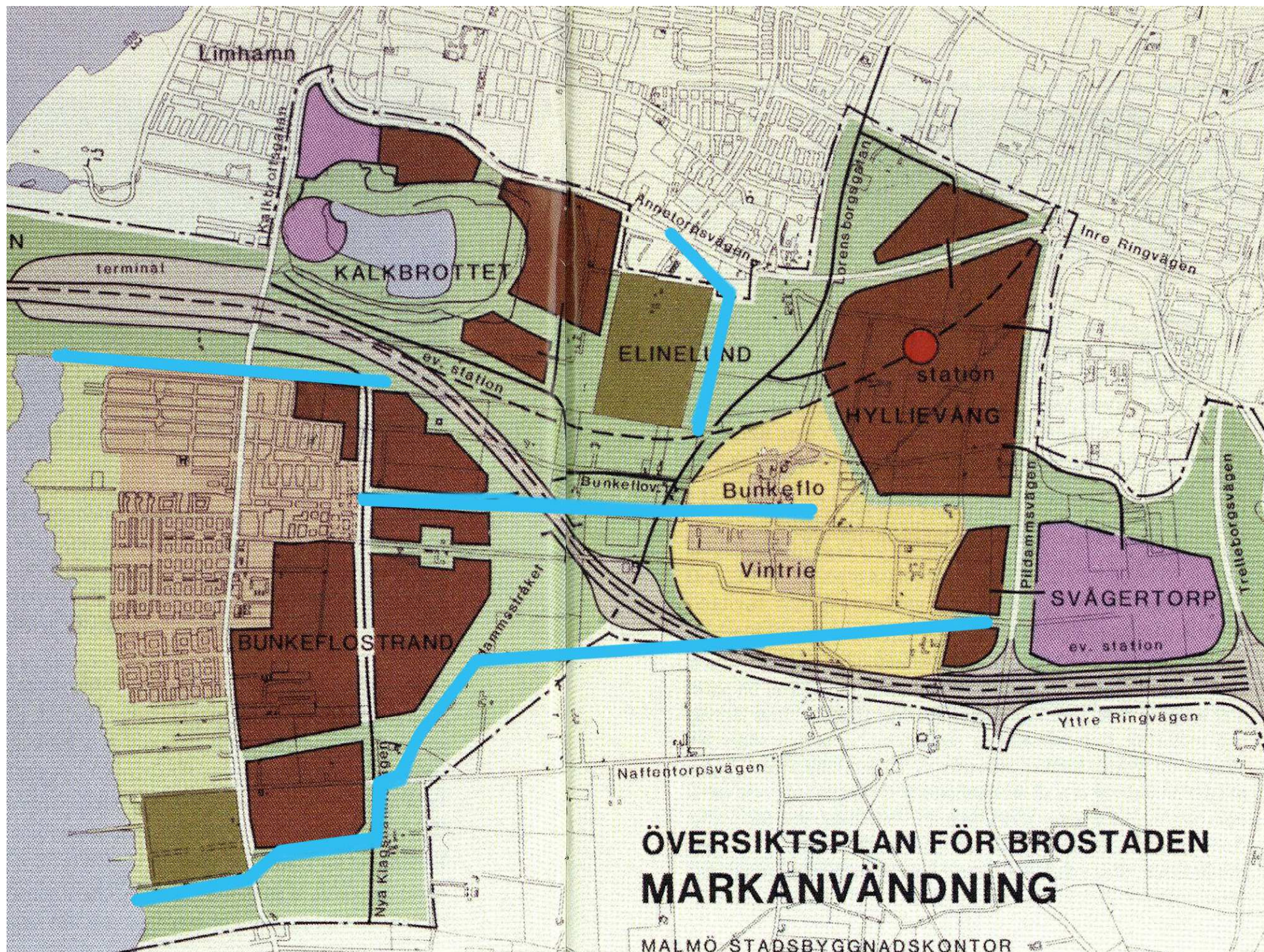
# The owner's obligations

Operation and maintenance of the structure in such a way as to prevent damage being caused to public or private interests by changes in water conditions.

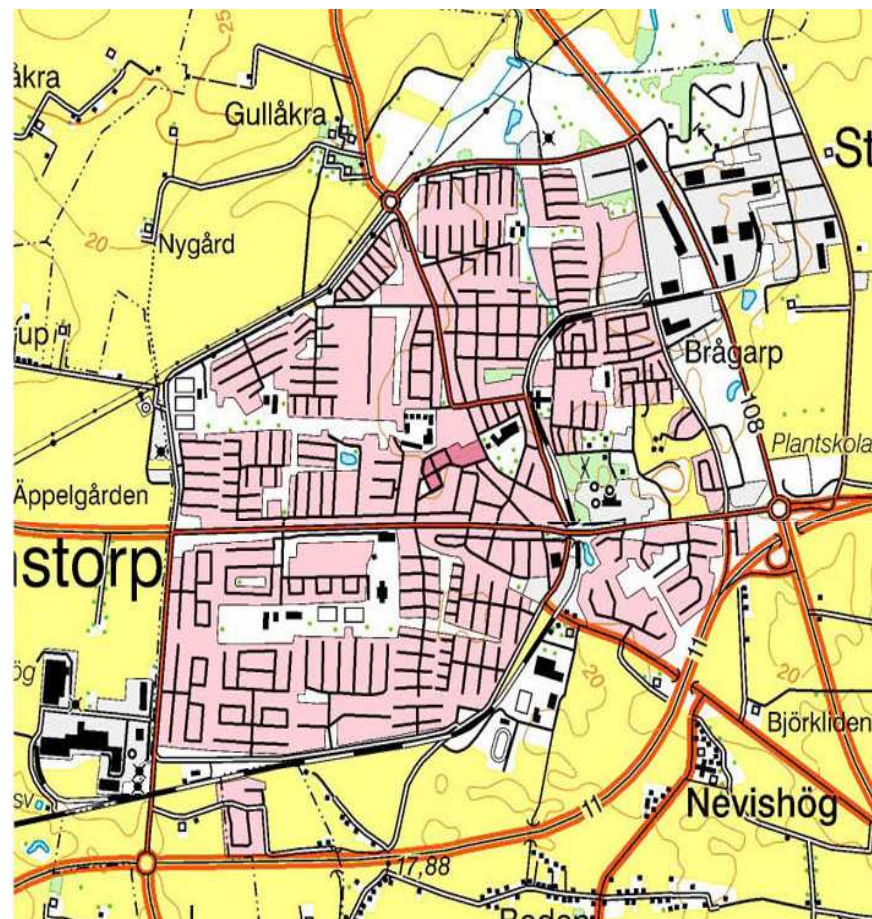
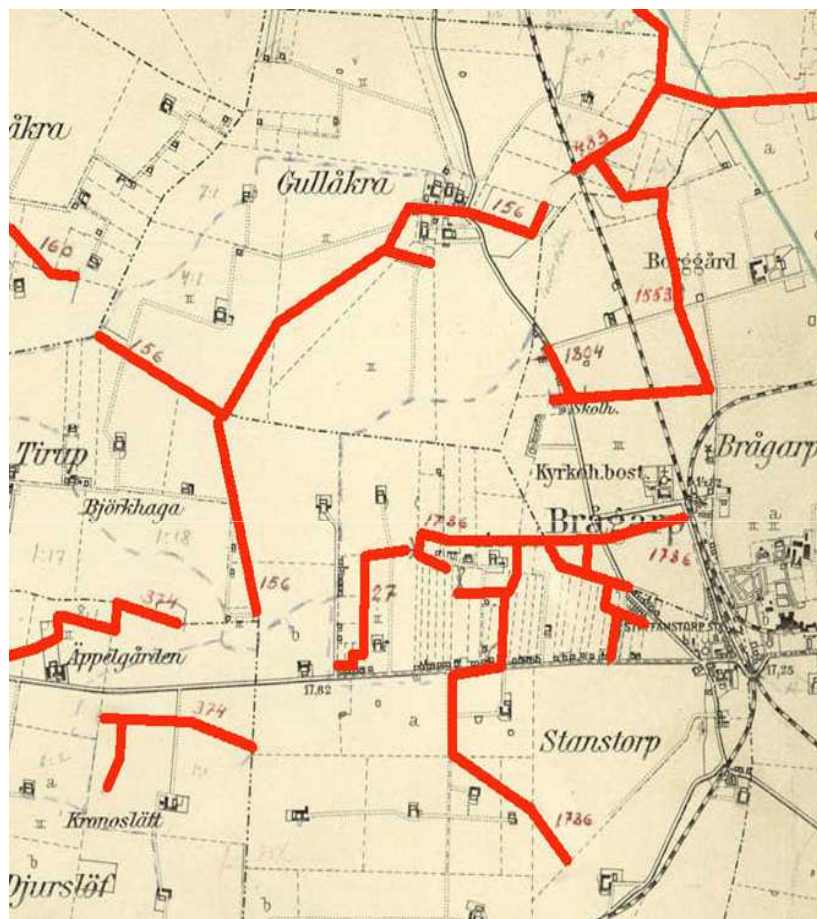












# Storm water connected to drainage structures

Only when the advantage is substantial compared to own discharge system.

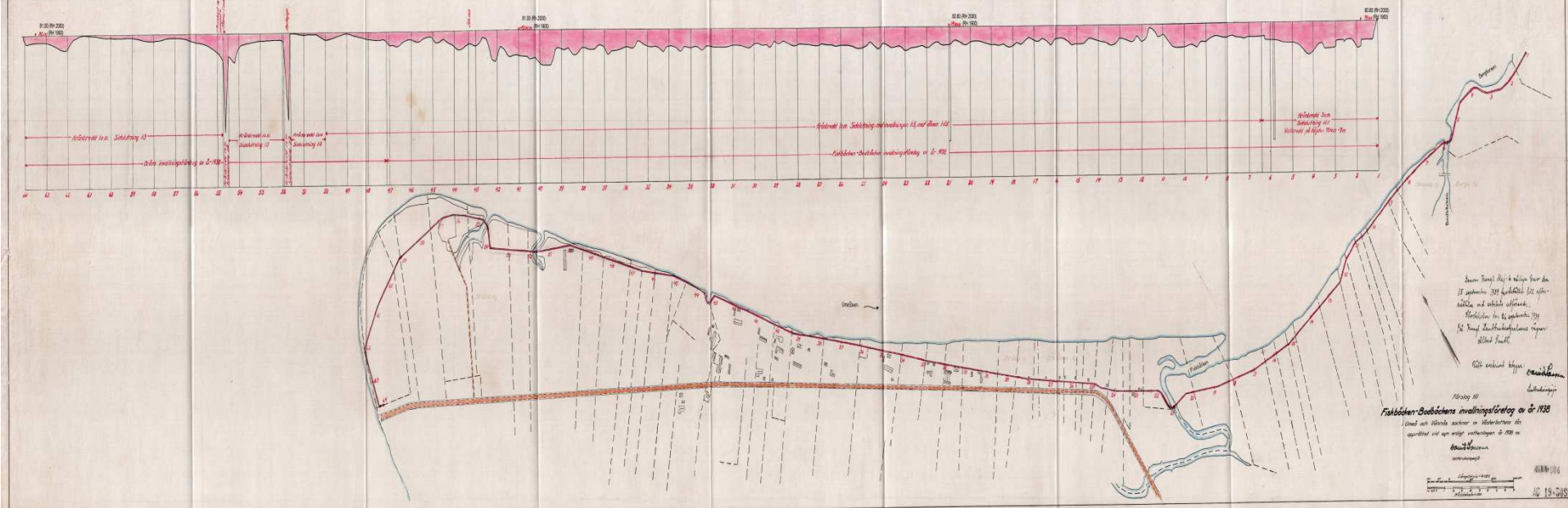
## Conditions:

- Natural way for the water
- “Clean” water
- Flow adjusted to natural runoff, or system capacity adjusted to increased flow
- Rare occasion?

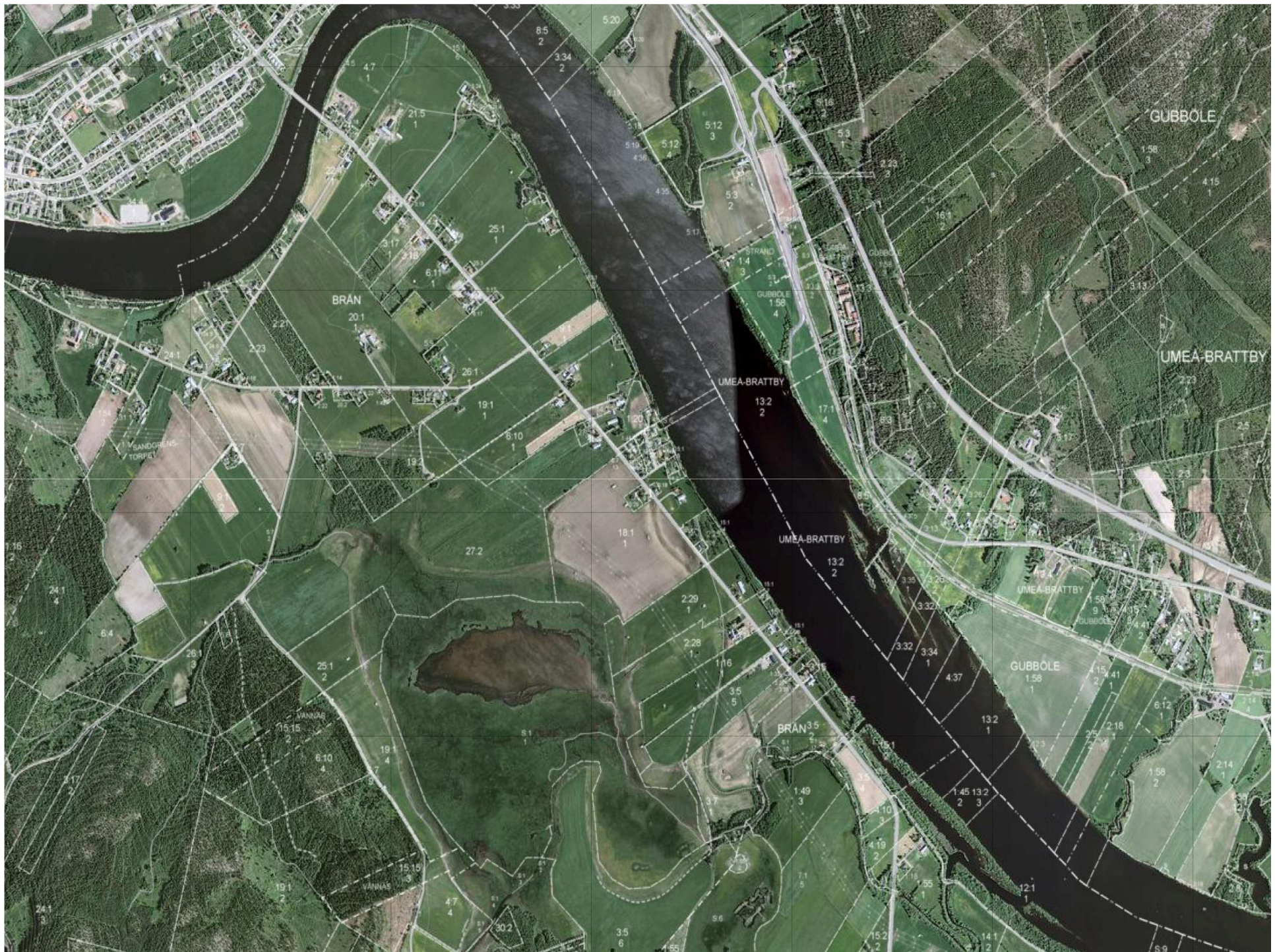














# Who is responsible for re-examination?

System owner – incentive, but prevented by cost rule

Municipality – some incentive, but prevented by equality and legal principles

Traffic authorities – no incentive except morally

County authorities – moral incentive but prevented by environmental concerns

State authorities – moral incentive but prevented by politics and slow processes

# Adaption to climate change

May I as system owner for my own needs adjust my drainage system or my flood protection structures to larger flows and higher water levels?

Yes, but only for detailed drainage in agriculture.

Other detailed drainage and all main drainage require grants of exemption where applicable, and new permits.

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Do I as system owner have to adjust my system for the cause of other parties?

No, but I have to maintain the original system.

Can I as external interested party adjust the system to my needs?

Yes, sometimes in agreement with the owner or else after a re-examination process. Disposition is required.