Milford Haven Port Authority

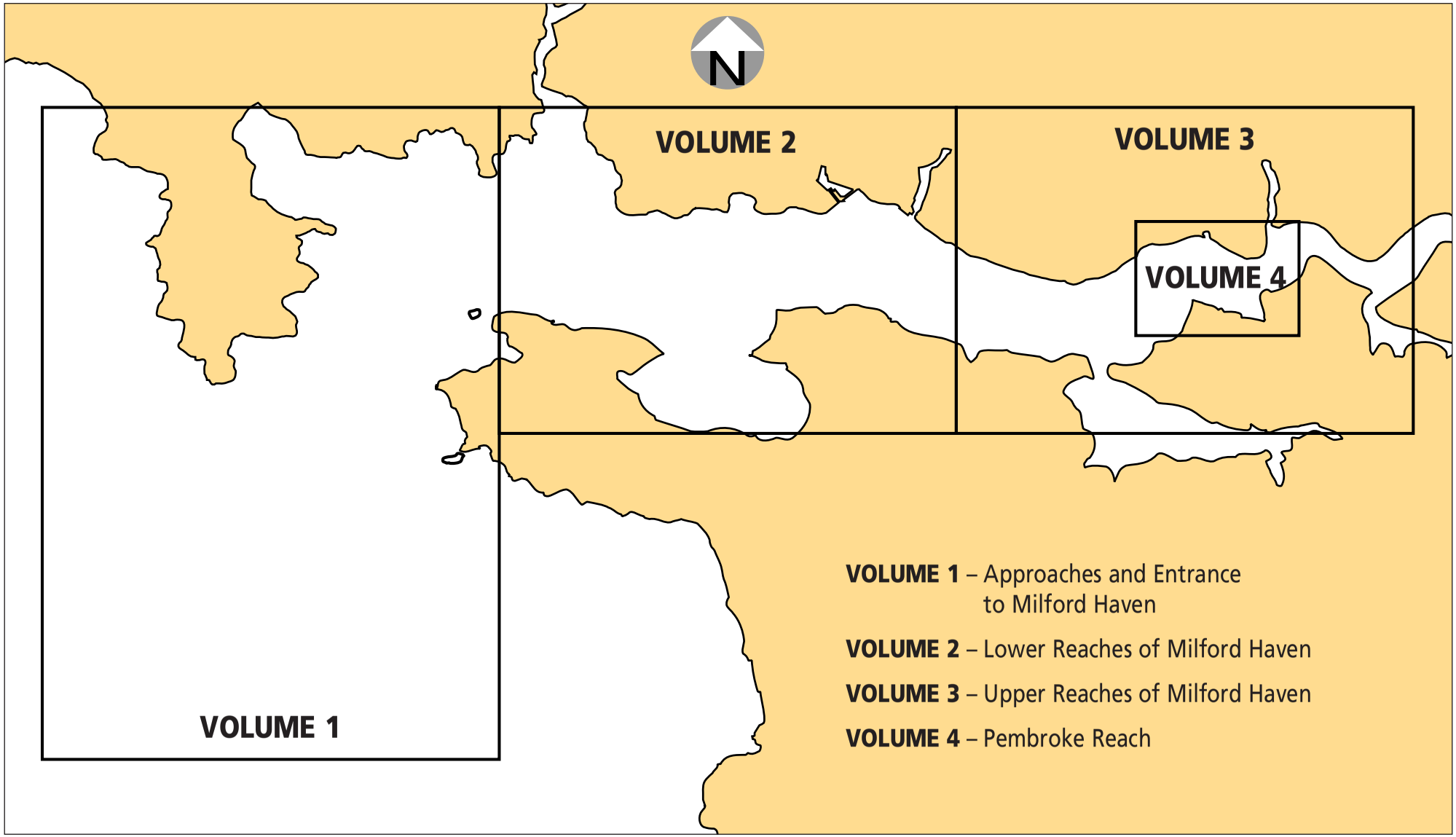
Tidal Stream Atlas

Milford Haven: Upper Reaches

Volume 3

Milford Haven Tidal Stream Atlases

KEY MAP TO STUDY AREAS



TIDAL STREAM ATLAS

Milford Haven Waterway and Approaches

The Milford Haven Tidal Stream study was undertaken between January 1997 and October 1999 by the Coastal Surveys Group of Hyder Laboratories and Sciences, with assistance from Longdin and Browning. The aim of the study was to monitor current velocities within Milford Haven to provide a more comprehensive understanding of the nature of the prevailing tidal regime within the port limits.

The study included three intensive data collection exercises during which tidal streams were monitored using both shore based radar systems and vessel mounted current profilers. The data collected were processed to provide tidal stream information in a Tidal Diamond format at numerous locations within the port. The depth averaged data, i.e. representing the current velocity averaged over the whole water column, have been presented in a series of Tidal Stream Atlases. For this, the study area has been divided into four regions; the Approaches and Entrance, the Lower Reaches, the Upper Reaches and Pembroke Reach.

The Atlases contain charts showing tidal streams at half hourly intervals commencing 6 hours before H.W. Milford Haven and ending 6 hours after H.W. Milford Haven. The times of H.W. Milford Haven and other details of the prediction for the port are given in N.P. 200 Admiralty Tide Tables Vol. 1, which is published annually.

On the charts the direction of the tidal streams are shown by arrows which are graded in weight and where possible in length to indicate the approximate rate of the tidal stream. The figures against the arrow give the rates in tenths of a knot. The approximate position of which the observations were obtained is the centre of the arrow.

It should be noted that the data presentations contained within these Atlases are intended to be representative of average conditions experienced for tides of mean spring and mean neap range during settled weather conditions. Significant variations from this average situation can occur given tides of different range and/or unsettled weather conditions. In addition, because they are based on a relatively small sample of observed data there may be undetected anomalies present within the data set and therefore it should be used with extreme caution.

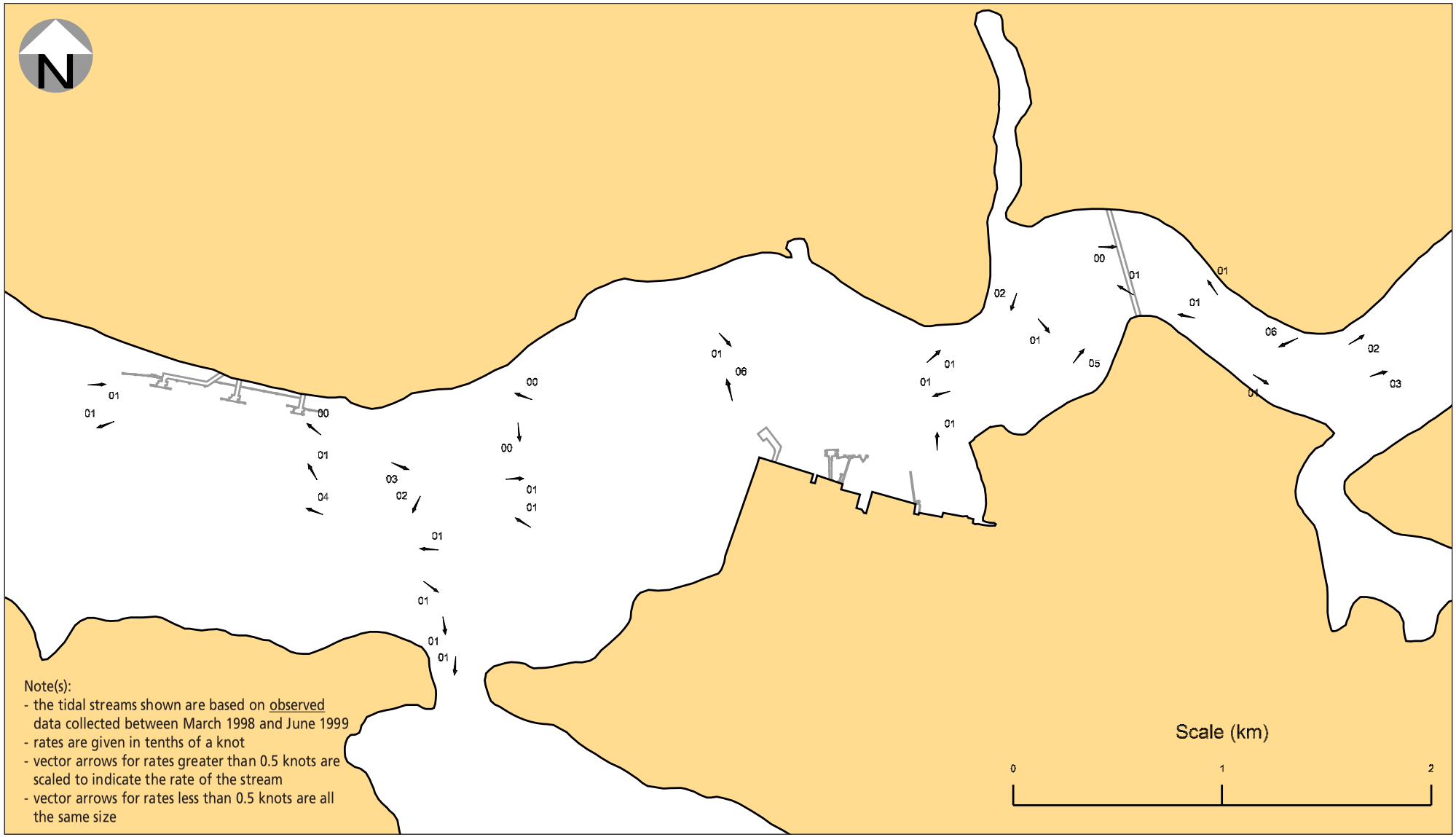
Mr. David Brown, *Senior Marine Scientist, Hyder Environmental*

Volume 1	Milford Haven : The Approaches and Entrance
Volume 2	Milford Haven : The Lower Reaches
Volume 3	Milford Haven : The Upper Reaches
Volume 4	Milford Haven : Pembroke Reach

Published by Milford Haven Port Authority

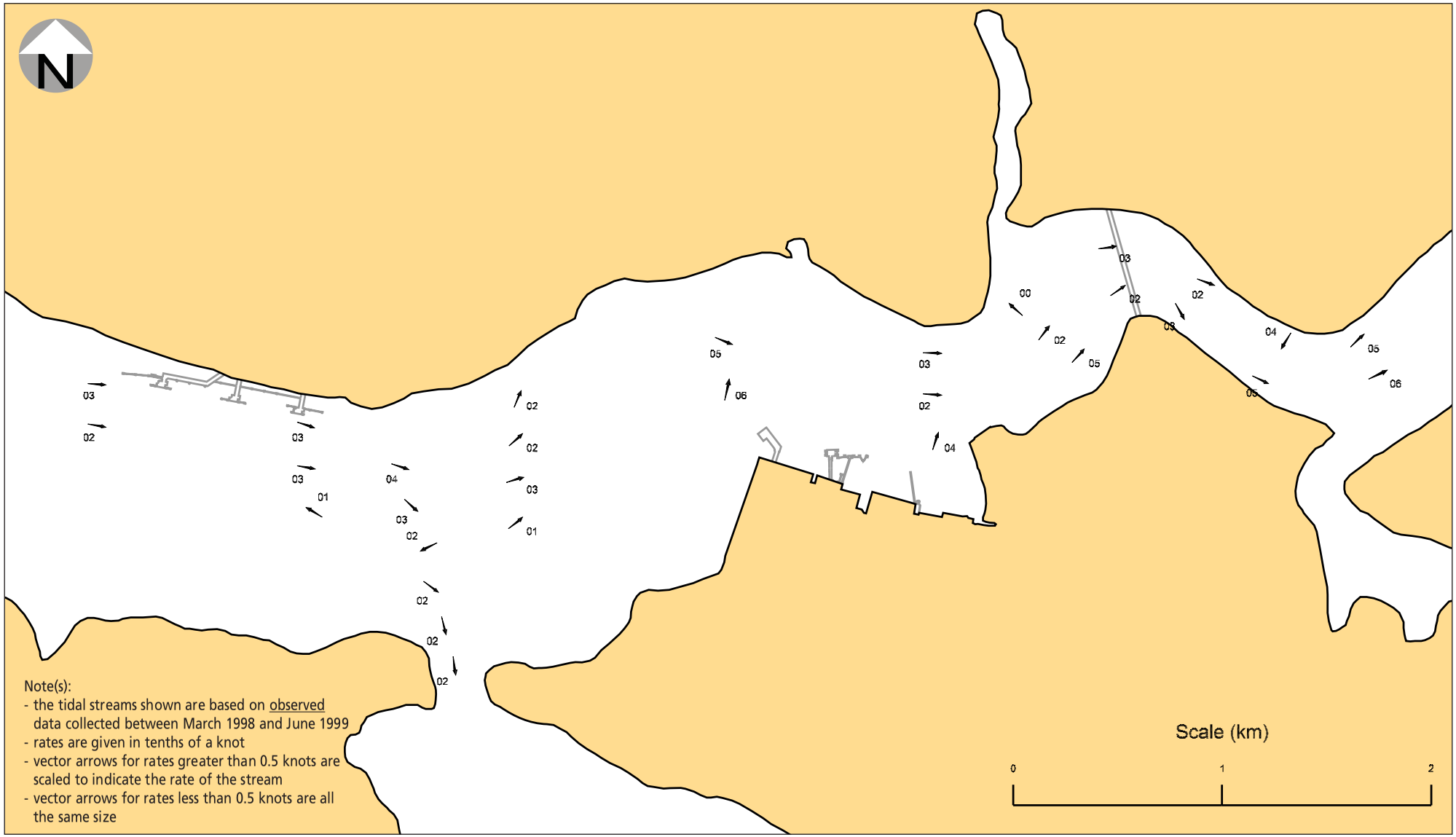
Upper Reaches of Milford Haven

SPRING TIDE AT 6 HOURS BEFORE HIGH WATER



Upper Reaches of Milford Haven

SPRING TIDE AT 5.5 HOURS BEFORE HIGH WATER



Upper Reaches of Milford Haven

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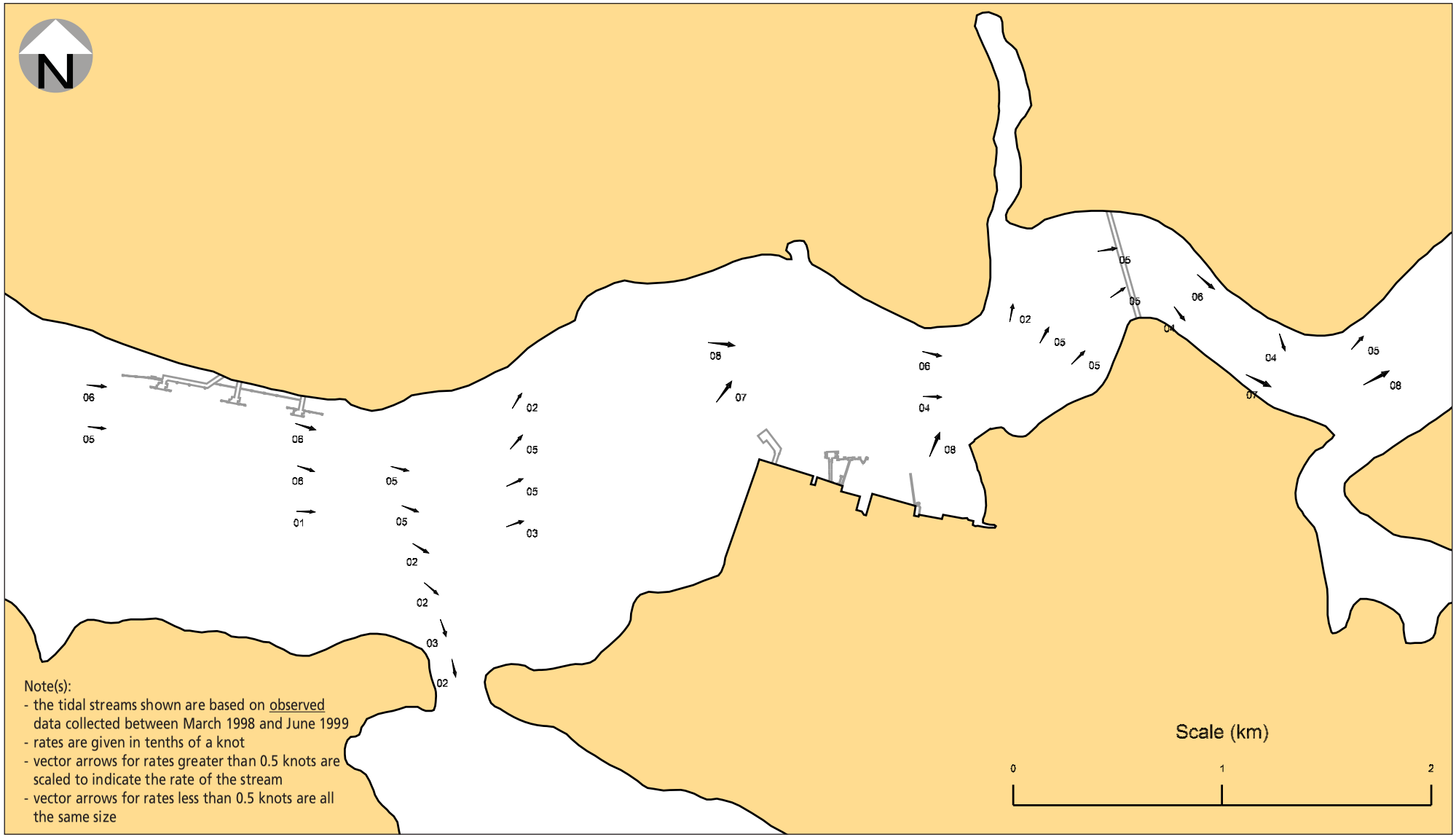
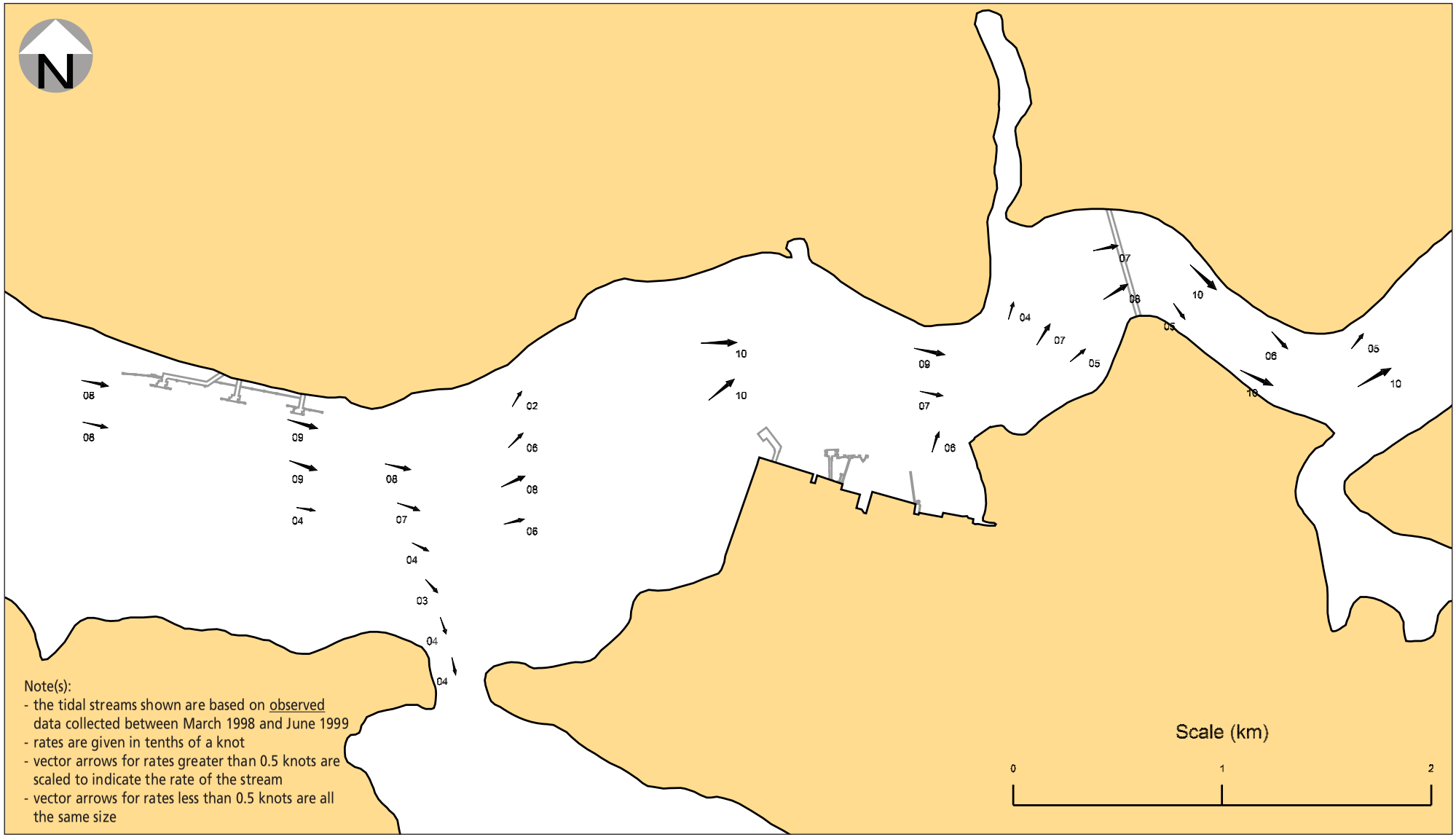


Upper Reaches of Milford Haven

SPRING TIDE AT 4.5 HOURS BEFORE HIGH WATER



Upper Reaches of Milford Haven

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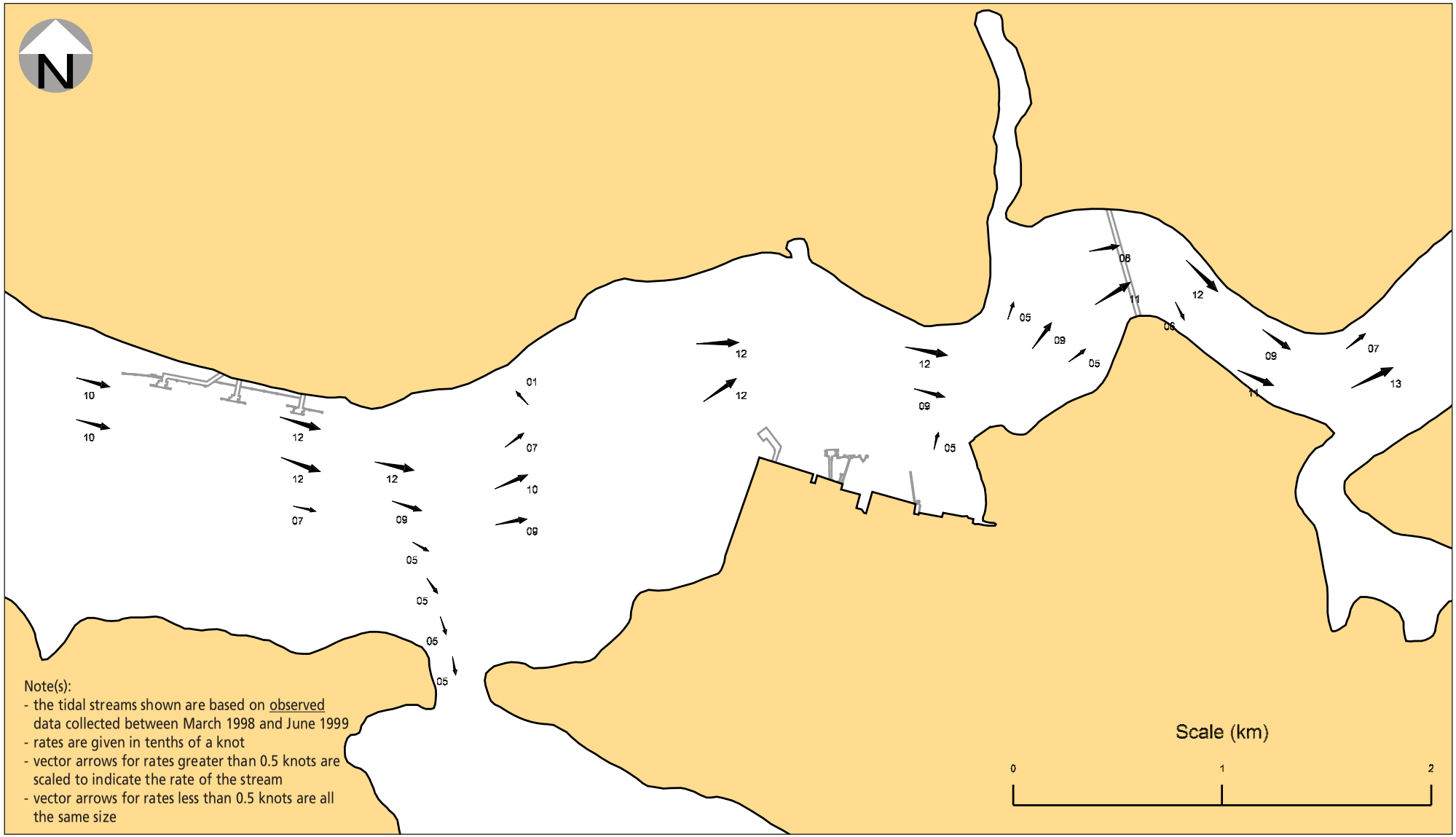
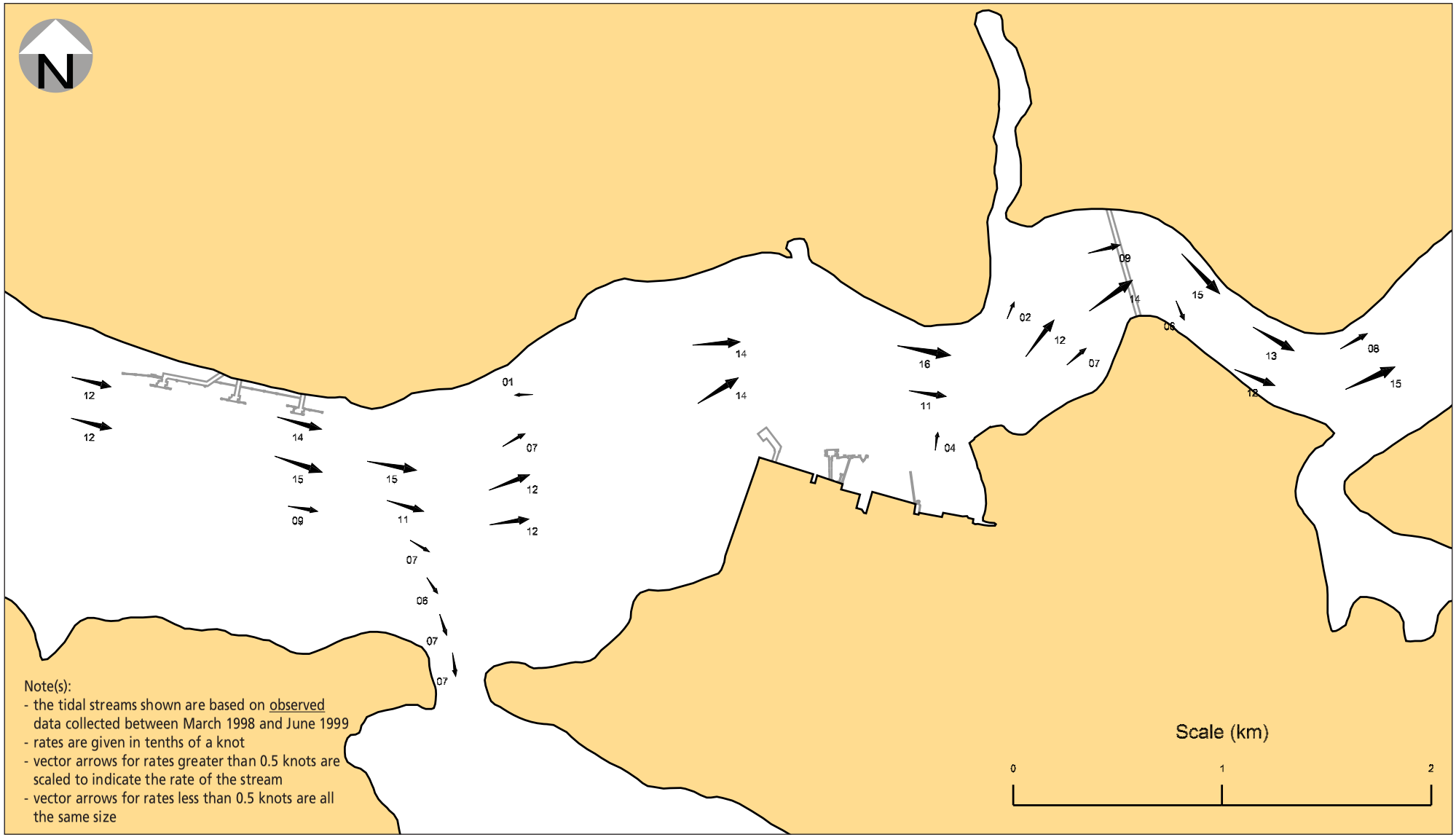


Upper Reaches of Milford Haven

SPRING TIDE AT 3.5 HOURS BEFORE HIGH WATER



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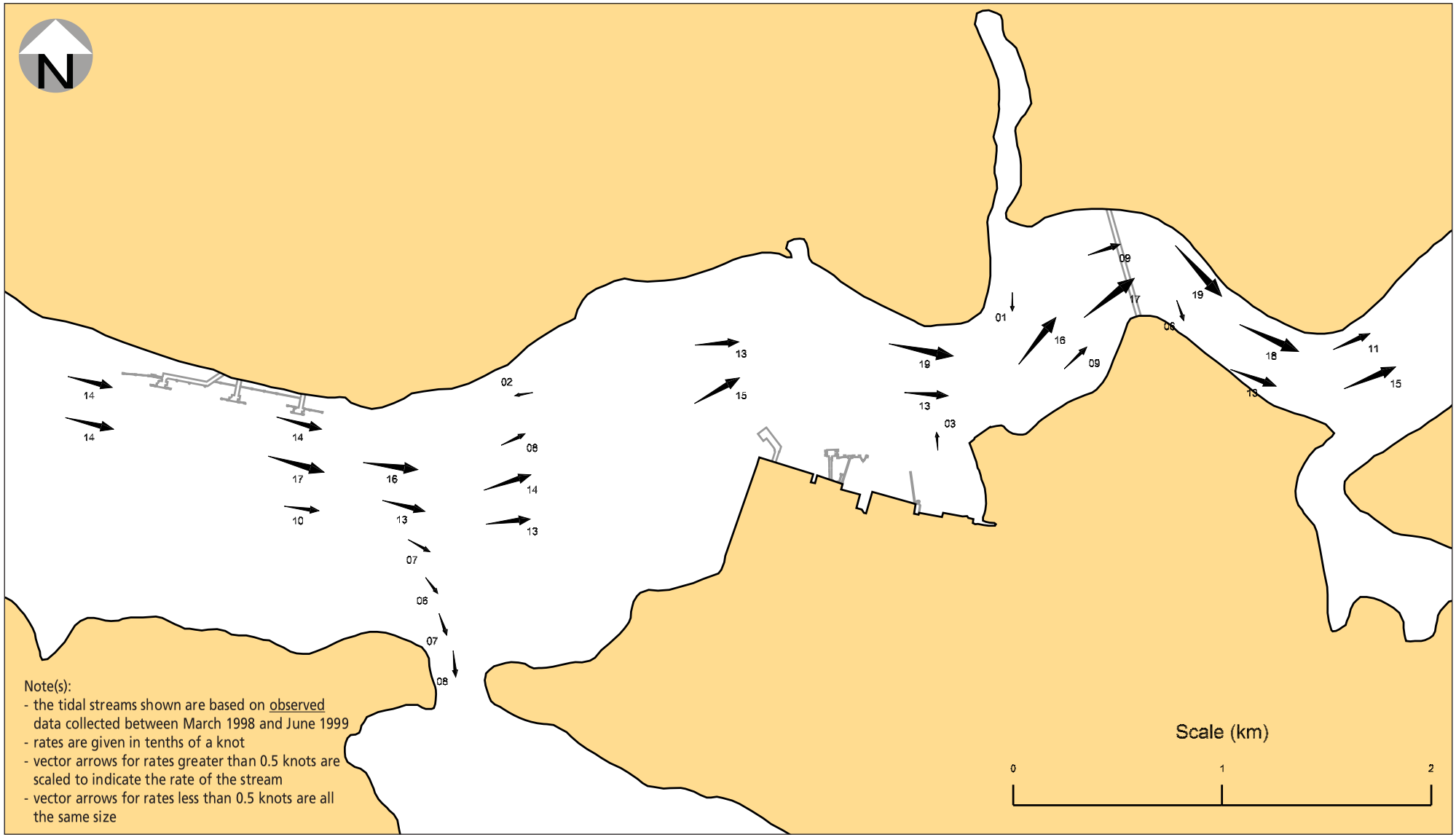

Upper Reaches of Milford Haven

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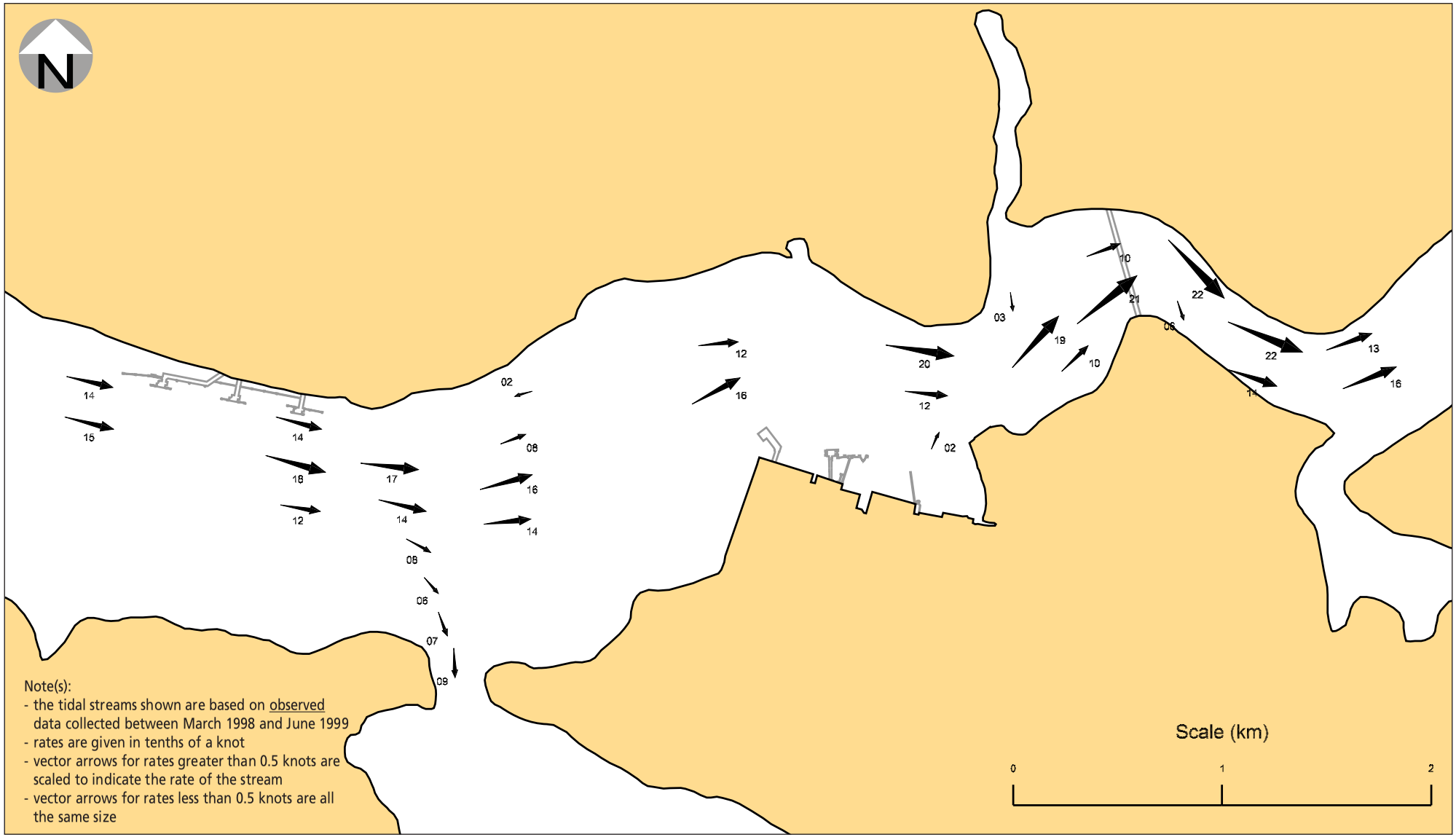

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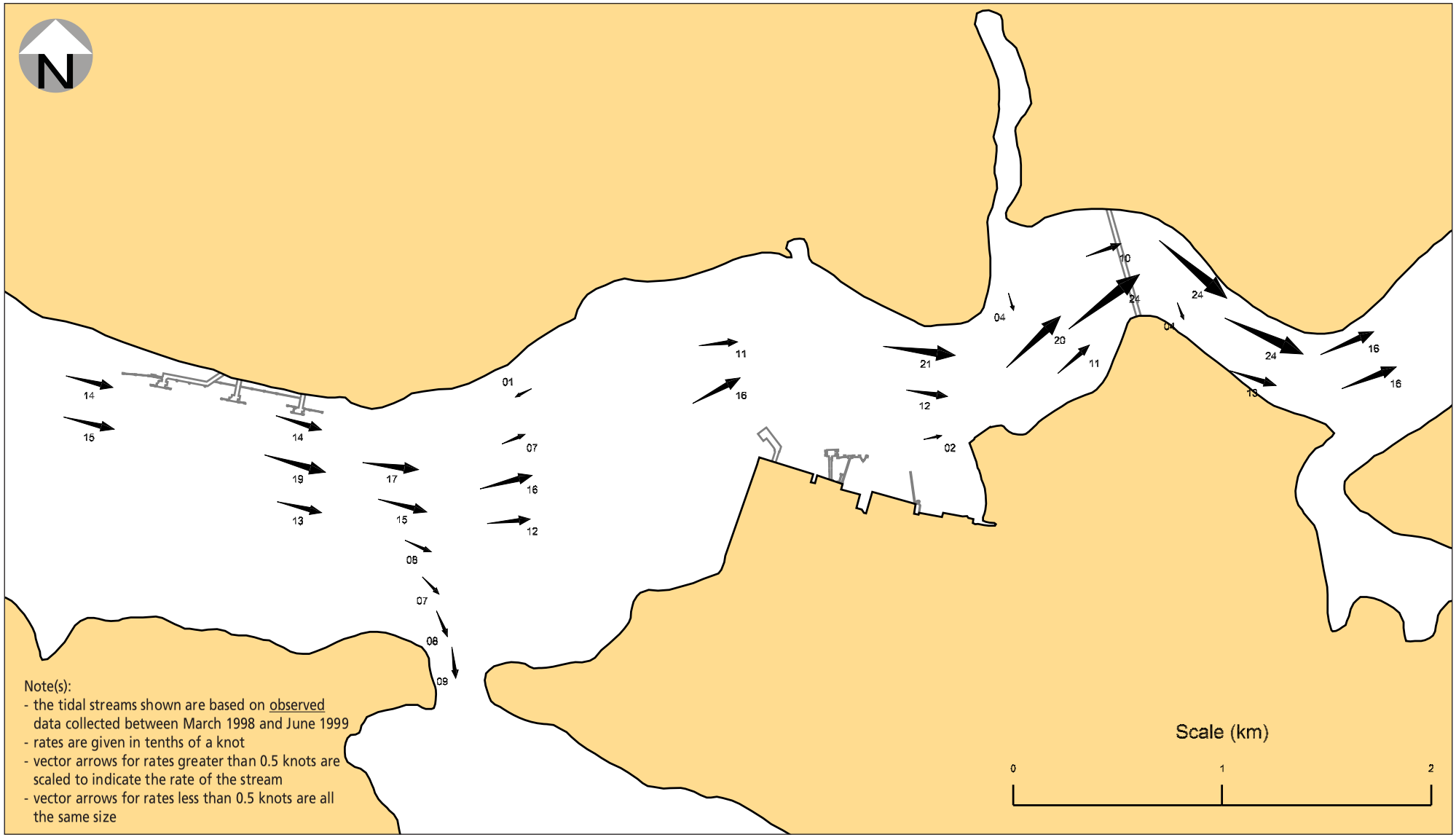

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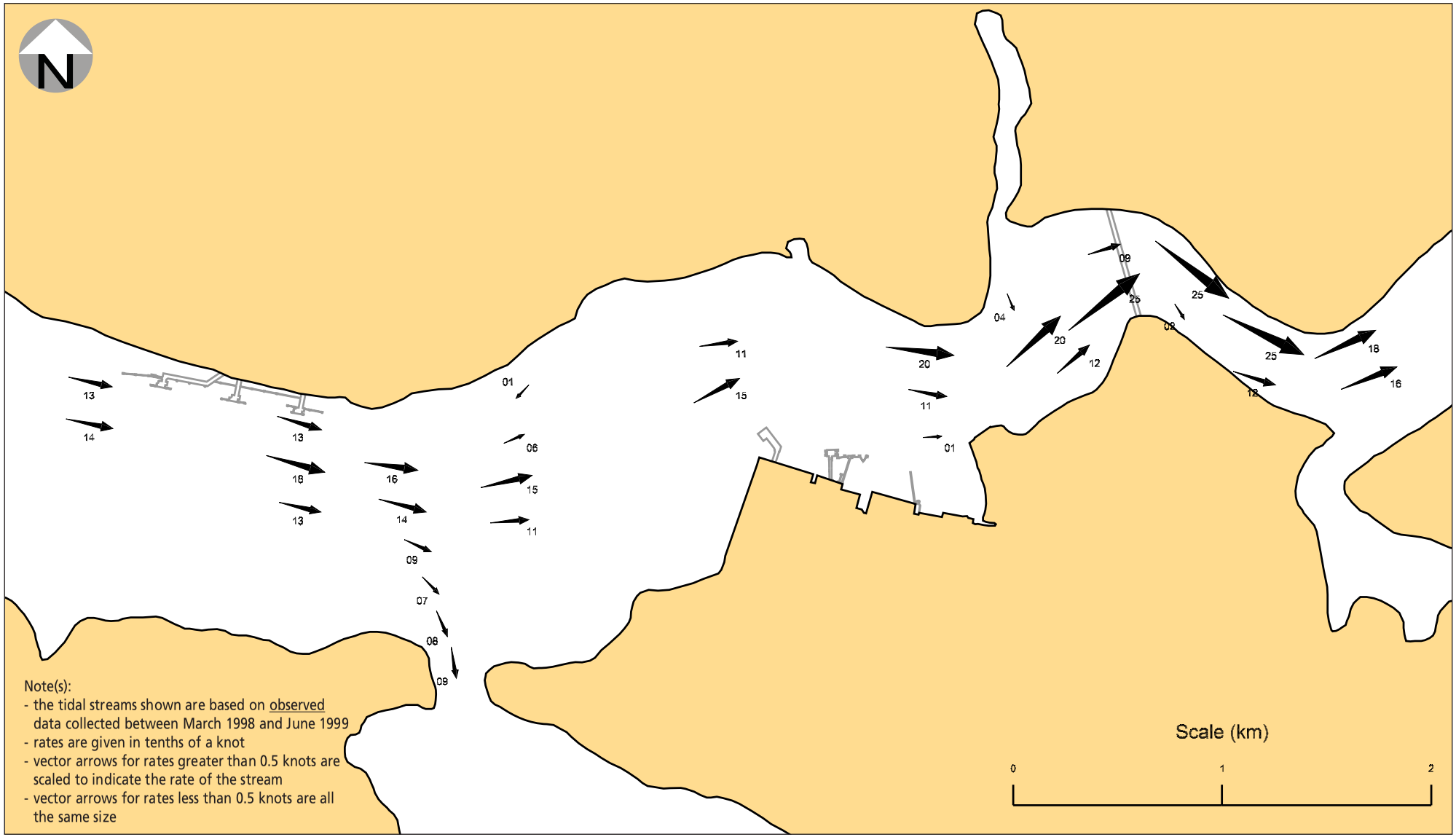

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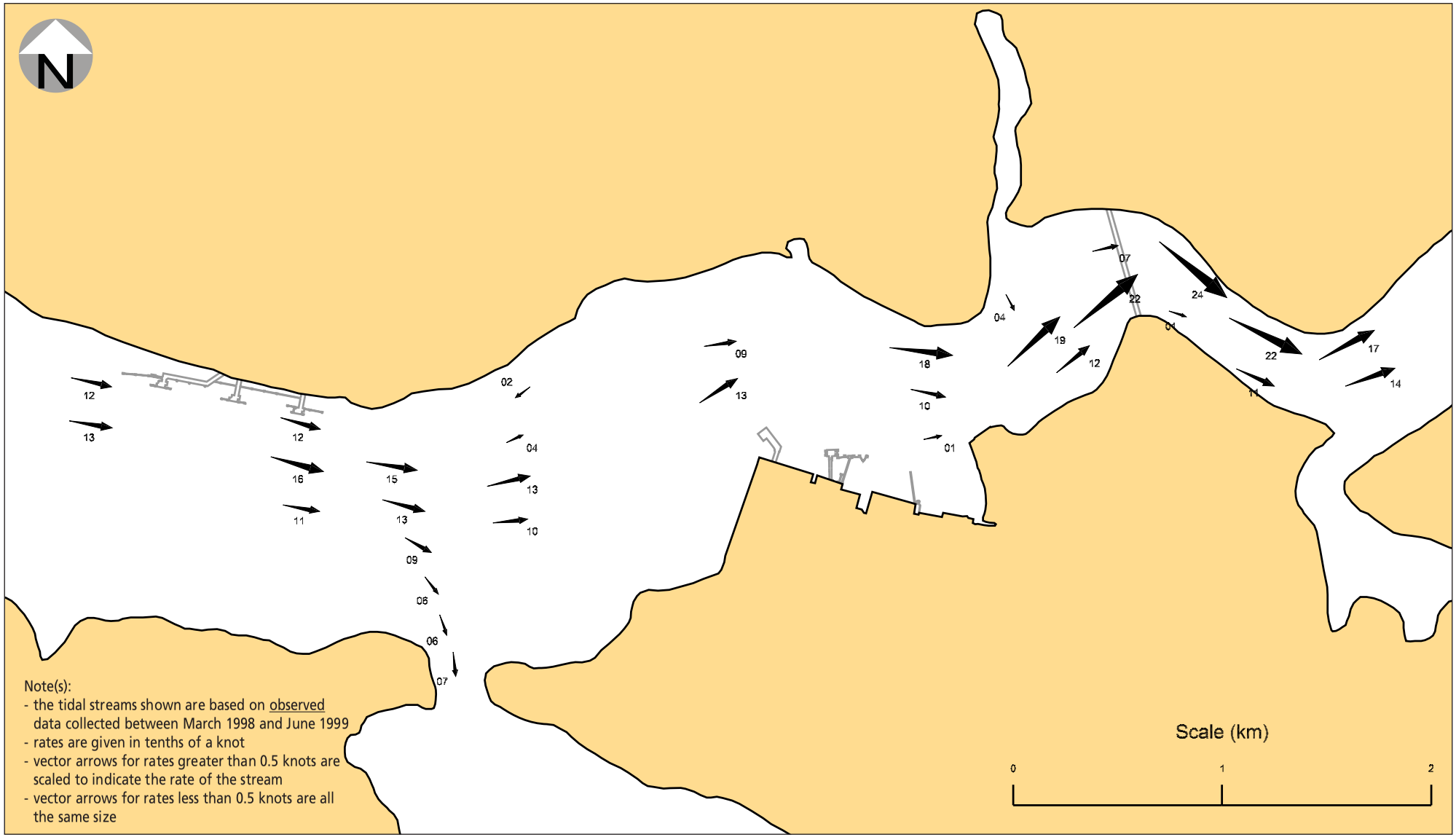

Upper Reaches of Milford Haven

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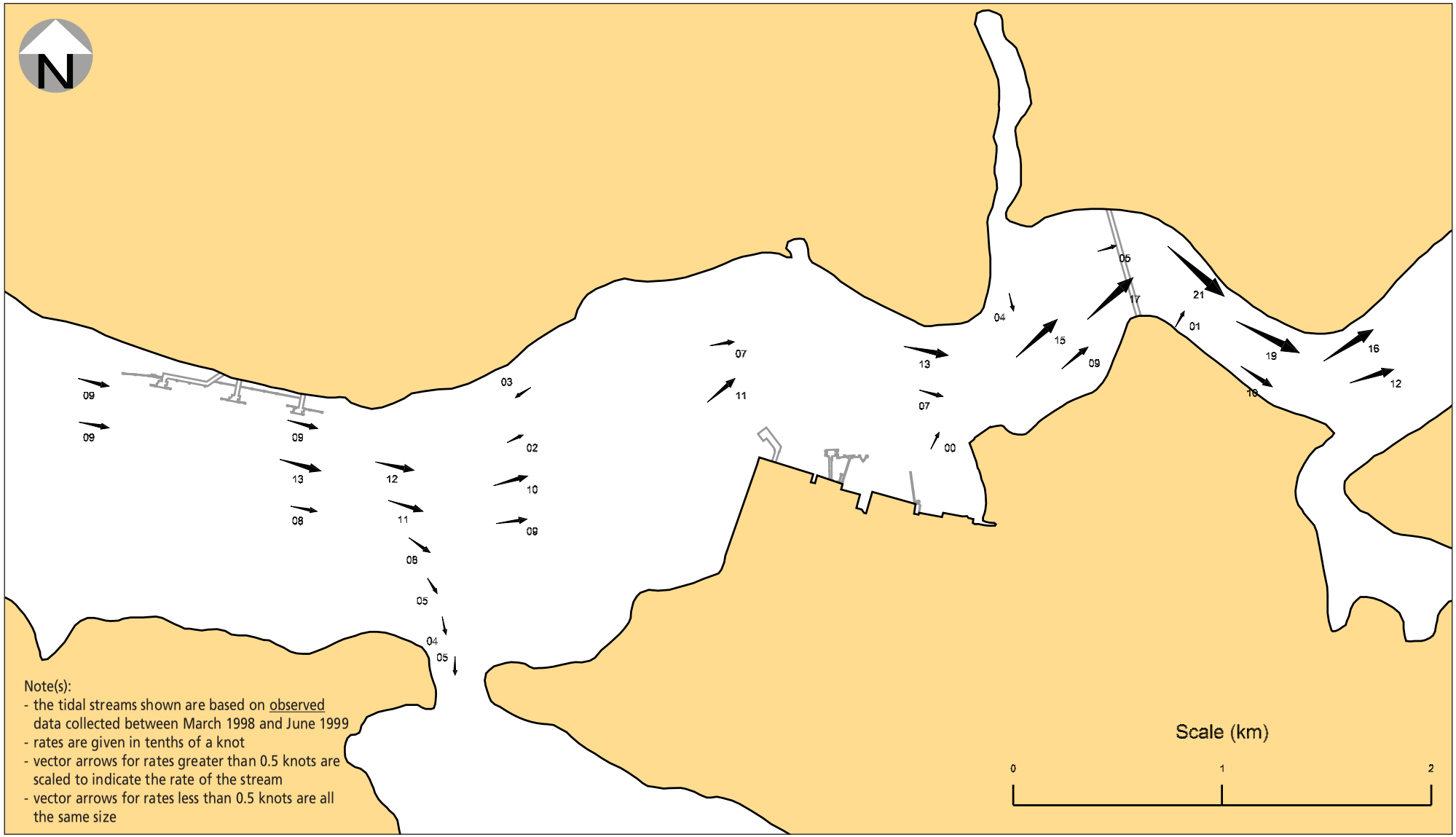

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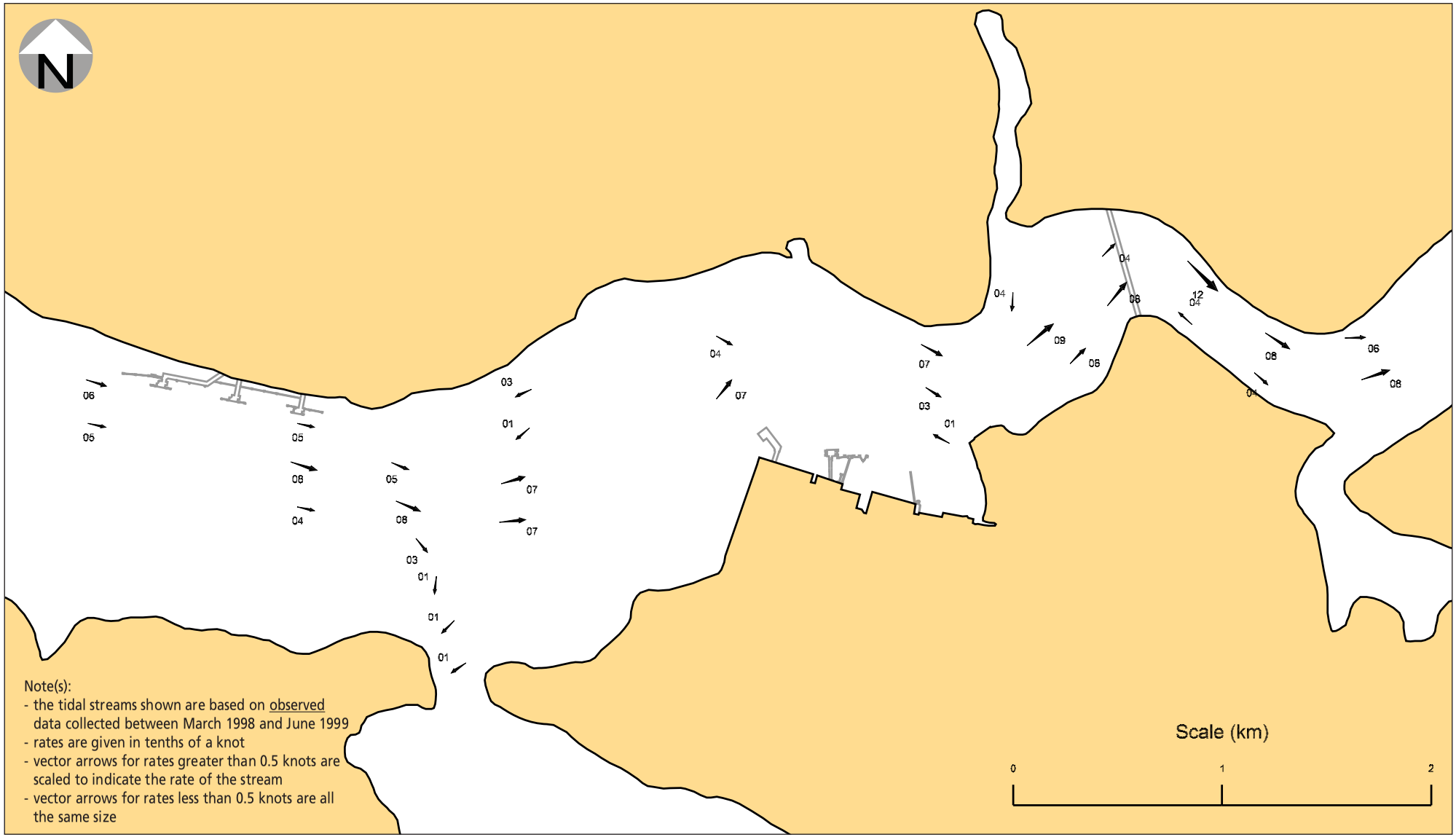

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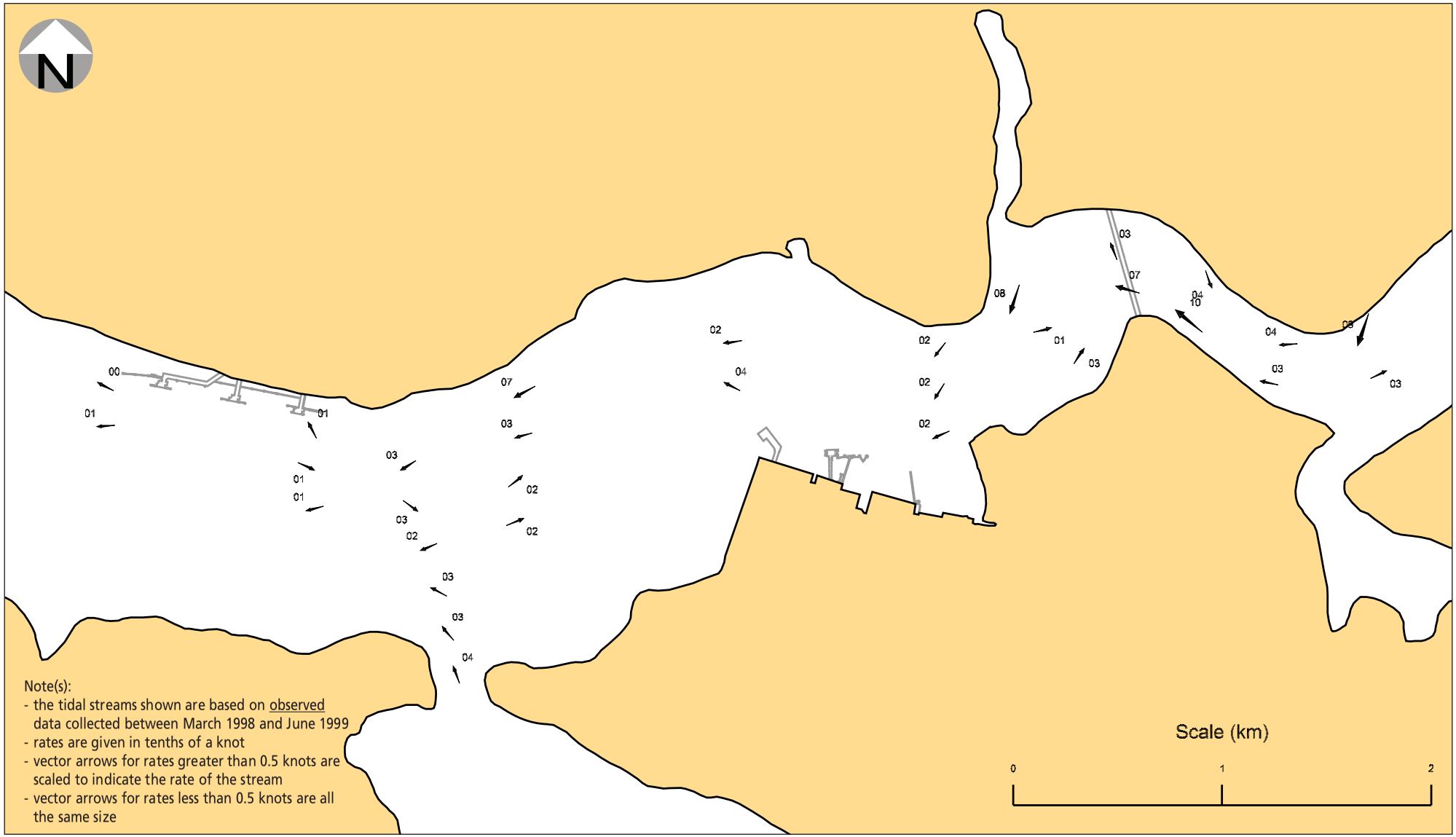

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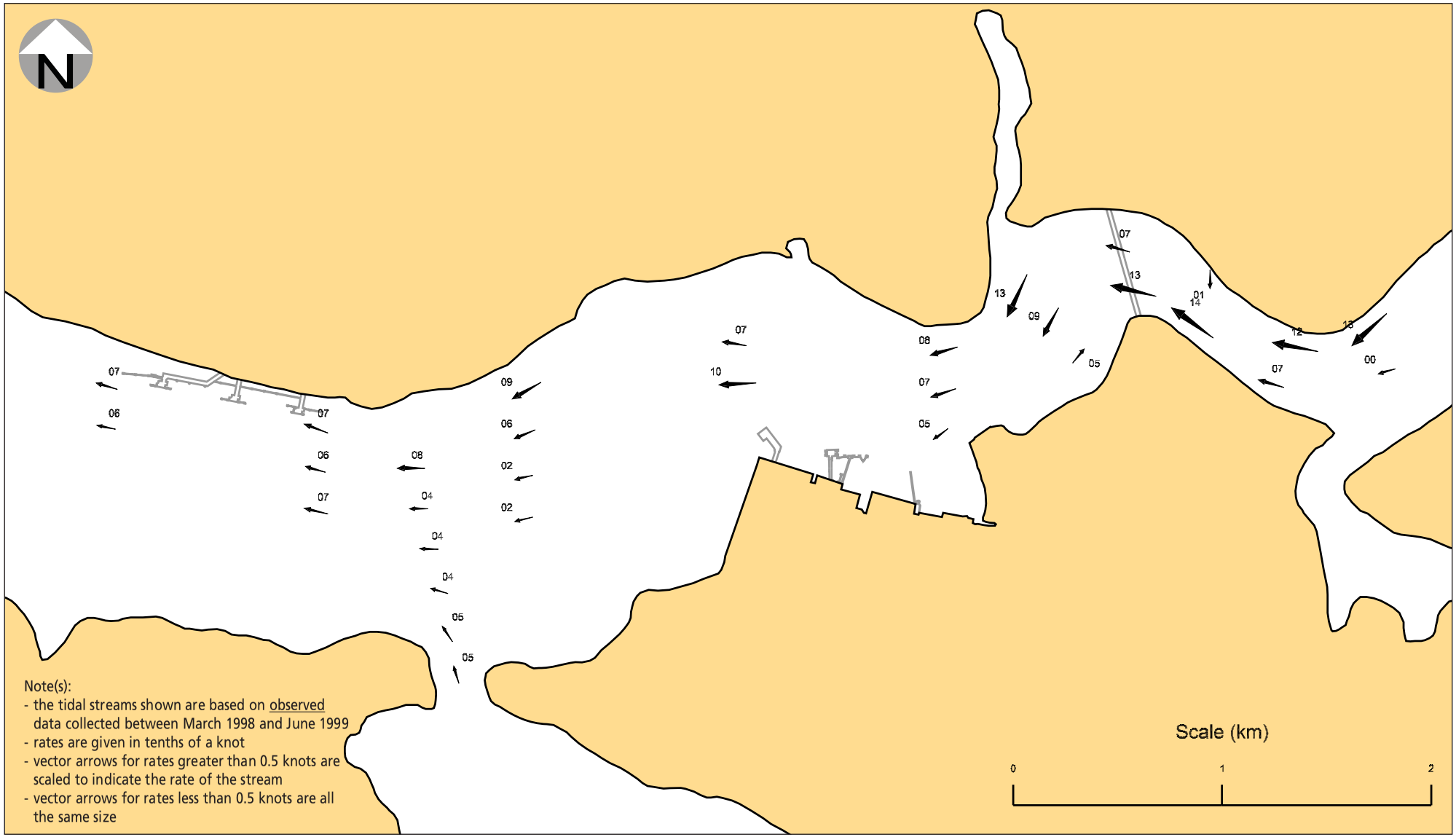

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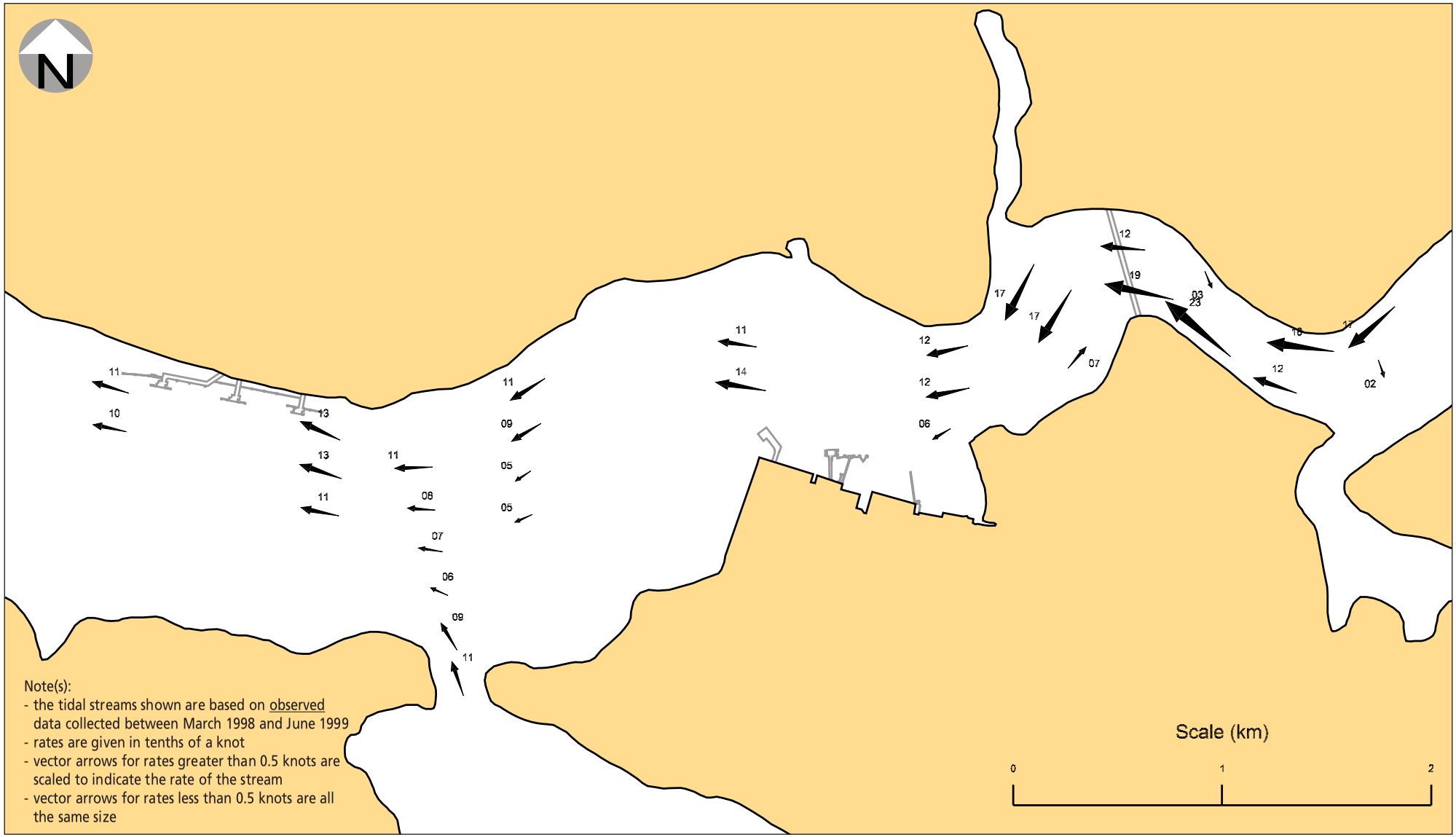

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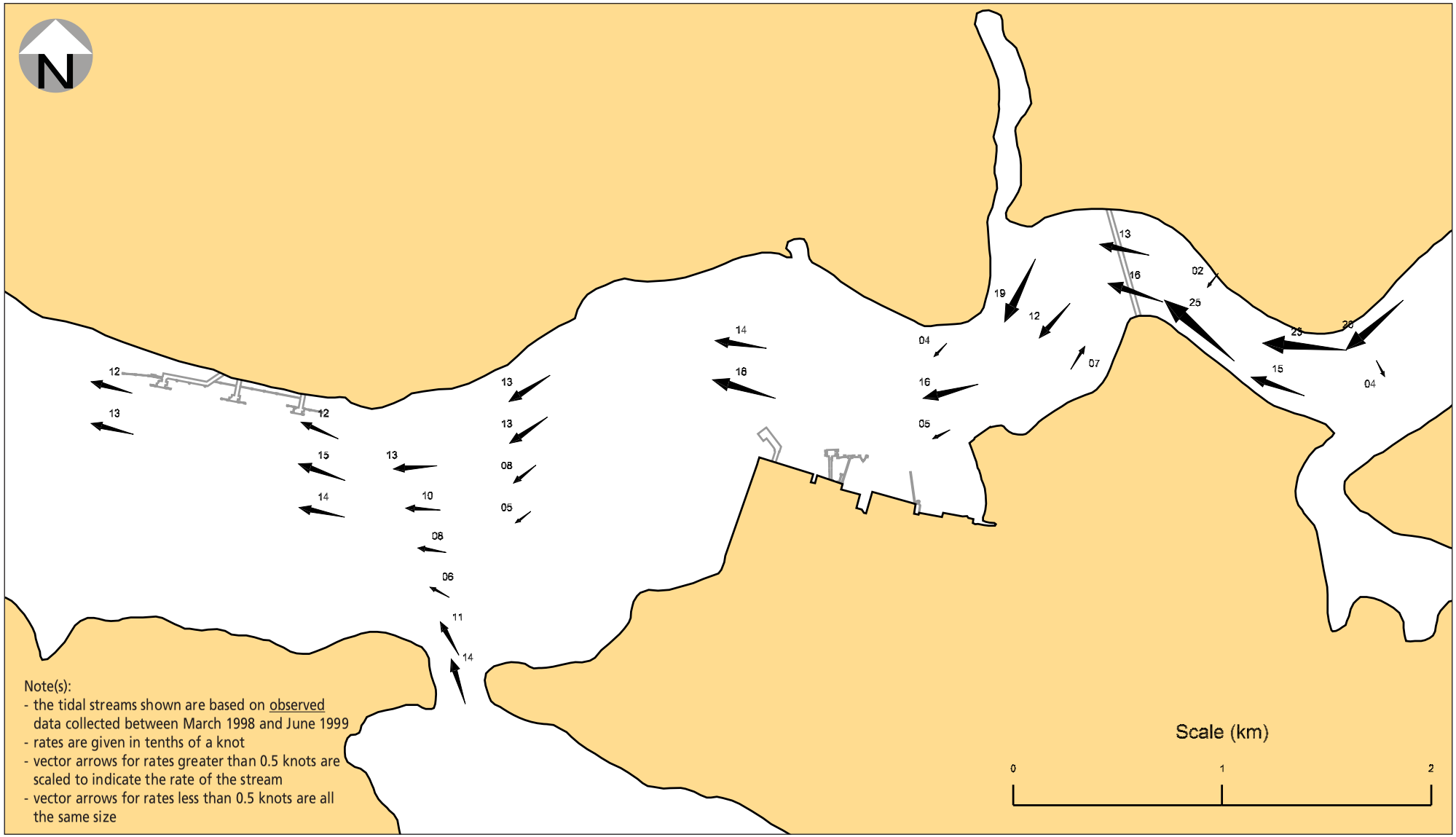

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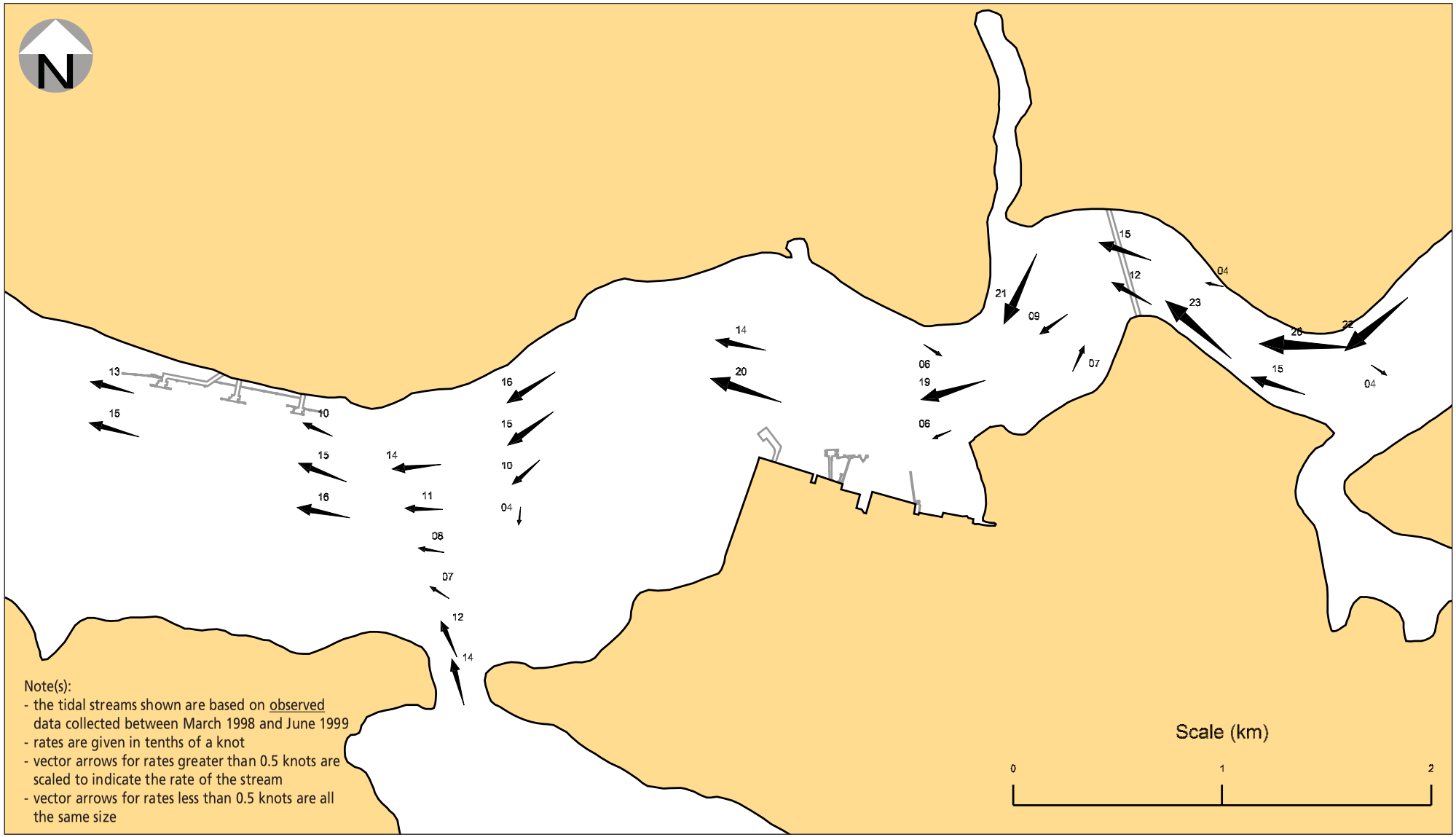

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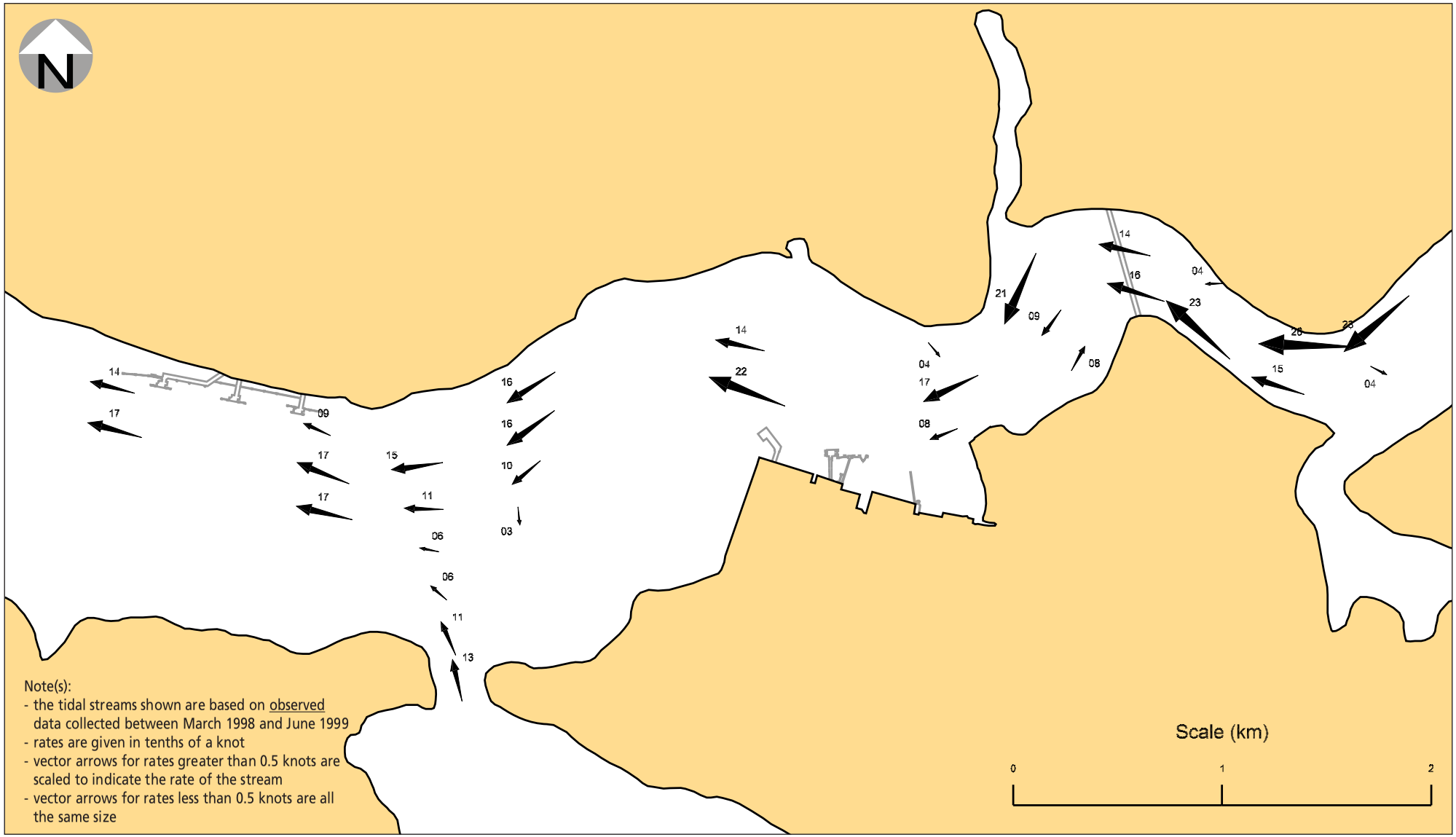

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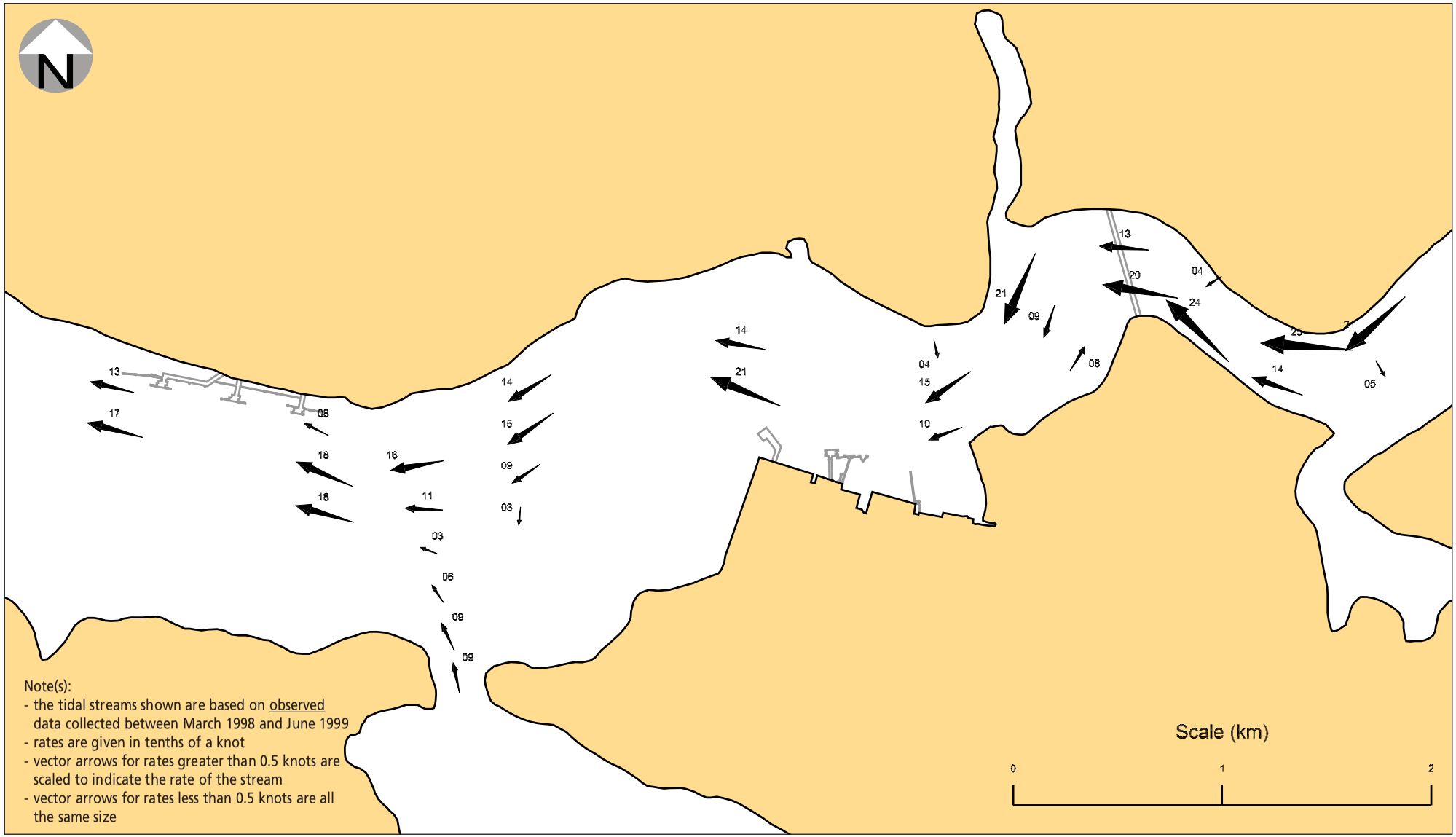

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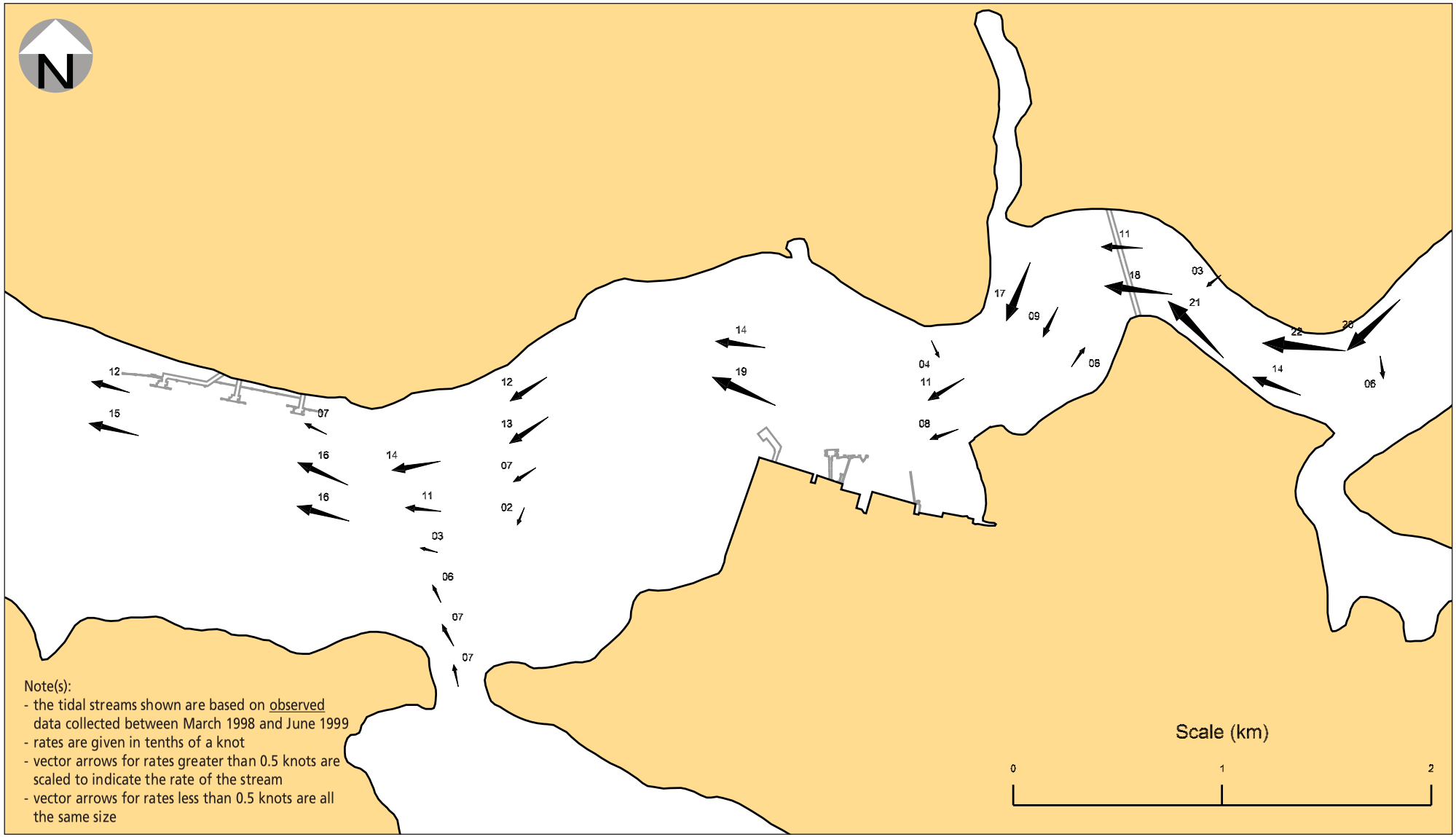

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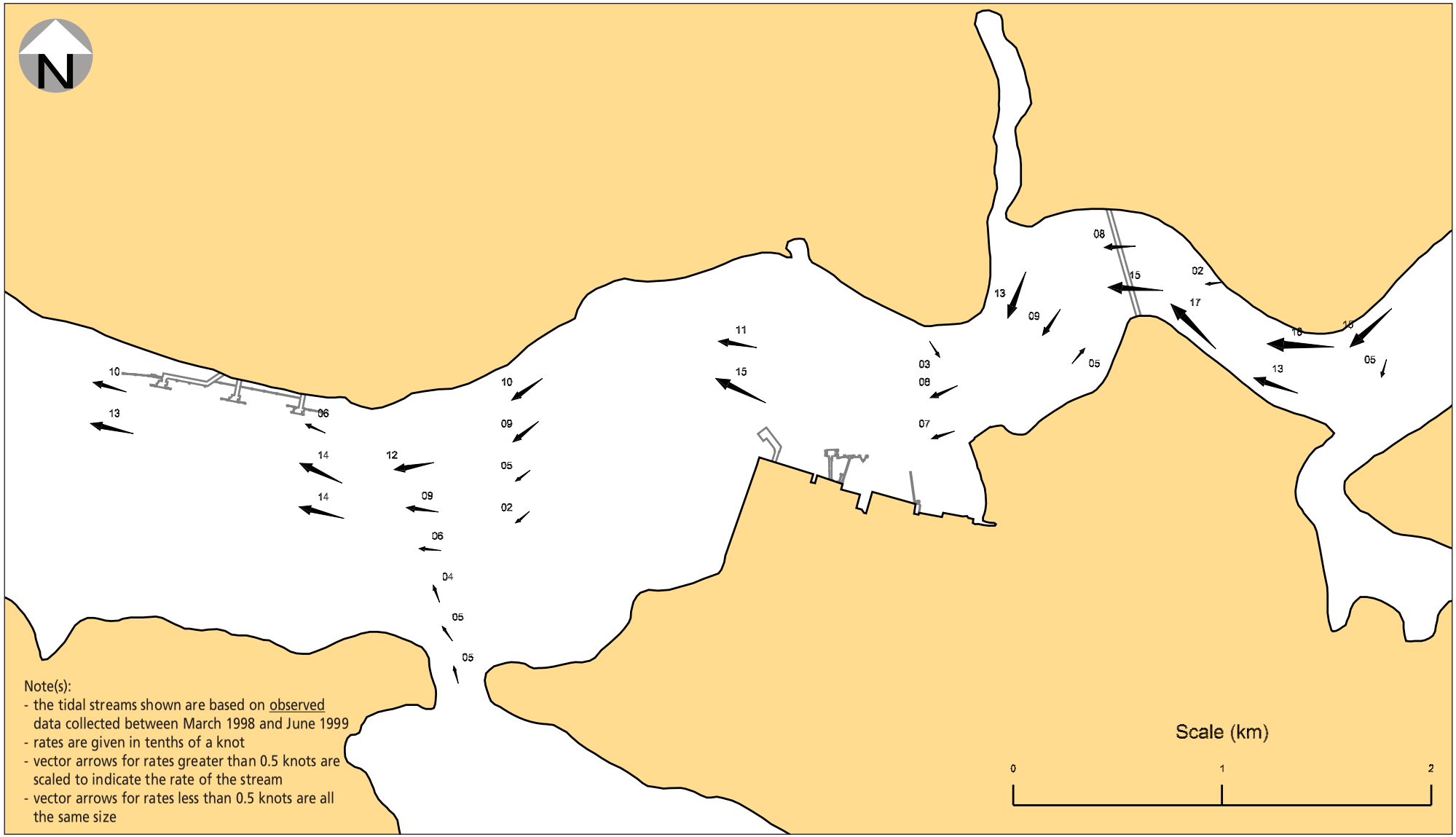

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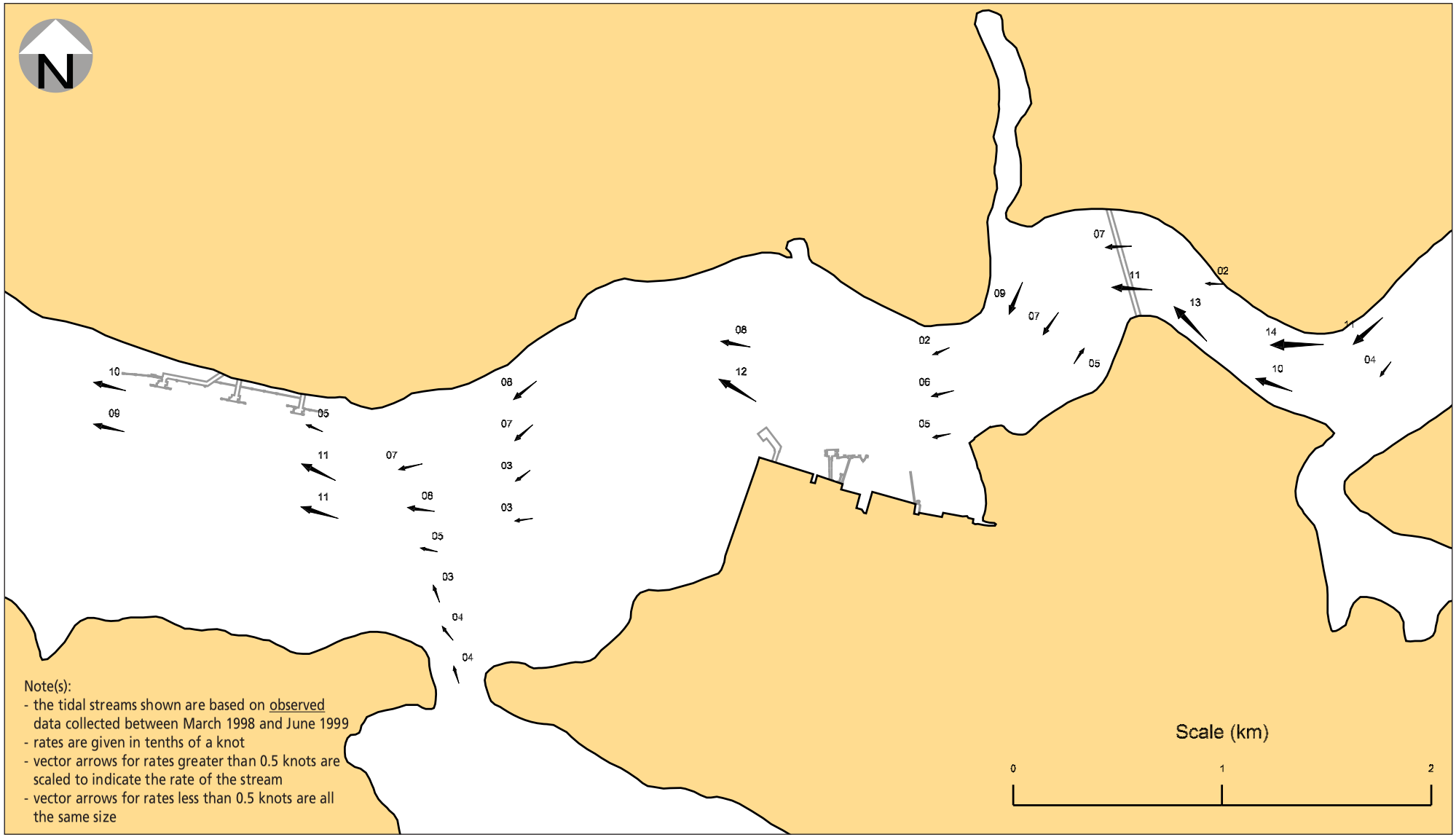

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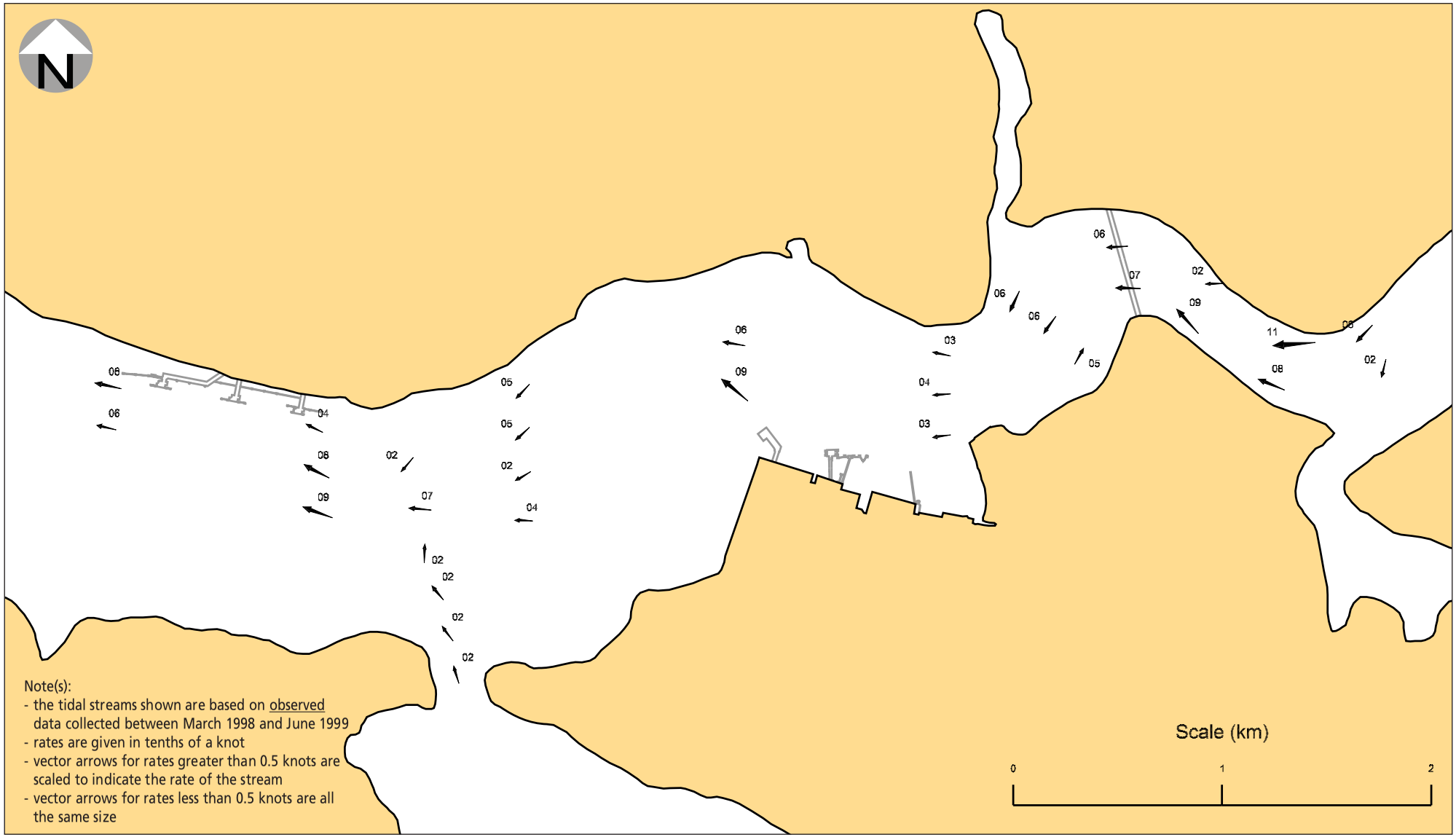

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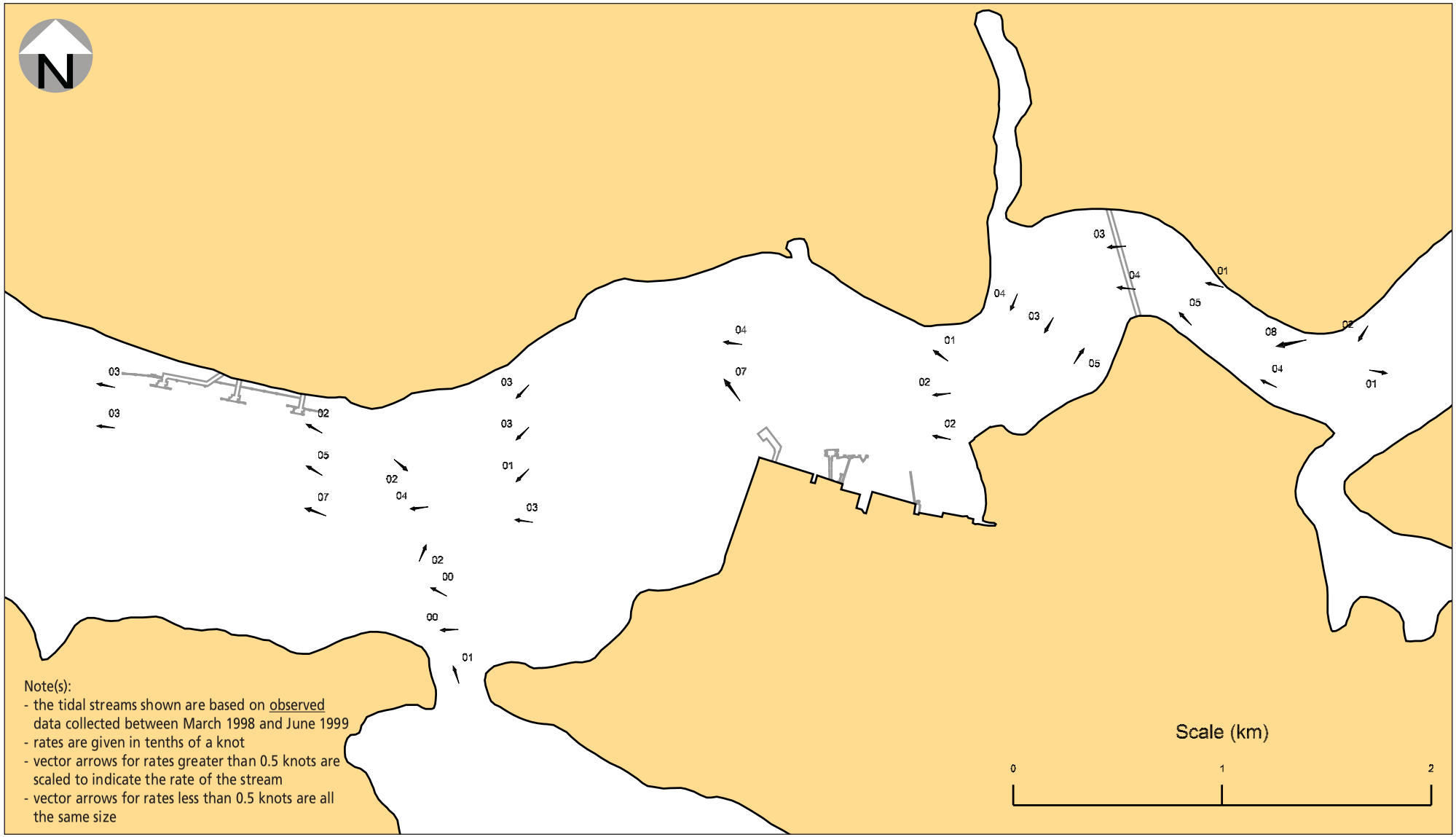

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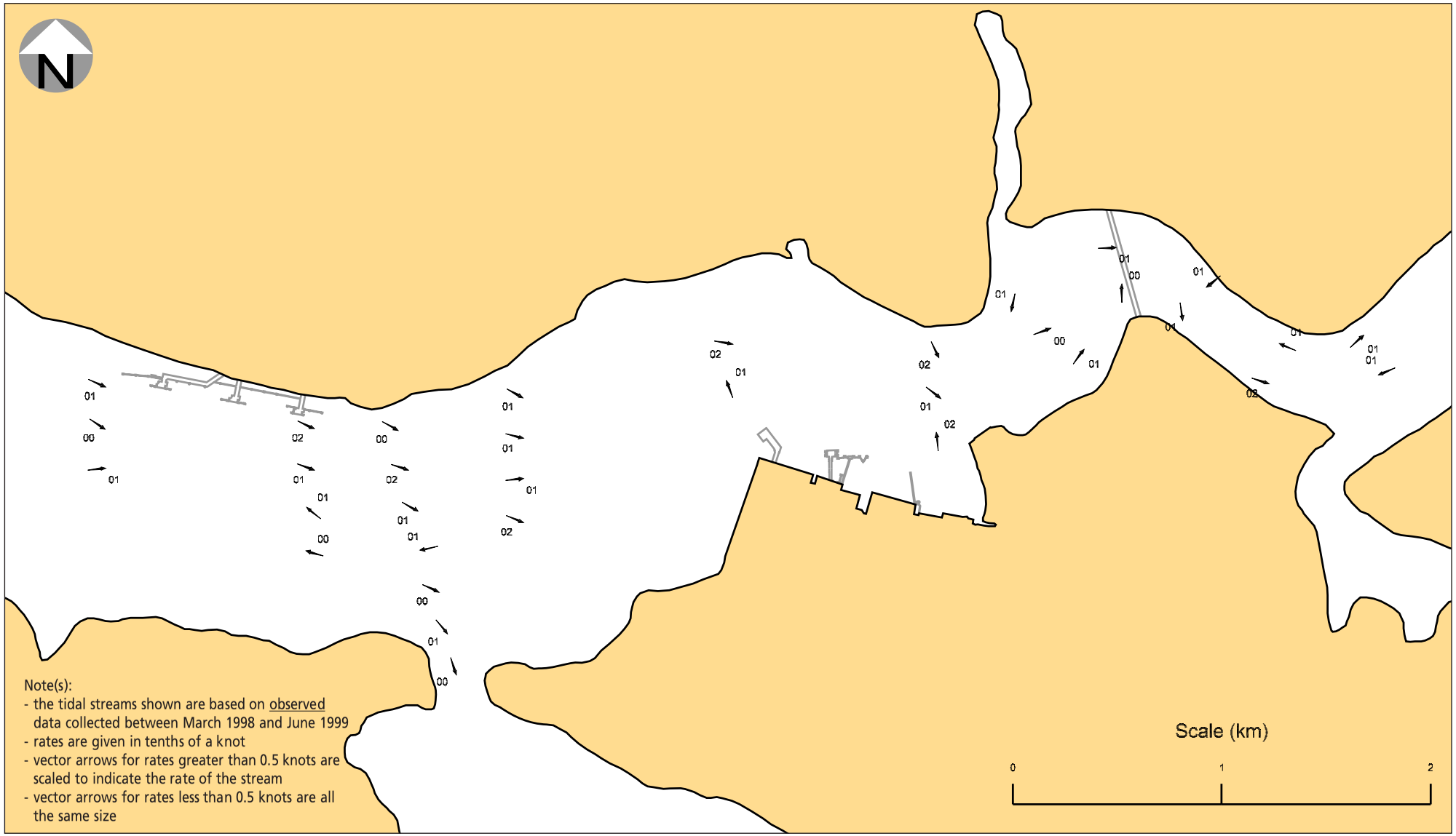

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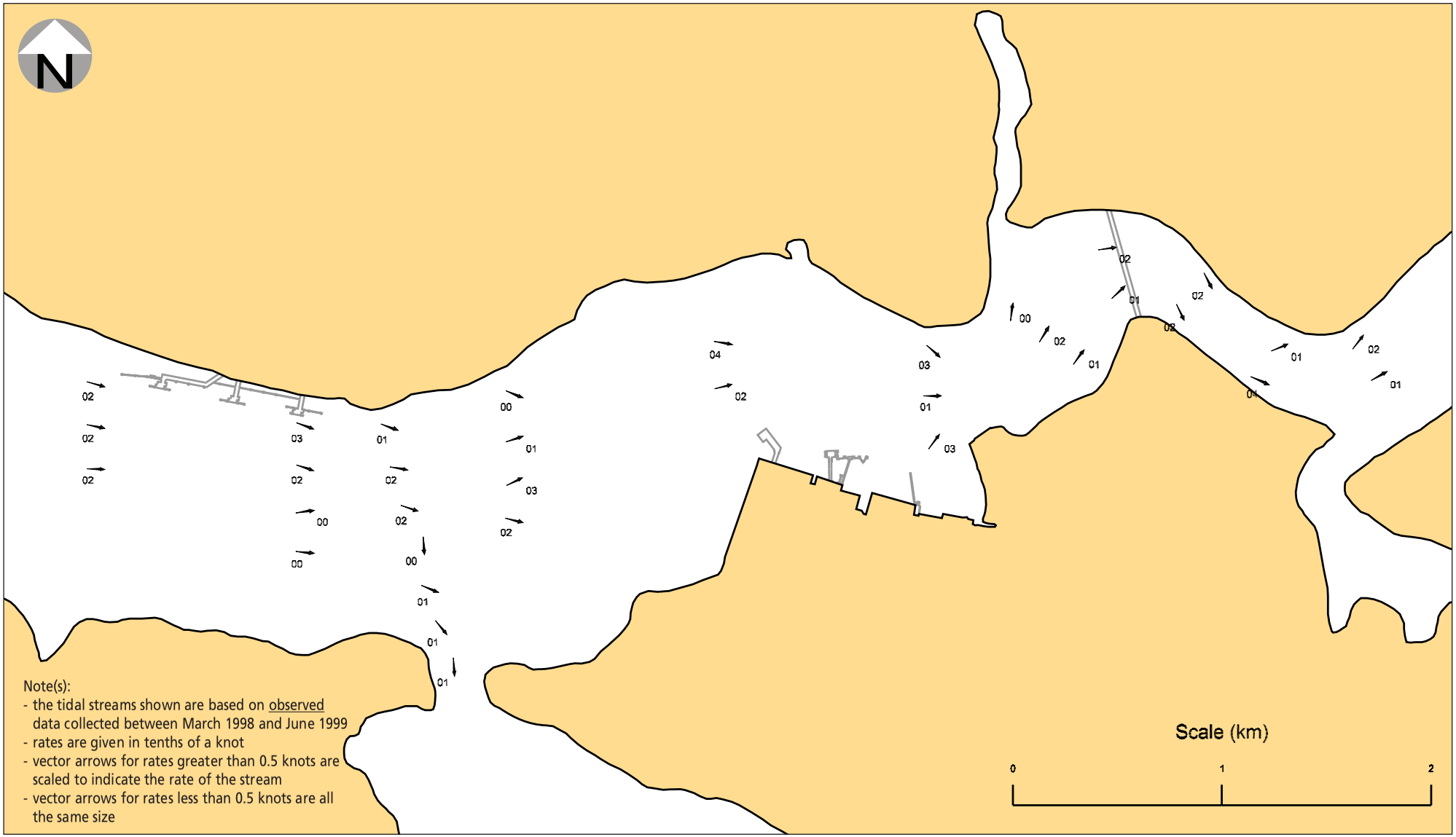

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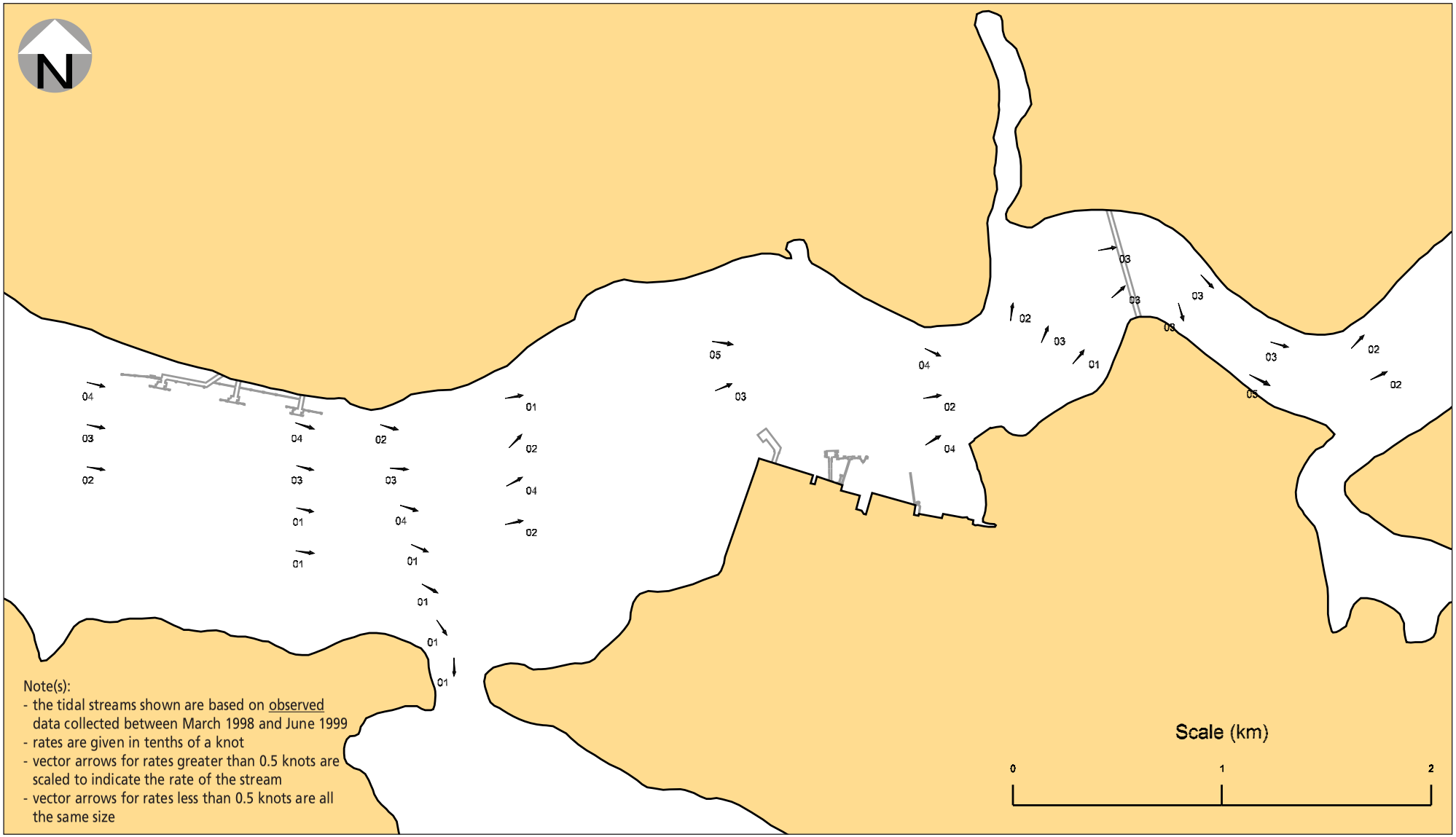

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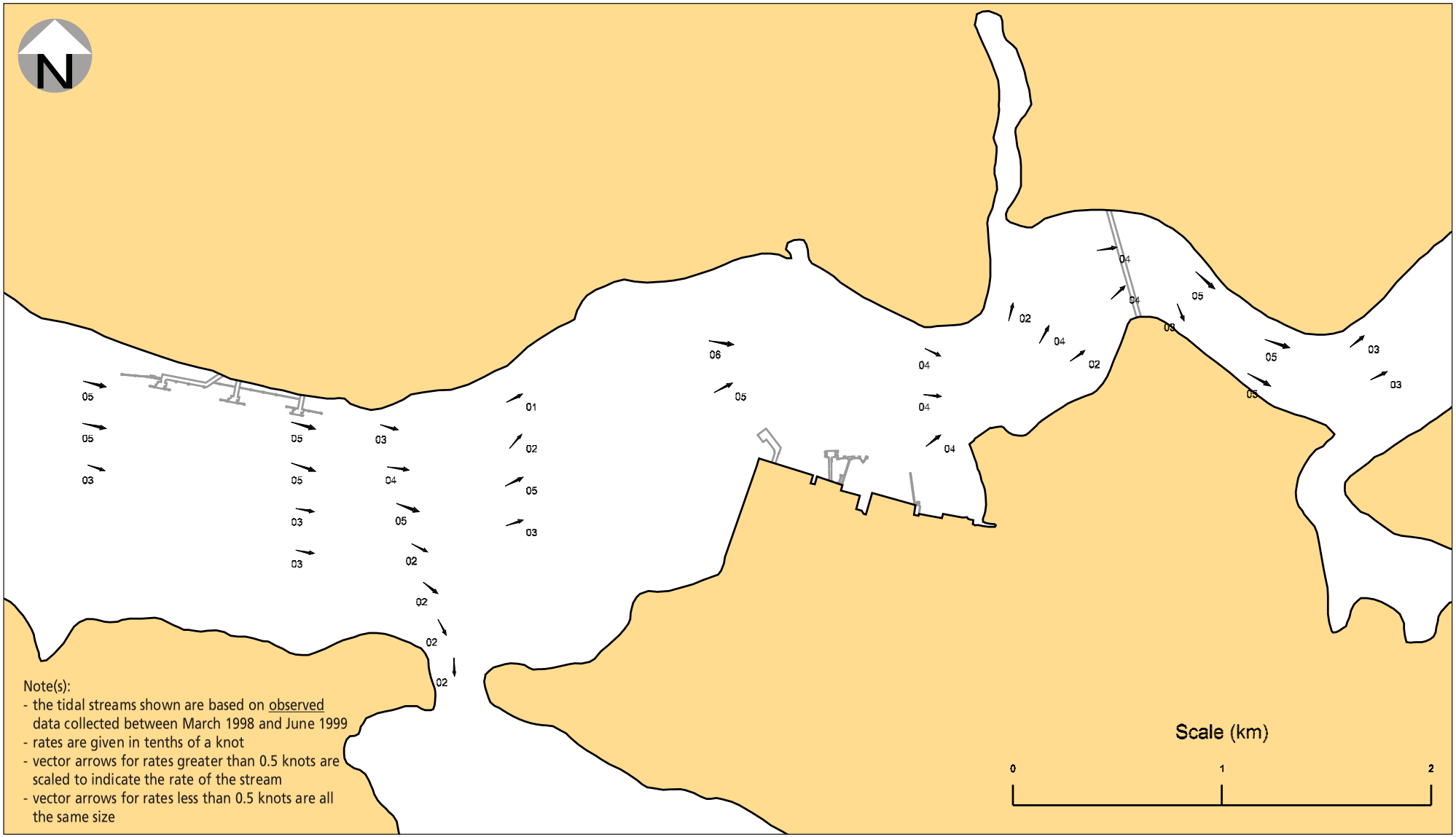

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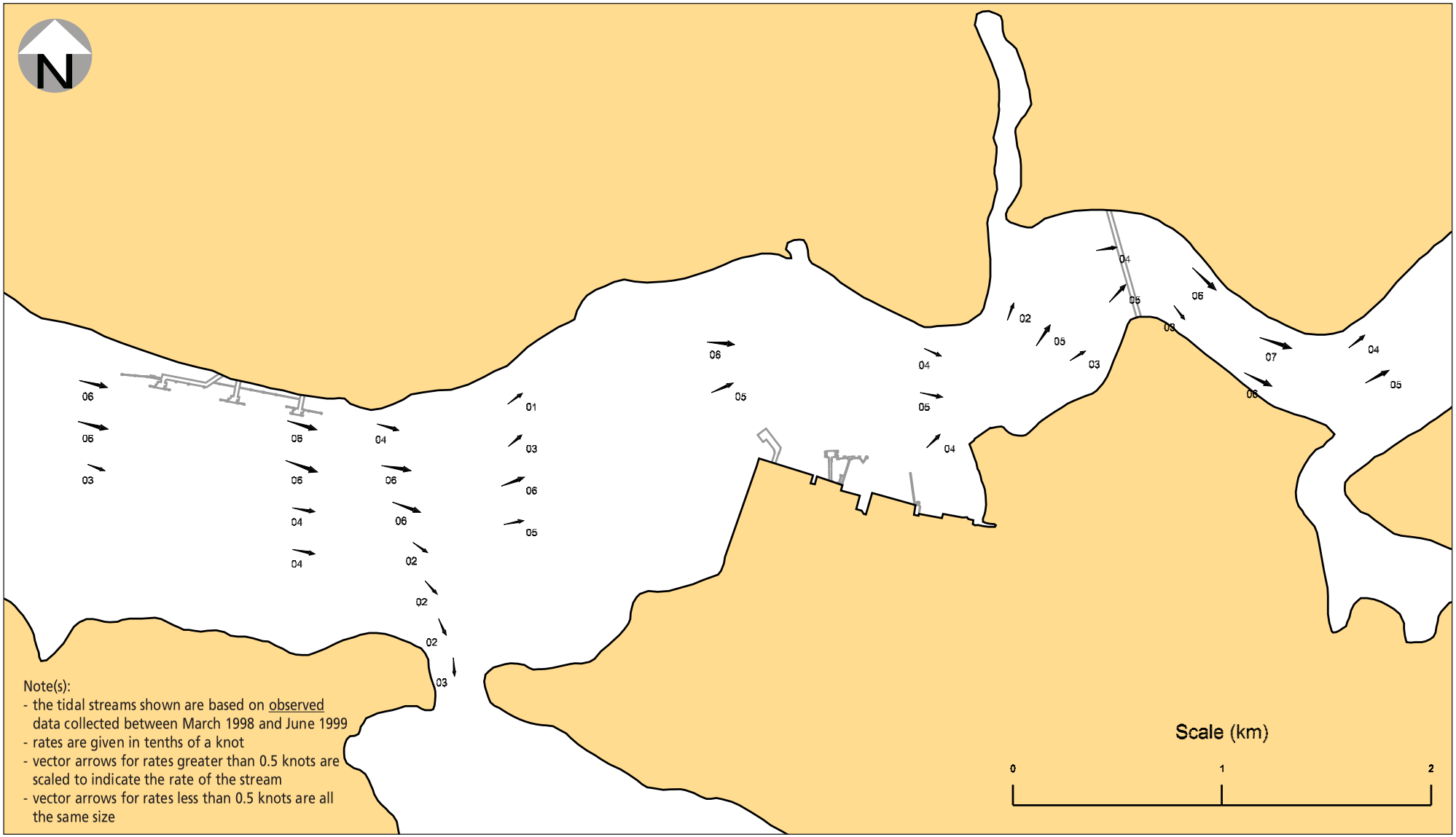

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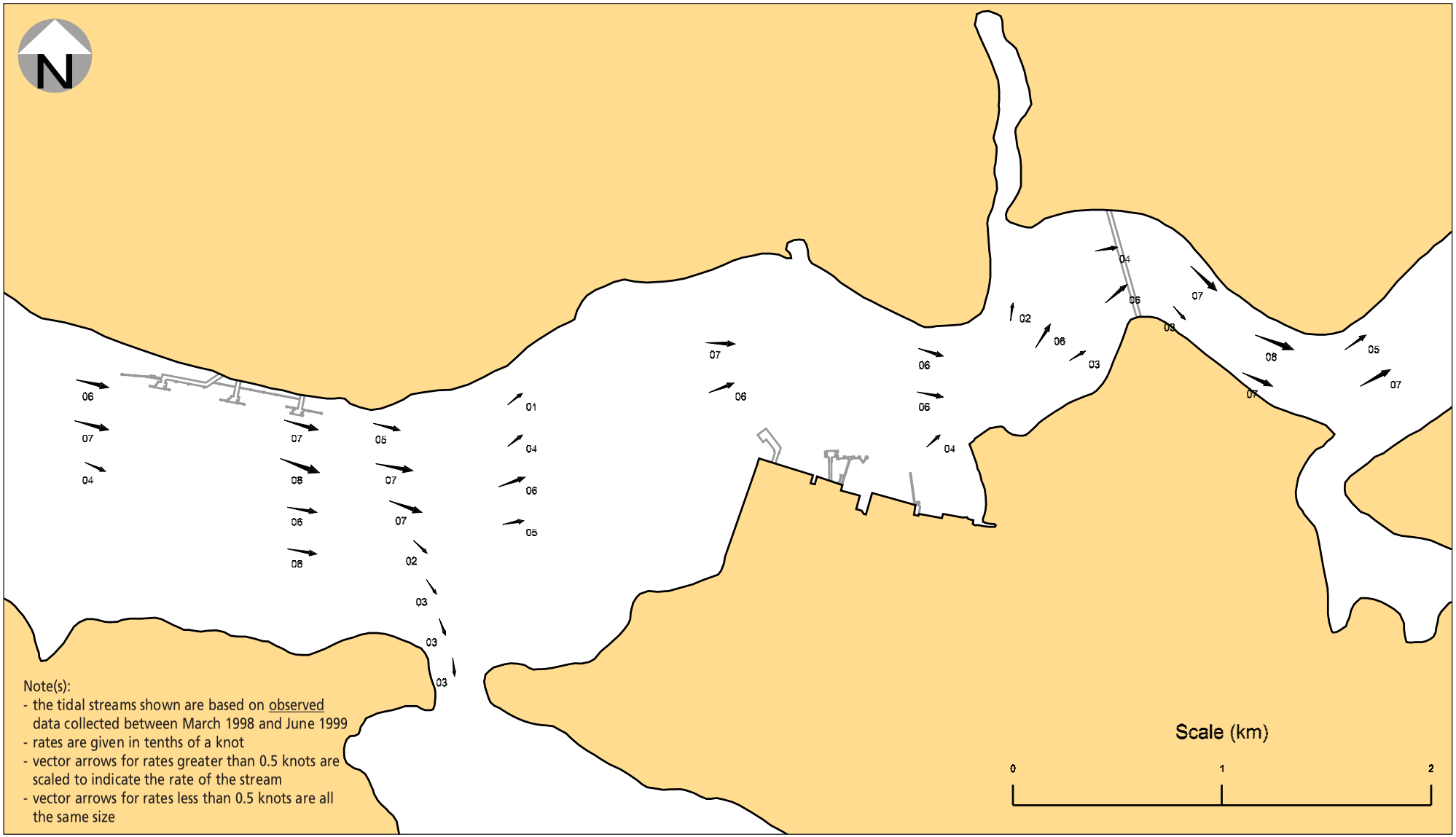

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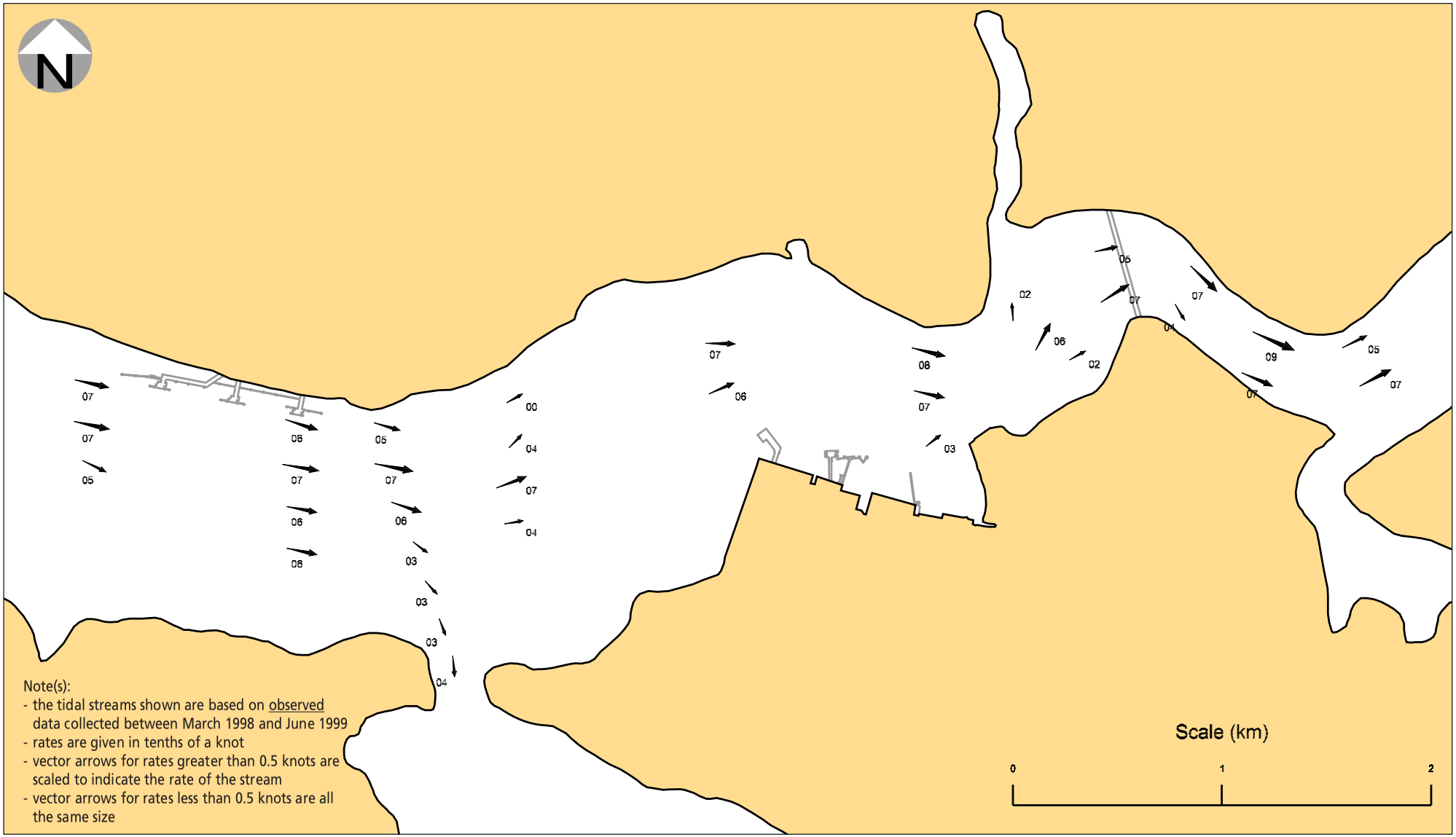

Upper Reaches of Milford Haven

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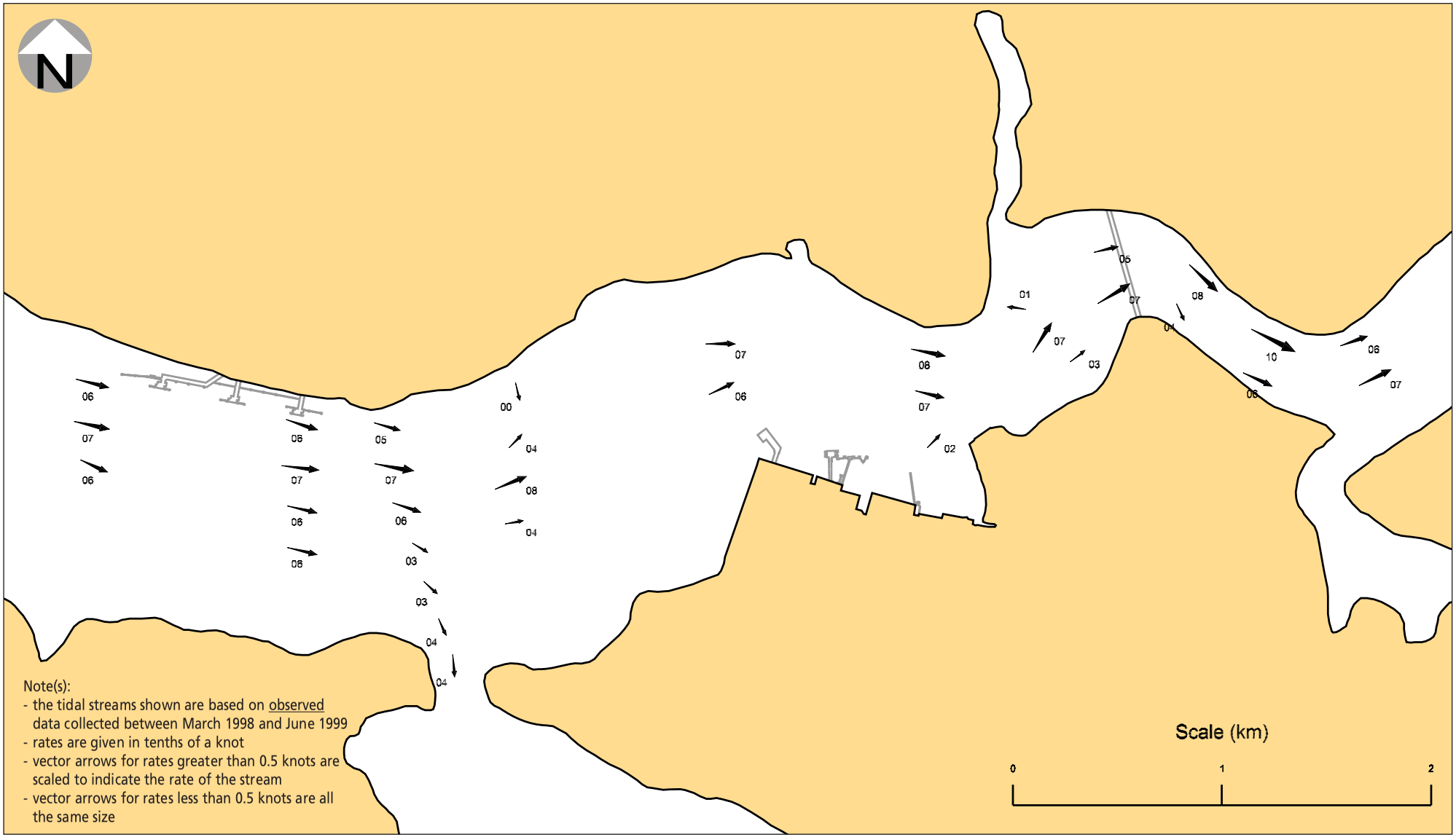

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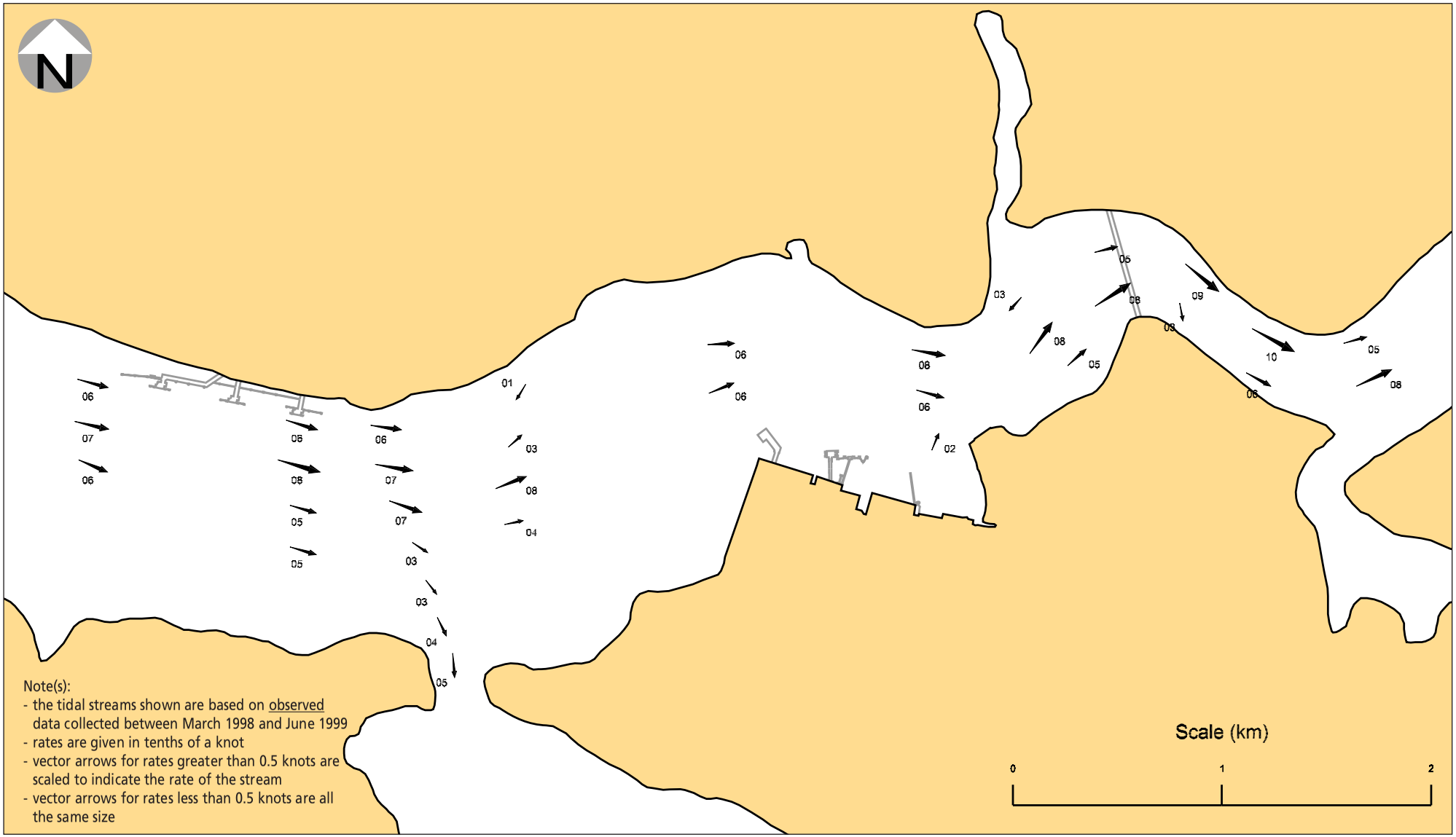

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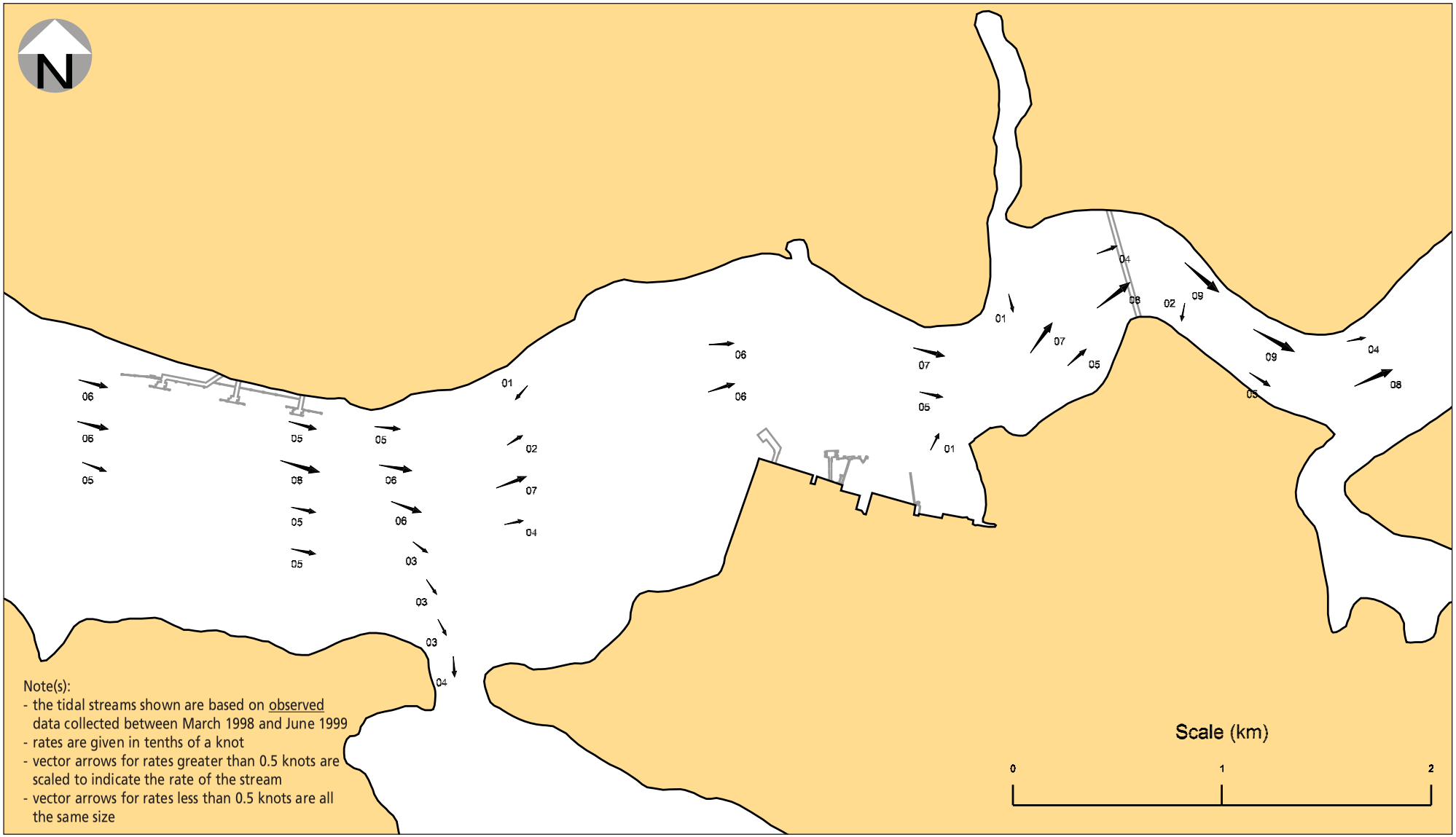

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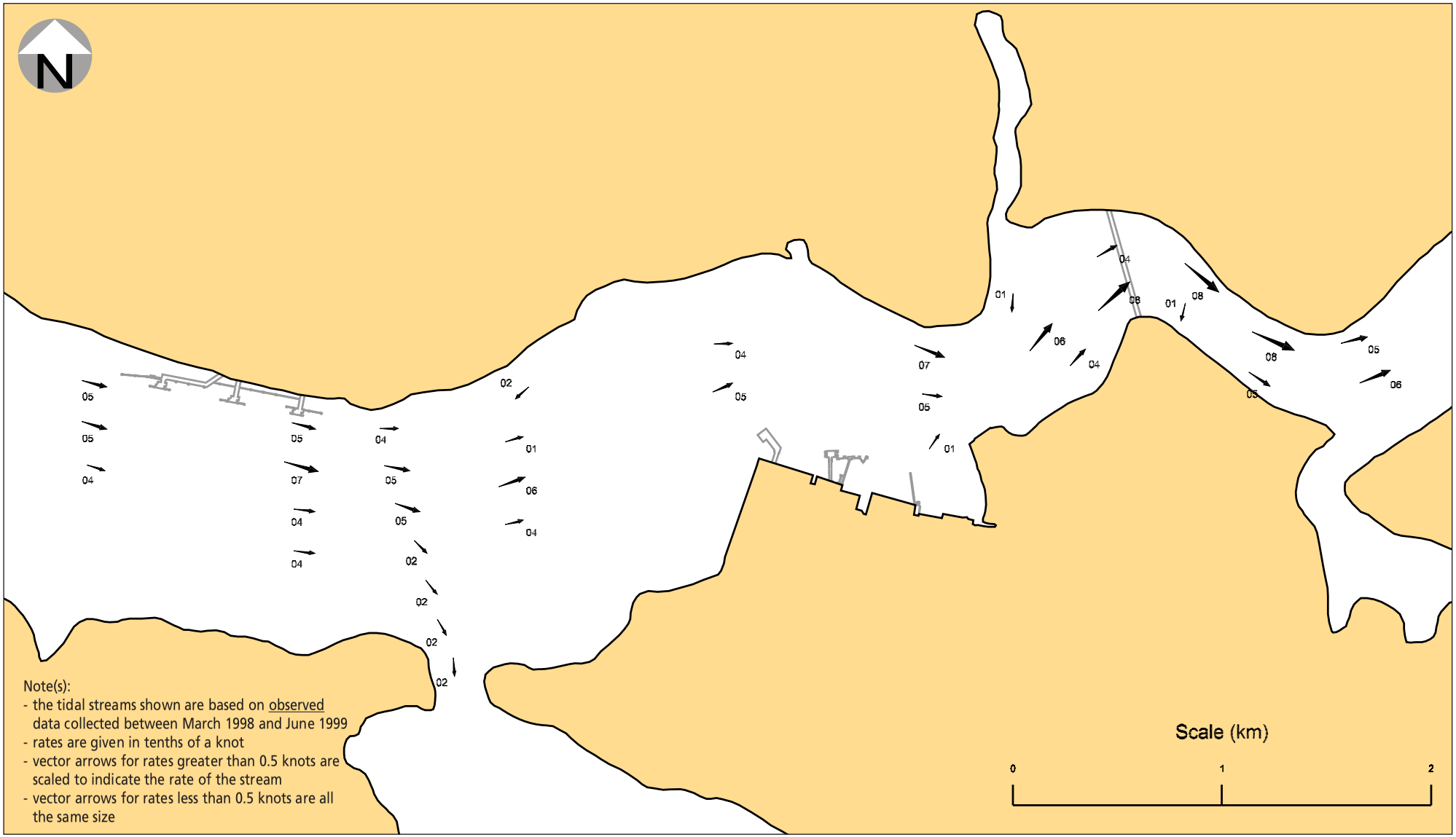

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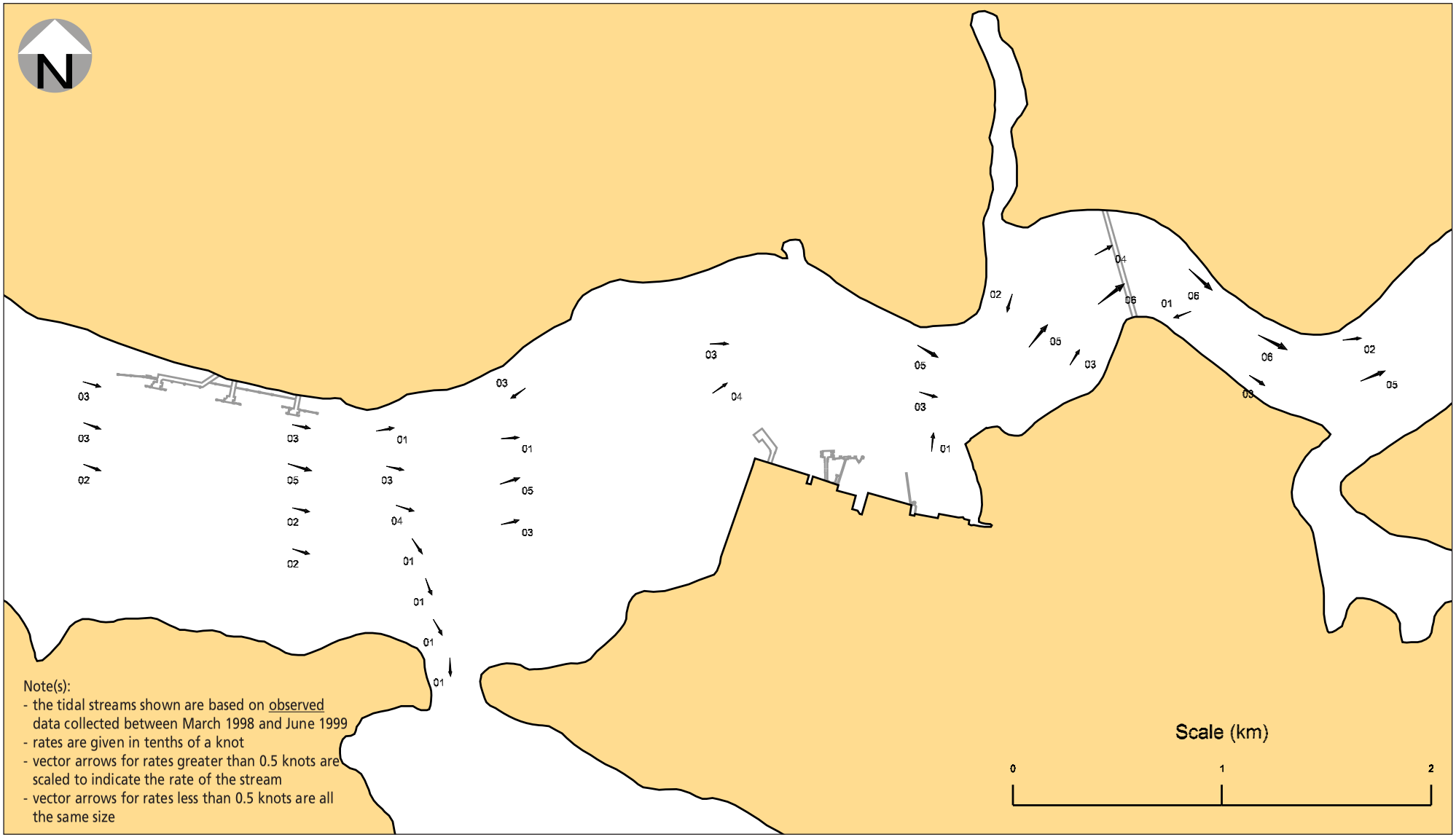

Upper Reaches of Milford Haven

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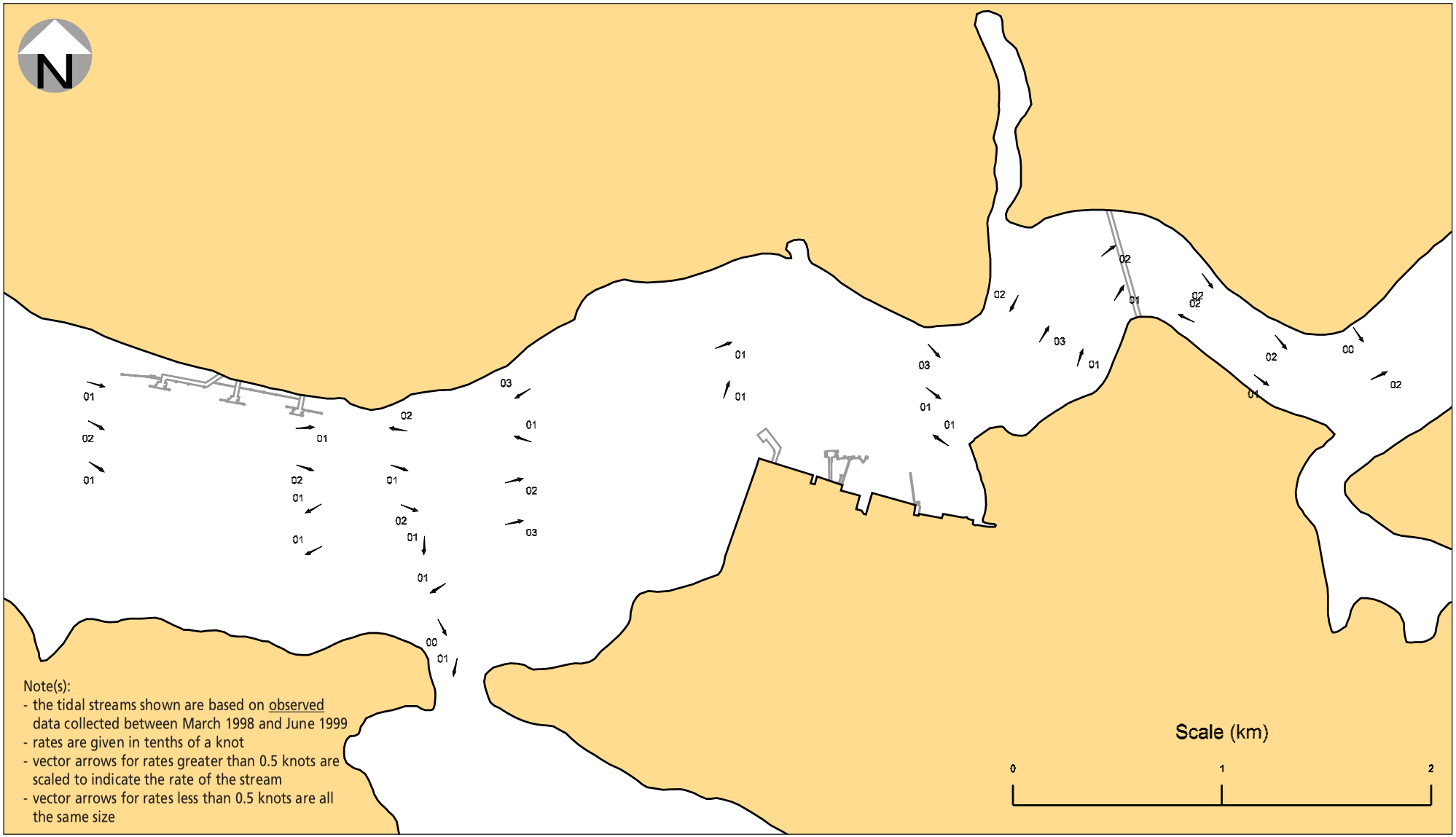

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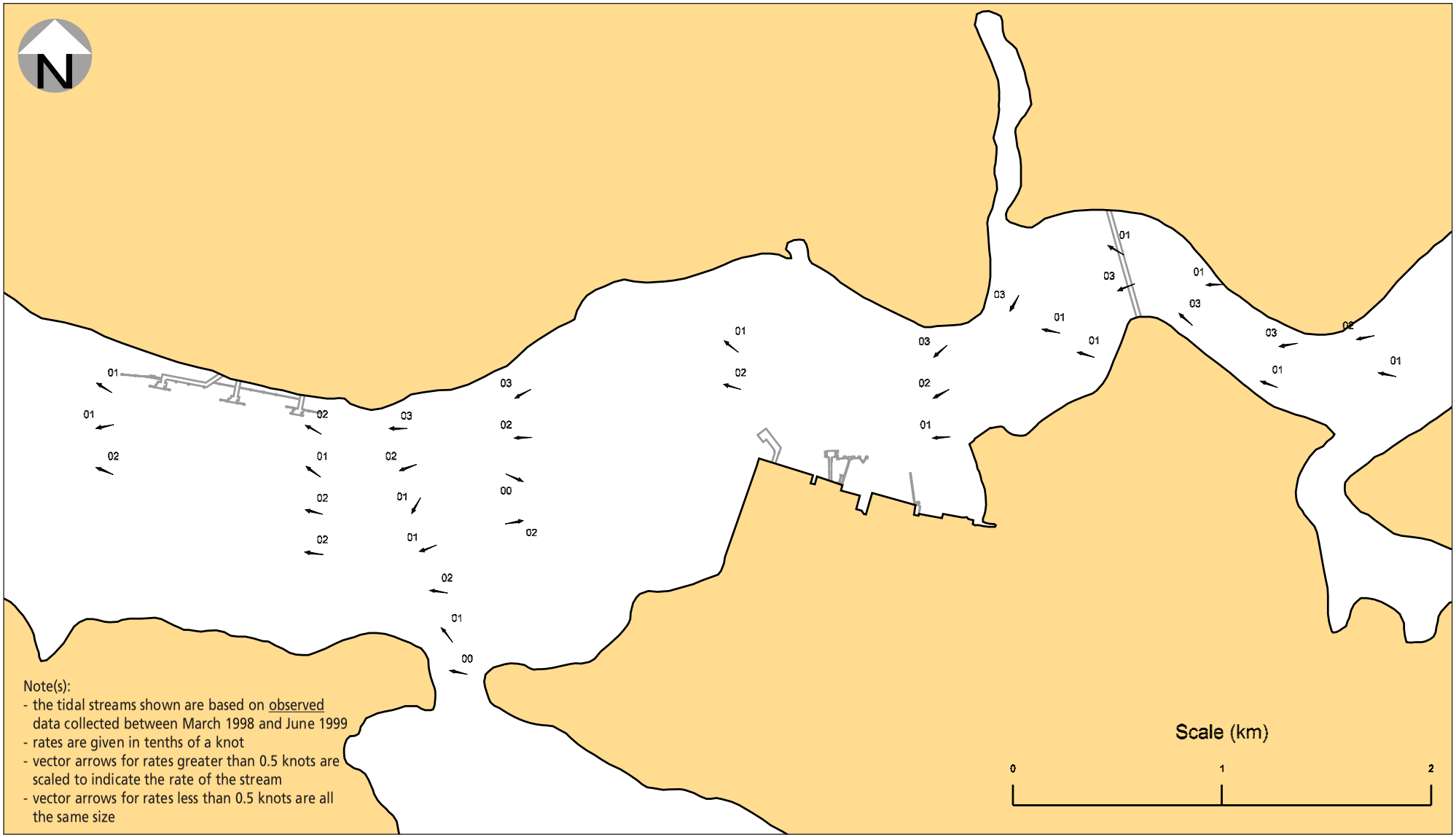

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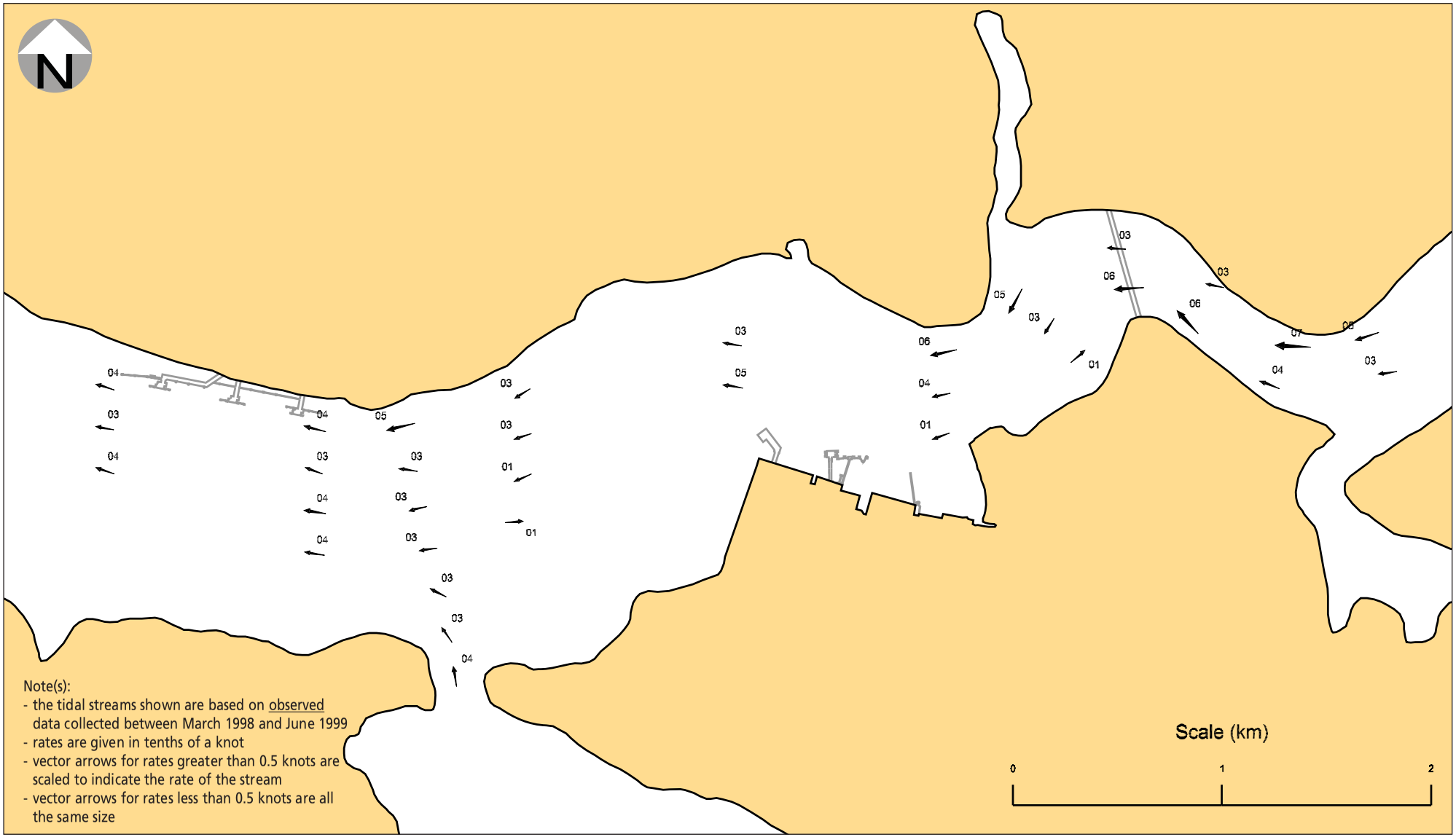

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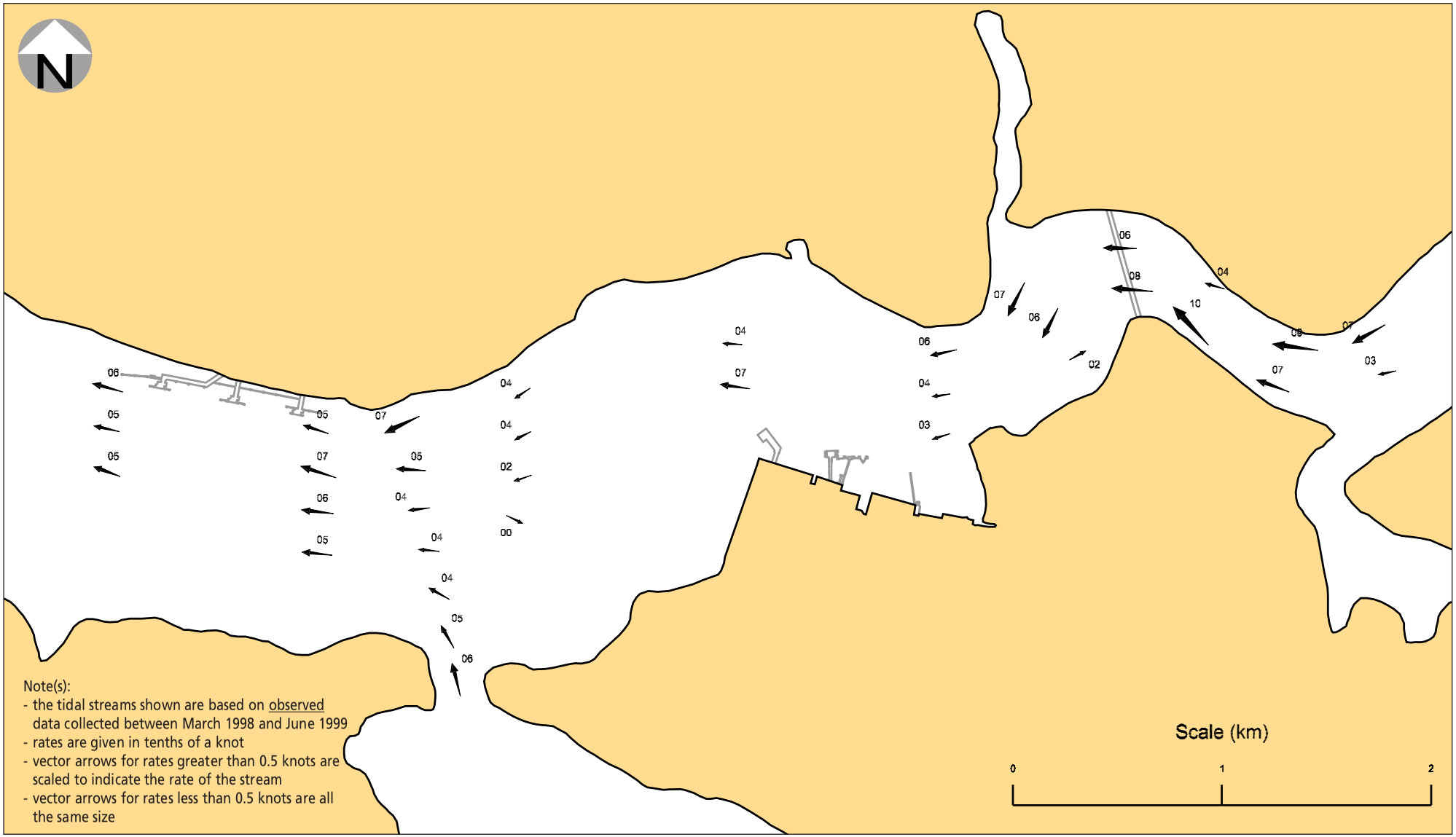

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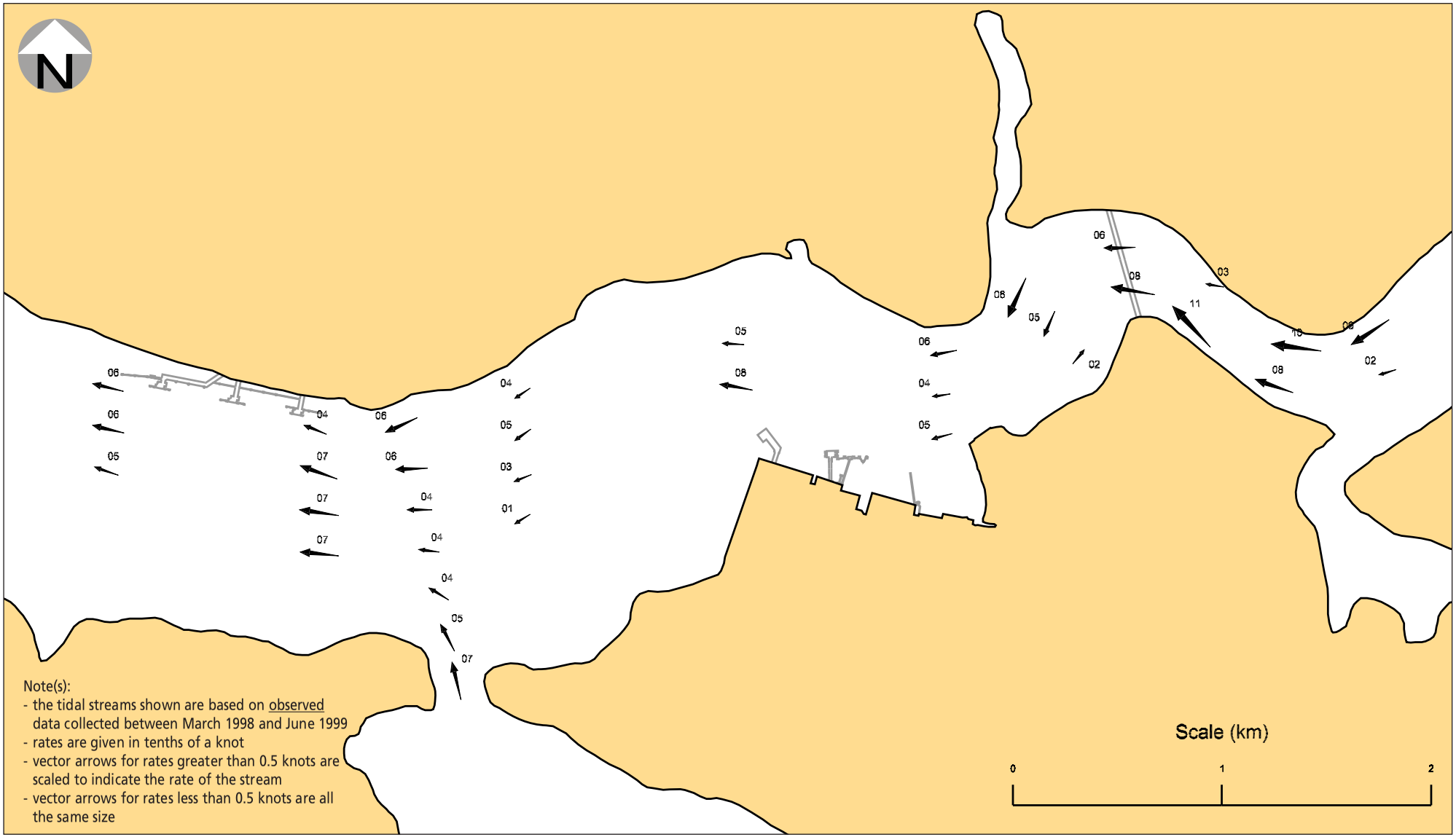

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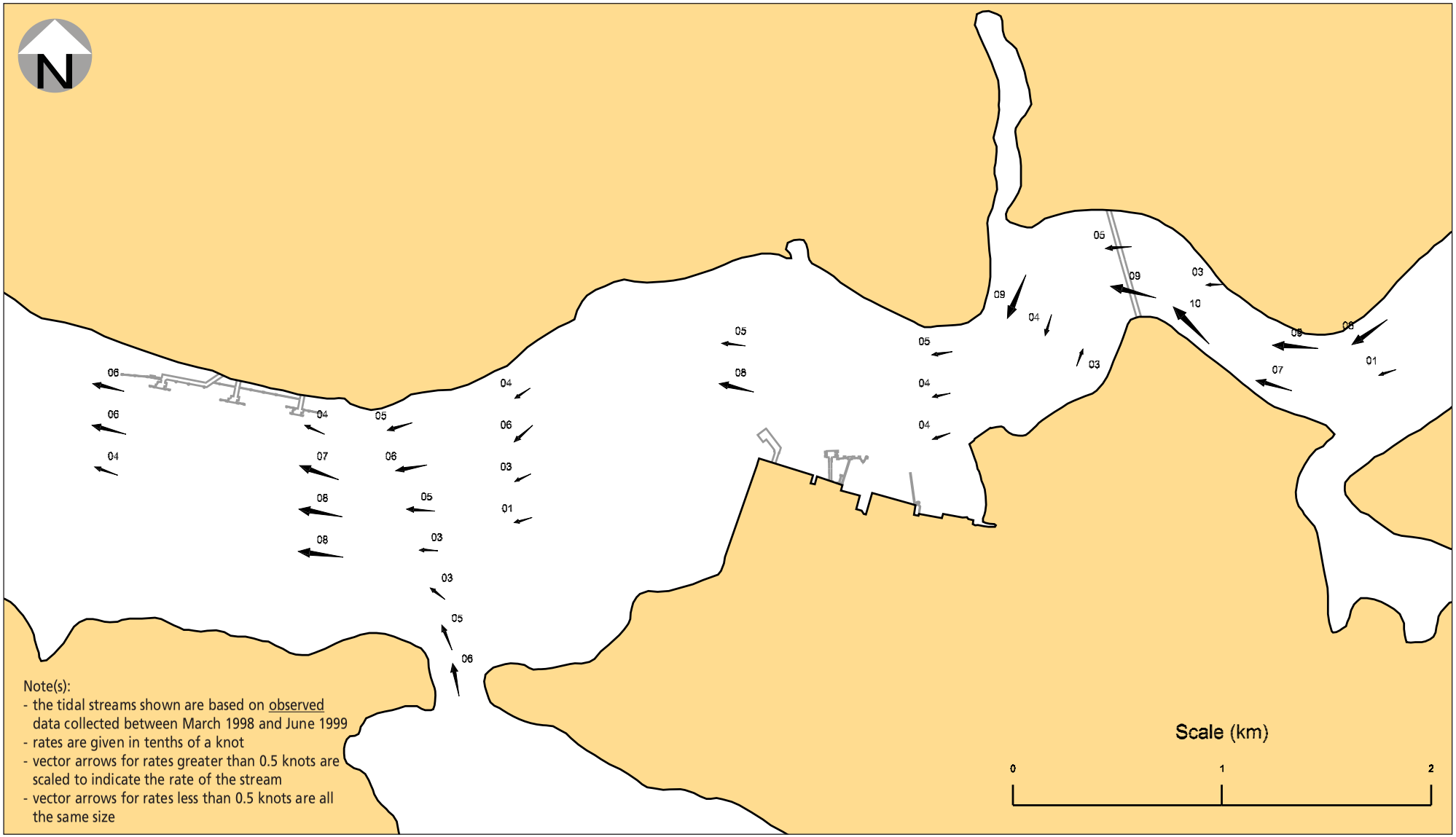

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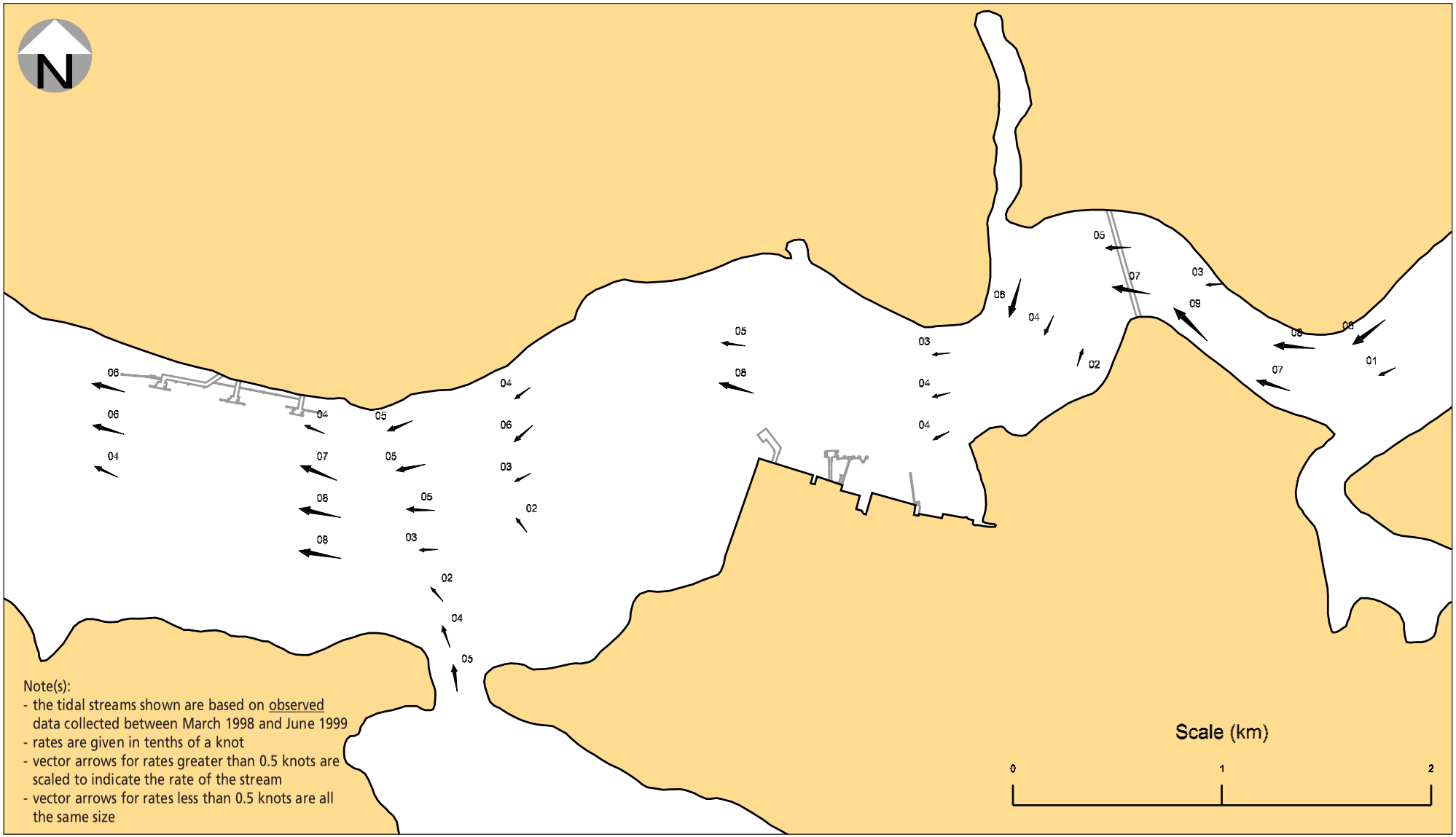

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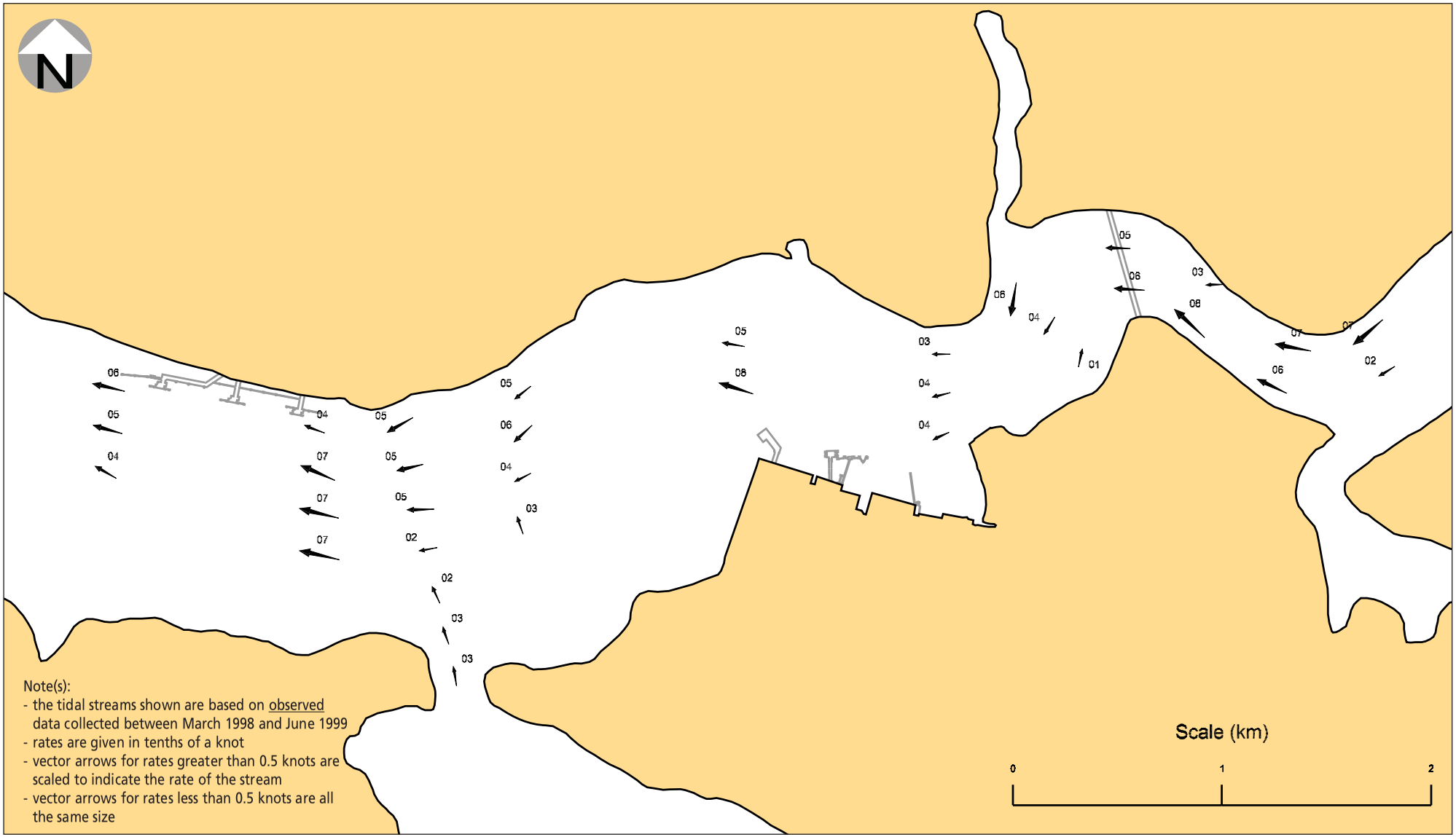

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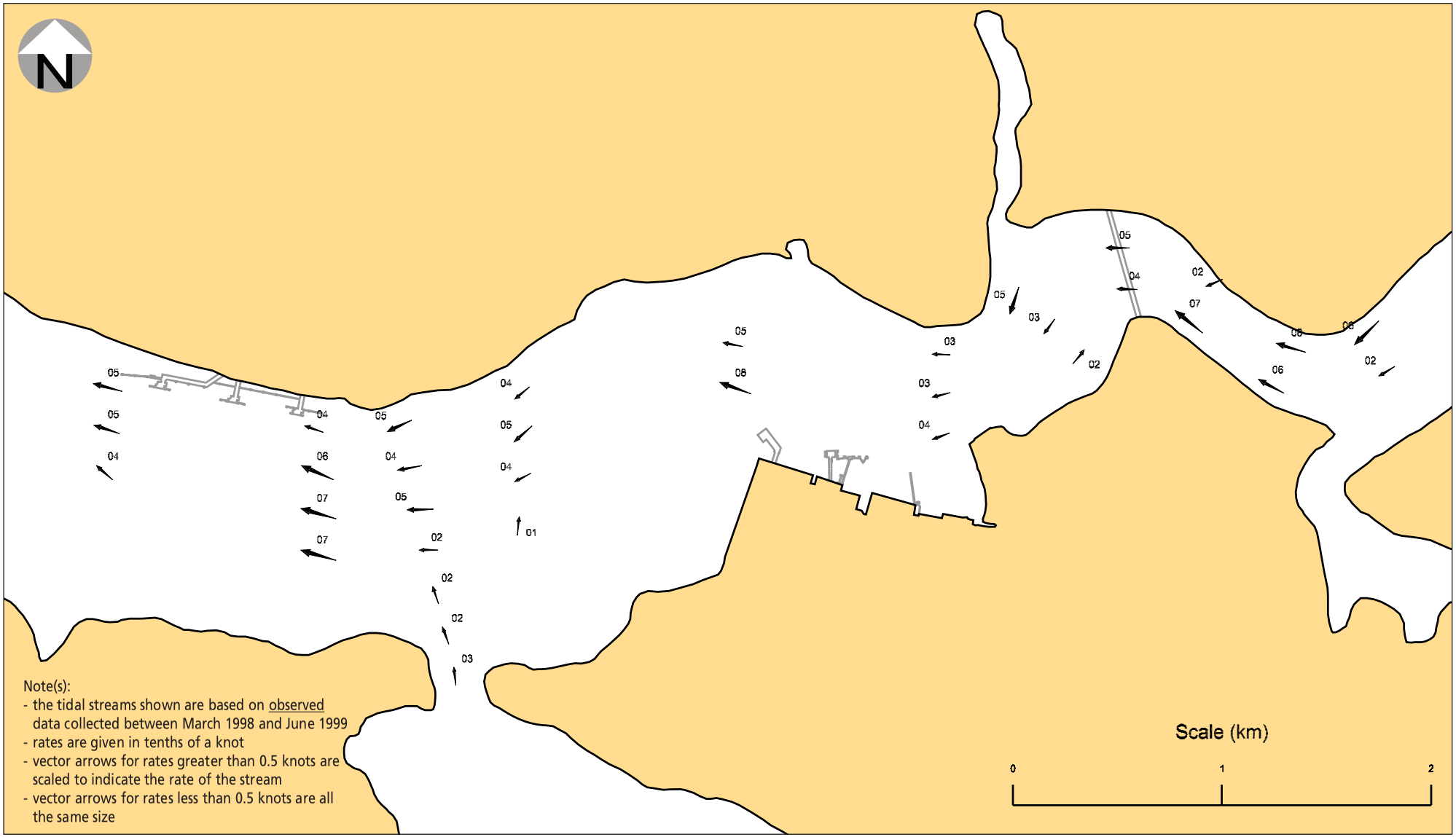

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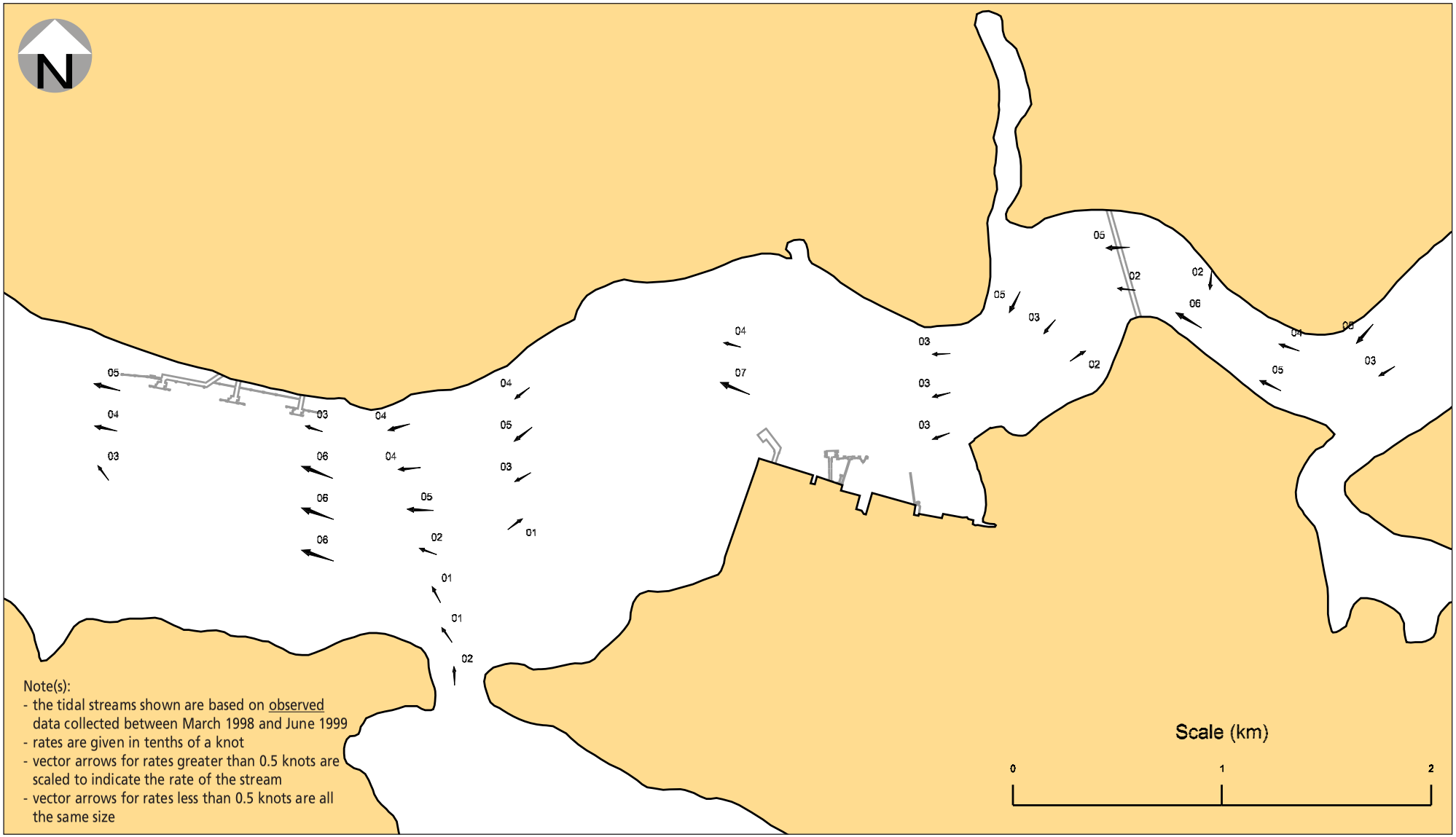

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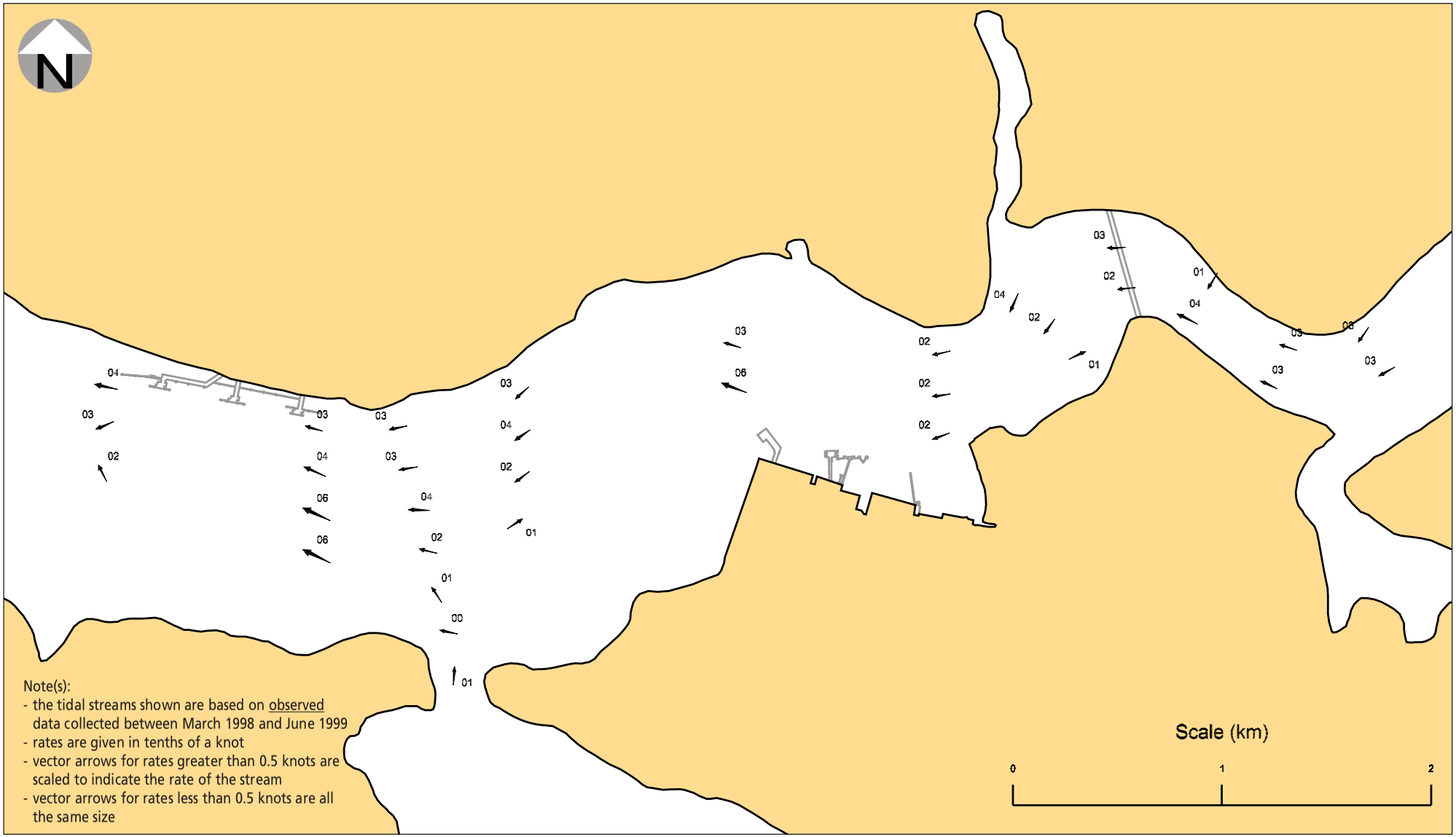
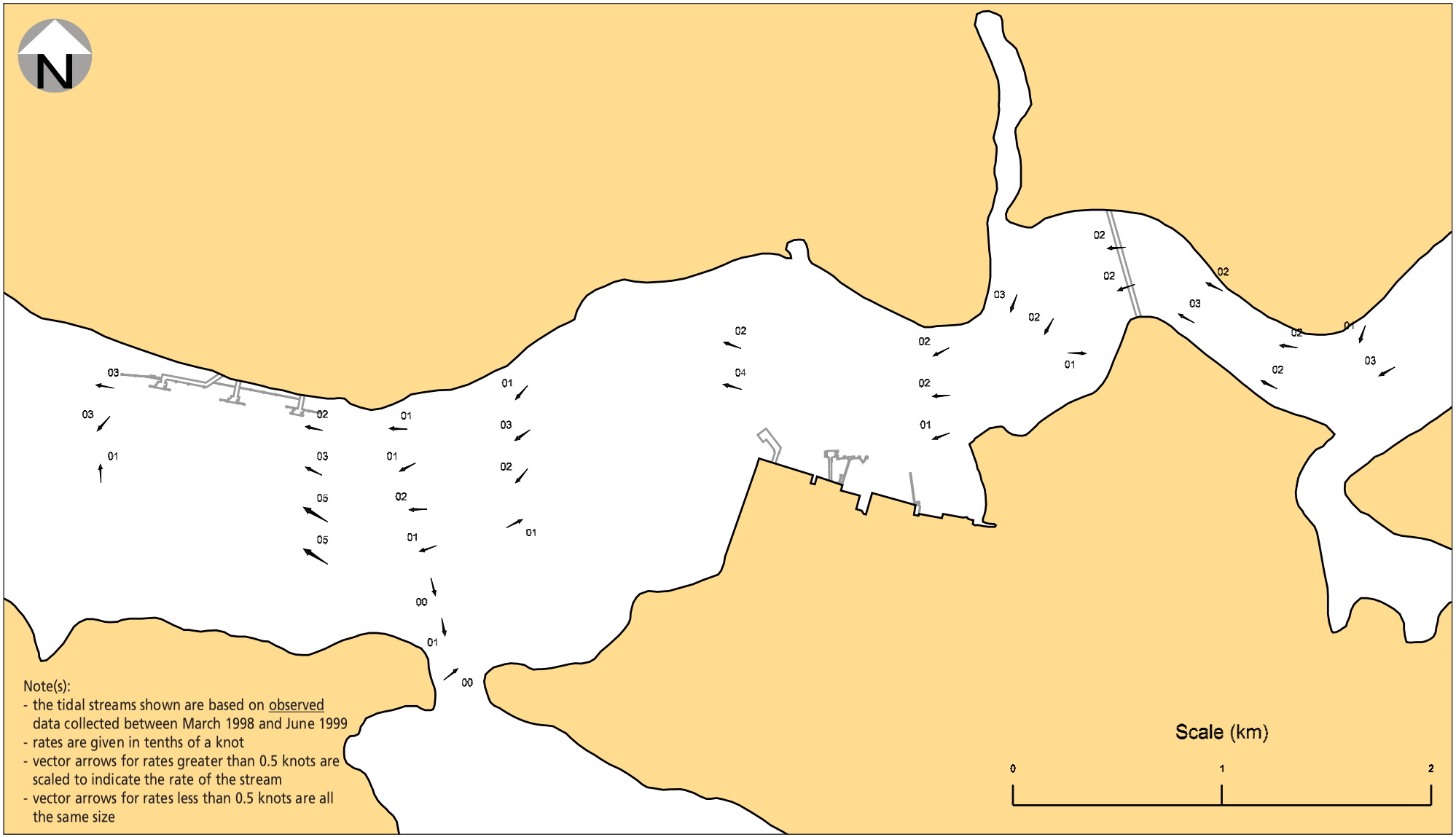


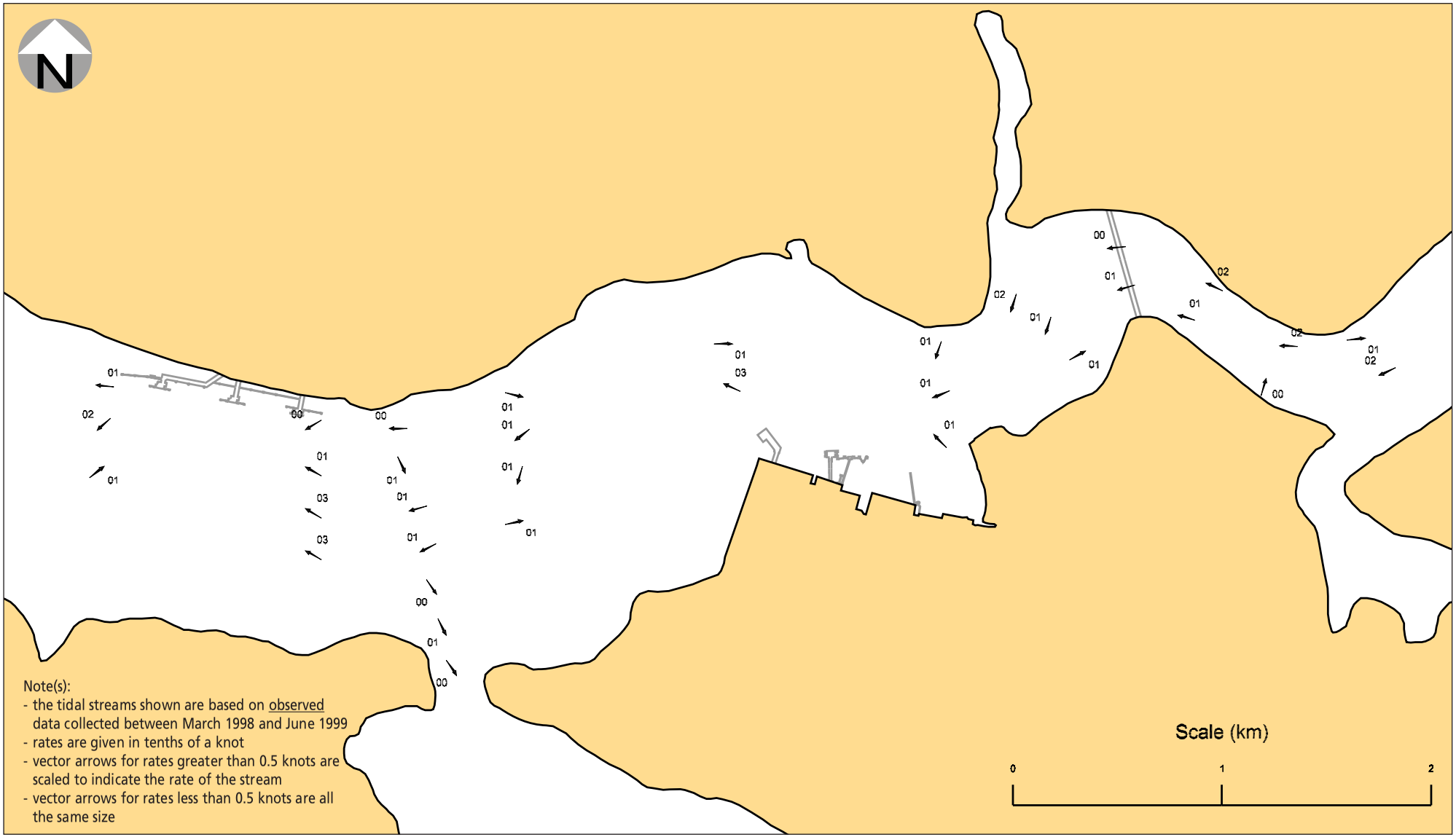
Upper Reaches of Milford Haven

NEAP TIDE AT 5.5 HOURS AFTER HIGH WATER



Upper Reaches of Milford Haven

NEAP TIDE AT 6 HOURS AFTER HIGH WATER



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