



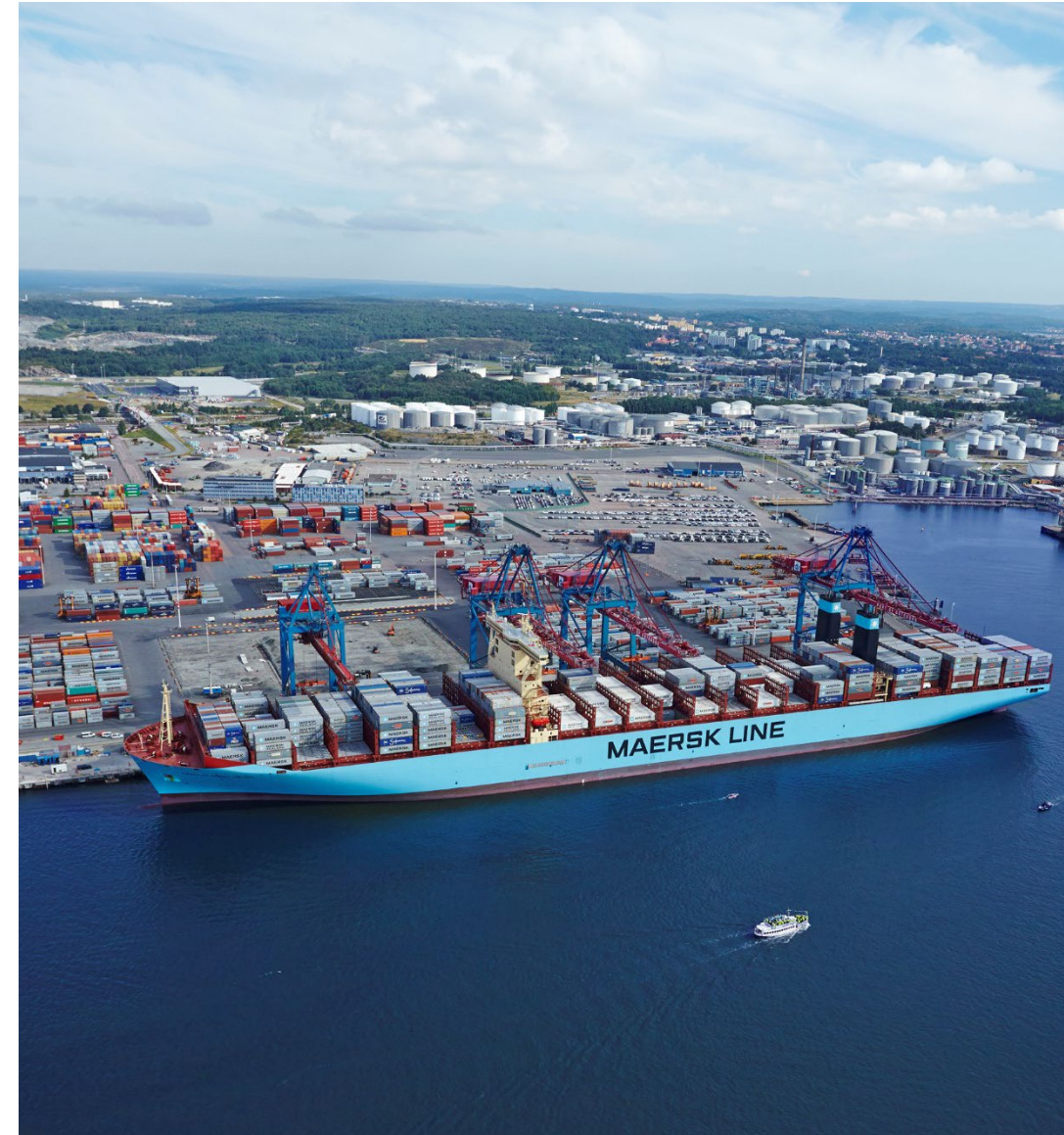
Skandia Gateway, the Gothenburg Fairway

Jenny Röström, Project Manager

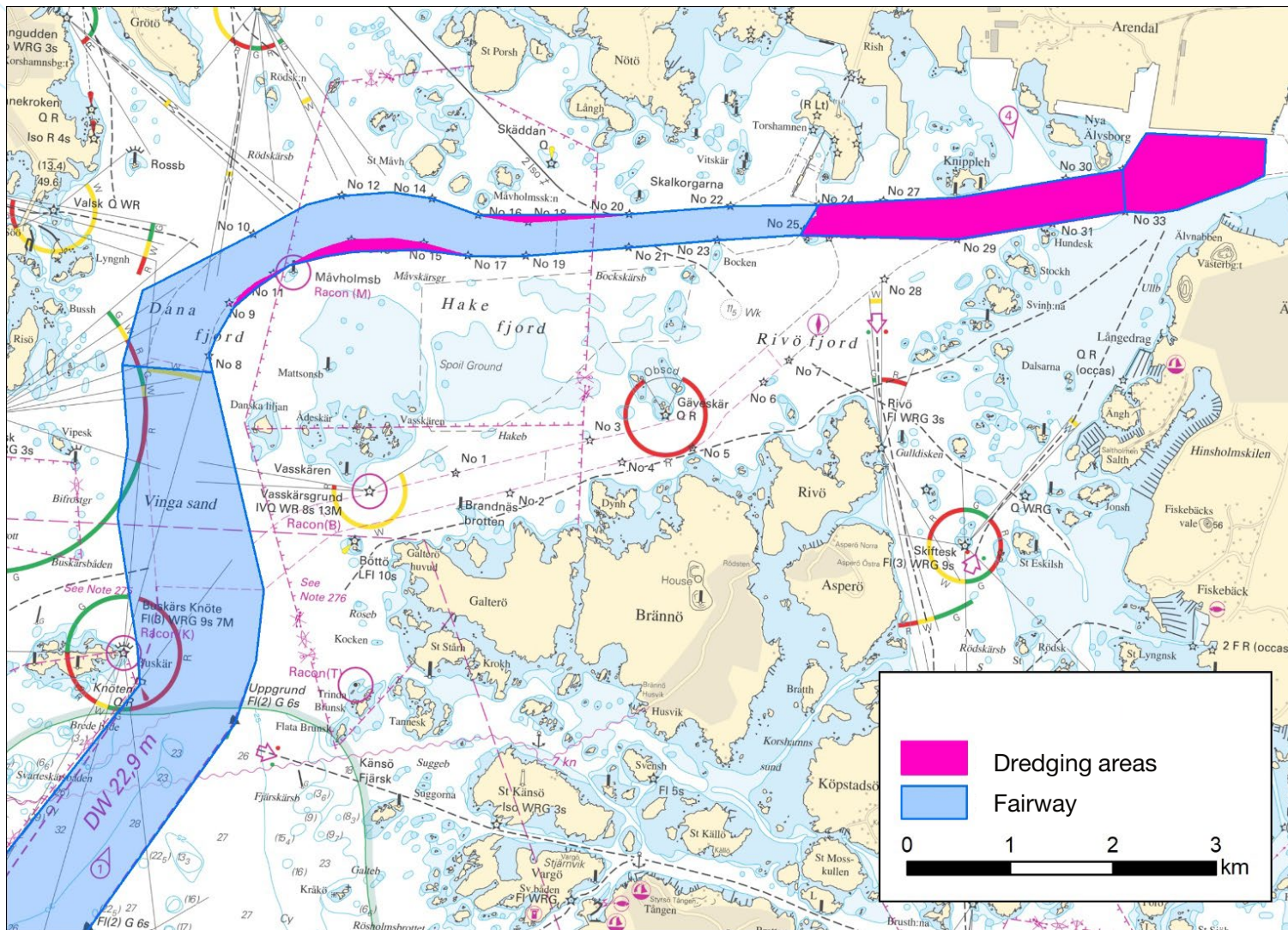


Agenda

- Background and scope
- Technical aspects
 - Dredging
 - Dumping
 - Environmental aspects
 - Previous project in the area
- Timeline and procurement
 - Ongoing processes
 - Planned procurement
 - Execution

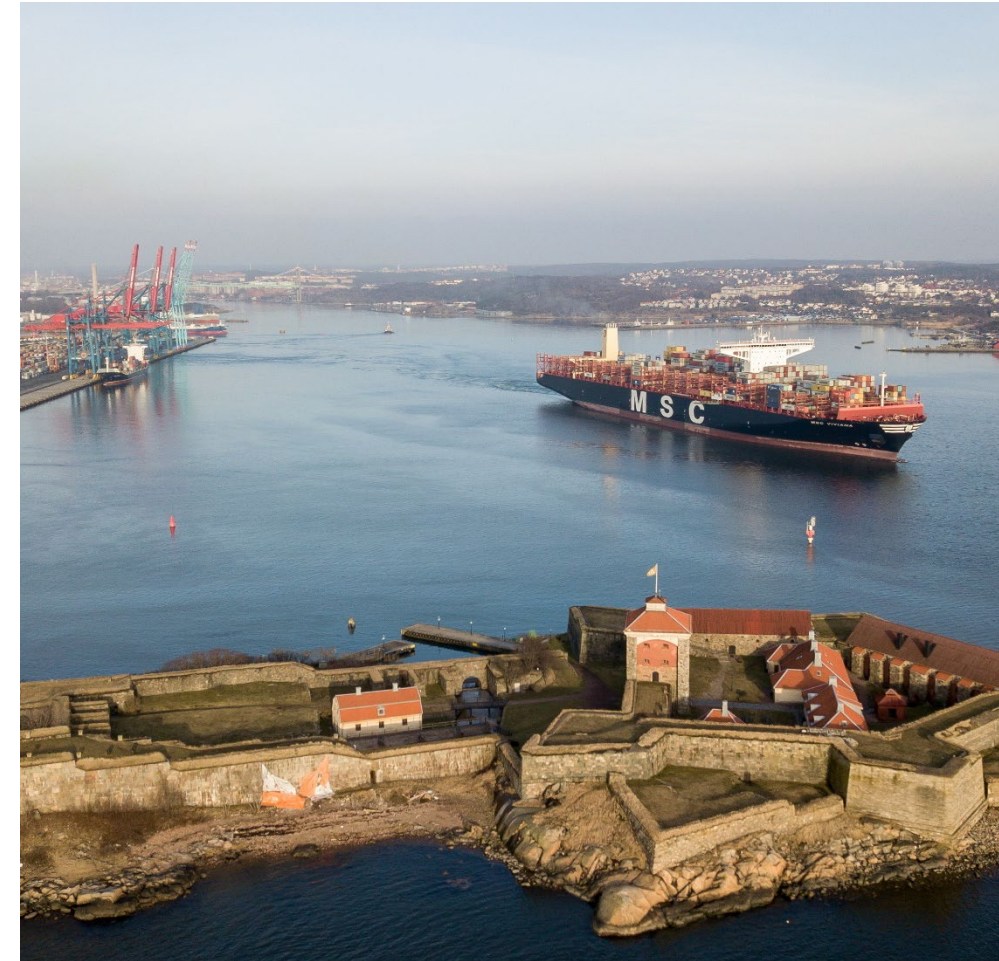


Location



Background

- The Port of Gothenburg is the only port in Sweden used by the world's largest container vessels and provides direct routes between Sweden and the rest of the world. However, the depth in the fairway makes it impossible for these vessels to enter fully loaded.
- The depth of the fairways and turning area must increase in order to maintain this strategic direct traffic.
- The Skandia Gateway Project is a collaboration between the Swedish Maritime Administration, The Swedish Transport Administration and the Port of Gothenburg, GHAB



Scope of the Skandia Gateway



Facts of the Gothenburg Fairway, now and tomorrow

- Depth today: around 14 m, allowing vessels with a draft of 13,5 m
- Depth tomorrow: around 19 m, allowing vessels with a draft of around 17 m
 - Draft between 16.5 -17.5 m depending on the cost
- Today's vessels: 400 x 53 x 13,5 m
- Concept vessel: 430 x 65 x 17,5 m
- The Port of Gothenburg is an important distributor for import and export in Sweden.
 - 40 million ton goods/year
- Traffic consisting of cargo ships, ferries and private boats

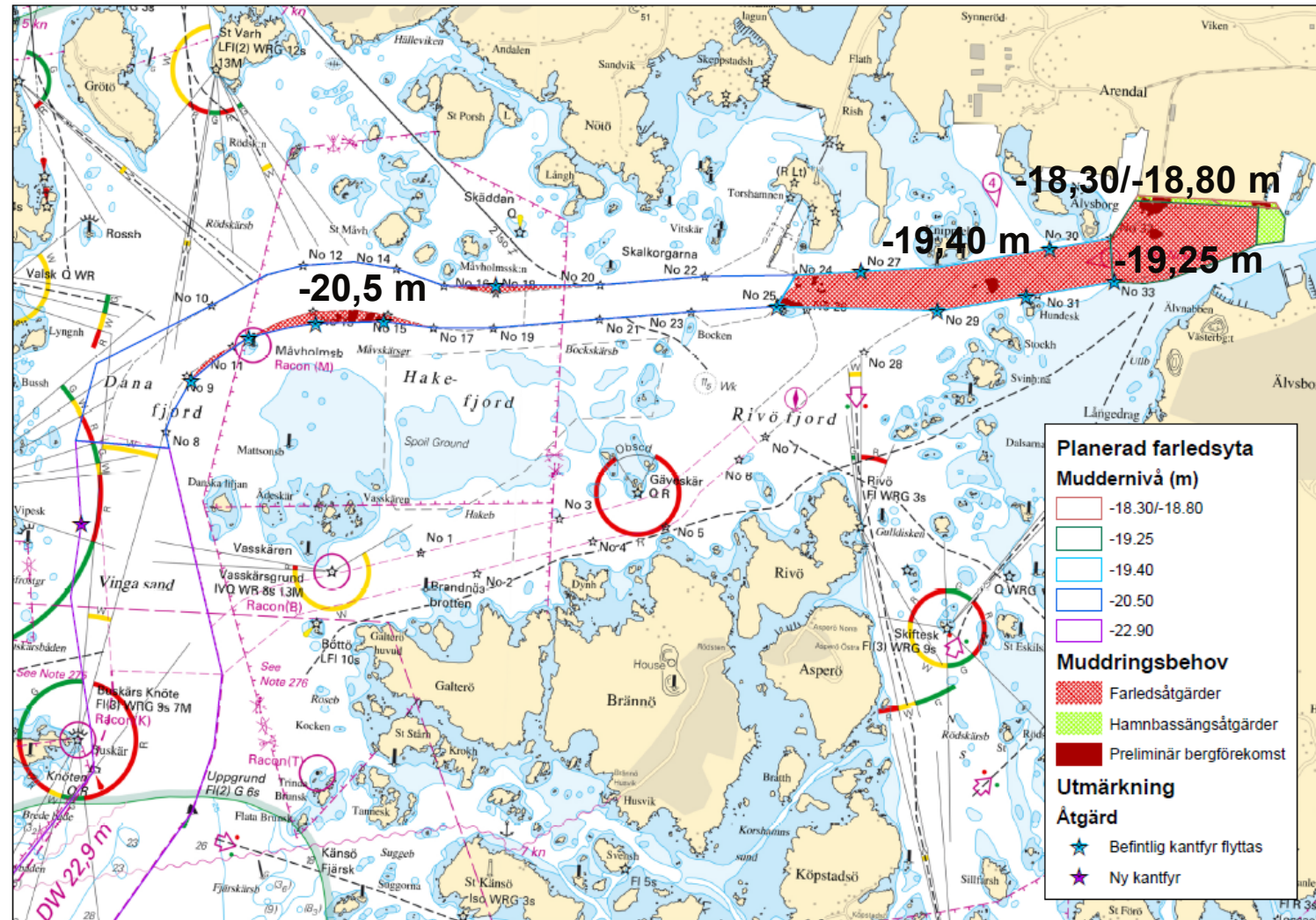




Technical aspects of the Skandia Gateway

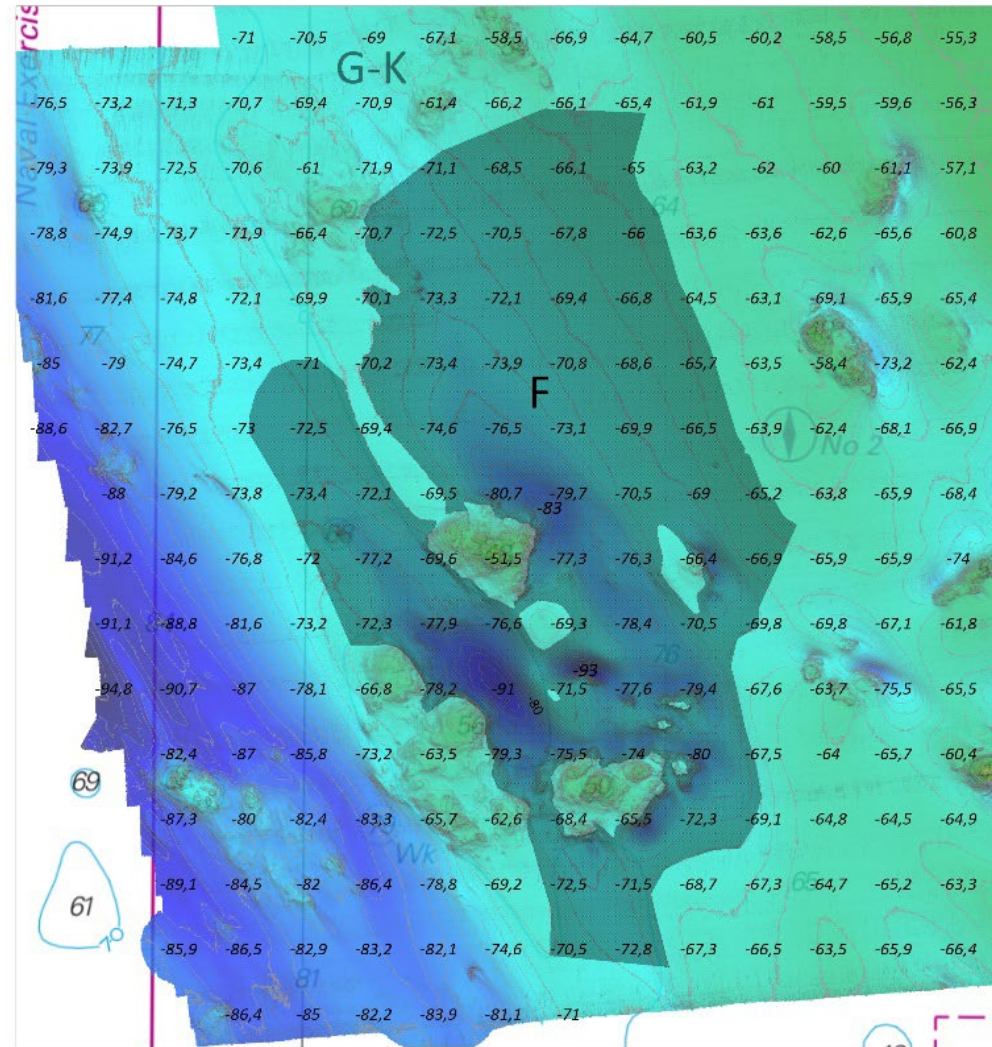
Dredging

- Dredging volume: ~12 million m³
 - Soft to stiff clay
 - 98% unaffected soil
 - 2% affected/contaminated soil (PAH, TBT etc)
- Blasting volume: ~ 320.000 m³
- Dredging technique
 - Around 85% of the total volume could most likely be handled with TSHD
 - Around 15% of the total volume could most likely be handled with backhoe dredgers. The controlled sediment removal



Dumping

- All dredged soil is currently being planned to be disposed at sea, at an intended disposal site located around 8-10 nautical miles from the dredging area.
 - Possible restrictions regarding handling of the contaminated soil
- High demands on controlled dumping technique and regular measuring
 - Specific conditions will be given in the environmental permit



DUMPINGSPLATS
SKANDIAPORTEN

TECKENFÖRKLARING

F DUMPINGSYTA

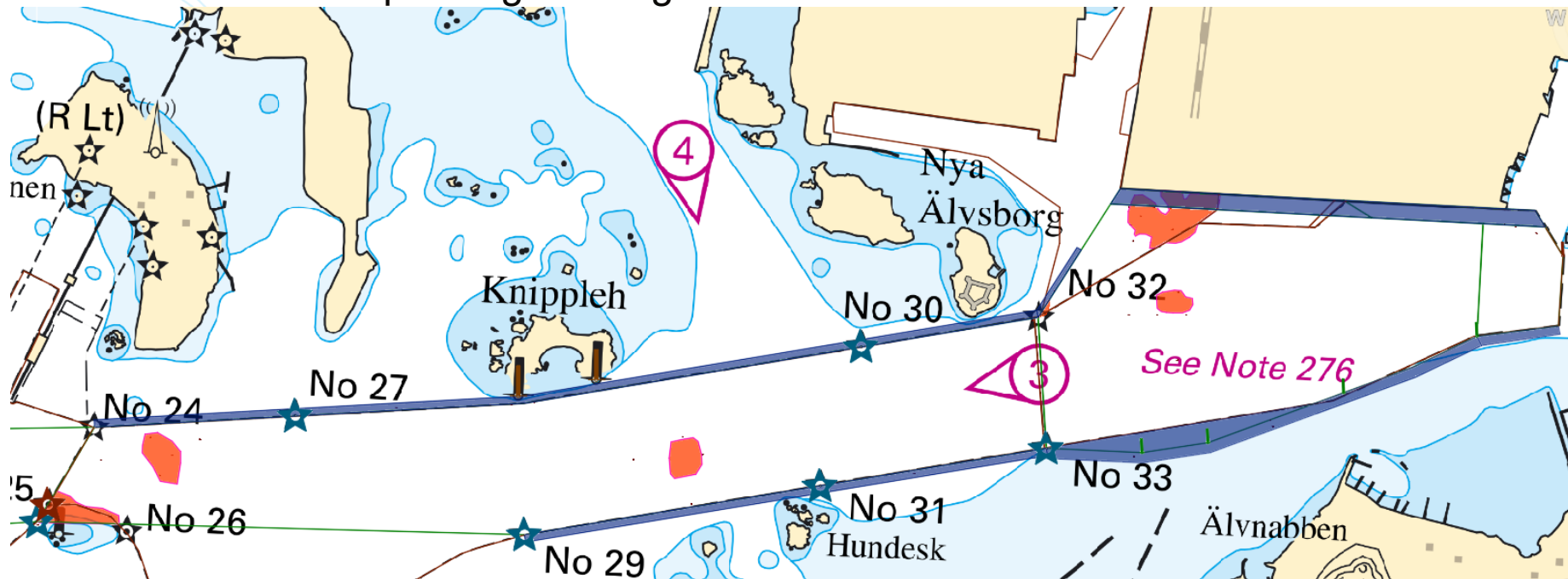
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Blasting

- Blasting areas are located close by and within the fairway (red areas)
 - Blasting and removing the broken rock must be executed efficient to secure safe passing for cargo traffic



Assessment of needed resources

Calculated dredging season is 9 months (middle of august - middle of may).
With the suggested environmental conditions, two dredging seasons are needed.

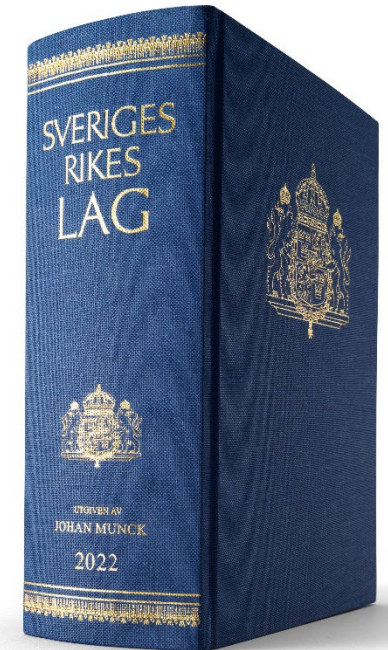
Estimated resources

- Trailing Suction Hopper Dredgers
- Backhoe dredges for handling blasted stone and contaminated soil
 - Large sizes due to deep waters (20m)
- Drilling platform
- Dump barges

The list of resources is just a rough estimation, the contractor is responsible for providing the necessary fleet.

Environmental permit and conditions

- Process is ongoing with a planned main hearing in the Land and Environmental Court in beginning of June.
 - A verdict is likely to be delivered in September 2022
 - An appeal is possible, extending the process approximately one more year (a likely verdict in August 2023).
- The final conditions from the permit will be implemented in the tender documents.



Environmental conditions

- Strict control of suspended substances concentration in the water
- Sensitive areas
 - Eelgrass
 - Groups of blue mussels
 - Soft-bottom fauna
- Regulations regarding overflow
- Restrictions on the range of working period
 - Less disturbing work during the summertime
- Demands on backhoe dredgers handling contaminated soil with environmental buckets
- Ecological boundary conditions will be translated by the Client into site-specific physical requirements to be adhered to during the project's execution.
- A Project Environmental Monitoring Program and close collaboration between the contractor and the Clients environmental specialist is necessary.



Previous project in the area: Safer Fairways to the port of Gothenburg

- From January 2003 to February 2004
- The project included:
 - Removal of a gross quantity of 12 million m³ of soft to stiff clay, dumped into a designated disposal area at sea.
 - 375,000 m³ of solid rock had to be drilled and blasted. The removed broken rock was partly dumped at sea, partly used for filling works and partly used to create an artificial reef.
 - Strict environmental monitoring was part of the contract specifications.
- Contractor: Boskalis



A Location map
B Overview from bridge of Coastway



Timeline and procurement

Ongoing processes

- Main hearing in the Land and Environmental Court, June 1-3 2022
 - A likely verdict in September 2022
 - An appeal process can take approximately one year
- The financial aspects of the project is secured, however within a set budget
 - Environmental conditions leading to extra costs must be carefully studied, and possibly appealed



Future procurement

- The procurement is planned to be announced in Q4 2023 or in early 2024
 - Calculation time around one year, including possible pre-qualification
 - Planned contract signing in Dec 2024/Jan 2025
 - Planned start of contract in Aug 2025

- Contract type most likely a general contract in accordance with the standard AB04 contract.

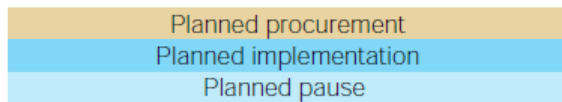
Planned execution

- Planned start in August 2025, with a completion time before the summer break in 2027
 - Less environmental disturbing work is allowed during the summer period
- A parallel project regarding the fairway marking will be ongoing as well as the contract regarding reinforcement of the quay
 - Coordination is necessary





SWEDISH MARITIME ADMINISTRATION	2022				2023				2024				2025				2026				2027				2028			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Malmöporten				Planned procurement		Planned implementation	Planned implementation	Planned procurement	Planned procurement	Planned procurement	Planned implementation	Planned implementation		Planned implementation	Planned implementation	Planned implementation	Planned implementation	Planned implementation	Planned implementation	Planned implementation	Planned implementation	Planned implementation	Planned implementation	Planned implementation				
Skandiaporten								Planned procurement	Planned procurement	Planned procurement	Planned procurement	Planned procurement	Planned procurement			Planned implementation	Planned implementation	Planned implementation	Planned implementation	Planned implementation	Planned implementation	Planned implementation						
Landsort													Planned procurement	Planned procurement		Planned implementation	Planned implementation											
Umeå	Too uncertain to predict. Procurement estimated in 2025. Less than one dredging season, planned in 2025 or 2026.																											
Karlskrona	Too uncertain to predict. Procurement estimated around 2024/2025. One dredging season.																											
Sundsvall	Too uncertain to predict. Procurement estimated around 2024/2025. One dredging season.																											
Ystad			Planned procurement	Planned implementation																								



Main challenges and possibilities

- The traffic on the existing fairway
 - Handled with extended VTS and collaboration with traffic control and the maritime pilots
- Large volumes of dredging
 - With a longer period of planning between signed contract and start of execution, an efficient dredging plan can be made
 - Possibilities for collaborations with other ongoing dredging projects on the Swedish market
- Much knowledge from the previous project Safer Fairways
 - Know risks in the area
 - A well-working collaboration with the traffic control



For more information and updates,
visit www.skandiaporten.se/eng

Jenny Röström
Project Manager Skandia Gateway
jenny.rostrom@sjofartsverket.se
+46-707 24 57 76