

Mobilising all players for prevention



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If you can plan for it –why worry?

- Raising temperature and increasing rainfall, storms
- Melting ice and increasing sea level, landslide and erosion
- Building material is affected and destroyed



Background-the Swedish planning system

- Three levels
- Strong local authority
- Democracy and participation



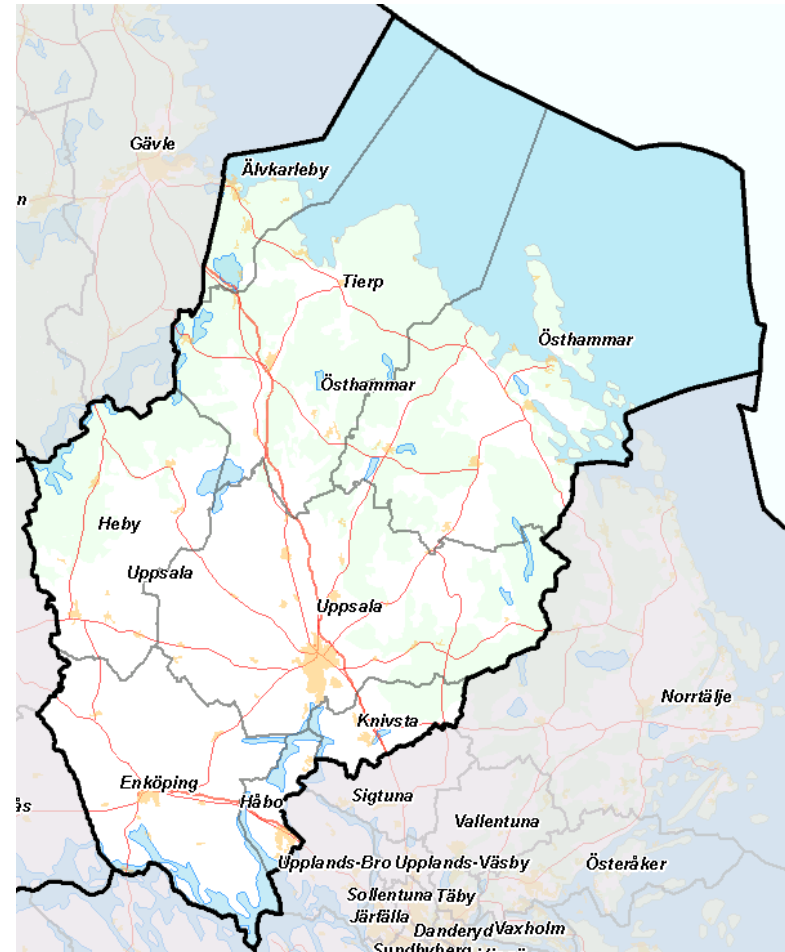
Level of Authorities

- The Government
- 20 Central authorities
- Laws and regulations



Level of Authorities

- 21 County Boards
- Emergency management
- Planning support



5/Namn alt projekt

2009-07-30

Level of Authorities

- 290 Local authorities
- Decides about planning and building



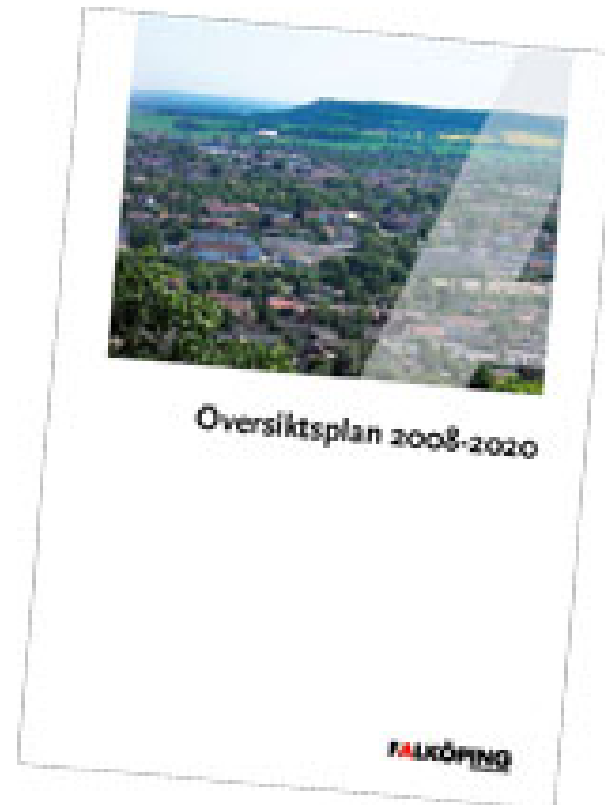
The climate doesn't know that we have different laws in different countries

- *The human memory is short*
- *Good planning helps us to keep things in mind*



Levels of Planning

- Overview- plan



Levels of Planning

- City-plan



Levels of Planning

- Building permits



10/Namn alt projekt

2009-07-30

The storm "Gudrun" 2005

- Electrical security
- Cooperation between authorities
- Information

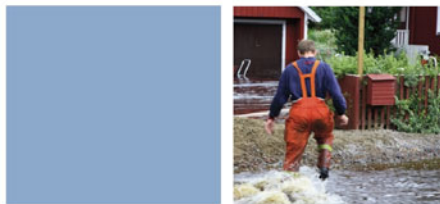


Boverket has produced a report about how to plan for the changes in climate



Bygg klimatsäkert

Anpassning av planering och byggande

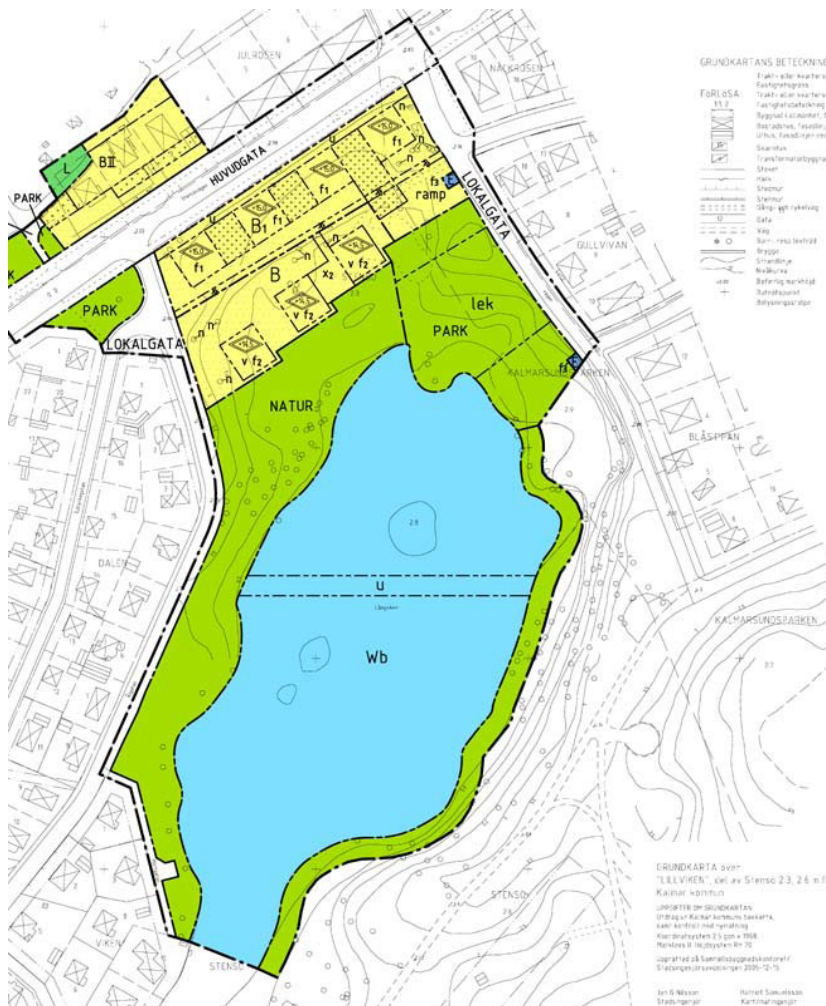


Planering
och byggande
i praktiken

12/Namn alt projekt

2009-07-30

In the planning system



- The Swedish building regulations best for new exploitation
- The builder is responsible
- In existing structures completed with other laws.
- Build new houses in an area that can be flooded.

In the building

- **Protection in new buildings**
- Use ground floor for carparking
- Cellar water-proof without windows.
- Open foundation which can be overflowed
- "Green" roofs for rainwater.

- **Protection in existing buildings**
- Toilets with stop/reverse valve
- Cellar windows can be plugged
- Doors with flood-protection
- Drain and sewer with stop/reverse valve



Do you know what your neighbours do?

- Many good examples
- Geology landslide and flooding in Umeå.
- Secure banks in Karlstad
- Benchmarking



Ecology and life-style questions are important!!

- Less green areas
- Building near rivers and seas
- Complicated technical solutions
- Reduction of impact by ecological systems



Thank you for your attention!

