Draft licence conditions sent to Commercial Visitor Services to finalise Licence.

APPENDIX 4 - Determining Safe Speed and Vessel Length

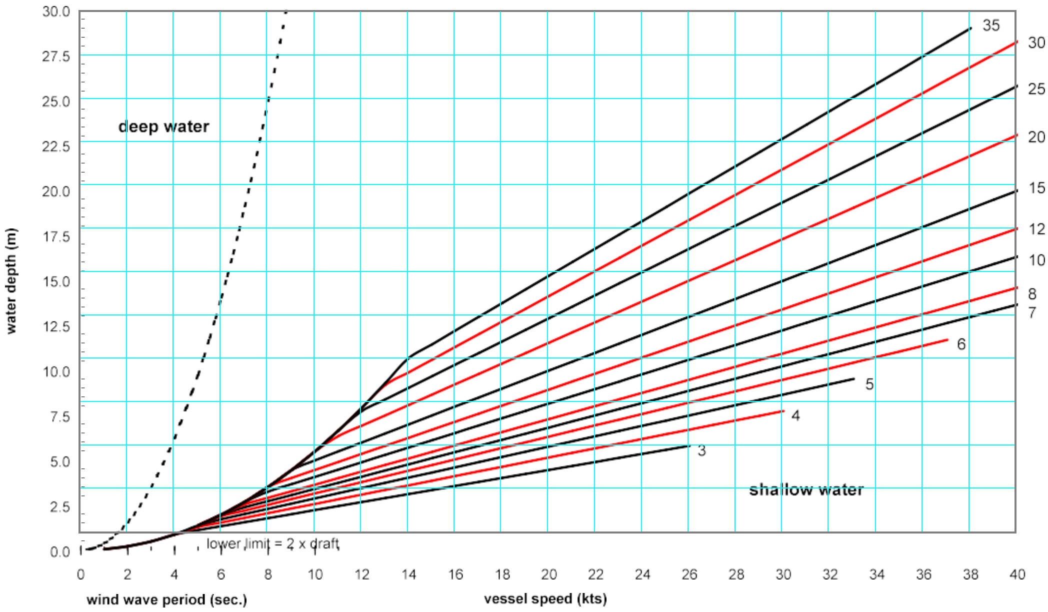
Any moving vessel produces currents and waves in the surrounding water which can have significant impacts on soft bank edges, especially in shallow, restricted channels or in bays and inlets. Vessel wake may be of sufficient magnitude to disturb sediments and/or aquatic organisms otherwise adapted to live in calm conditions. The energy of vessel-induced waves and currents is generally proportional to a vessel's displacement and the square of its speed.

Figure 1 provides standard scientific wave theory for the purposes of these guidelines. For further scientific information contact Jason Bradbury, Geo Scientific Officer, Biodiversity Conservation Branch, DPIPWE, or email: Jason.Bradbury@dpipwe.tas.gov.au.

The main part of the graph may be used to determine the maximum speed that a vessel of known length may operate in water of particular depth without having an effect on the seabed. Navigationally shallow water occurs in that region to the right of the solid curved line and below the appropriate numbered line representing vessel length. For example, a 5m dinghy may operate at up to 5 knots in 1.5 m of water, 10 knots in 3 m, 20 knots in 5.75 m or 30 knots in 8.75 m of water without causing significant water motion at the seabed.

The dashed curved line to the left indicates the depth of wave activity according to the period (time in seconds between successive crests) of the natural, wind-driven waves. If the depth of disturbance due to wake waves extends below that of the prevailing sea state, disturbance to either the marine life or the halocline may occur. If the depth of wave wake activity extends below that of the maximum expected storm waves, repeated vessel activity may have a geomorphological effect (i.e. bank erosion).

Limits of navigationally shallow water according to vessel length & speed



APPENDIX 6 – Propeller Flow Turbulence Prediction Model

For vessels over 35 m in length, a propeller flow turbulence prediction model will be used to determine operational limits within the General Access Zone.

To enable this calculation, the following inputs (for main propeller and for thrusters) should be forwarded with your application:

- propeller diameter from tip to tip (in metres)
- is the propeller ducted?
- propeller thrust coefficient (typically from 0.1 to 0.8)
- rotations per minute of propeller at desired ship speed (1/minute)
- nominated limit velocity (m/sec)
- distance from waterline to propeller hub (m) (immersion)

APPENDIX 7 - Relevant State and Commonwealth Acts & Policies

Aboriginal Relics Act 1975

Environmental Management and Pollution Control Act 1994

Historic Cultural Heritage Act 1995

Living Marine Resources Management Act 1995

Marine and Safety Authority Act 1995

National Parks and Reserves Management Act 2002

Nature Conservation Act 2002

Pollution of Waters by Oil and Noxious Substances Act 1987

Quarantine Act 1997

Threatened Species Protection Act 1995

Emergency Marine Pest Plan 1999 (Australian)

Tasmanian Marine Oil Pollution Contingency Plan (TasPlan) 2001

Tasmanian State Coastal Policy 1996

State Policy on Water Quality Management 1997

International Conventions, Commonwealth Acts and Policies

International Convention for the Prevention of Pollution from Ships (MARPOL)

International Convention for the Prevention of the Pollution of the Sea by Oil, 1954, as amended 1962 and 1969

Environment Protection and Biodiversity Conservation Act 1999

Environment Protection (Sea Dumping) Act 1987

Commonwealth Coastal Policy 1995