TRAFICOM
Liikenne- ja viestintävirasto

Sailing directions for Finnish waters

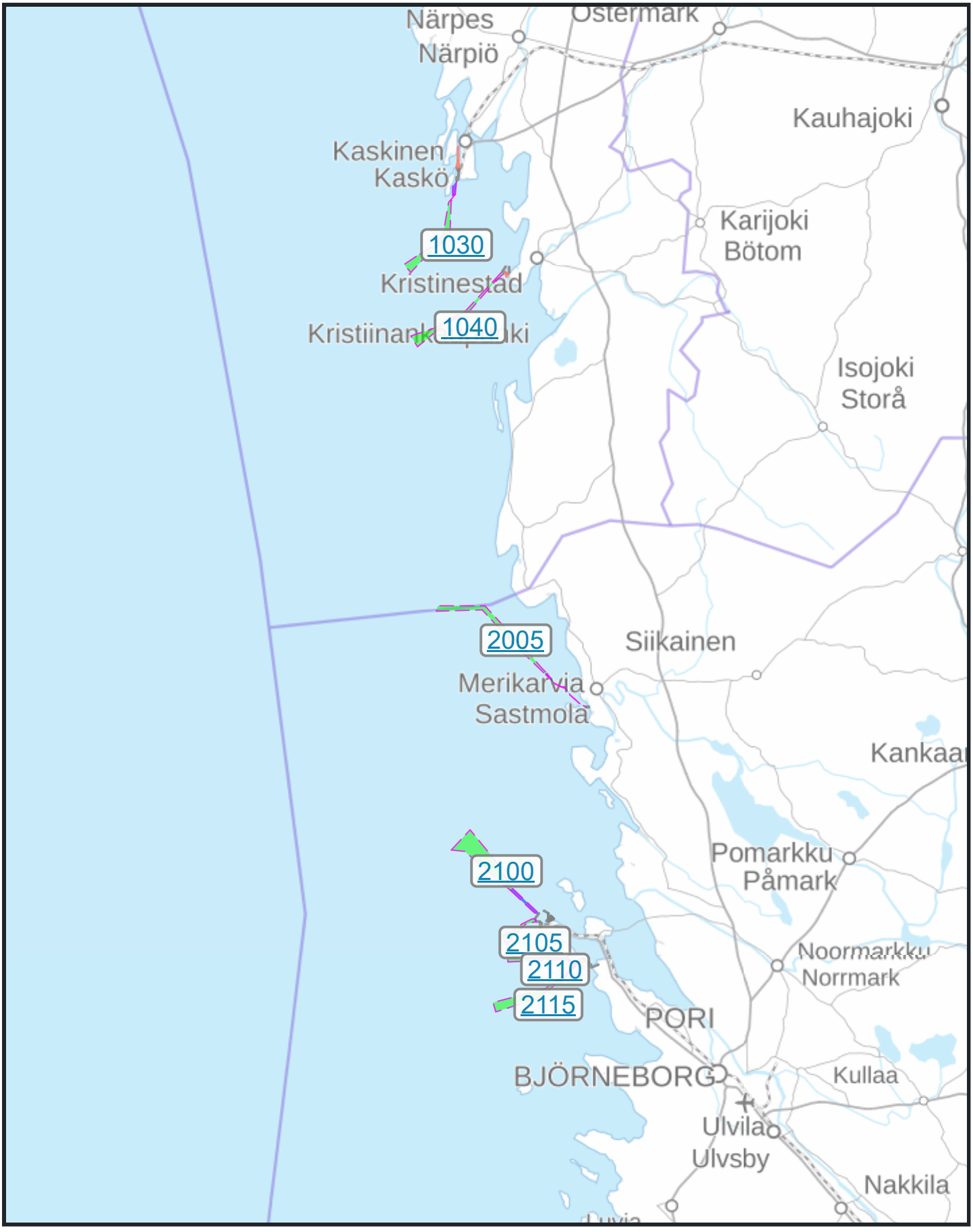
Part 2 - Main approach channels

2.3.1 - Sea of Bothnia / 2023-12-11

Cover: Archive image

Table of Contents

Overview chart



General information

Traficom

The Finnish Transport and Communications Agency (Traficom) is the national authority in approval and safety matters. Traficom also has been assigned the responsibilities of a national Hydrographic office, including the production of Finnish nautical charts and publications.

Sailing Directions for Finnish waters - Part 2

This publication contains data of the main Finnish approach channels, divided over several parts. Sailing directions for Finnish waters - Part 1, contains general information, guidelines and links to further information.

The data content

The information given is based on design data. Vertical datum used is N2000.

The fairway authority is responsible for maintaining the minimum depth within the fairway area, as indicated in nautical charts. Fairway users are responsible for all use of the fairway, and for always maintaining a safe underkeel clearance.

Kaskisten väylä

(62 17.8N / 21 10.2E)

Fairway dimensions

Fairway design draught is **9 m (N2000)**. Design draught shall always be corrected for current water level (N2000). The fairway is designed for use in normal conditions, by vessels with a length, breadth, draft and block coefficient (bC) similar to the fairways design vessel. Fairway design values are guidelines. Fairway users are always responsible for use of the fairway, and for always maintaining a safe underkeel clearance, considering the prevailing conditions. Farway minimum width is 110 m. The map shows fairway position and distance to nearest mareograph.

Water level and fairway data

Average N2000-sea level at nearest gauge is +8.9 cm. (Kaskinen Ådskär, 2023 62 20N / 21 13E) Information about current sea-levels, the local difference between height-systems and the annual change is further explained by the Finnish Meteorological Institute. https://fiho.fi/lnk/sealev/en

	O.Num	Num	Administrative fairway	Design vessel data			
				Length	Breadth	Draft	bC
1	1030	(1030)	Kaskisten väylä	185	30.0	9.0	0.80
1	1032	(1032)	Kaskisten sisäsataman väylä			6.3	

Fairways nearby

1040 (1040) Kristiinankaupunki Karhusaari väylä ~5M

Estimation of movement allowance case-by-case

Fairway design defines the Gross Underkeel clearance (Gross UKC), that consists of a separate motion allowance and keel margin (net UKC). These are presented, by fairway part, in the table below. In cases where conditions differ from the design, vessel movement might be estimated case-by-case. The keel margin (net UKC) should remain regardless. Estimating the needed vessel movement allowance is possible when there is adequate vessel and fairway data available, and the user is able to verify that the minimum net UKC remains. Further information is given in guideline "Principles and application of channel depths in Finland".https://fiho.fi/lnk/chdepth/en

Fairway design data by fairwaypart

The table contains fairway design-data for fairway areas. The information is provvided as a supplement to information in the nautical chart. Areas might have different design drafts. For areas with no established design draft, only the minimum depth is displayed. Areas with a design draft less than the main design draft of the fairway, are displayed with an exclamation mark (!) and information in red color. The fairway number is displayed in brackets. Design speeds are presented if reliable information is available.

	Swept depth / Minimum depth (N2000)	Designdraft	UKC (Gross) UKC	Keel margin (net UKC)	Movements	Dynam. draft	Speed
#1 (1030)	10.8m	9.0m	1.8m	0.5m	1.3m	10.3m	11.0kn
#2 (1030)	10.0m	9.0m	1.0m	0.5m	0.5m	9.5m	4.5kn
#3 (1030)	10.0m	9.0m	1.0m	0.5m	0.5m	9.5m	
#4 (1030)	10.0m	9.0m	1.0m	0.5m	0.5m	9.5m	
ⓘ #5 (1030)	8.6m	8.0m	0.6m	0.5m	0.1m	8.1m	
ⓘ #6 (1032)	7.8m	7.0m	0.8m	0.5m	0.3m	7.3m	
ⓘ #7 (1032)	7.0m	6.3m	0.7m	0.5m	0.2m	6.5m	

Areas on chart

Additional information

Additional information is given in guideline "Principles and application of channel depths in Finland". The Sailing Directions for Finnish waters - Part 1, also presents terminology, operational requirements, available tools and best practices. Mariners are recommended to follow established best practices.https://fiho.fi/lnk/chdepth/en , https://fiho.fi/lnk/sd/en

Fairwaycard

Only the most important fairway information is reproduced here. Further fairway-related information and details regarding the fairway is found in the Fairway card, maintained by the fairway authority. https://fiho.fi/lnk/vk/en

Kristiinankaupunki Karhusaari väylä

(62 13.1N / 21 11.9E)

Fairway dimensions

Fairway design draught is **12 m (N2000)**. Design draught shall always be corrected for current water level (N2000). The fairway is designed for use in normal conditions, by vessels with a length, breadth, draft and block coefficient (bC) similar to the fairways design vessel. Fairway design values are guidelines. Fairway users are always responsible for use of the fairway, and for always maintaining a safe underkeel clearance, considering the prevailing conditions. Farway minimum width is 160 m. The map shows fairway position and distance to nearest mareograph.

Water level and fairway data

Average N2000-sea level at nearest gauge is +8.9 cm. (Kaskinen Ådskär, 2023 62 20N / 21 13E) Information about current sea-levels, the local difference between height-systems and the annual change is further explained by the Finnish Meteorological Institute. https://fiho.fi/lnk/sealev/en

	O.Num	Num	Administrative fairway	Design vessel data			
				Length	Breadth	Draft	bC
1	1040	(1040)	Kristiinankaupunki Karhusaari väylä	210	31.0	12.0	0.80

Fairways nearby

1030 (1030) Kaskisten väylä ~5M

Estimation of movement allowance case-by-case

Fairway design defines the Gross Underkeel clearance (Gross UKC), that consists of a separate motion allowance and keel margin (net UKC). These are presented, by fairway part, in the table below. In cases where conditions differ from the design, vessel movement might be estimated case-by-case. The keel margin (net UKC) should remain regardless. Estimating the needed vessel movement allowance is possible when there is adequate vessel and fairway data available, and the user is able to verify that the minimum net UKC remains. Further information is given in guideline "Principles and application of channel depths in Finland".https://fiho.fi/lnk/chdepth/en

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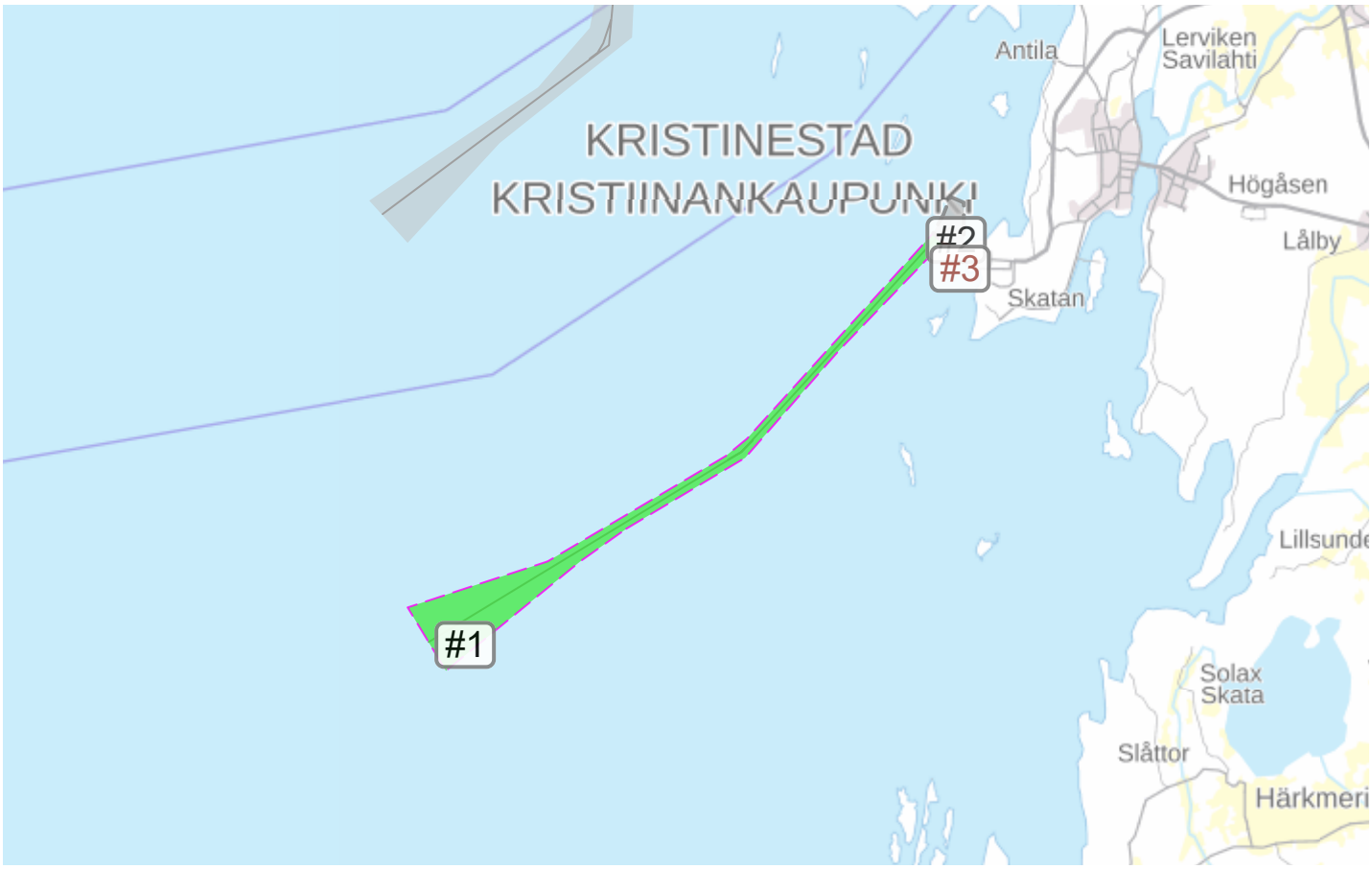
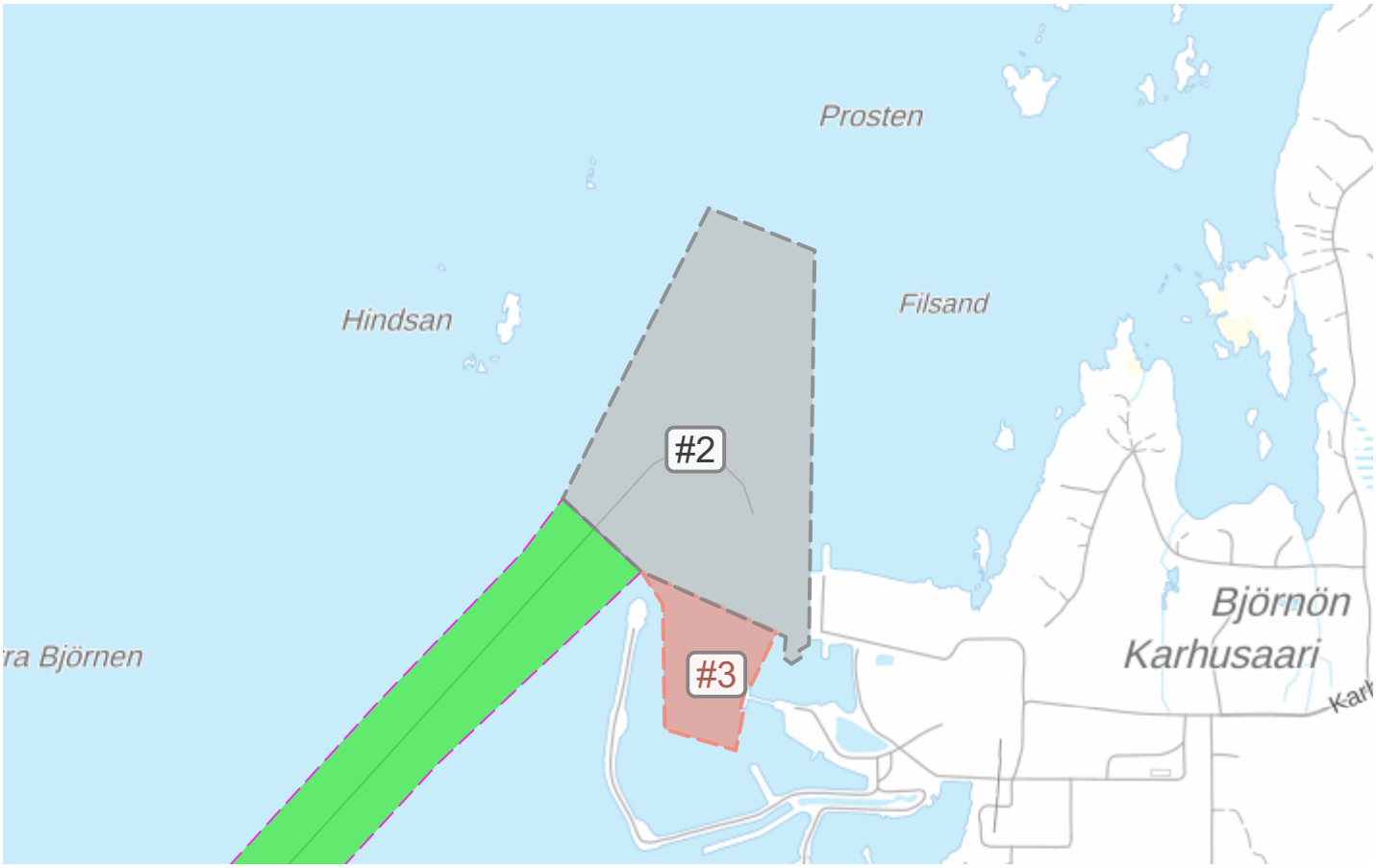
	Swept depth / Minimum depth (N2000)	Designdraft	UKC (Gross) UKC	Keel margin (net UKC)	Movements	Dynam. draft	Speed
#1 (1040)	14.0m	12.0m	2.0m	0.5m	1.5m	13.5m	12.0kn
#2 (1040)	13.3m	12.0m	1.3m	0.5m	0.8m	12.8m	
ⓘ #3 (1040)	11.3m	10.0m	1.3m	0.5m	0.8m	10.8m	

Areas on chart





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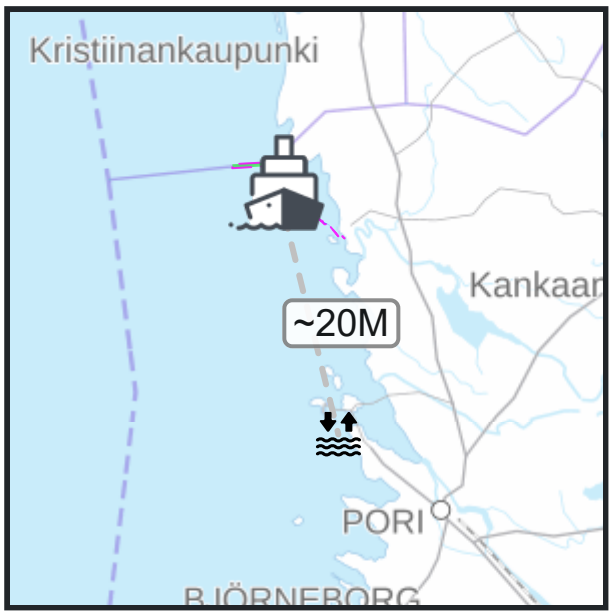
Merikarvian pohjoinen väylä

(61 55.2N / 21 17.5E)

Fairway dimensions

Fairway design draught is **4,2 m (N2000)**. Design draught shall always be corrected for current water level (N2000). The fairway is designed for use in normal conditions, by vessels with a length, breadth, draft and block coefficient (bC) similar to the fairways design vessel. Fairway design values are guidelines. Fairway users are always responsible for use of the fairway, and for always maintaining a safe underkeel clearance, considering the prevailing conditions. Farway minimum width is 50 m. The map shows fairway position and distance to nearest mareograph.



Water level and fairway data

Average N2000-sea level at nearest gauge is +11.3 cm. (Pori Mäntyluoto Kallo, 2023 61 35N / 21 28E) Information about current sea-levels, the local difference between height-systems and the annual change is further explained by the Finnish Meteorological Institute.
https://fiho.fi/lnk/sealev/en

	O.Num	Num	Administrative fairway	Design vessel data			
				Length	Breadth	Draft	bC
2	2005	(2005)	Merikarvian pohjoinen väylä	83	12.6	4.2	0.75

Fairways nearby

2100 (2100) Tahkoluodon hiilisataman väylä ~15M

Estimation of movement allowance case-by-case

Fairway design defines the Gross Underkeel clearance (Gross UKC), that consists of a separate motion allowance and keel margin (net UKC). These are presented, by fairway part, in the table below. In cases where conditions differ from the design, vessel movement might be estimated case-by-case. The keel margin (net UKC) should remain regardless. Estimating the needed vessel movement allowance is possible when there is adequate vessel and fairway data available, and the user is able to verify that the minimum net UKC remains. Further information is given in guideline "Principles and application of channel depths in Finland".https://fiho.fi/lnk/chdepth/en

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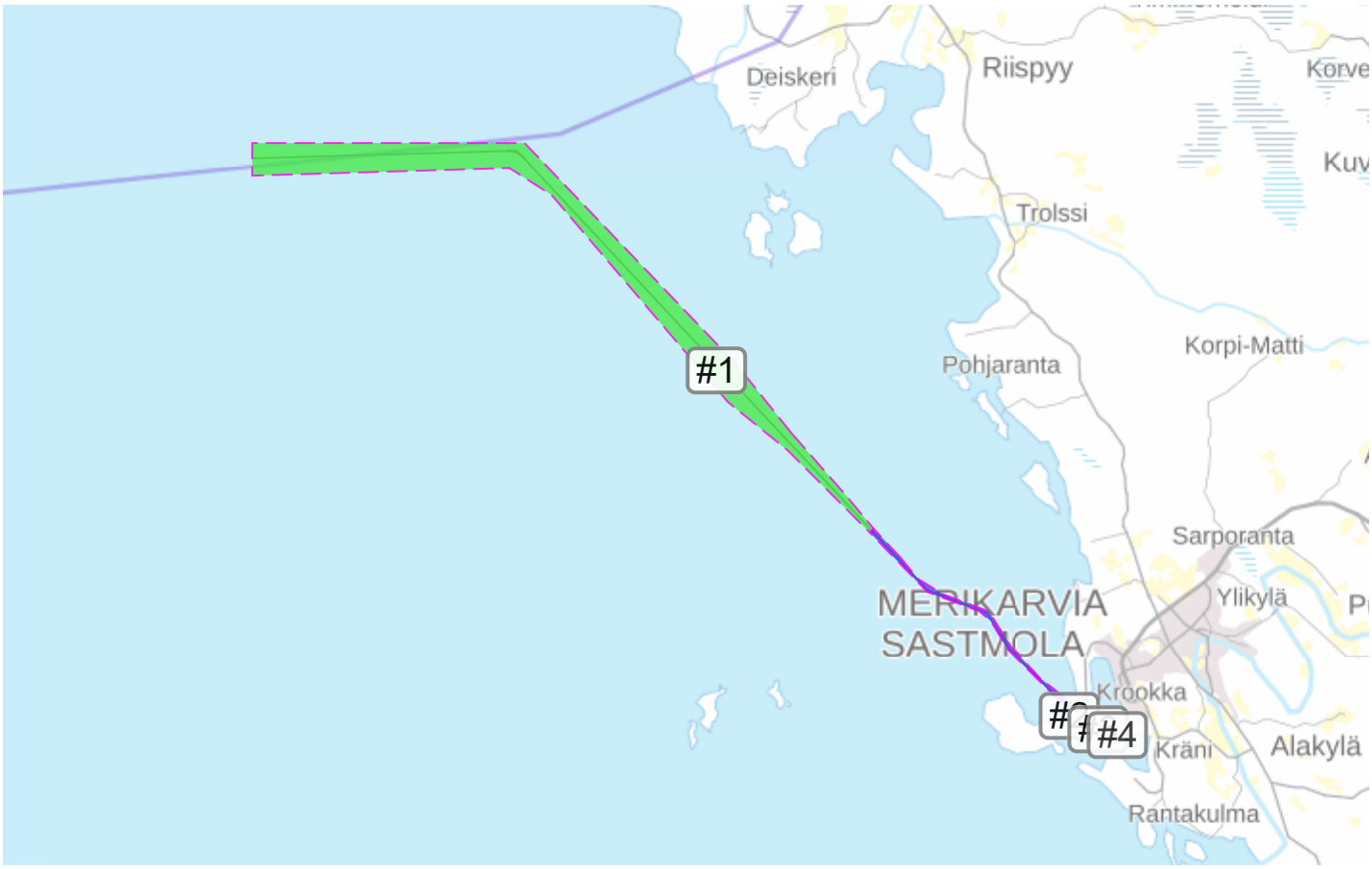
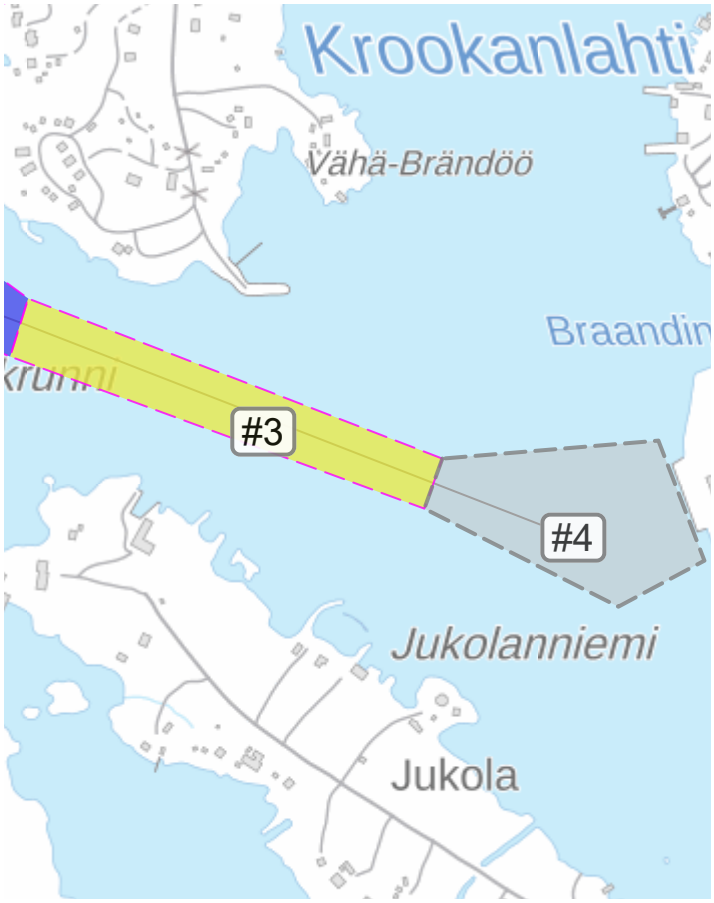
	Swept depth / Minimum depth (N2000)	Designdraft	UKC (Gross) UKC	Keel margin (net UKC)	Movements	Dynam. draft	Speed
#1 (2005)	5.5m	4.2m	1.3m	0.5m	0.8m	5.0m	7.5kn
#2 (2005)	5.0m	4.2m	0.8m	0.5m	0.3m	4.5m	7.5kn
#3 (2005)	4.8m	4.2m	0.6m	0.5m	0.1m	4.3m	
#4 (2005)	4.8m						

Areas on chart





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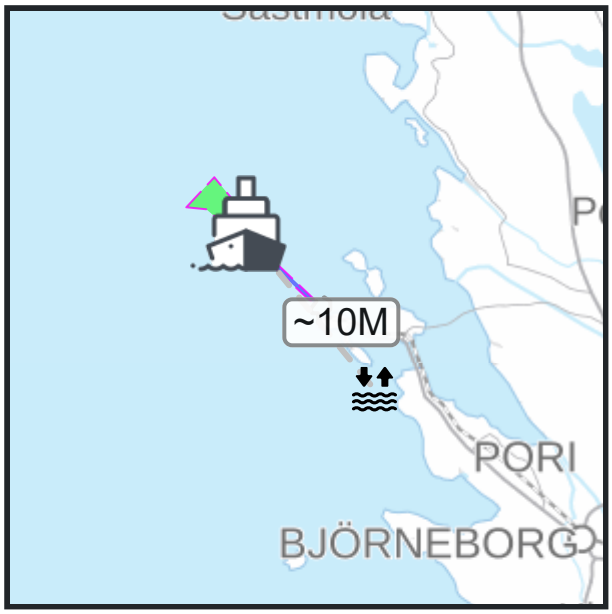
Tahkoluodon hiilisataman väylä

(61 41.8N / 21 16.3E)

Fairway areas within the harbour are partly displayed with fairway 2105.

Fairway dimensions

Fairway design draught is **15,3 m (N2000)**. Design draught shall always be corrected for current water level (N2000). The fairway is designed for use in normal conditions, by vessels with a length, breadth, draft and block coefficient (bC) similar to the fairways design vessel. Fairway design values are guidelines. Fairway users are always responsible for use of the fairway, and for always maintaining a safe underkeel clearance, considering the prevailing conditions. The map shows fairway position and distance to nearest mareograph.



Water level and fairway data

Average N2000-sea level at nearest gauge is +11.3 cm. (Pori Mäntyluoto Kallo, 2023 61 35N / 21 28E) Information about current sea-levels, the local difference between height-systems and the annual change is further explained by the Finnish Meteorological Institute.
https://fiho.fi/lnk/sealev/en

	O.Num	Num	Administrative fairway	Design vessel data			
				Length	Breadth	Draft	bC
1	2100	(2100)	Tahkoluodon hiilisataman väylä	260	40.0	15.3	0.72

Fairways nearby

2105 (2105) Kupeli-Tahkoluoto väylä ~5M	2110 (2110) Mäntyluodon pohjoinen väylä ~10M	2115 (2115) Mäntyluodon eteläinen väylä ~10M	2005 (2005) Merikarvian pohjoinen väylä ~15M

Estimation of movement allowance case-by-case

Fairway design defines the Gross Underkeel clearance (Gross UKC), that consists of a separate motion allowance and keel margin (net UKC). These are presented, by fairway part, in the table below. In cases where conditions differ from the design, vessel movement might be estimated case-by-case. The keel margin (net UKC) should remain regardless. Estimating the needed vessel movement allowance is possible when there is adequate vessel and fairway data available, and the user is able to verify that the minimum net UKC remains. Further information is given in guideline "Principles and application of channel depths in Finland".https://fiho.fi/lnk/chdepth/en

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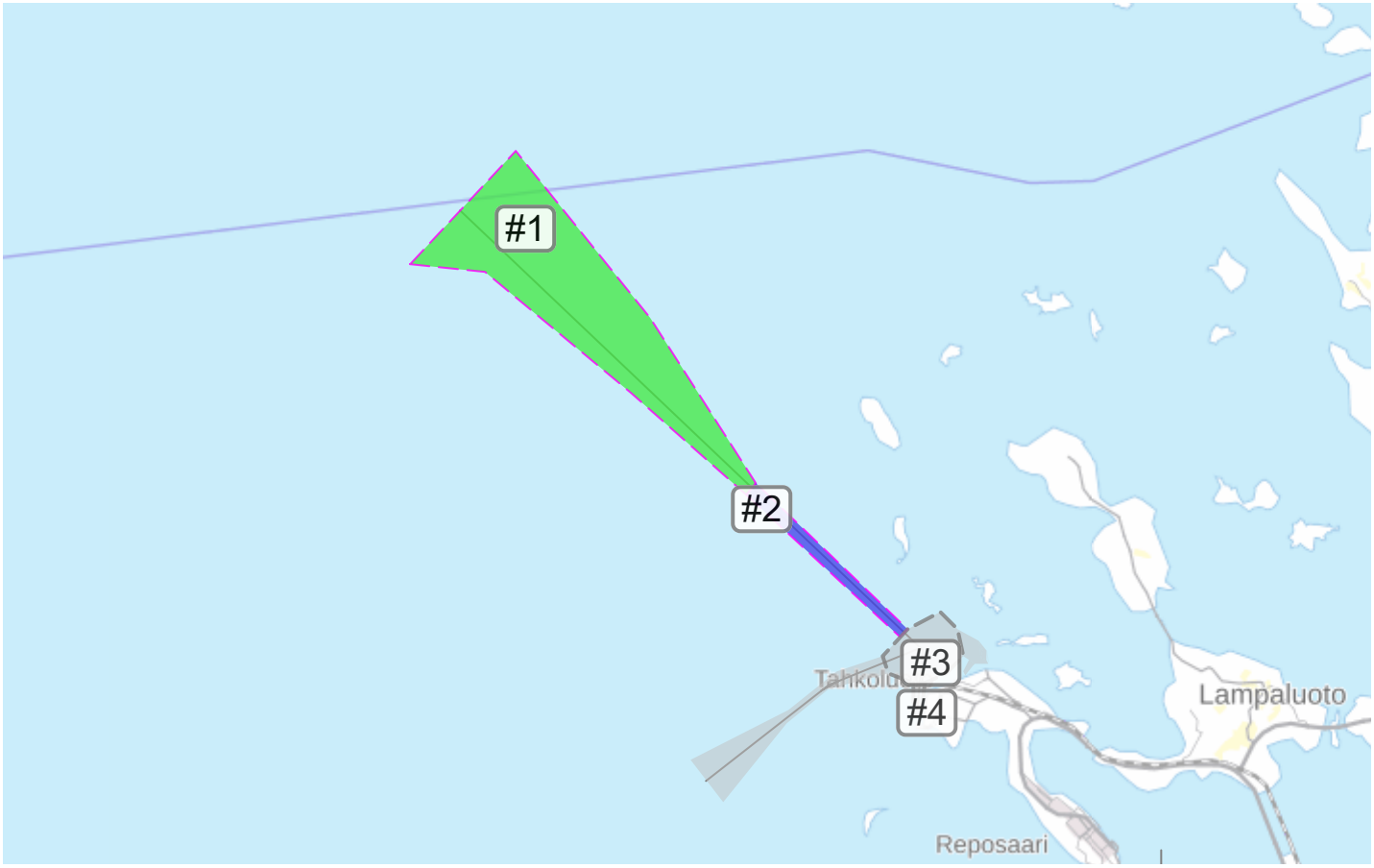
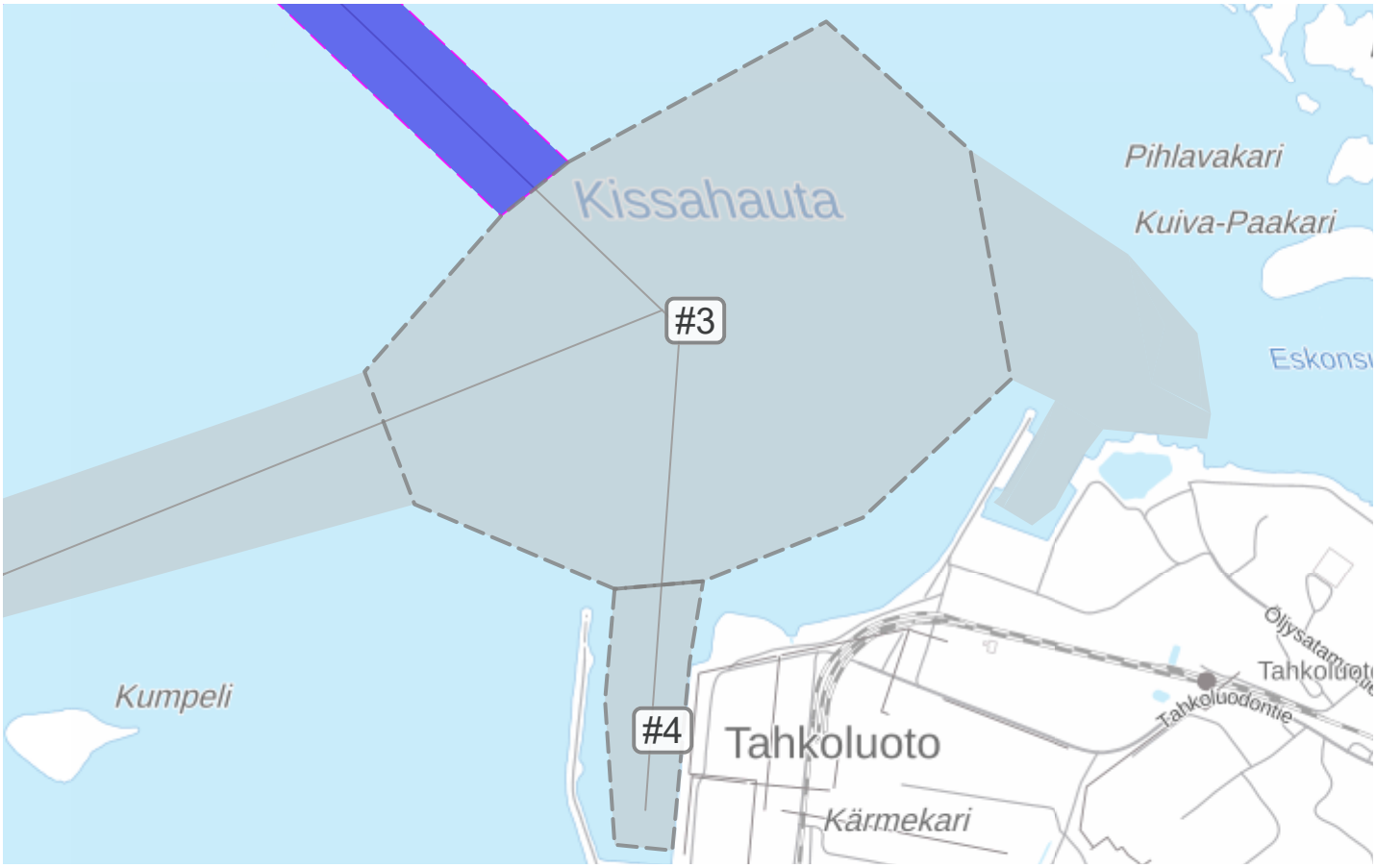
	Swept depth / Minimum depth (N2000)	Designdraft	UKC (Gross) UKC	Keel margin (net UKC)	Movements	Dynam. draft	Speed
#1 (2100)	18.0m	15.3m	2.7m	0.5m	2.2m	17.5m	15.0kn
#2 (2100)	17.3m	15.3m	2.0m	0.5m	1.5m	16.8m	12.0kn
#3 (2100)	17.3m						
#4 (2100)	16.8m						

Areas on chart





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Kupeli-Tahkoluoto väylä

(61 37.7N / 21 19.8E)

Fairway dimensions

Fairway design draught is **10 m (N2000)**. Design draught shall always be corrected for current water level (N2000). The fairway is designed for use in normal conditions, by vessels with a length, breadth, draft and block coefficient (bC) similar to the fairways design vessel. Fairway design values are guidelines. Fairway users are always responsible for use of the fairway, and for always maintaining a safe underkeel clearance, considering the prevailing conditions. The map shows fairway position and distance to nearest mareograph.

Water level and fairway data

Average N2000-sea level at nearest gauge is +11.3 cm. (Pori Mäntyluoto Kallo, 2023 61 35N / 21 28E) Information about current sea-levels, the local difference between height-systems and the annual change is further explained by the Finnish Meteorological Institute.
https://fiho.fi/lnk/sealev/en

	O.Num	Num	Administrative fairway	Design vessel data			
				Length	Breadth	Draft	bC
1	2100	(2100)	Tahkoluodon hiilisataman väylä	260	40.0	15.3	0.72
1	2105	(2105)	Kupeli-Tahkoluoto väylä	180	25.0	10.0	0.72

Fairways nearby

2110 (2110) Mäntyluodon pohjoinen väylä ~5M	2115 (2115) Mäntyluodon eteläinen väylä ~5M	2100 (2100) Tahkoluodon hiilisataman väylä ~5M

Estimation of movement allowance case-by-case

Fairway design defines the Gross Underkeel clearance (Gross UKC), that consists of a separate motion allowance and keel margin (net UKC). These are presented, by fairway part, in the table below. In cases where conditions differ from the design, vessel movement might be estimated case-by-case. The keel margin (net UKC) should remain regardless. Estimating the needed vessel movement allowance is possible when there is adequate vessel and fairway data available, and the user is able to verify that the minimum net UKC remains. Further information is given in guideline "Principles and application of channel depths in Finland".https://fiho.fi/lnk/chdepth/en

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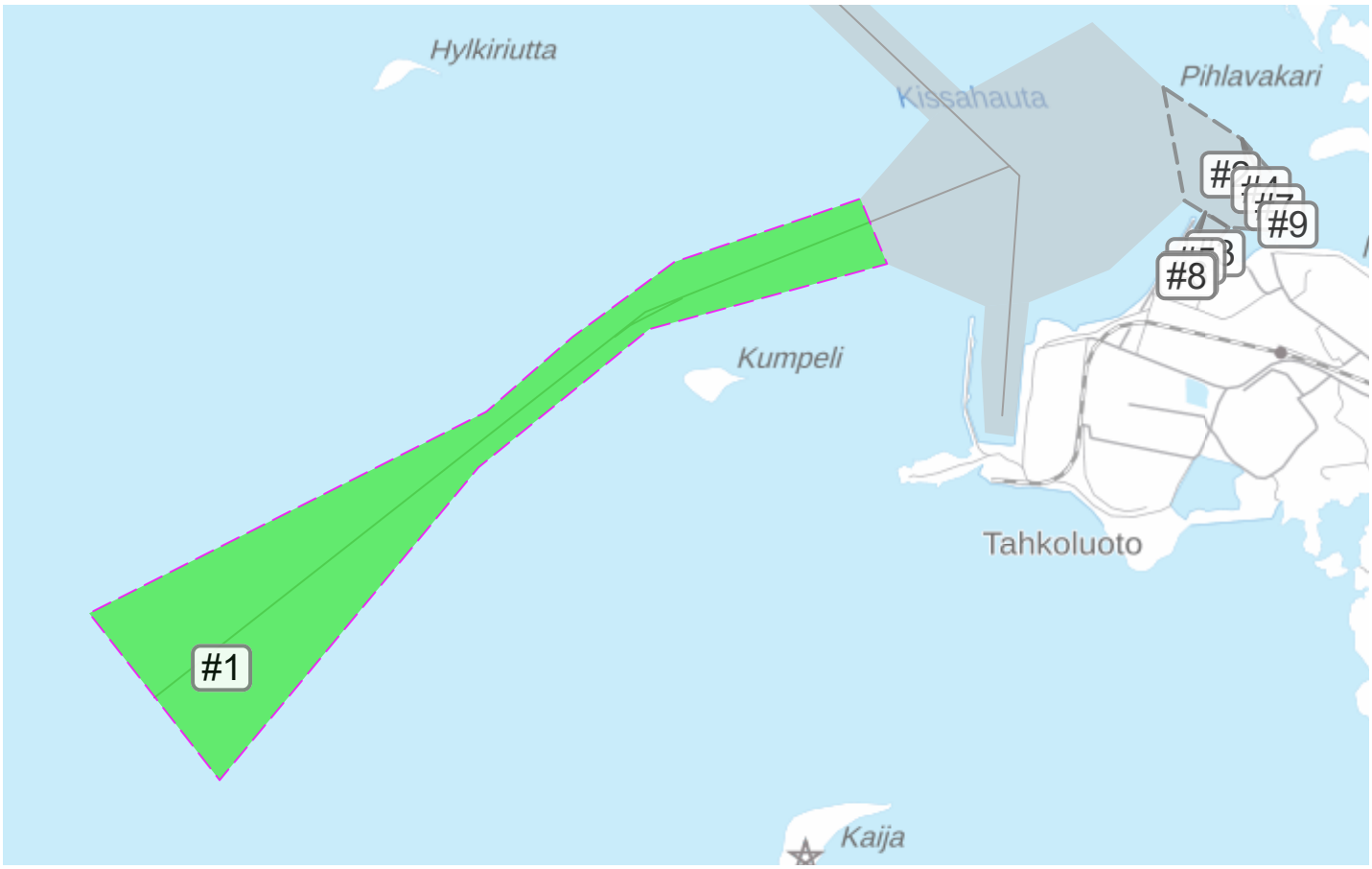
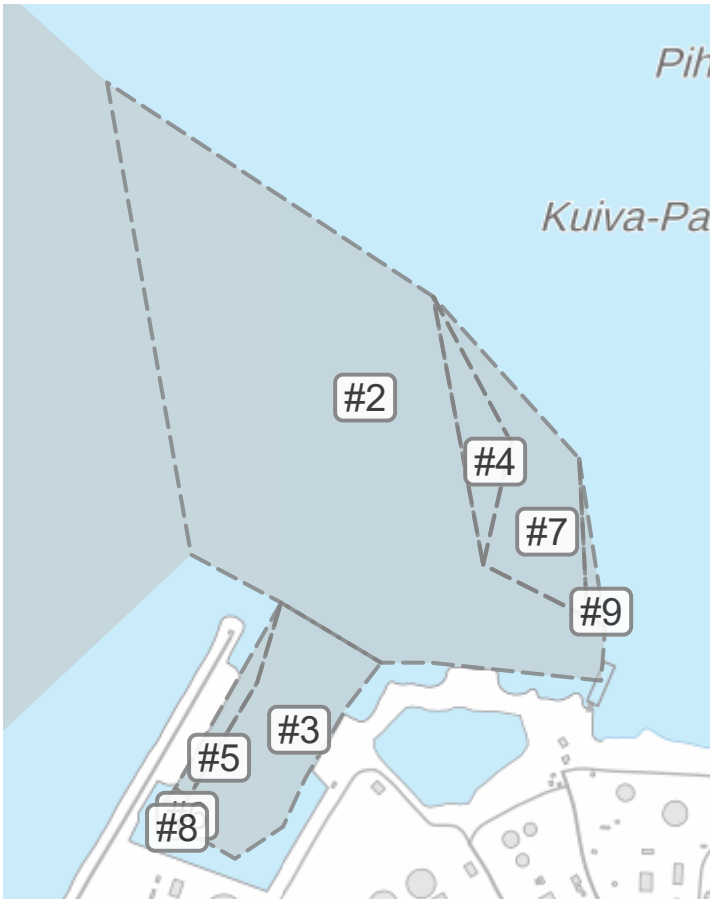
	Swept depth / Minimum depth (N2000)	Designdraft	UKC (Gross) UKC	Keel margin (net UKC)	Movements	Dynam. draft	Speed
#1 (2105)	11.6m	10.0m	1.6m	0.5m	1.1m	11.1m	10.0kn
#2 (2100)	13.5m						
#3 (2100)	12.8m						
#4 (2100)	11.1m						
#5 (2100)	10.8m						
#6 (2100)	10.2m						
#7 (2100)	9.7m						
#8 (2100)	9.2m						
#9 (2100)	8.3m						

Areas on chart





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Fairwaycard

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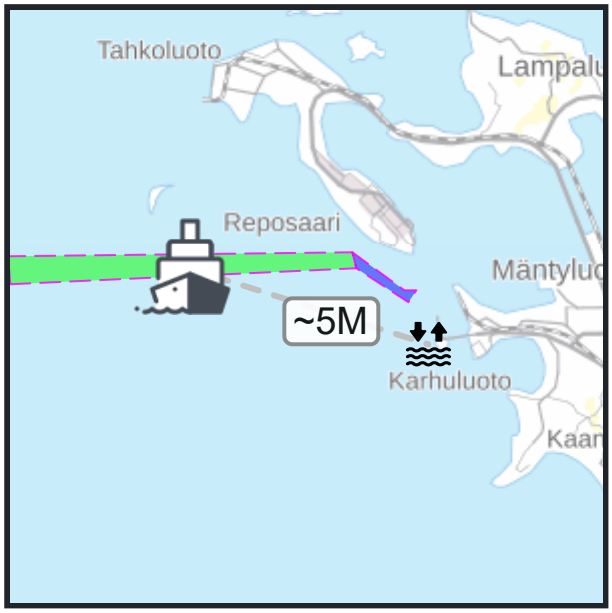
Mäntyluodon pohjoinen väylä

(61 36.2N / 21 22.5E)

Fairway dimensions

Fairway design draught is **6,5 m (N2000)**. Design draught shall always be corrected for current water level (N2000). The fairway is designed for use in normal conditions, by vessels with a length, breadth, draft and block coefficient (bC) similar to the fairways design vessel. Fairway design values are guidelines. Fairway users are always responsible for use of the fairway, and for always maintaining a safe underkeel clearance, considering the prevailing conditions. The map shows fairway position and distance to nearest mareograph.



Water level and fairway data

Average N2000-sea level at nearest gauge is +11.3 cm. (Pori Mäntyluoto Kallo, 2023 61 35N / 21 28E) Information about current sea-levels, the local difference between height-systems and the annual change is further explained by the Finnish Meteorological Institute.
https://fiho.fi/lnk/sealev/en

	O.Num	Num	Administrative fairway	Design vessel data			
				Length	Breadth	Draft	bC
2	2110	(2110)	Mäntyluodon pohjoinen väylä	140	20.0	6.5	0.72

Fairways nearby

2105 (2105) Kupeli-Tahkoluoto väylä ~5M	2115 (2115) Mäntyluodon eteläinen väylä ~5M	2100 (2100) Tahkoluodon hiilisataman väylä ~10M

Estimation of movement allowance case-by-case

Fairway design defines the Gross Underkeel clearance (Gross UKC), that consists of a separate motion allowance and keel margin (net UKC). These are presented, by fairway part, in the table below. In cases where conditions differ from the design, vessel movement might be estimated case-by-case. The keel margin (net UKC) should remain regardless. Estimating the needed vessel movement allowance is possible when there is adequate vessel and fairway data available, and the user is able to verify that the minimum net UKC remains. Further information is given in guideline "Principles and application of channel depths in Finland".https://fiho.fi/lnk/chdepth/en

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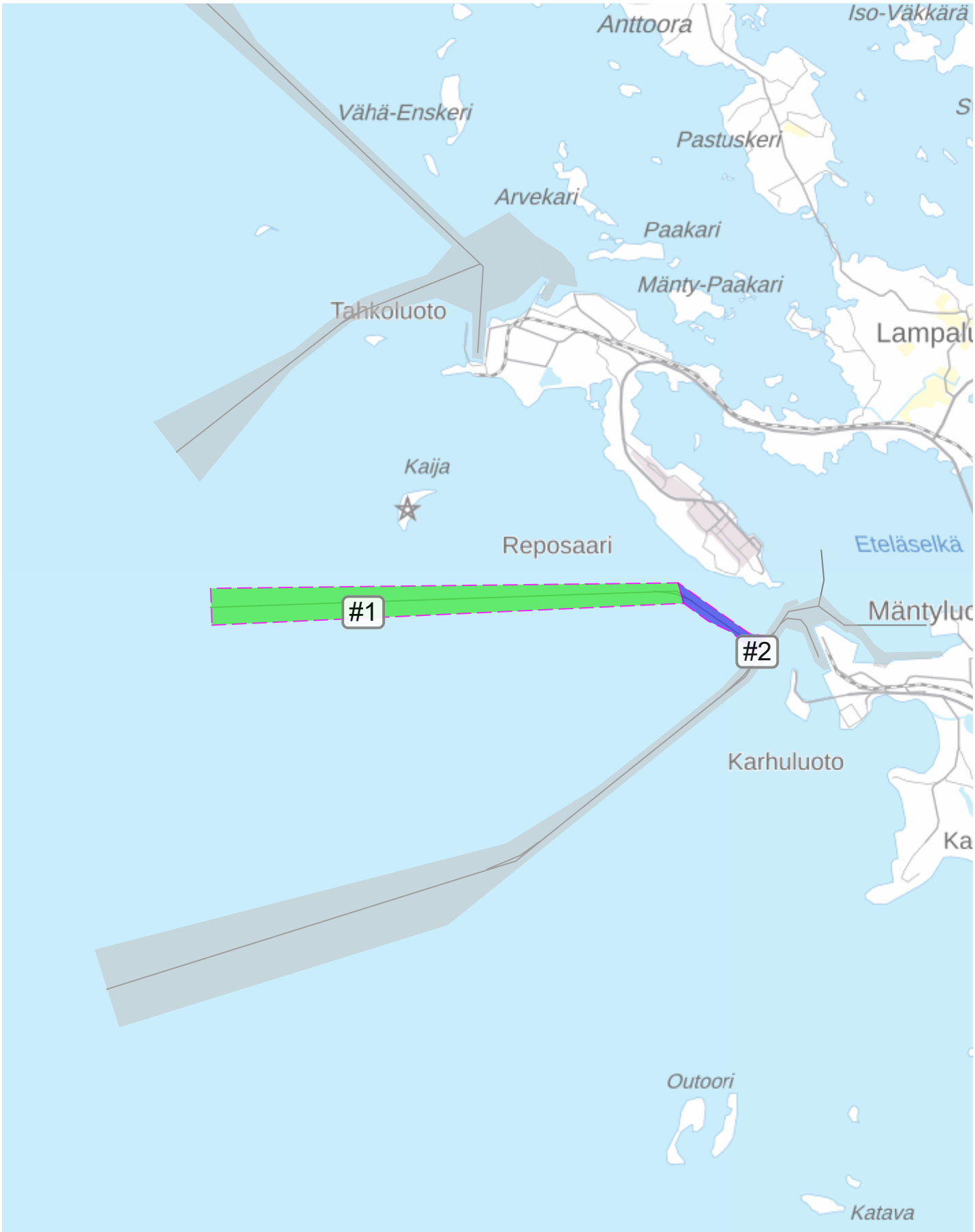
	Swept depth / Minimum depth (N2000)	Designdraft	UKC (Gross) UKC	Keel margin (net UKC)	Movements	Dynam. draft	Speed
#1 (2110)	8.3m	6.5m	1.8m	0.5m	1.3m	7.8m	12.0kn
#2 (2110)	7.9m	6.5m	1.4m	0.5m	0.9m	7.4m	9.0kn

Areas on chart



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Mäntyluodon eteläinen väylä

(61 34.1N / 21 21.6E)

Fairway dimensions

Fairway design draught is **12 m (N2000)**. Design draught shall always be corrected for current water level (N2000). The fairway is designed for use in normal conditions, by vessels with a length, breadth, draft and block coefficient (bC) similar to the fairways design vessel. Fairway design values are guidelines. Fairway users are always responsible for use of the fairway, and for always maintaining a safe underkeel clearance, considering the prevailing conditions. The map shows fairway position and distance to nearest mareograph.

Water level and fairway data

Average N2000-sea level at nearest gauge is +11.3 cm. (Pori Mäntyluoto Kallo, 2023 61 35N / 21 28E) Information about current sea-levels, the local difference between height-systems and the annual change is further explained by the Finnish Meteorological Institute.
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	O.Num	Num	Administrative fairway	Design vessel data			
				Length	Breadth	Draft	bC
1	2115	(2115)	Mäntyluodon eteläinen väylä	210	35.0	12.0	0.72

Fairways nearby

2110 (2110) Mäntyluodon pohjoinen väylä ~5M	2105 (2105) Kupeli-Tahkoluoto väylä ~5M	2100 (2100) Tahkoluodon hiilisataman väylä ~10M

Estimation of movement allowance case-by-case

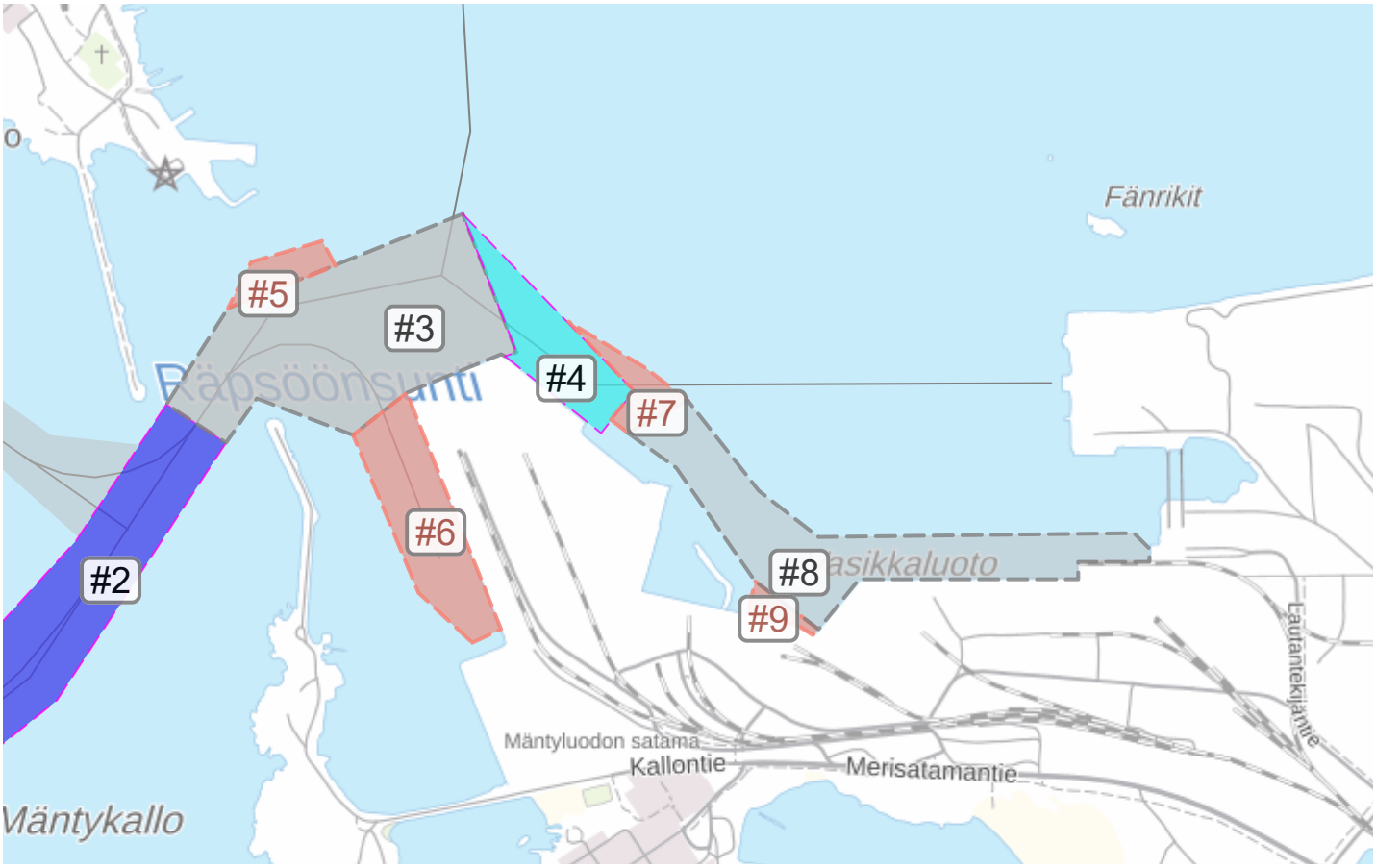
Fairway design defines the Gross Underkeel clearance (Gross UKC), that consists of a separate motion allowance and keel margin (net UKC). These are presented, by fairway part, in the table below. In cases where conditions differ from the design, vessel movement might be estimated case-by-case. The keel margin (net UKC) should remain regardless. Estimating the needed vessel movement allowance is possible when there is adequate vessel and fairway data available, and the user is able to verify that the minimum net UKC remains. Further information is given in guideline "Principles and application of channel depths in Finland".https://fiho.fi/lnk/chdepth/en

Fairway design data by fairwaypart

The table contains fairway design-data for fairway areas. The information is provvided as a supplement to information in the nautical chart. Areas might have different design drafts. For areas with no established design draft, only the minimum depth is displayed. Areas with a design draft less than the main design draft of the fairway, are displayed with an exclamation mark (!) and information in red color. The fairway number is displayed in brackets. Design speeds are presented if reliable information is available.

	Swept depth / Minimum depth (N2000)	Designdraft	UKC (Gross) UKC	Keel margin (net UKC)	Movements	Dynam. draft	Speed
#1 (2115)	13.8m	12.0m	1.8m	0.5m	1.3m	13.3m	11.0kn
#2 (2115)	13.6m	12.0m	1.6m	0.5m	1.1m	13.1m	10.0kn
#3 (2115)	13.3m	12.0m	1.3m	0.5m	0.8m	12.8m	
#4 (2115)	13.4m	12.0m	1.4m	0.5m	0.9m	12.9m	
! #5 (2115)	11.0m	9.8m	1.2m	0.5m	0.7m	10.5m	
! #6 (2115)	10.9m	9.7m	1.2m	0.5m	0.7m	10.4m	
! #7 (2115)	8.0m	0.0m	8.0m	0.5m	7.5m	7.5m	
#8 (2115)	7.7m						
! #9 (2115)	6.3m	0.0m	6.3m	0.5m	5.8m	5.8m	

Areas on chart



Additional information

Additional information is given in guideline "Principles and application of channel depths in Finland". The Sailing Directions for Finnish waters - Part 1, also presents terminology, operational requirements, available tools and best practices. Mariners are recommended to follow established best practices.https://fiho.fi/lnk/chdepth/en , https://fiho.fi/lnk/sd/en

Fairwaycard

Only the most important fairway information is reproduced here. Further fairway-related information and details regarding the fairway is found in the Fairway card, maintained by the fairway authority. https://fiho.fi/lnk/vk/en