



Landsort Fairway, Landsort–Södertälje

Umeå: Fairway and port area

Karlskrona: Approach and fairway

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Master Mariner/Project manager/Nautical expert – Fairway design

Location of the projects:

Umeå
Landsort
Karlskrona

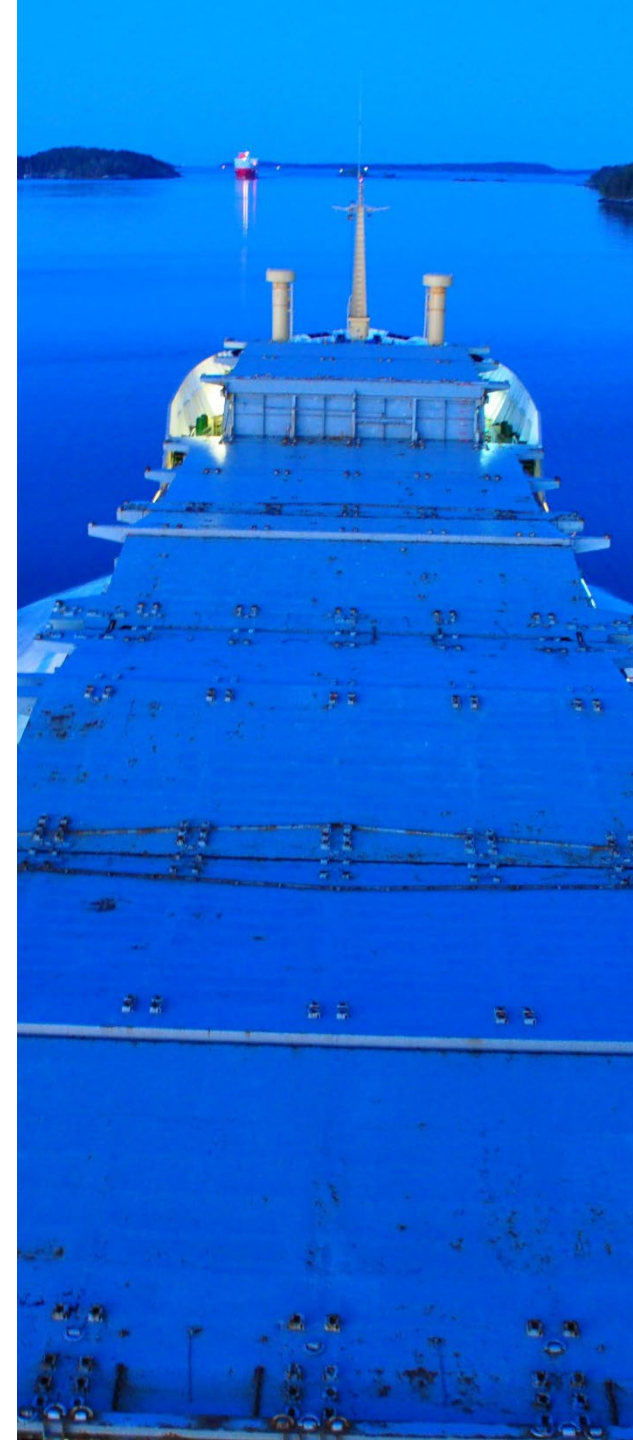




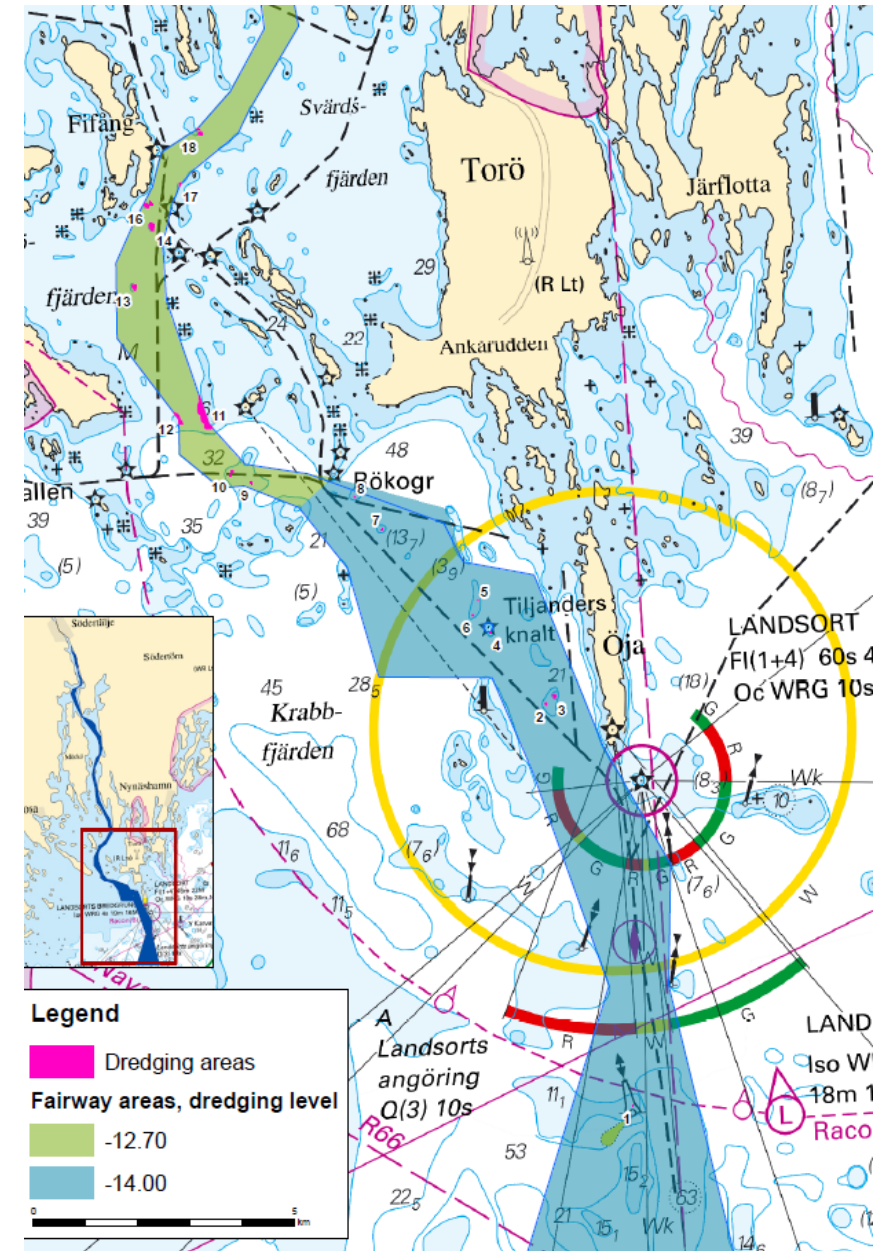
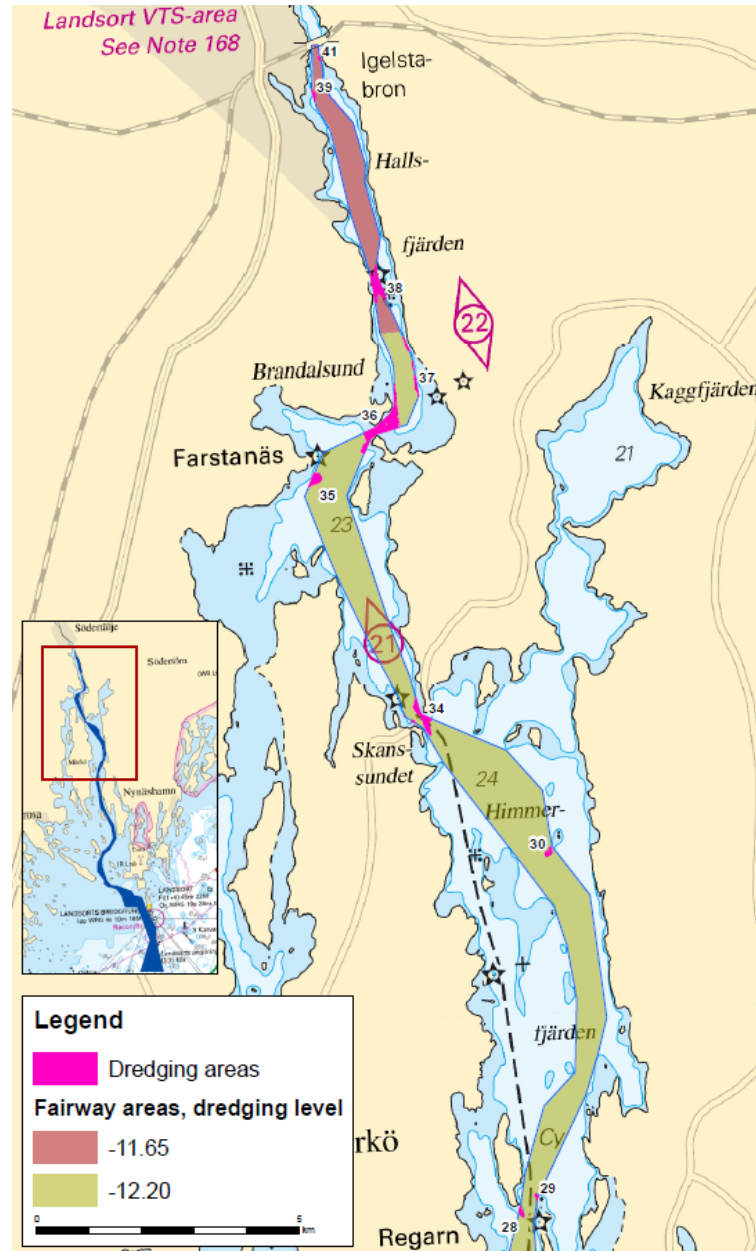
Landsort

The Landsort project - short facts

- Scoop:
 - Increase capacity from 9.0 m to 10.5 m max draught
 - Increase UKC safety margins by increased minimum depth
 - Enlarge available sweeping area for larger/longer ships
 - Increase safety margins by widening the narrow parts
- Total dredging volume approximately one million m^3 in situ
- Dredging/bar framed depth varies from 14.0 m in approach to 11.65 m in sheltered areas
- Total length of fairway abt 32 NM
- EIA and permit processes ongoing, not yet finished
- Plan for implementation, prel start Q3 2025, completion spring 2026



Dredging areas and fairway minimum depth



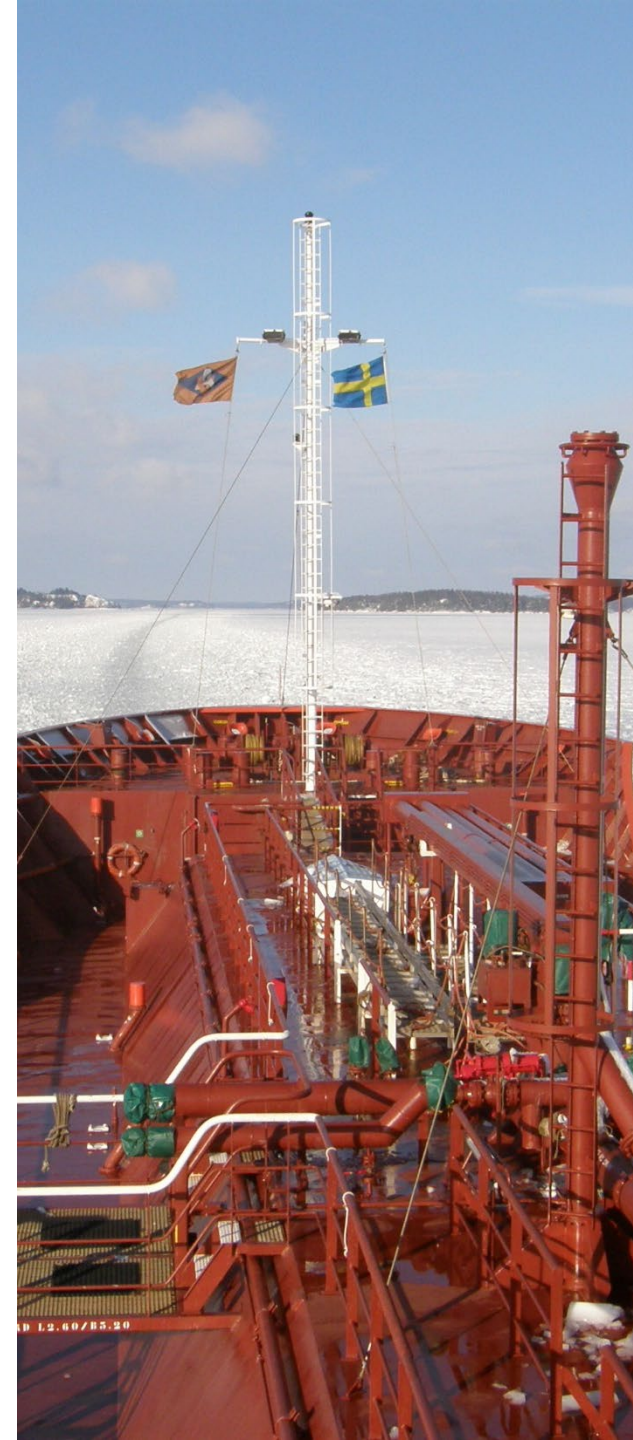
Geotechnical conditions

- Approximately 950,000 m³ *in situ* consisting of sand, clay and sediments
- Abt 70,000 m³ *in situ* of rock blasting
- Abt 20,000 m³ consists of moderately contaminated sediments, situated in the northern part
- Major part of dredging volumes located in sheltered waters
- Rock blasting in southern part (exposed for wind and sea state)



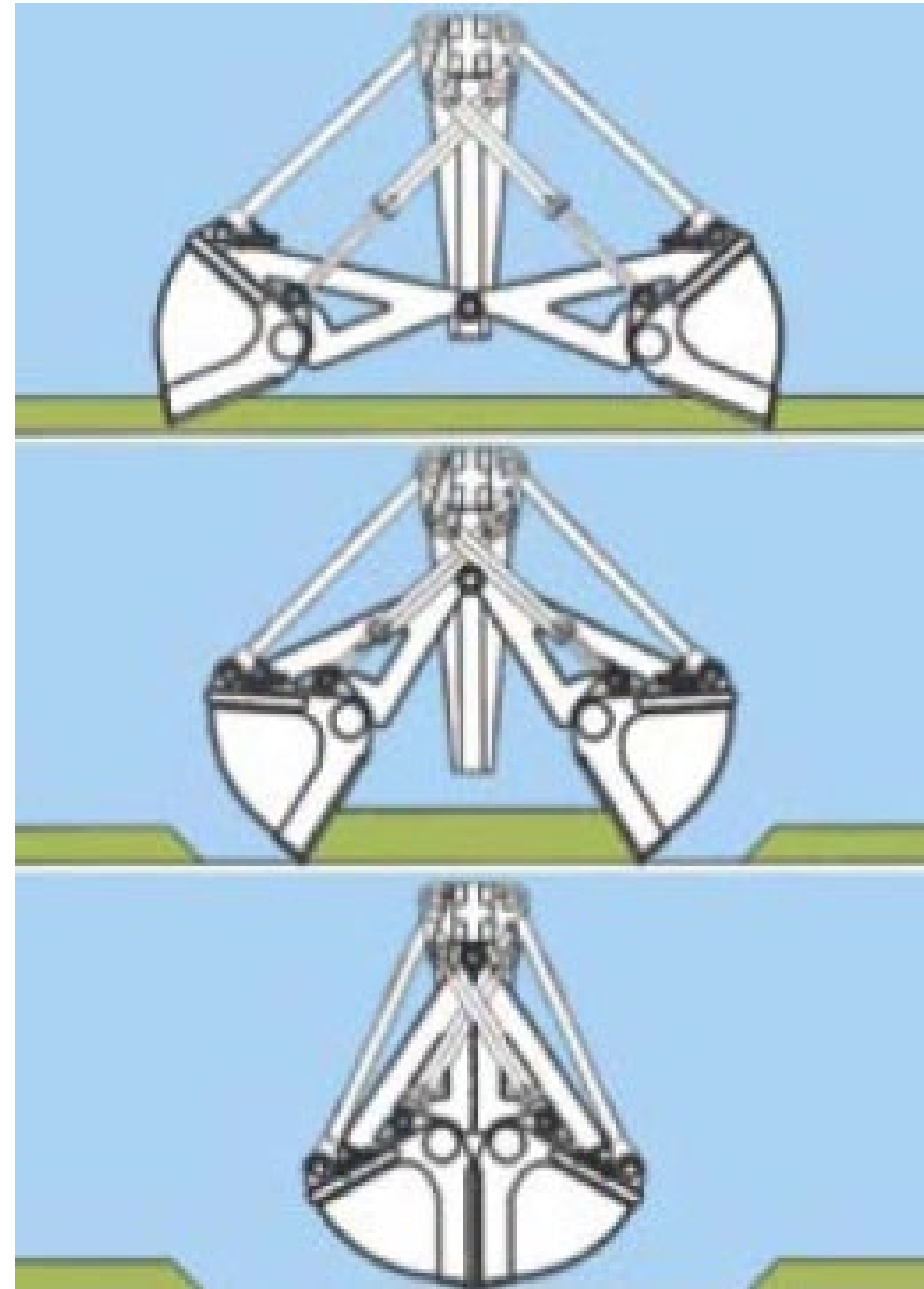
Management of spoil and sediments

- Loose material is divided into two types: clean dredging spoil and minor volume of contaminated dredging spoil.
- The clean dredging spoil is planned to be dumped in disposal areas without restrictions. These consists of sand, gravel and clay without contamination.
- Minor volumes of sediments show some degree of contamination.



Management of contaminated sediments

- The moderately contaminated spoil requires specific management:
 - The contaminated dredging spoil will be dredged by using an environmental bucket.
 - This material, approximately 20,000 m³ *in situ*, is planned to be initially dredged and thereby be disposed of in the bottom of the disposal site, to be covered with clean material.
 - Second alternative is land disposal, which alternative not yet decided.



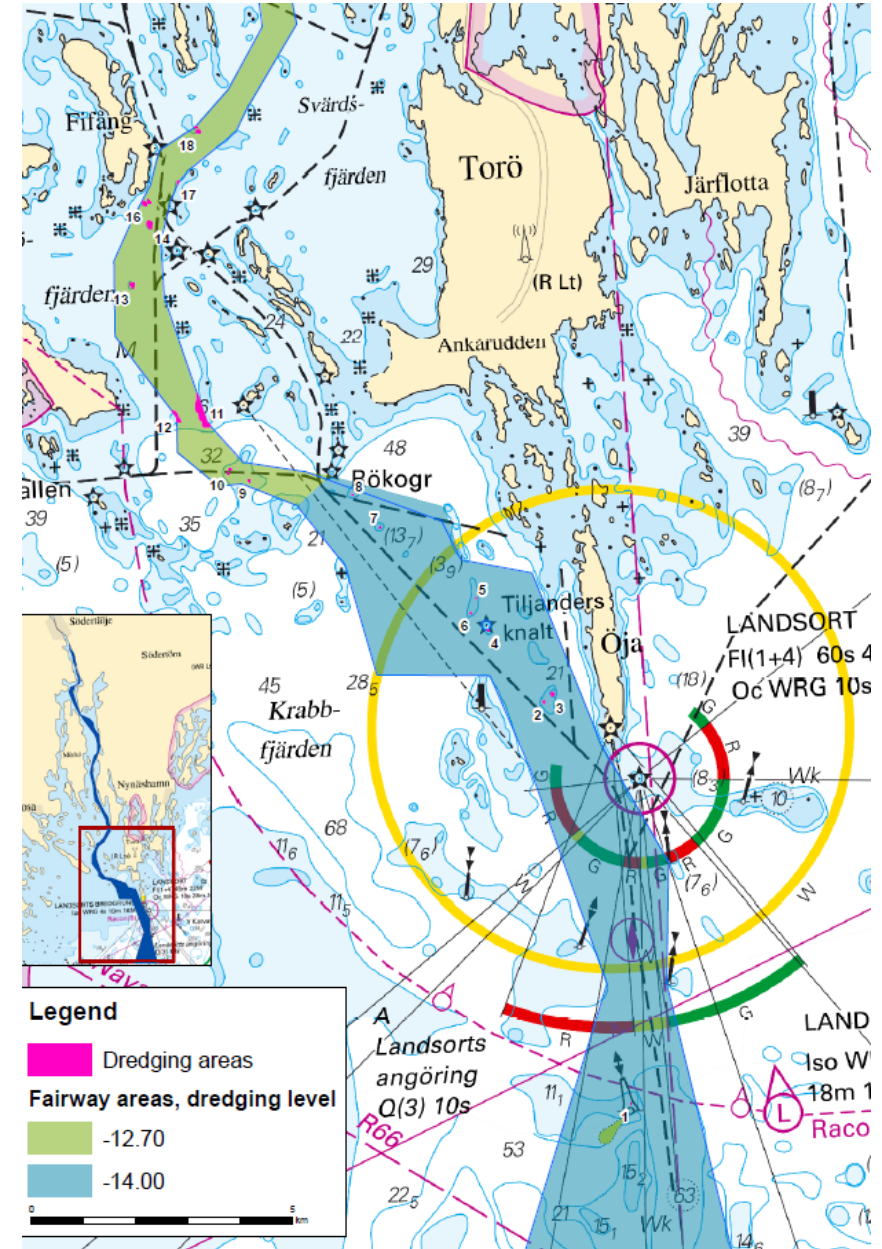
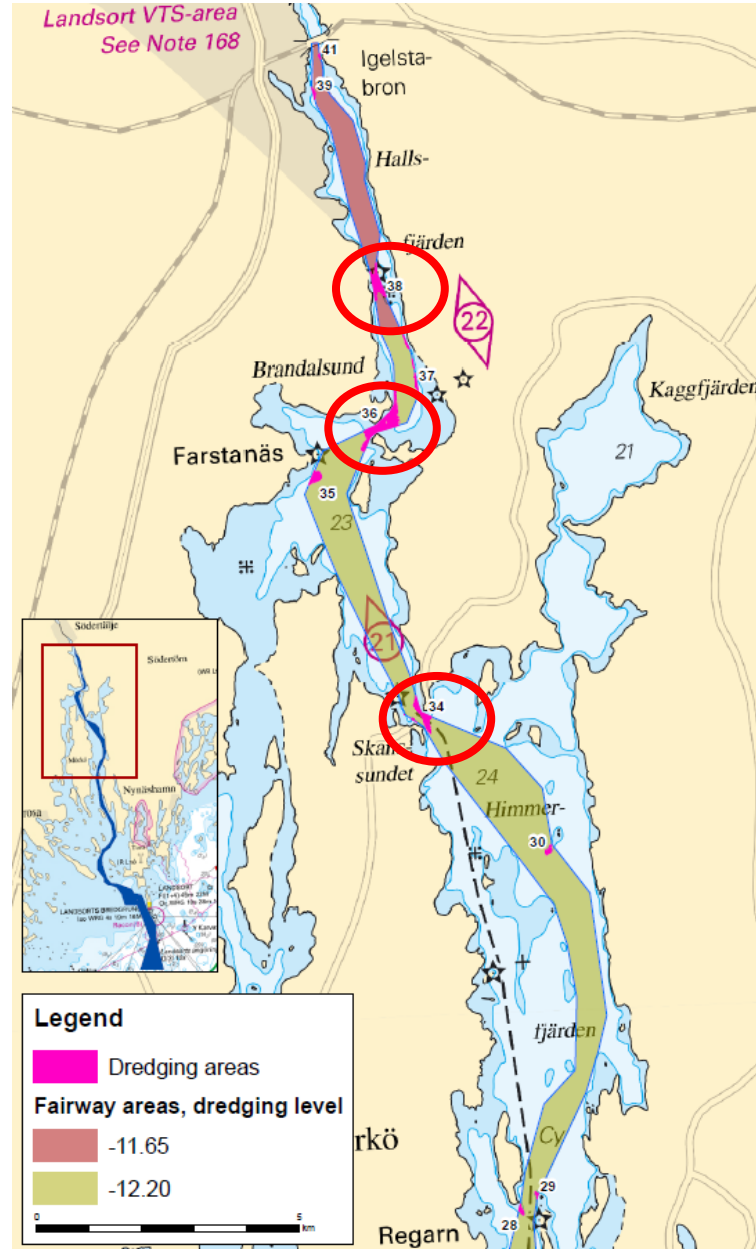
Traffic density and influence on dredging activities



Annually about 1 300 calls/2 600 ship passages to Södertälje/Mälaren.

Fairway partly moved to new location – partly no ship traffic.

Traffic concentration areas



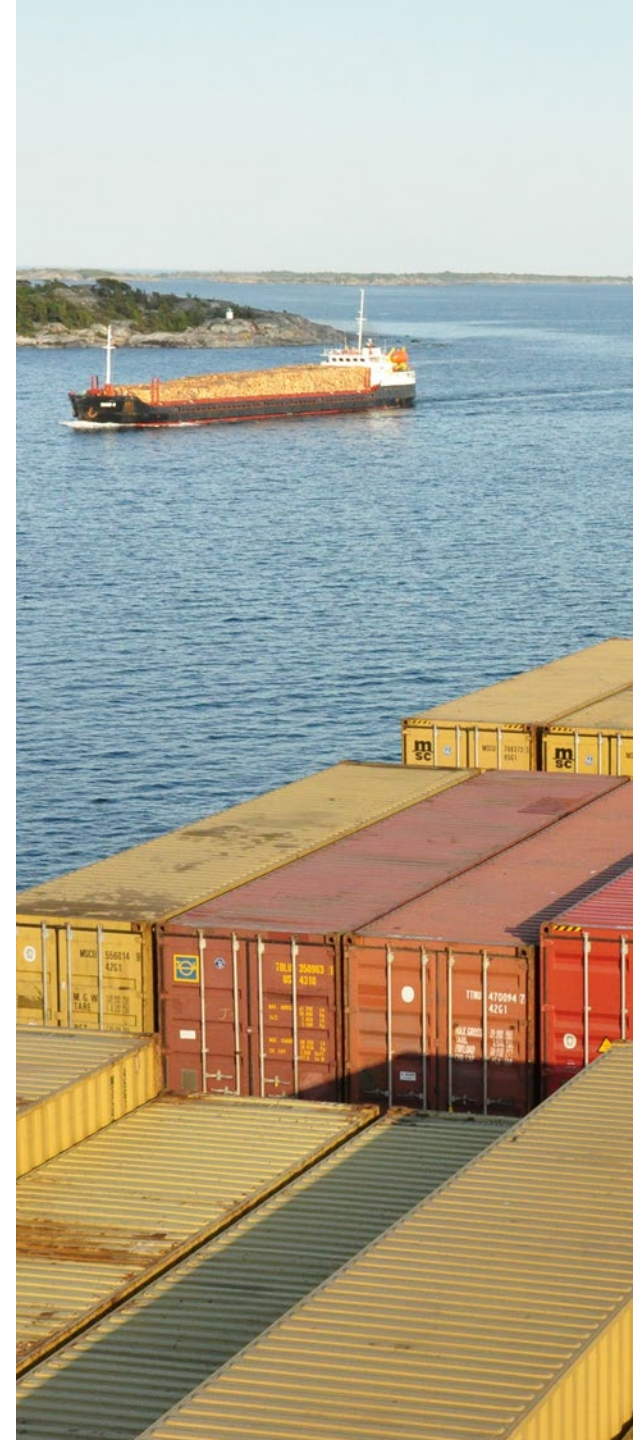
Timeline ahead

- Environmental permit to be achieved, preliminary 2024
- Preparatory construction works ongoing
- Procurement process planned to start spring 2025
- Implementation, autumn/winter 2025-2026
- Type of contract not yet decided.



Planned implementation

- One season for implementation preferred in order to minimize long-term environmental impact
- Planned period for works: August 2025 – March 2026
- Final conditions will be given in environmental permit





Umeå

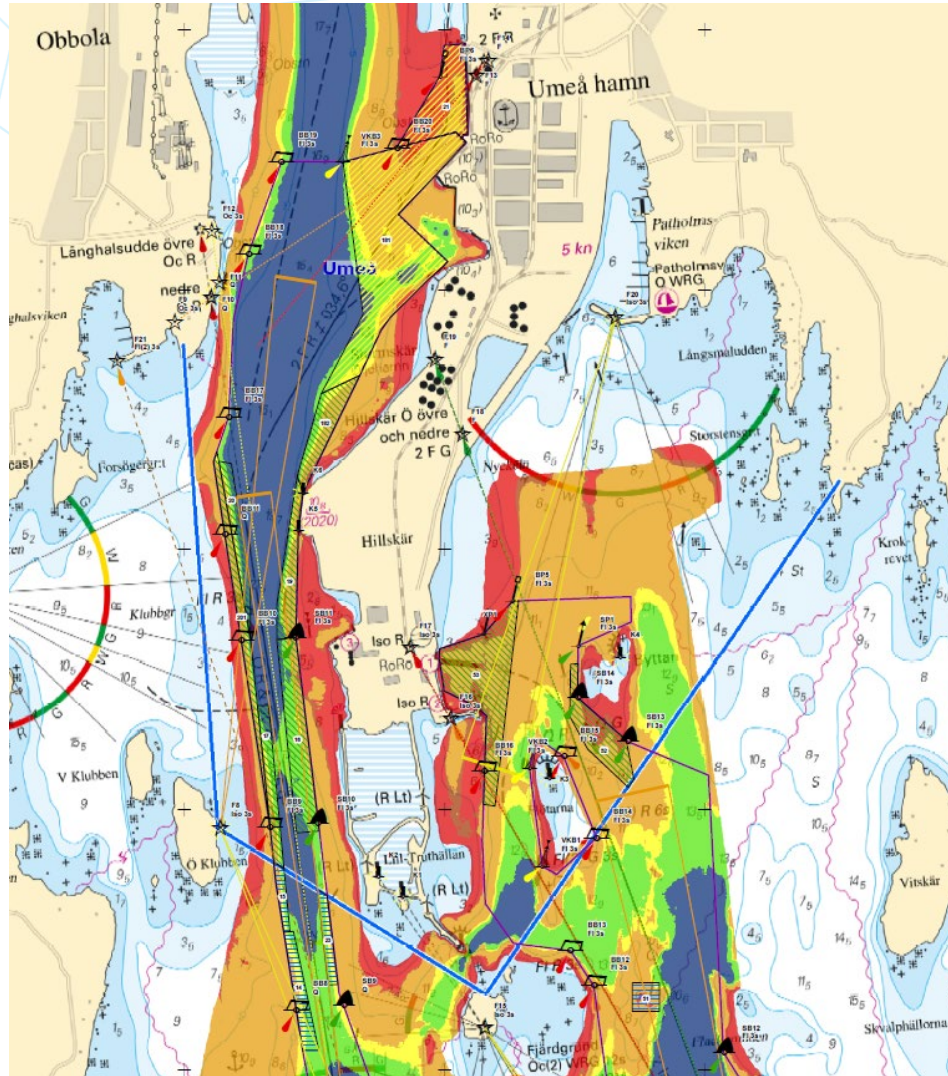
Port of Umeå - Holmsund

- Scoop: Increase capacity, availability and safety in fairway and port area due to increased local production of forest products
- Fairway dredging approximately 100,000 m³
- Port area dredging volume abt 210 000 m³
- Implementation around 2025-2026
- Estimated production time - one season
- Planned minimum depth from 14.1 m in approach area, 13.0 m intermediate area and 12.5 m in port area.
- Planned as a joint project between SMA and Port company for common permit process as well as dredging implementation

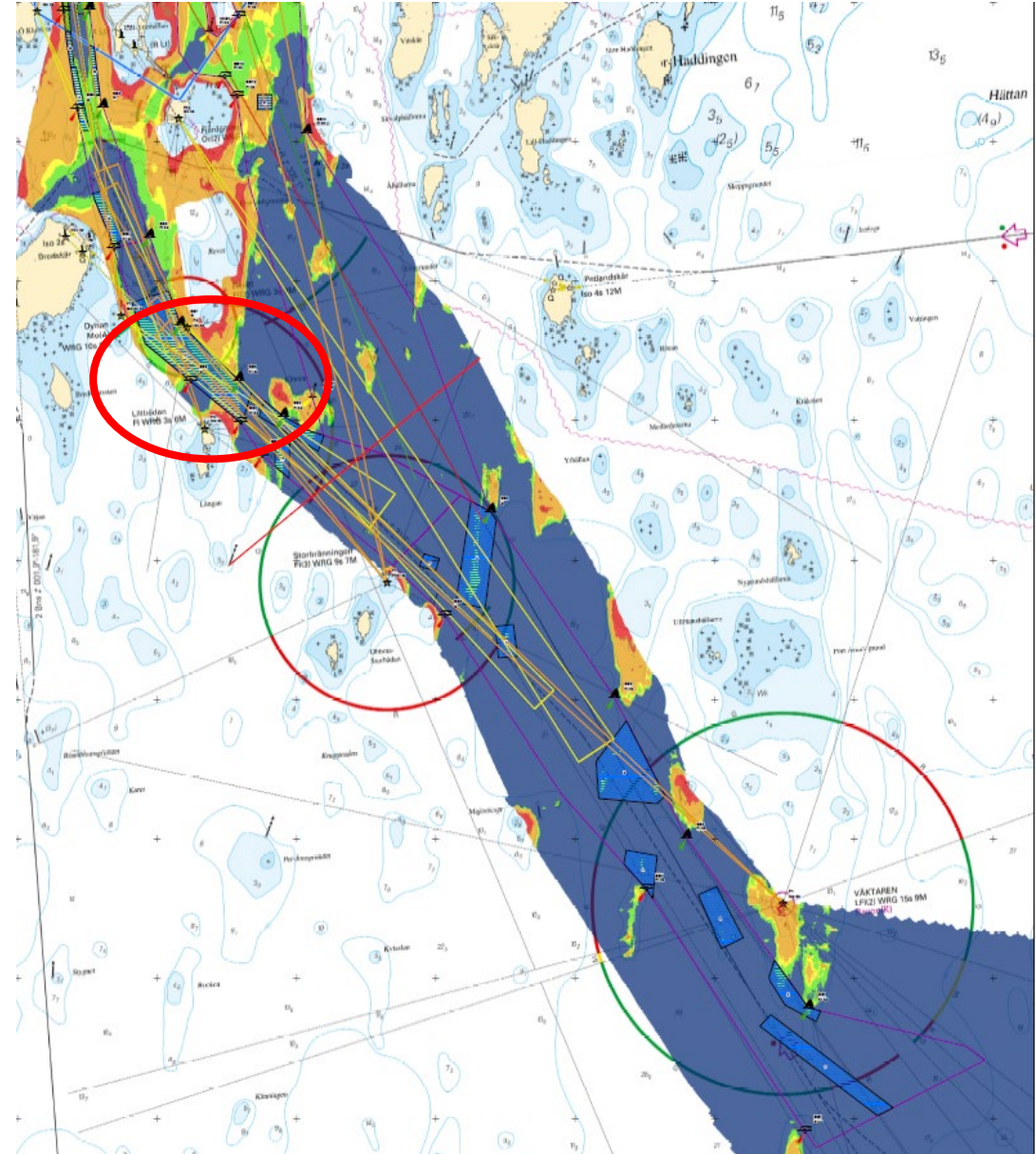


- Contaminated material: Under investigation, probably minor amounts of low grade contaminated material.
- Distance to disposal site: Planned for a marine disposal, estimated 5–8 nautical miles in average to dumping site.
- Traffic situation: A ferry route to Fi in the eastern port area and approach part of the main fairway, otherwise relatively low traffic intensity.
- Special conditions:
 - Estimated dredging season around May – December/January, due to conditions in forthcoming environmental permit.
 - Approach area partly exposed to weather and rough sea. Work period may be limited due to early ice formation.

Port of Umeå



Fairway to Umeå





Karlskrona

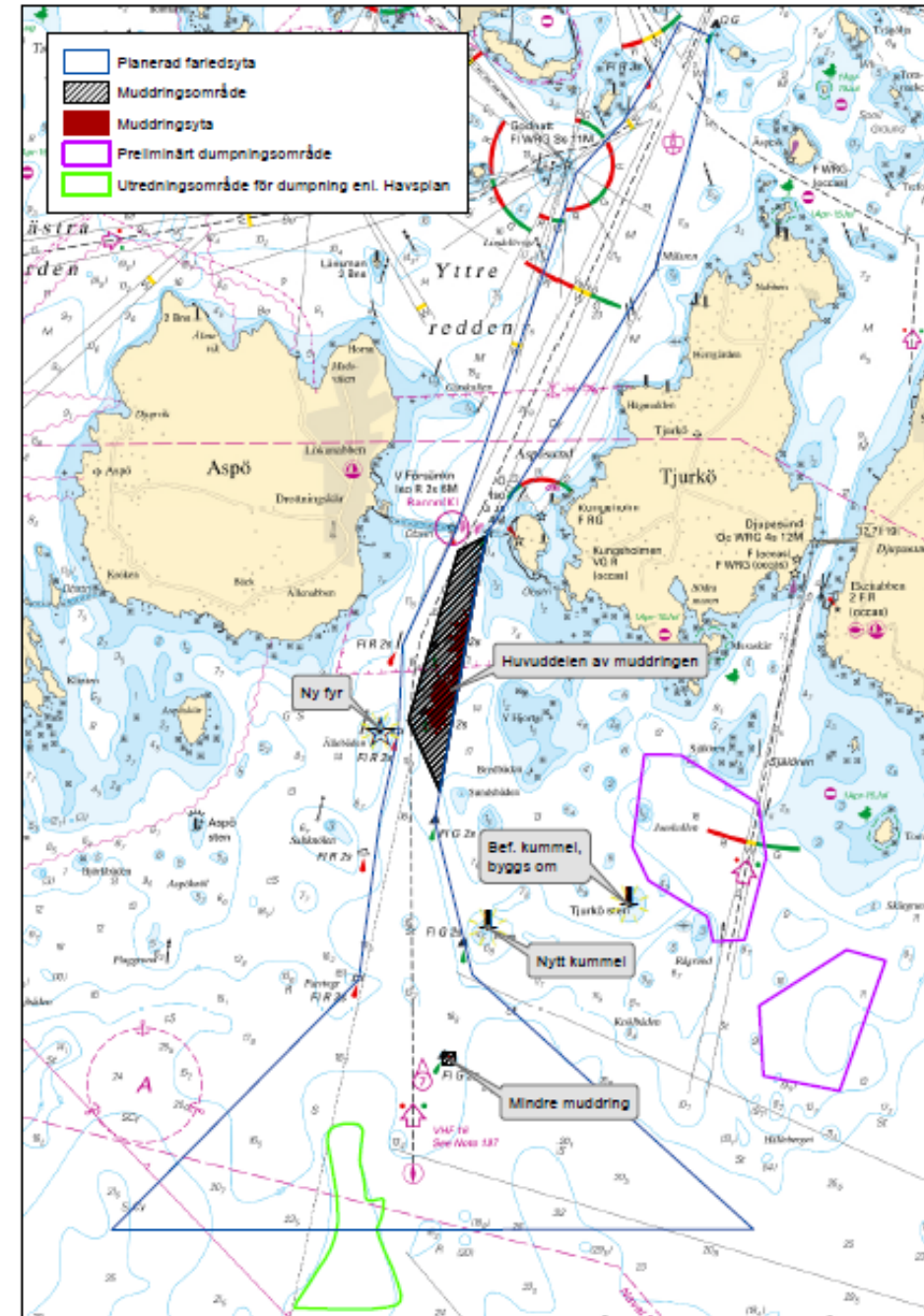
Karlskrona

- Scoop: Widening the fairway for increased safety and availability
- Preliminarily abt 75,000 cubic metres dredgable and 5,000 cubic metres of rock blasting.
- Dredging area affected by wind and rough sea from southerly directions
- Minimum depth in fairway 12.0 metres
- Special conditions – partly military area
- Estimated implementation 2025-2026
- Traffic: Ferry route to Gdynia with 3 ships



Karlskrona

Overview on work area, dredging areas and alternative dumping sites



Sundsvall, Ystad...?

