



### **Navigable Waters Clearance for Canoes and Kayaks**

The Navigable Waters Protection Act (NWPA) was established in Canadian law on May 17 th, 1882. It is designed to protect the interests of the Canadian public with respect to the safe, unimpeded movement along Canada's waterways. Since its inception, based on specific interests, the Act has been challenged by various parties. Originally powerful lumber companies, intent on controlling river flows to transport logs conflicted with road, railroad and bridge builders who were intent on crossing over the watercourses. Transport Canada (TC) is responsible for enforcing the act and protecting the public's interests. Eight "Coleman Principles" established in Ontario on March 1, 1983 are referenced when determining the navigability of all waters in Canada.

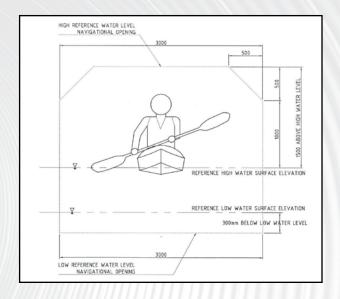
# Minimum Navigational Opening Diagram Canoe and Kayak Passage

High water surface measured at Q2 (one in two year storm event level) Maximum culvert length 20 metres Maximum velocity 2.7 metres per second.

All clearances must be determined by TC and all crossings of navigable waters must receive approval under the NWPA prior to commencement of any construction.

Contact Marine Safety at

www.tc.gc.ca



Today's conflicts on smaller streams are more likely to involve the potential interests of recreational canoeists and the commercial and economic requirements of municipalities and resource developers. TC is required to determine the applicability of the NWPA for a stream. The waterway is either navigable and the Act applies or it is not and the Act does not apply. In extreme cases the crossing may be designed as a safe portage but generally it is desirable to provide a bridge or culvert that will permit safe unimpeded passage between the Q2 high water and the low water level.

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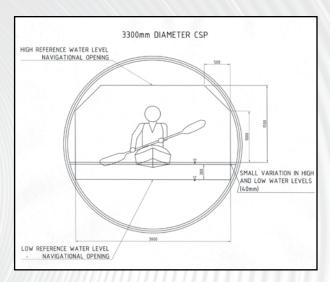


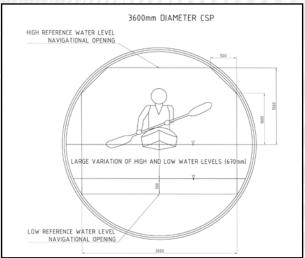


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TC has commissioned a study "Determining the Minimum Navigational Clearances Required for Unpowered (paddled) Vessels." It recognizes that boats and passengers are not generally rectangular in shape and therefore suggests minimum clearances to reflect the actual needs for boat, passengers and paddles including a buffer area for safety. These changes will allow for smaller, less expensive structures and permit rounded structures that cut off corners with their geometry. This will allow designs using CSP in a variety of economical shapes and sizes. As water velocity and culvert length can affect safety, maximums have been established for the minimum clearance requirements. Faster water and longer culverts will require larger openings. One aspect that is identified is "apparent area" or light at the end of the tunnel affect. In long structures the outlet appears smaller than the inlet and therefore actual sizing must be adjusted to an appropriate apparent area size. Detailed criteria are available at www.tc.gc.ca

- (1) A stream to be navigable in law must be navigable in fact. That is, it must be capable in its natural state of being traversed by large or small craft of some sort, as large as steam vessels and as small as canoes, skiffs and rafts drawing less than 1 foot of water
- (2) Navigable also means "floatable" in the sense that the river or stream is used or is capable of use to float logs, log rafts and hooms.
- (3) A river or stream may be navigable over part of its course and not navigable over other parts. The courts independently at different locations may therefore determine its capacity for navigation.
- (4) To be navigable in law a river or stream need not in fact be used for navigation so long as realistically it is capable of being so used.
- (5) The underlying concept of navigability in law is that the river or stream is a public aqueous highway used or capable of use by the public. This concept does not embrace uses such as irrigation, power, fishing or other commercial and non-commercial uses that do not depend upon its character as a public aqueous highway for passage. In law a river or stream is not navigable if it is used only for the private purposes, commercial or otherwise, of the owner.
- (6) Navigation need not be continuous but may fluctuate seasonally.
- (7) Interruptions to navigation such as rapids on an otherwise navigable stream that may, by improvements such as canals be readily circumvented do not render the river or stream non-navigable in law at those parts.
- (8) A stream not navigable in its natural state may become so as a result of artificial improvements.

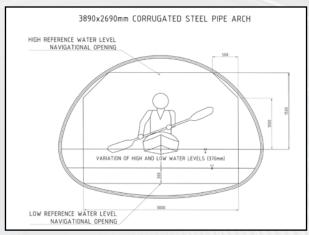


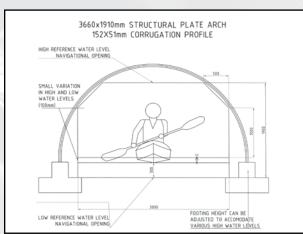


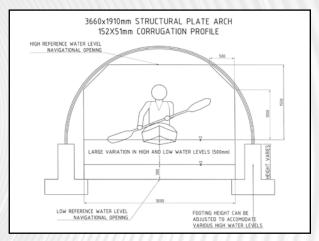
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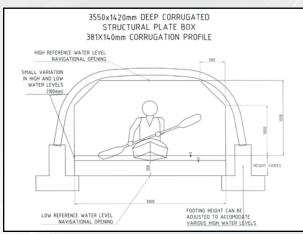


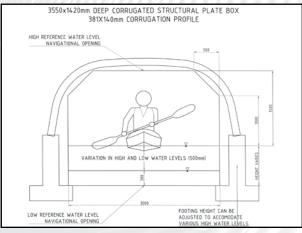
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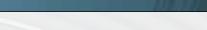






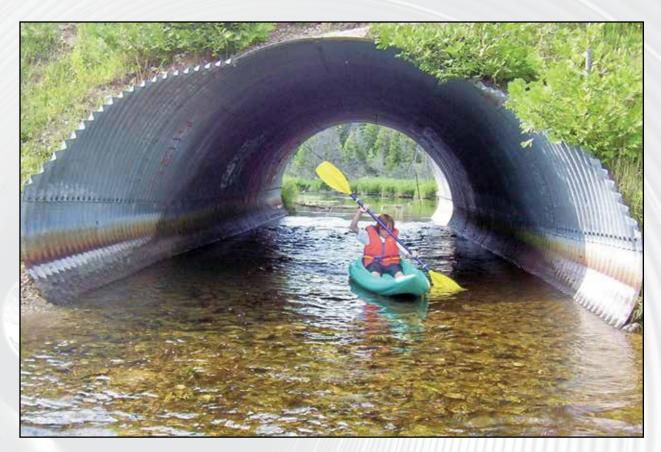
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PORTAGE WITH END PROTECTION

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