Vannets vei i landskapet

Jannes Stolte

Ex flood

- Extreme weather in small catchments;

Va

Bioforsk

Extreme weather in small catchments new method for flood protection

the ExFlood Project

funded by: NORKLIMA (Norwegian Research Council)

Exflood

- *Extreme weather in small catchments; new method for flood protection*

Problem

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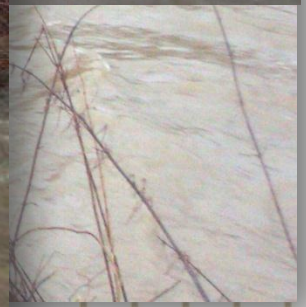
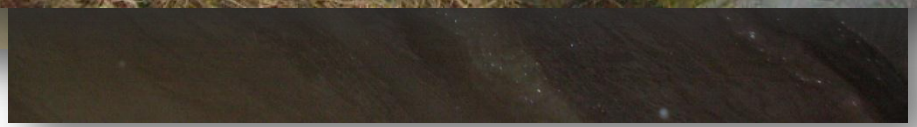
flood

- *Extreme weather in small catchments;*





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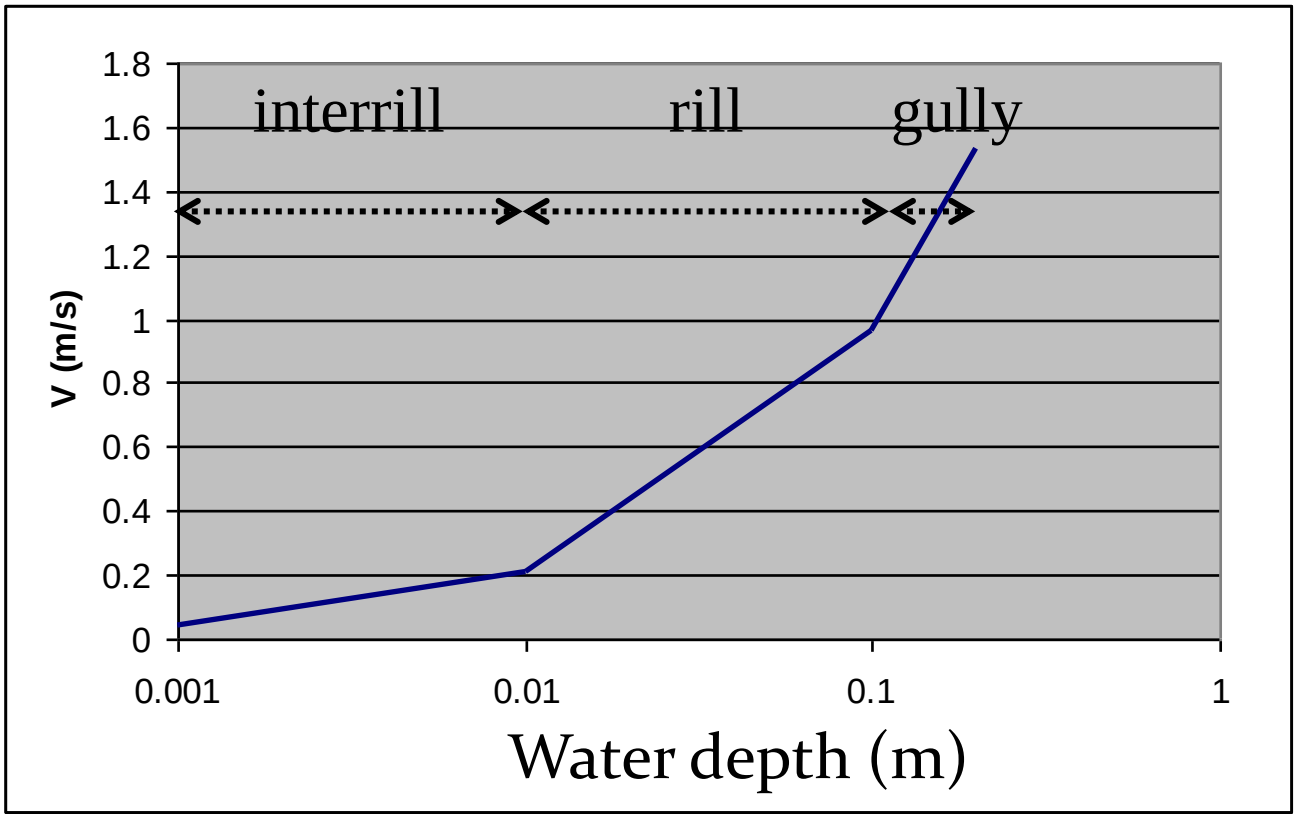
Hypothesis: Typical overland flow velocities



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Runoff during a rainstorm along wine rows (1-2 l/s)

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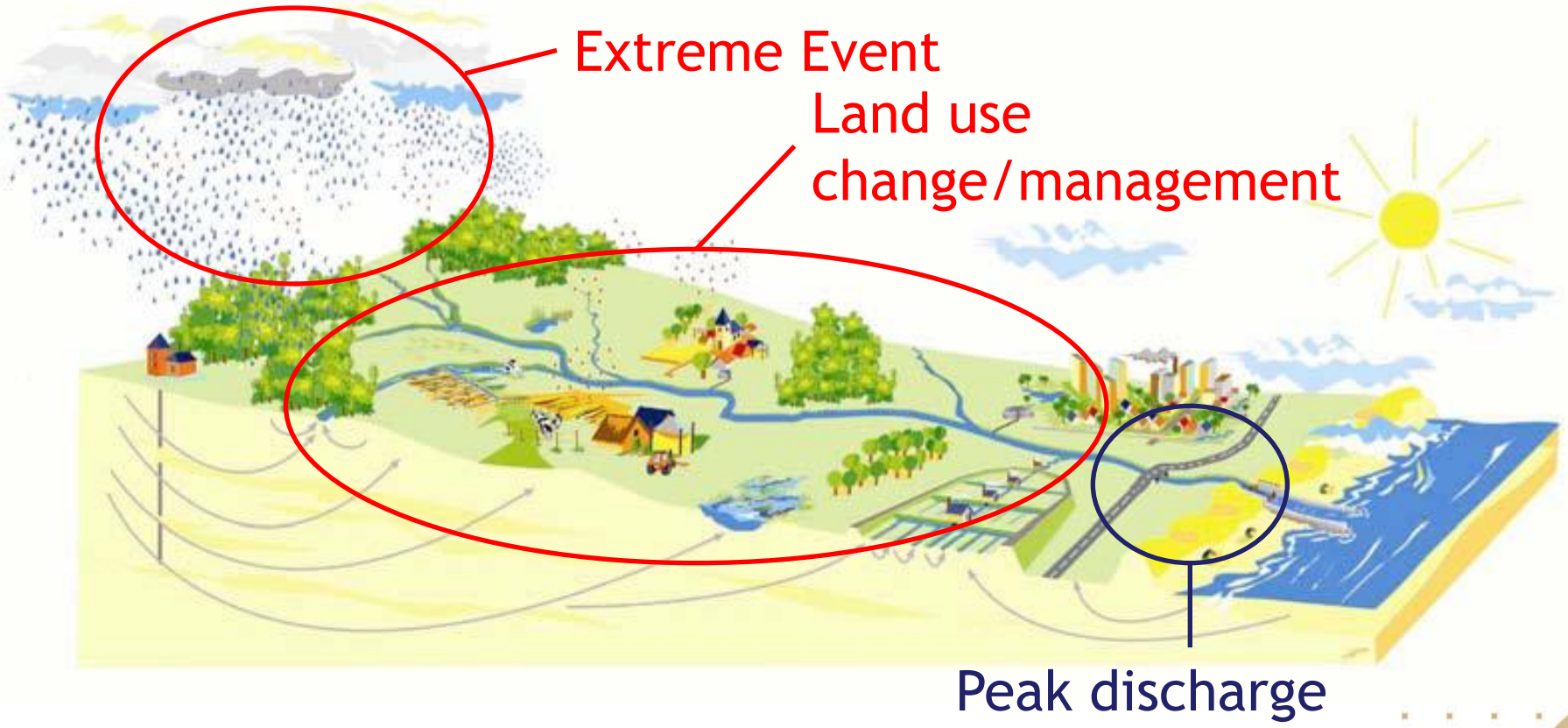
Accumulation in fields (10-100 l/s)

Accumulation in catchment (>1000 l/s)

Accumulation downstream, 100-1000 m^3/s

ExFlood Approach



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Study sites

Trondheim

Sandnes

Ås (test site)

Fredrikstad

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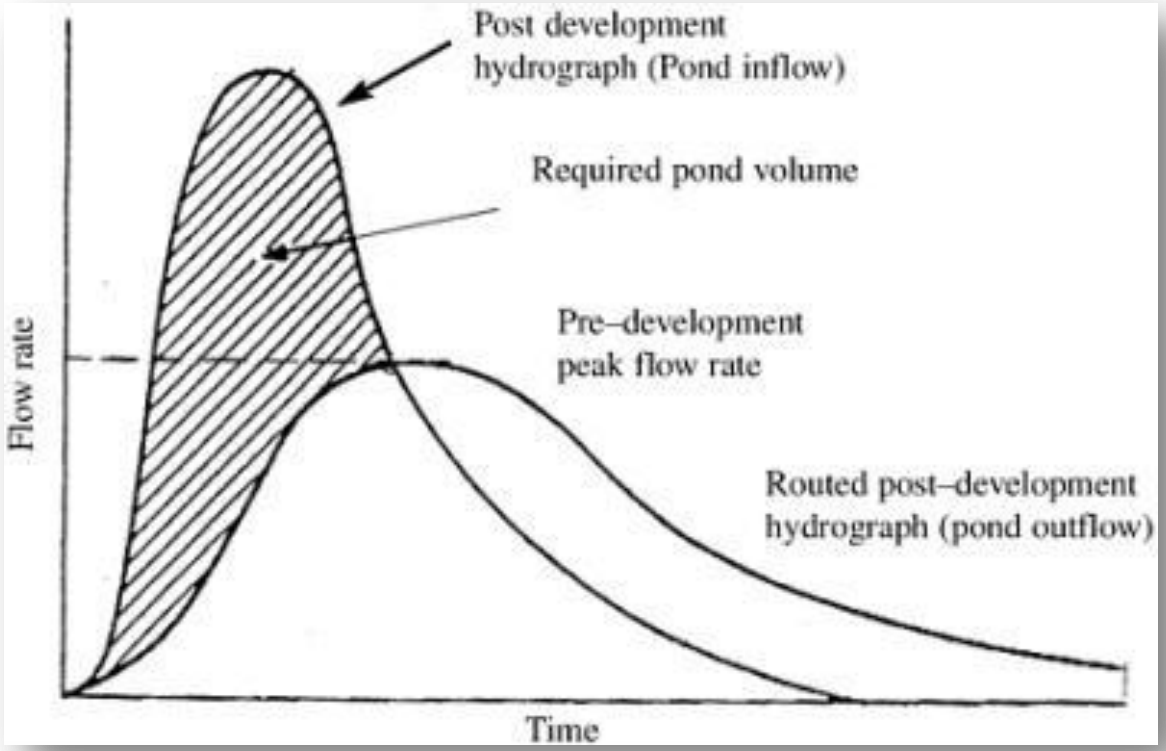
Measures in rural areas

Main focus is delay of the peak discharge



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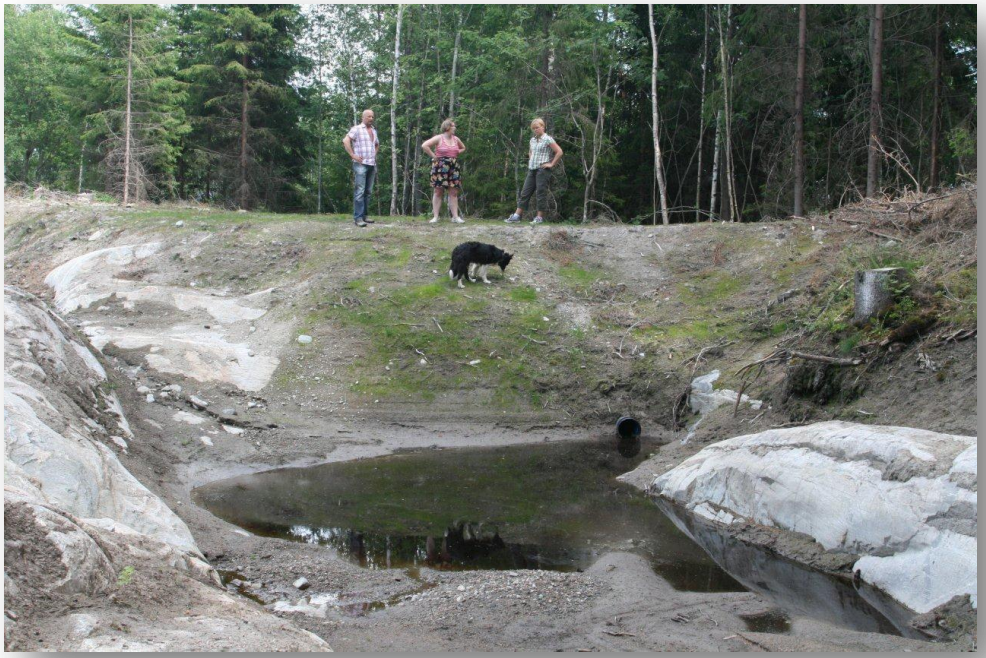
Measures in rural areas

Main focus is delay of the peak discharge:
forest areas



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Measures in rural areas

Main focus is delay of the peak discharge:
agricultural area

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Measures in r

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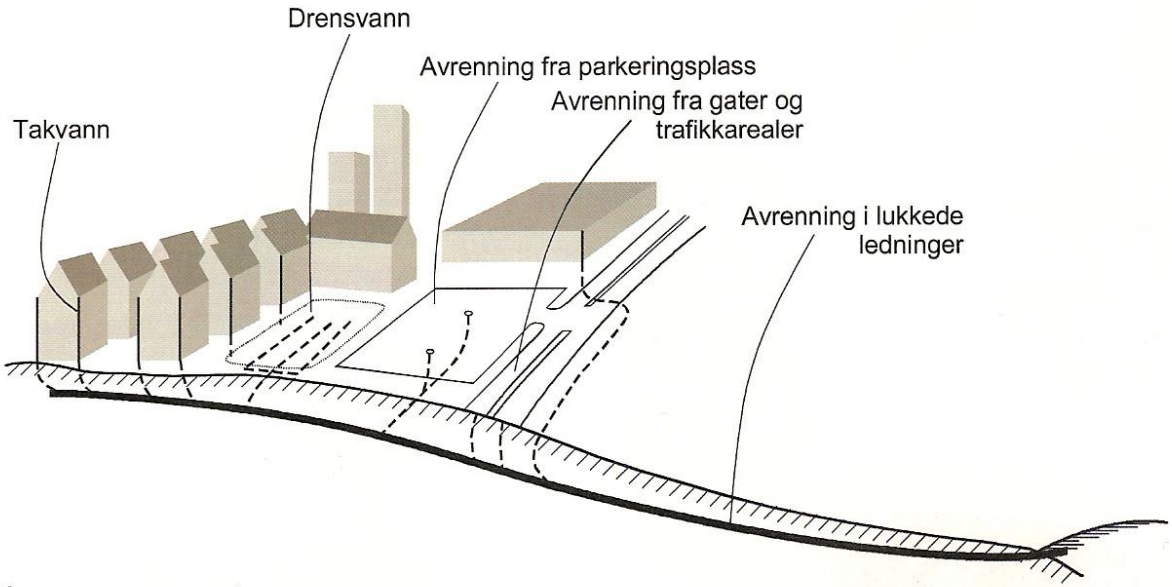
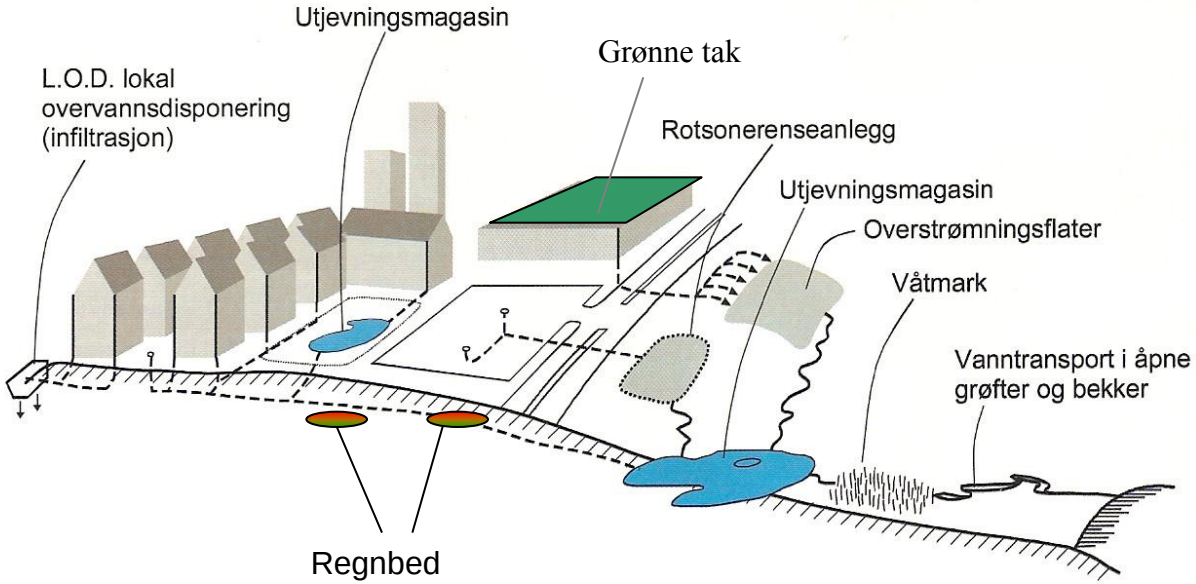
Measure

Konvensjonelt system for overvann



Åpen og lokal håndtering av overvann



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Grønne tak

Sverige

Tyskland

Mer enn 50 % av årsnedbør holdes tilbake

Hva med kaldt klima?

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Landscapearkitektur students 2011

Trondheim: Oddveig Eriksen Hovdenak

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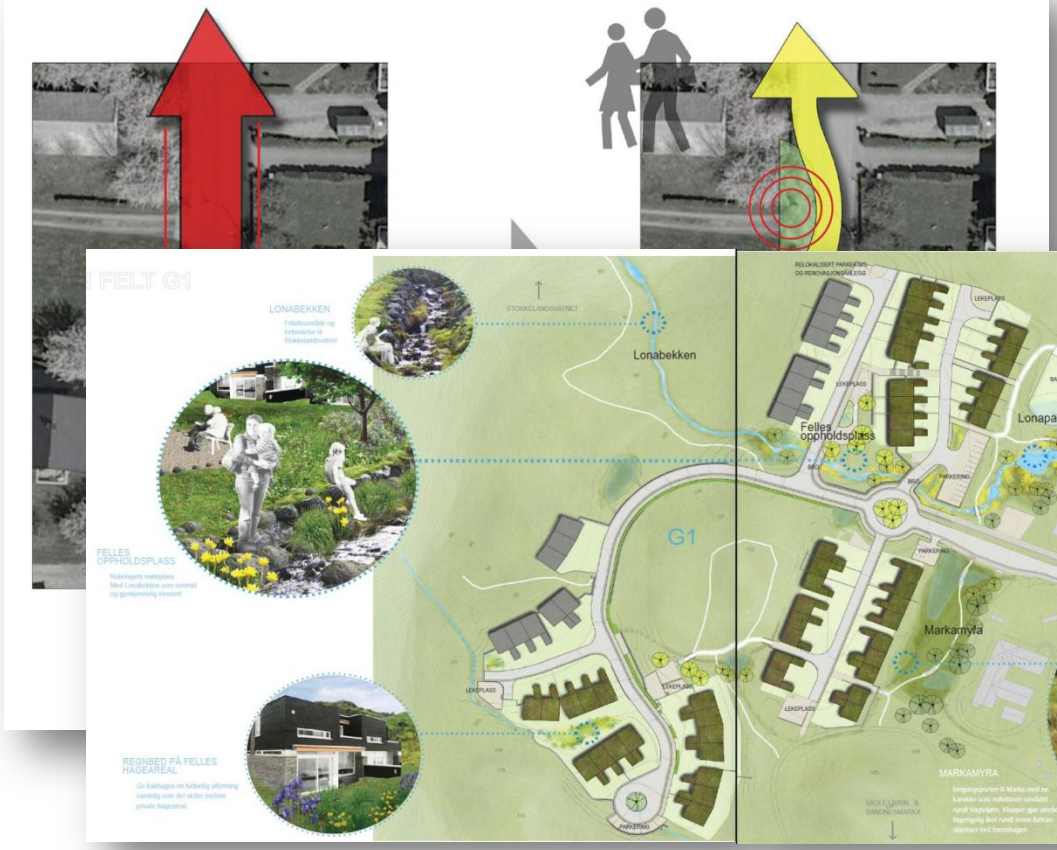

Fredrikstad: Andreas Vadum

Sandness: Katinka Kilian

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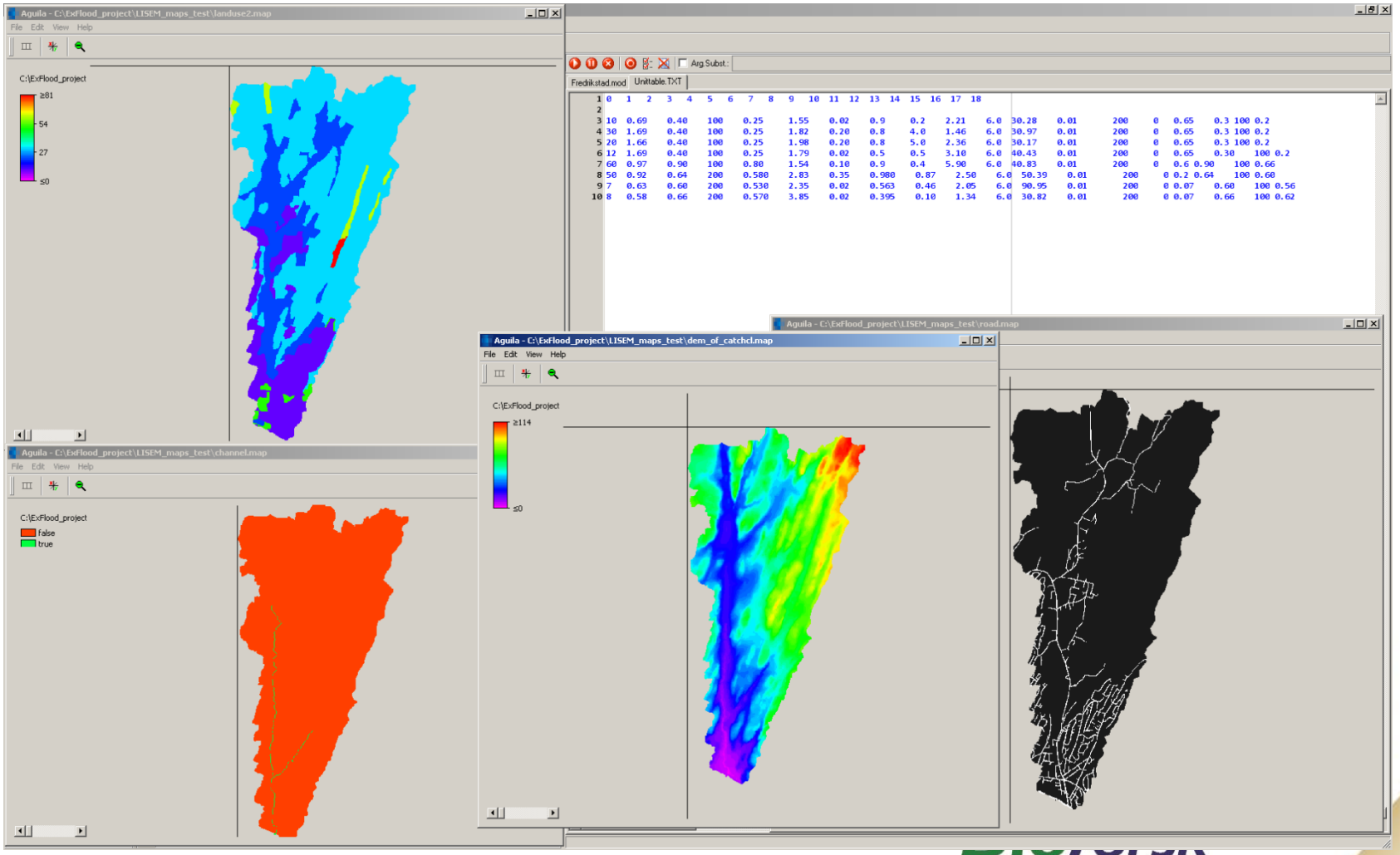
Decision tool for land use planning



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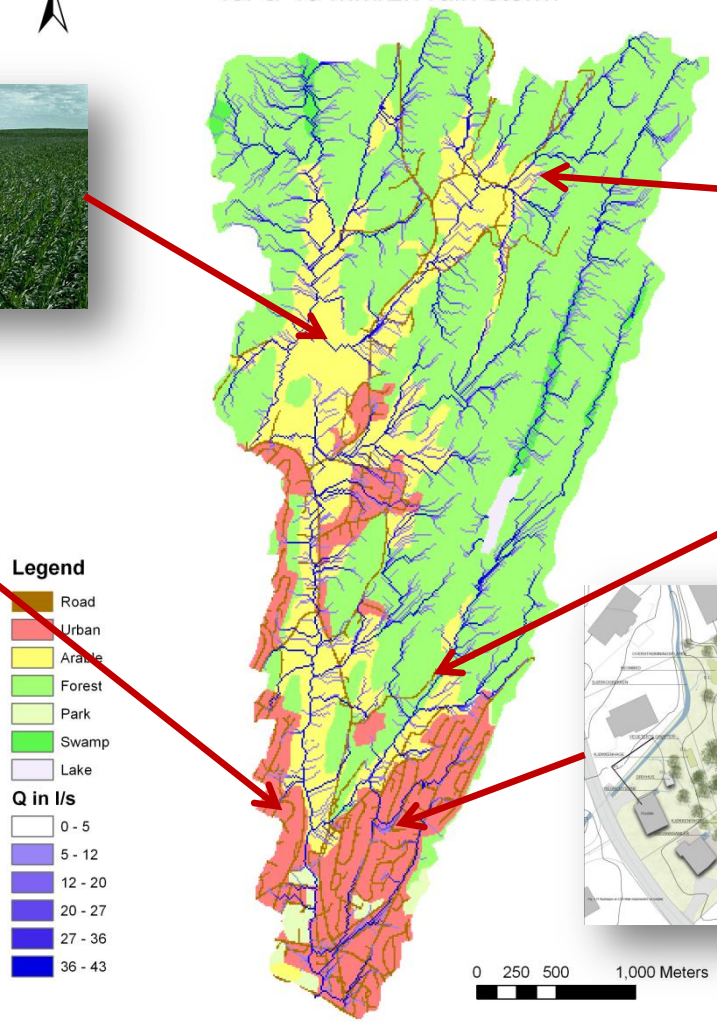
Surface runoff in the Fredrikstad-catchment
for a 40 mm/2h rain storm



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The ExFlood project contributes to:

- what kind of measures
- effectiveness of these measures
- land use planning process

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