

LIFE COAST ADAPT

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CONTENT

- Overall presentation of LIFE Coast Adapt
- Benefits and setbacks in collaborations and synergies with internal and external actors – Lomma municipality perspective
- The coordination of monitoring to understand the effects of Nature Based Solutions (NBS). Lessons learned so far.



PURPOSE – LIFE COAST ADAPT

- Test nature based solutions to achieve better resilience and climate adaptation in the coastal areas. Focus on synergies and win-win.
- Implement unique pilot or demonstration projects in the municipalities.
- Provide knowledge for future policy.



PROJECT DESIGN

Location : Skåne (7 municipalities)
 Budget: tot 45 MSEK
 Project duration: june 2018- december 2023

Coordinating partner
 Region Skåne

Associated partners

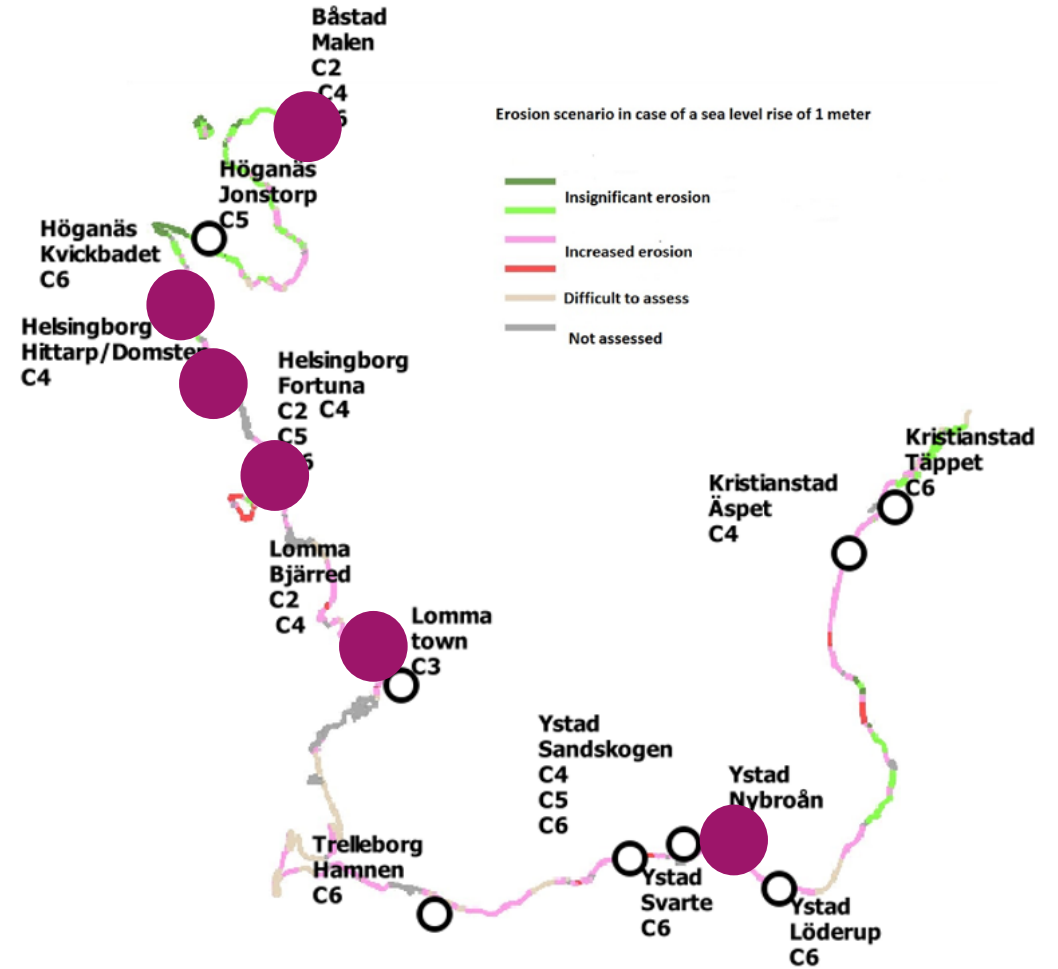
Helsingborg municipality	Lund university
Lomma municipality	Skåne Association of Local authorities
Ystad municipality	County Administrative Board



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● Monitoring of NBS 2022-2023

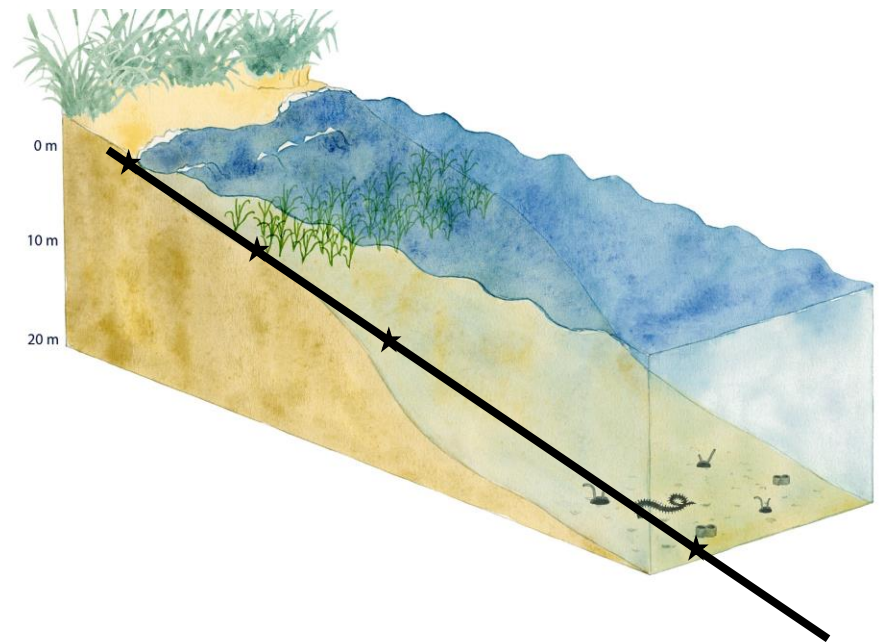


NATURE BASED SOLUTIONS

Preserve, Strengthen, Restore, Remove

- Removal of hard structures
- Planting eelgrass
- Beach nourishment
- Establish dunes
- Restoration of habitats and dunes
- Removal of invasive species
- Construct coastal wetland ←

Wide approach; from land to sea



NBS EXAMPLES

Ystad municipality

Measure = establish dunes

Ystad sandskog



Helsingborg municipality Fortuna

Before measure

After measure



Measure = removal of hard structures, shoreface and beach nourishment combined with dune formation

Helsingborg municipality Grå Läge - 2 views

Before measure



After measure

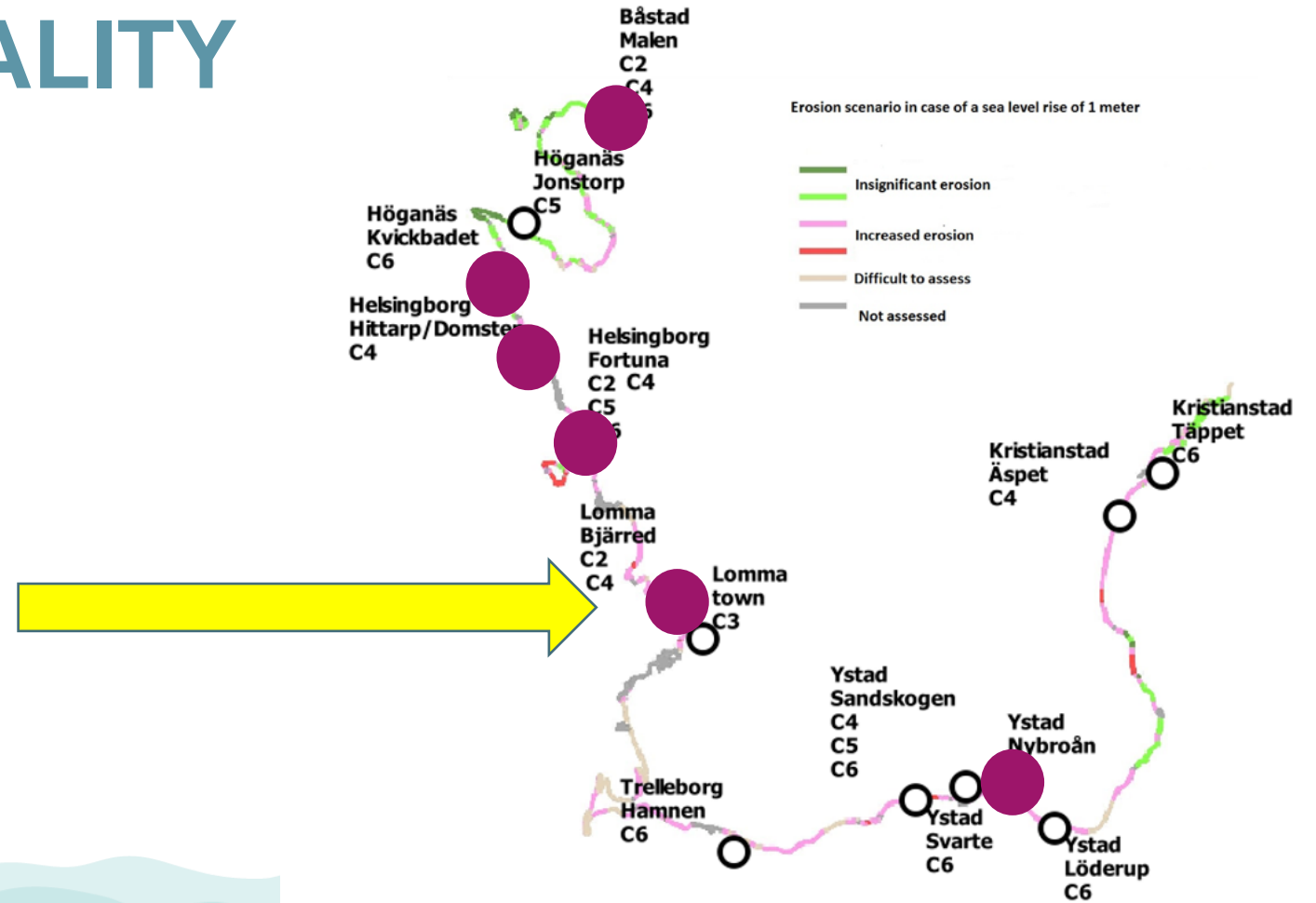


Measure = removal of invasive species
- *Rosa rugosa* (vresros in Swedish)



LOMMA MUNICIPALITY

Overview all Actions and locations



LOMMA MUNICIPALITY



LOMMA MUNICIPALITY





Measures = removal of invasive species, beach nourishment combined with dune formation

LOMMA AFTER STORM MALIK

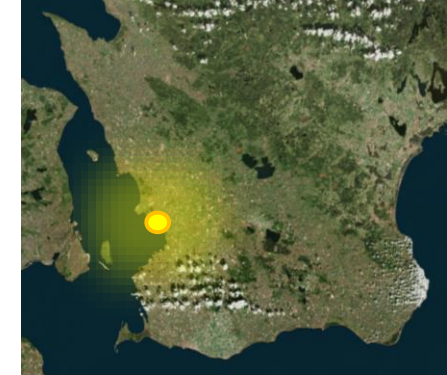


Foto: Lomma kommun



Foto: Lomma kommun

MONITORING NBS

- sediment erosion (land and sea)
- dune growth or dune loss
- inventory of flora and fauna (land and sea)
- effects on wave energy from eelgrass meadows



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MONITORING SEDIMENT EROSION

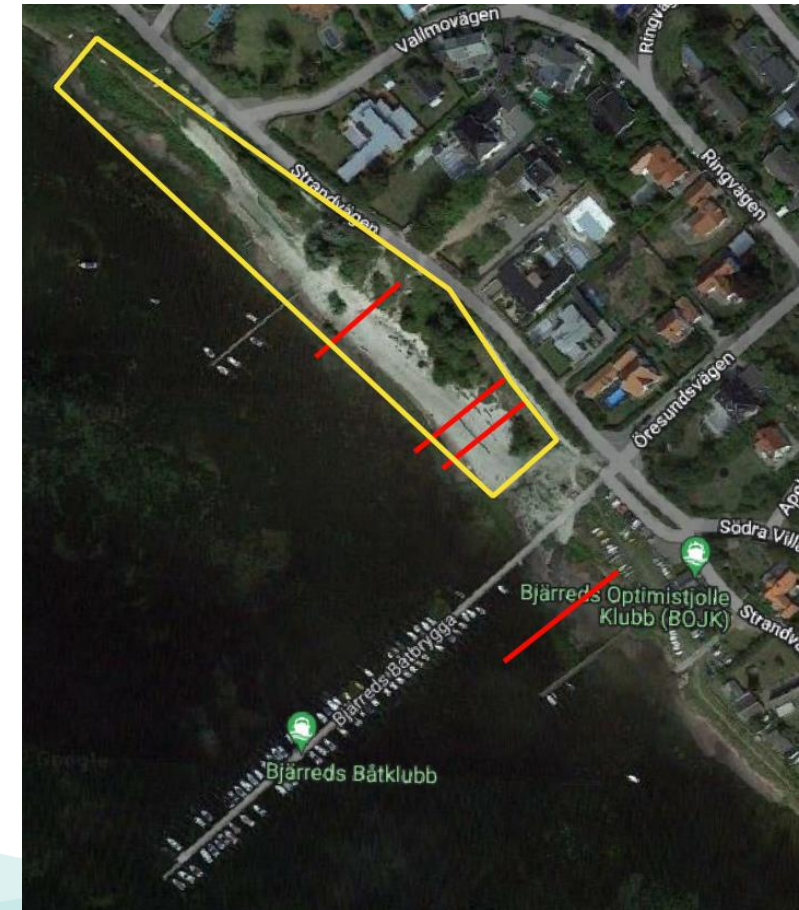
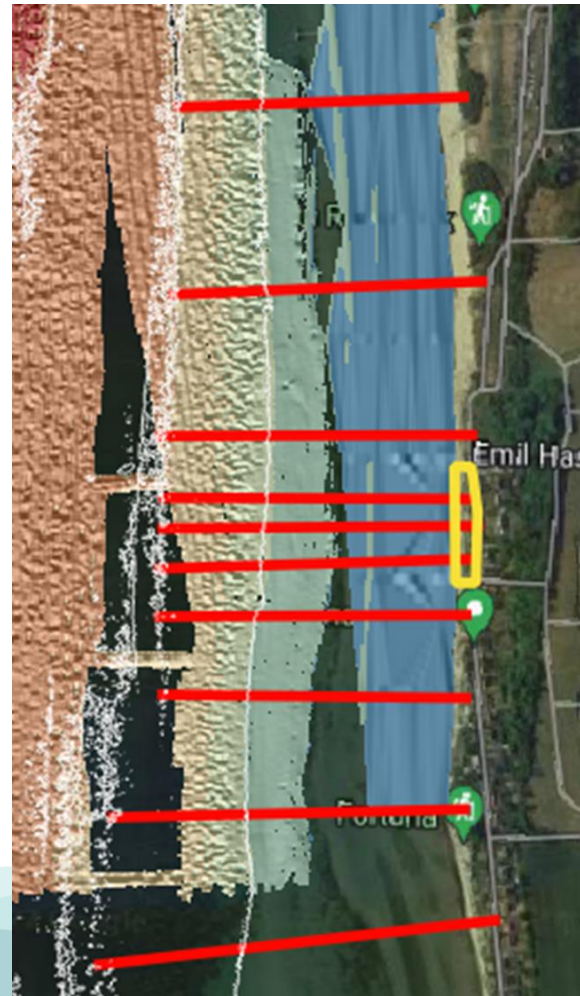
Consultant

- Before and after NBS monitoring
- Drones, photos
- Ecolod m...



MONITORING SEDIMENT EROSION

- Employed coastal engineers. Gain knowledge
- Bought equipment (external money from Region Skåne) Earmarked until 2032 (After LIFE)
- Monitoring fewer locations but much more intensive
 - Transects
 - Drones photogrammetry
 - Every second month
 - Extreme weather



MONITORING USING TRANSECTS

RTK-GPS – land and shallow sea monitoring



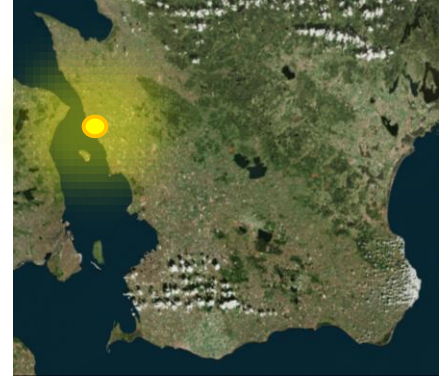
USV – unmanned surface vehicle



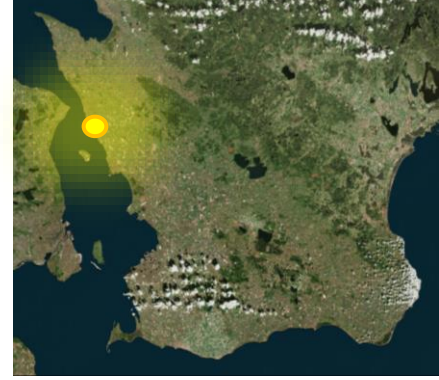
HELSINGBORG – STORM MALIK

Implemented NBS = beach nourishment, dune formation, fence (june 2021)

During the storm Malik



HELSINGBORG – STORM MALIK



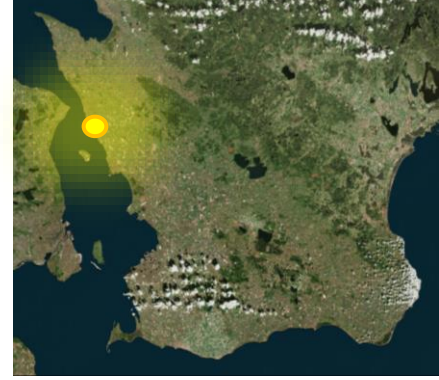
February 2022



February 2022



HELSINGBORG – AFTER MALIK



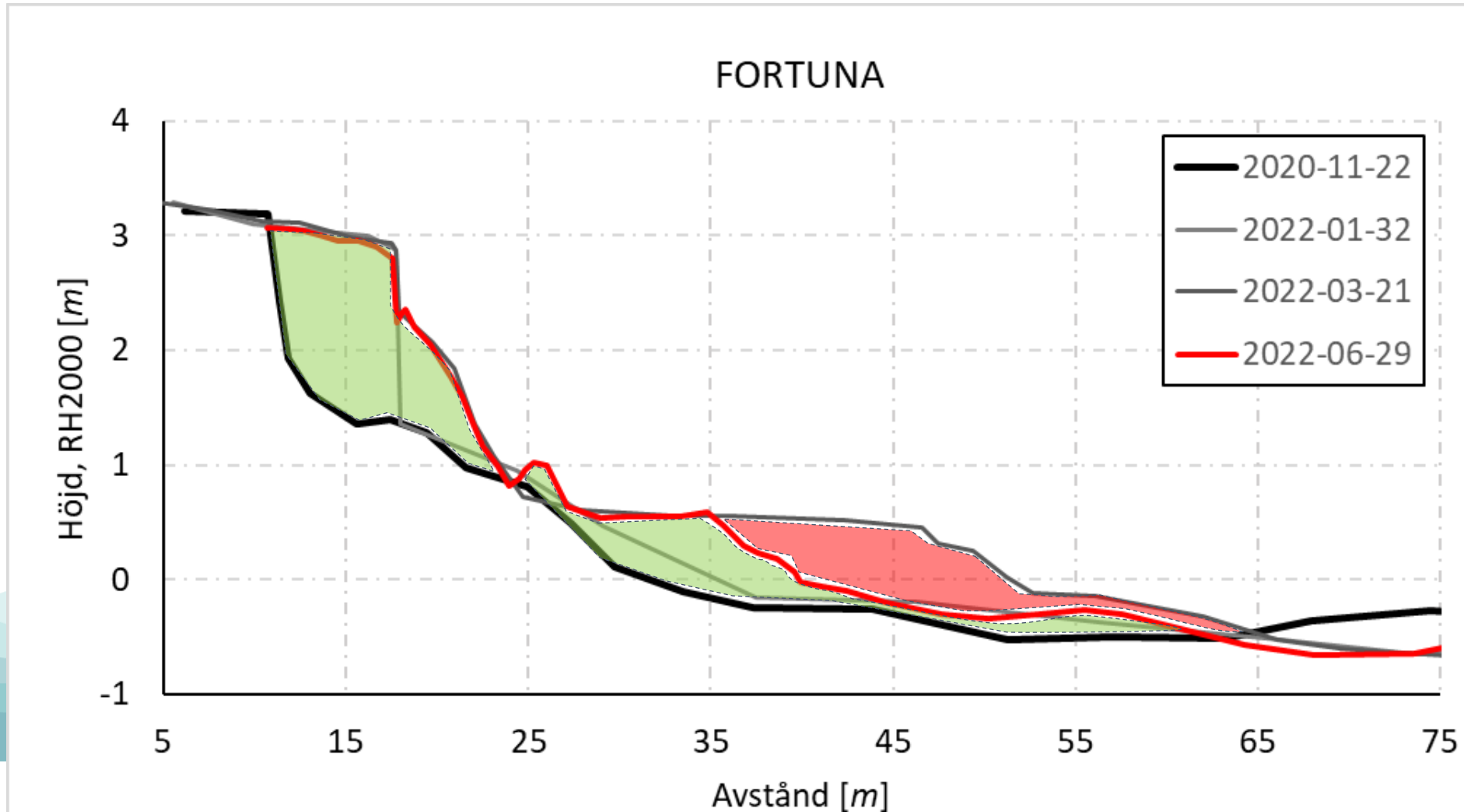
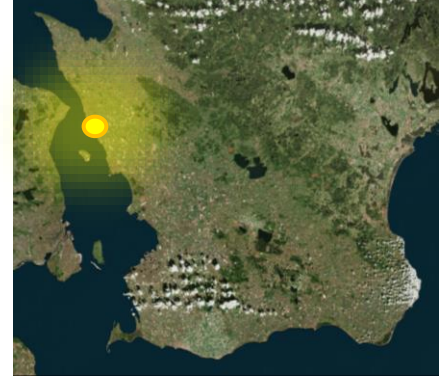
march 2022



may 2022



PROFILE -FORTUNA



LEARNED LESSONS (SO FAR)

- Still lack of knowledge how coastal areas should be monitored – all techniques available have problems combined with high uncertainties.
- High risk using consultants and sub-consultant.
- Lack of knowledge how to process data – difficult to communicate if you are not an expert.