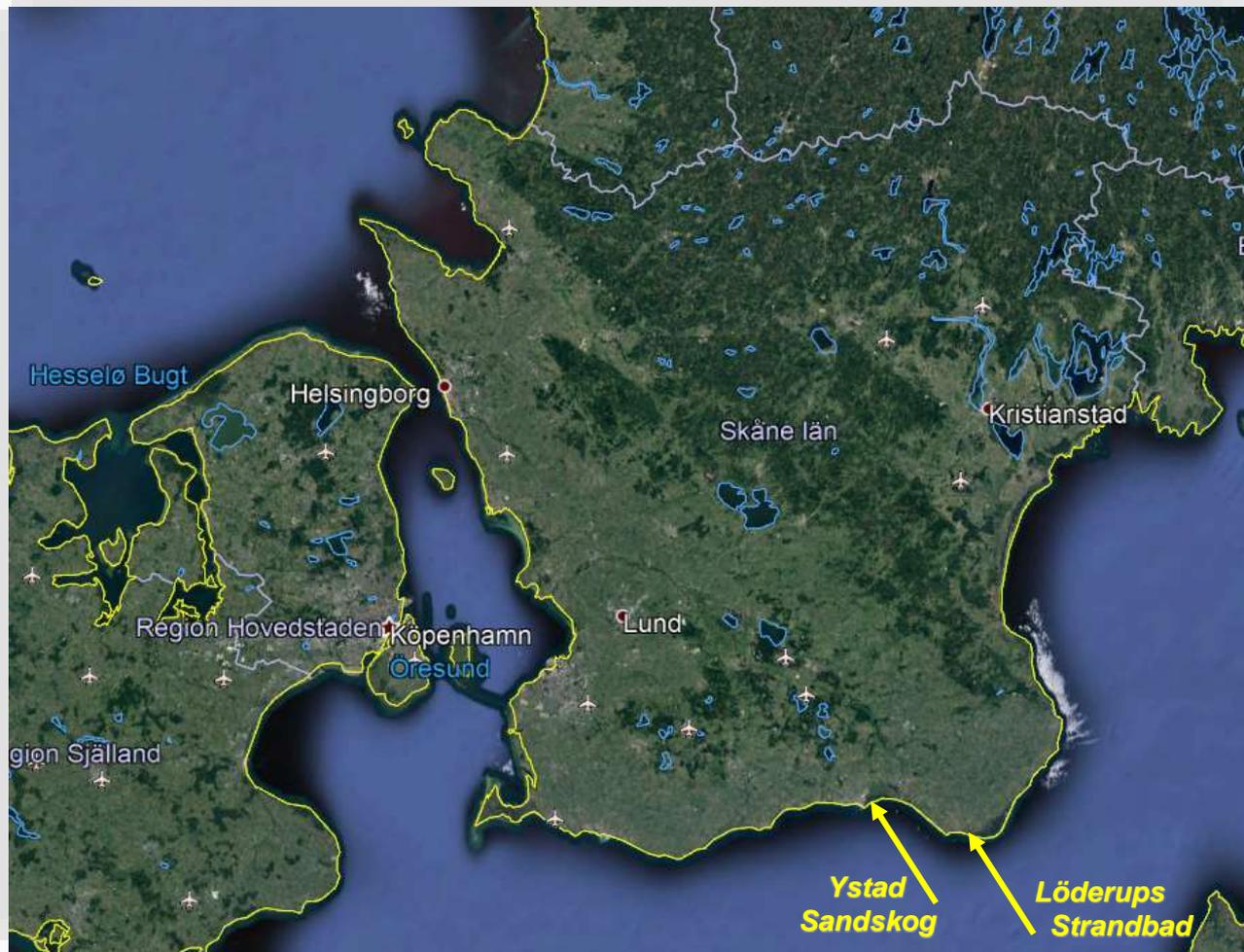






YSTAD SANDSKOG – SITE DESCRIPTION



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YSTAD SANDSKOG – SITE DESCRIPTION



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YSTAD SANDSKOG – SITE DESCRIPTION



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YSTAD SANDSKOG – HISTORICAL DEVELOPMENT



1952



2007



2011



1898



1928

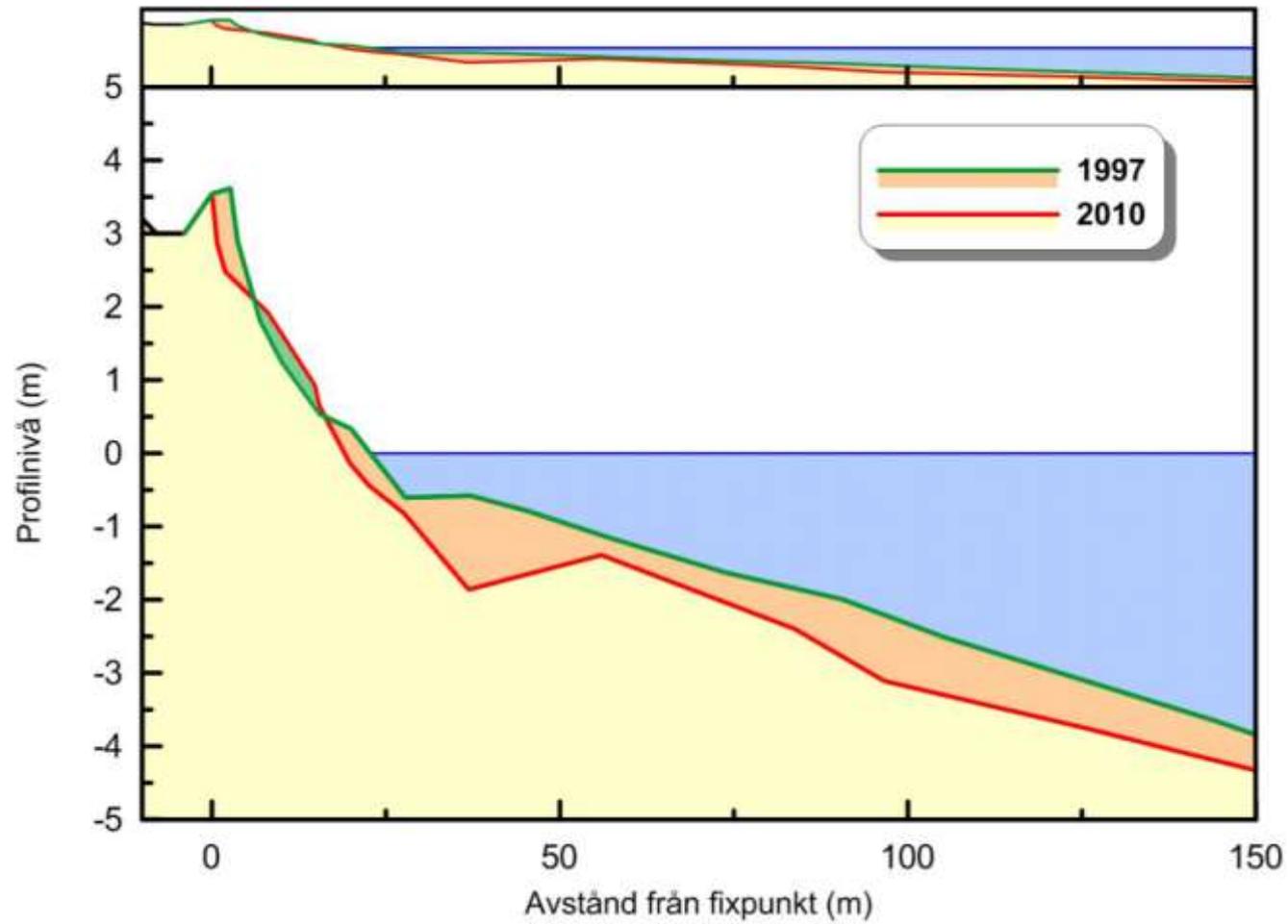


1964





TYPICAL PROFILE EVOLUTION - YSTAD



Profile monitoring 1993-





COASTAL 'INITIATIVES' - YSTAD

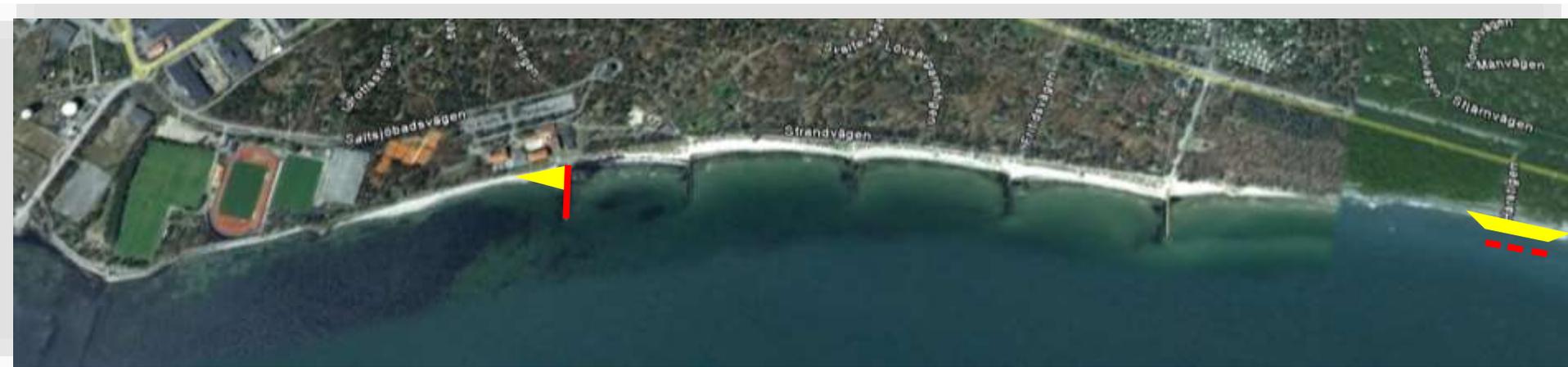
- ???? – Groins i Ystad Sandskog. Permits?
- 1970? – Seawall(s) in Löderups Strandbad
- 1986 – Coastal Conference 'Use & Protection of Sandy Beaches'
- 1987 – Coastal Action Plan against coastal erosion
- 1989 – Seminar 'Impact of Climate Change on Local & Regional Planning'
- 1993 – Profile monitoring Löderups Strandbad
- 1993 – First permit from Environmental Court for groins, seawall, detached breakwaters & **minor nourishment**
- 1994 – Formed 'Erosion Hazard Center'.
Now 22 municipalities + 2 County Adm. Boards + Regional Council + Fed. Authority + 5 Companies + Lund Univ.
- 1994 – Built 2 groins in Löderups Strandbad
- 1995 – Built 3 groins in Löderups Strandbad
- 1997 – Profile monitoring Ystad Sandskog
- 1998 – Built groin 0 in Ystad Sandskog
- 1999 – Prepared permit for **major nourishment**
- 2000? – Built 3 DBWs in Ystad Sandskog
- 2003 – Built 2 DBWs in Ystad Sandskog





COASTAL 'INITIATIVES' - YSTAD

1998-99 – Groin+fill and DBWs+fill



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LÖDERUPS STRANDBAD



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LÖDERUPS STRANDBAD

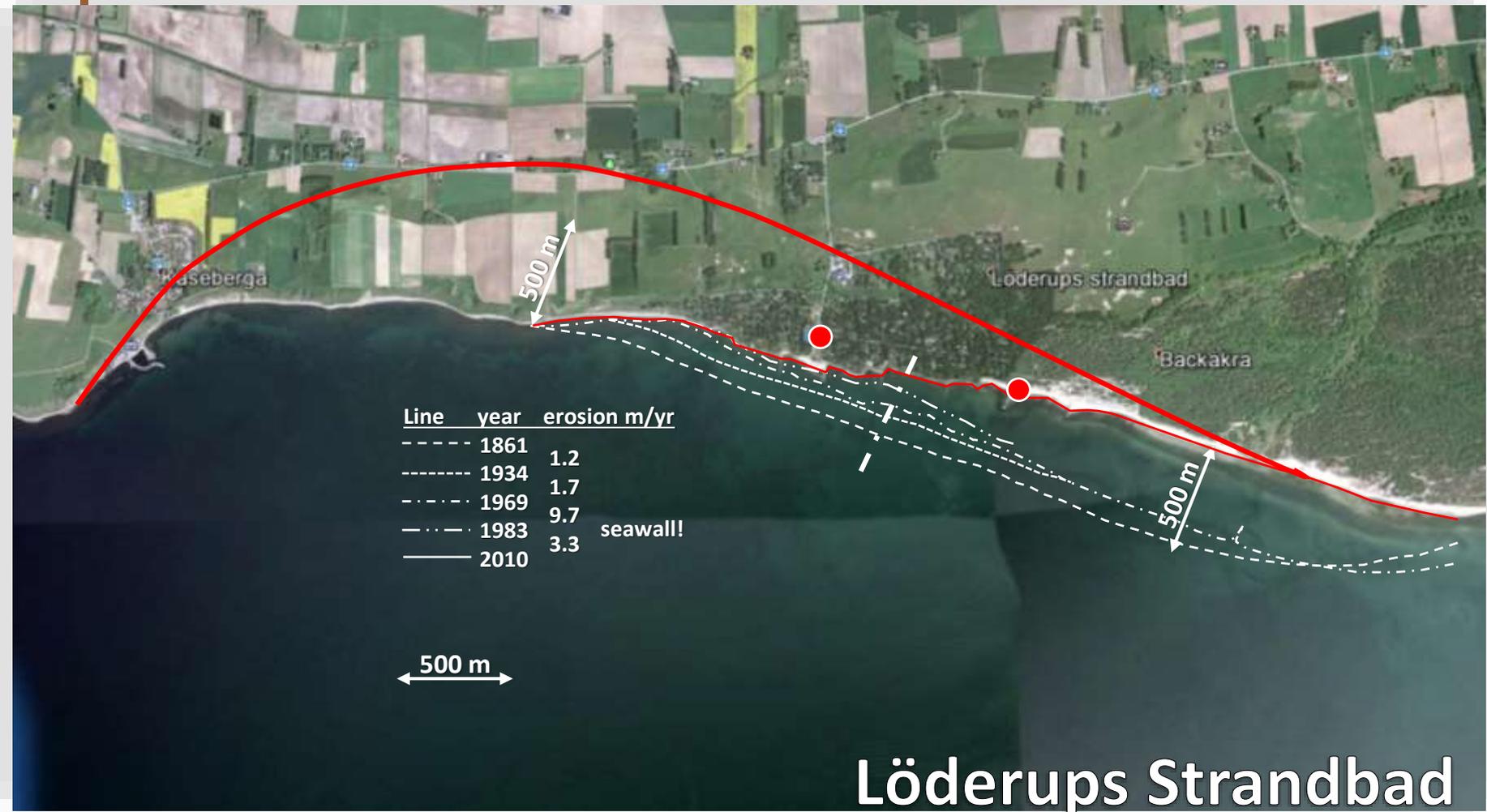


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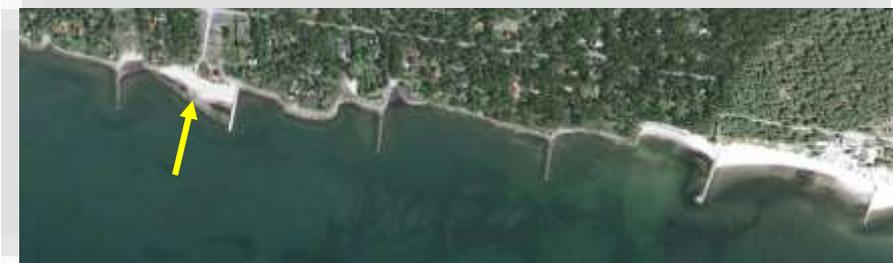


LÖDERUPS STRANDBAD





LÖDERUPS STRANDBAD



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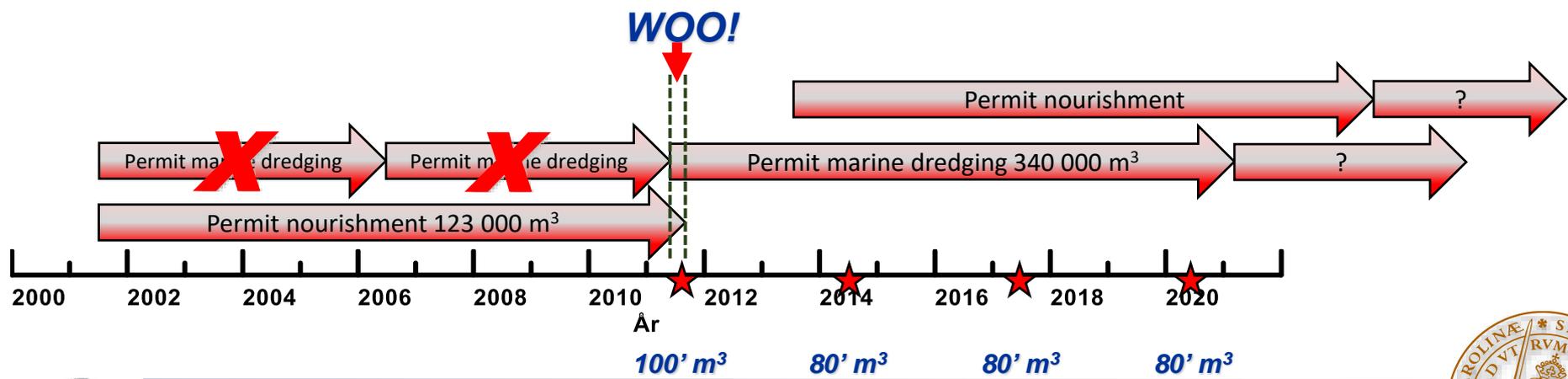
LÖDERUPS STRANDBAD





COASTAL 'INITIATIVES' - YSTAD

2001 – First permit from Environmental Court for **major nourishment**





YSTAD SANDSKOG – NOURISHMENT PROJECT



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NEW BEACH IN YSTAD



Aug 2007



May 2011



June 2011





NEW BEACH IN YSTAD

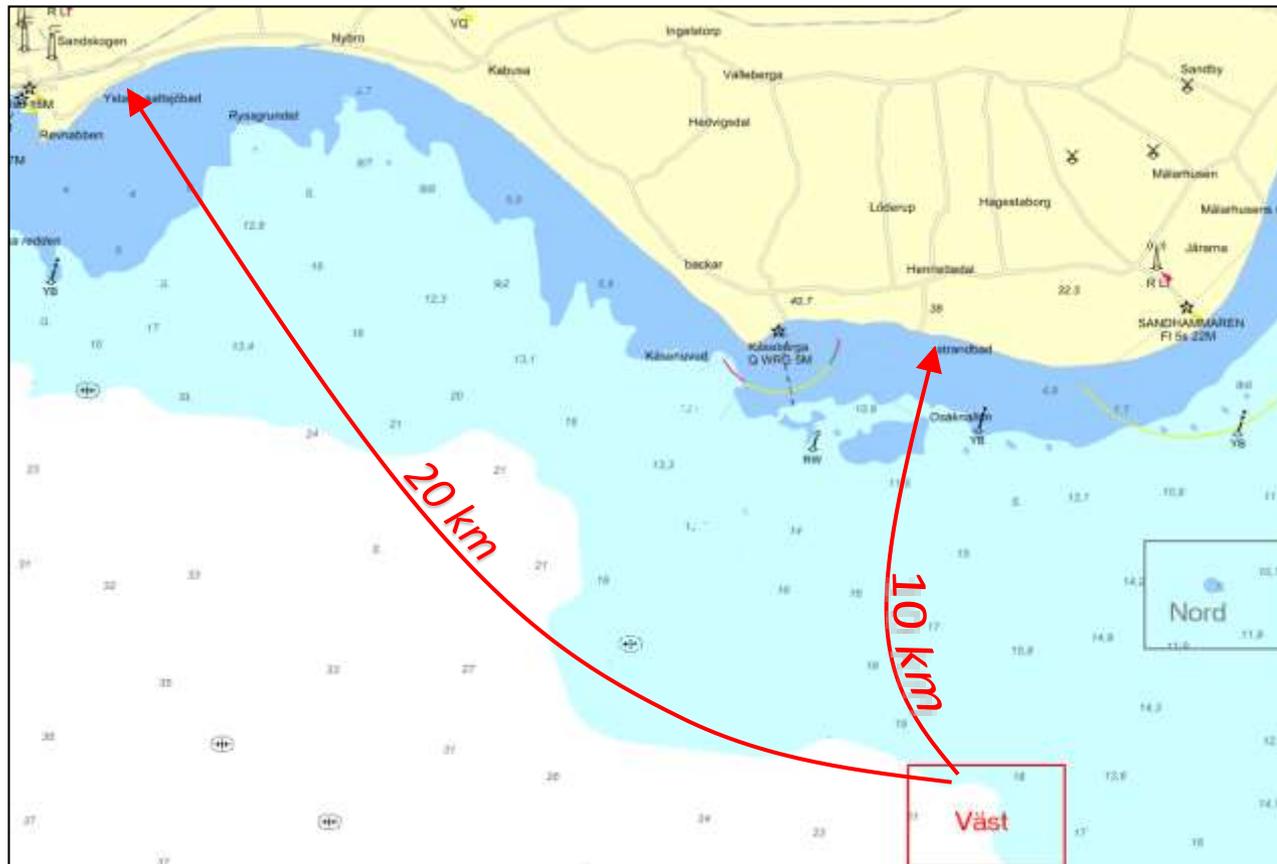


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BORROW SAND – FROM SEA BOTTOM TO NOURISHED BEACH

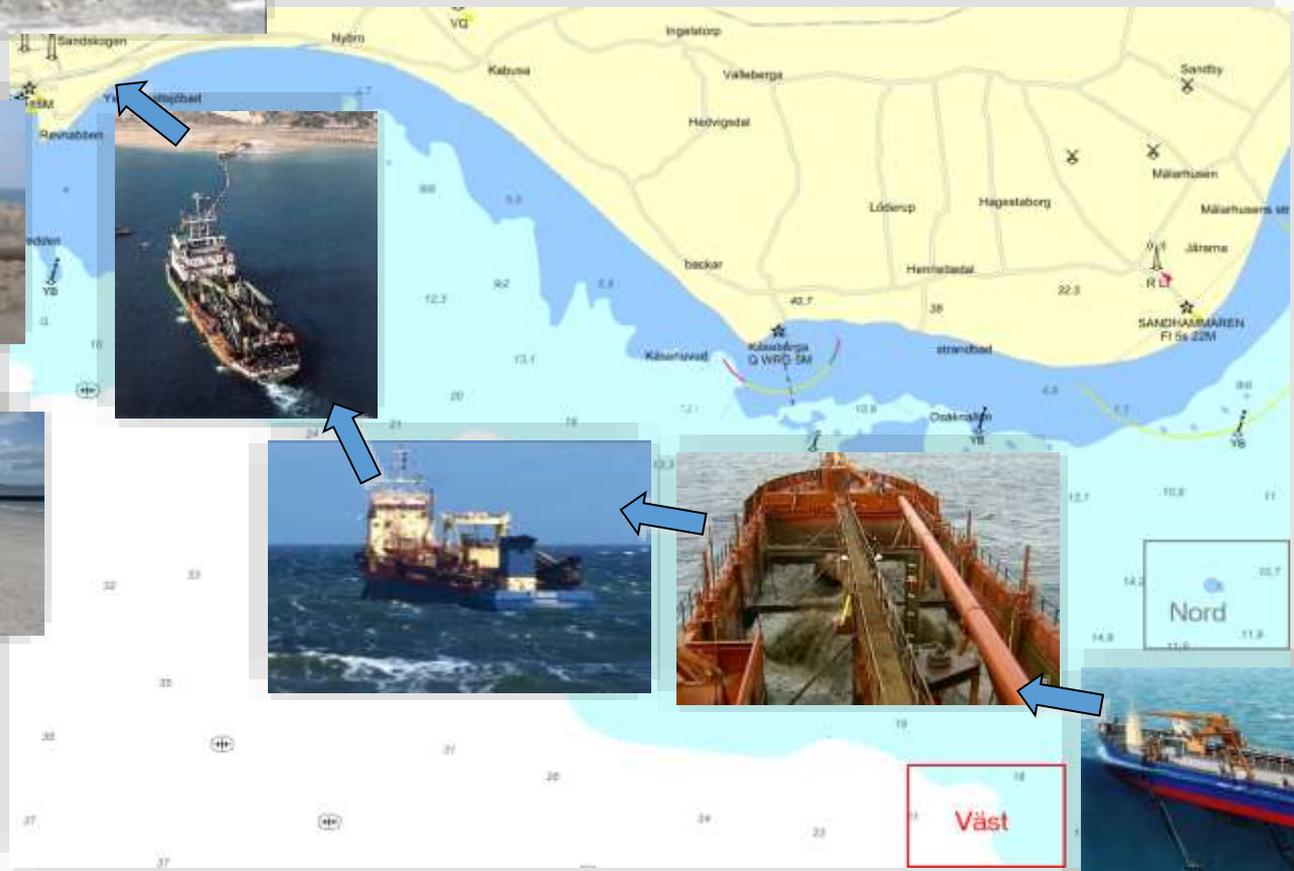


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BORROW SAND – FROM SEA BOTTOM TO NOURISHED BEACH

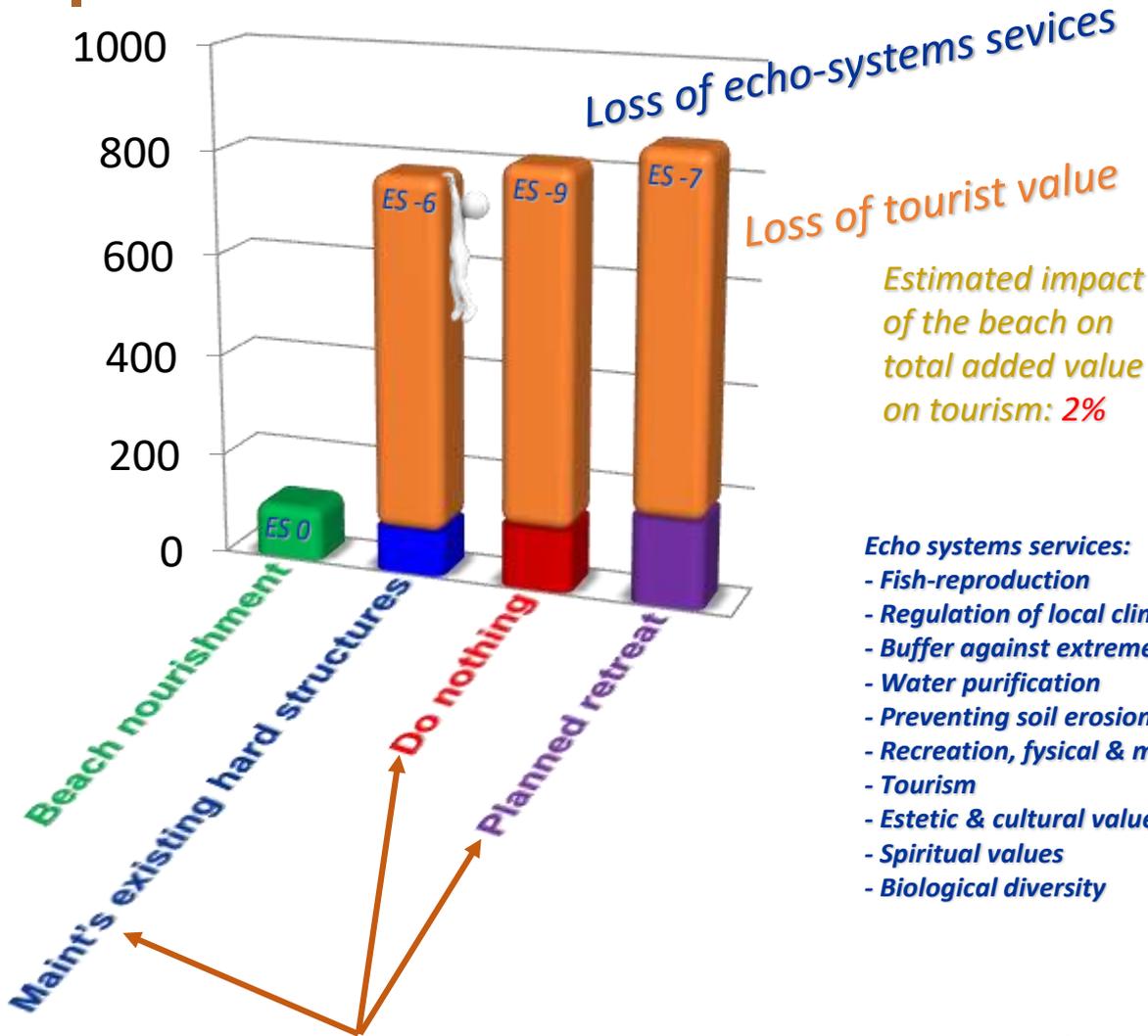


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PRESENT VALUE – DIFFERENT ALTERNATIVES



Estimated impact of the beach on total added value on tourism: 2%

Echo systems services:

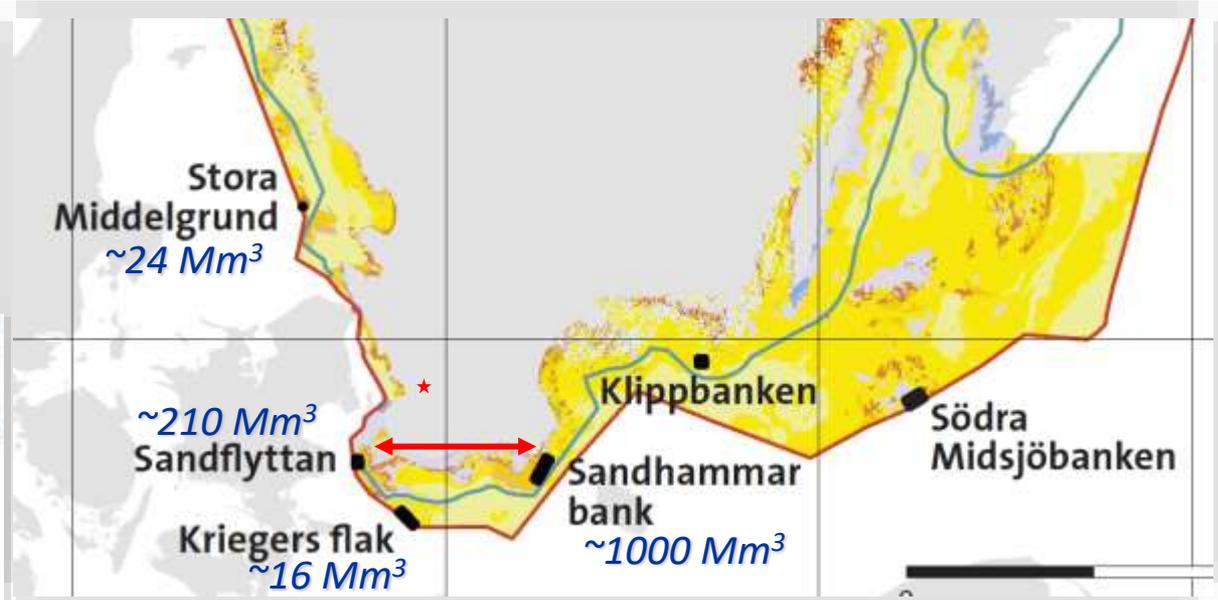
- Fish-reproduction
- Regulation of local climate & humidity
- Buffer against extreme weather
- Water purification
- Preventing soil erosion
- Recreation, fysical & mental health
- Tourism
- Estetic & cultural values
- Spiritual values
- Biological diversity

Not included: Loss of recreation/health/quality of life!





DO WE HAVE ENOUGH SAND IN THE SEA?



"Conditions for marine sand & gravel extraction in Sweden"

UPPDRAG ENLIGT SGUS REGLERINGSBREV 2016
Förutsättningar för utvinning av marin sand och grus i Sverige

Johan Nyberg, Kristian Schoning, Karin Grånäs, Sara Nordström, Pär Nordgren, Anna Svensson, Linda Lingsten (H&V), Linus Hammar (H&V), Malin Hemmingsson (H&V) & Lena Tingström (H&V)

SGU-rapport: 2017:05
Diarie-nr: 21-2973/2015



SGU = Swedish Geological Survey

Sand requirement Skanör-Sandhammaren to year 2100

- SLR 1 m
- **Total 44 Mm³**
- Corresponds to ~6% of known sources without any neg. env. impact





Thanks for your attention!

Questions?

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