

## NOVA SCOTIA WATERCOURSE ALTERATION SPECIFICATIONS (2006)

### TEMPORARY BRIDGE SPECIFICATIONS

The following applies to clear span bridge construction or maintenance or structures less than 15 metres in length

- TB1. Hydraulic design for temporary structures is based on the 1:2 year storm event; if the minimum criteria outlined below is not sufficient to allow the waters of the 1:2 year rainfall event, the additional clearance will be required between the deck and surface of water
- TB2. No disturbance of the bed or banks of the watercourse is to occur.  
At a minimum, the bridge must completely span the watercourse with the sills or
- TB3. abutments placed back from the top of bank a minimum of 1 metre. Sill logs or swamp mats used to support temporary bridges shall be placed on firm, stable ground outside of the watercourse bed.  
The structure shall not touch the water surface during operation and must be
- TB4. capable of carrying the intended loads.  
The deck height shall be a minimum of 250 mm above the bank height and there
- TB5. shall be at least 450 mm between the water surface and the bottom of the bridge at the time of installation.  
The structure must be lifted in place, rather than dragged, and must be removed in
- TB6. the same manner.  
Approach roads on both sides of the crossing must be stabilized against erosion
- TB7. by using brush mats or clean granular material unless bedrock is suitable to provide protection from rutting.  
Stabilization shall extend back at least 30 metres on either side of the crossing.
- TB8. No traveling or skidding shall be allowed over temporary structures unless
- TB9. approaches to the crossing are stable and the structure has a deck that will prevent debris from falling into the watercourse.

- TB10. Bridge decks must be fully enclosed and kept free of erodible soil. Any soil on the deck must be removed in a manner to ensure it will not enter the watercourse. In unstable (muddy) or potentially unstable traction areas, once the support logs are installed across the watercourse, heavy gauge plastic or other suitable material shall be placed on the supports before the decking material is installed to prevent debris and mud from falling between the cracks of the wood (if spacing between decking) into the watercourse as the vehicle crosses. The center of the bridge must be enclosed as to prevent debris from falling into
- TB11. the watercourse.  
The width of the structure shall not exceed one lane.
- TB12. If using a cable skidder or dragging tree length logs via a cable/grapple/clam bunk
- TB13. type system, temporary structures shall have vertical posts and rails along the side of the structure to ensure that trees are not being dragged through the watercourse when crossing. Whole trees may not be skidded across a temporary structure. Machine work is to be conducted from the watercourse banks and machinery is
- TB14. not permitted to enter the watercourse unless otherwise approved in writing by the Minister or Administrator.  
Once access is no longer required, prior to the 30 day removal requirement, the
- TB15. temporary structure shall be removed within three working days and the disturbed area stabilized with rock, erosion control matting or other materials authorized in writing by the Minister or Administrator.  
Structure backfill material and fill for the roadbed is to be clean coarse granular
- TB16. aggregate material, durable, non- ore-bearing, non-watercourse derived and non-toxic to aquatic life.
- TB17. The width of the structure shall not exceed that necessary for one vehicle to cross the bridge. For example, a one lane bridge.
- TB18. Erosion and sedimentation control methods must be used to ensure silt or other harmful materials or substances are not discharged into any watercourse.
- TB19. Place sill log(s) parallel to the watercourse, at least 1 m back from the edge of the bank(s) of the watercourse, to found the stringers on. Sill logs should be at least 4 m long and have a minimum diameter of 25 cm.
- TB20. **For timber construction temporary bridges**, construct runners from a minimum of three timbers bound together using cable, bolts or chains. Timber should have a minimum diameter of 25 cm. Attach decking to make the structure more rigid and to prevent debris generated during travel or

maintenance from entering the watercourse. Place geotextile or heavy plastic tarping material under the structure to provide additional protection from harmful materials entering the watercourse. Maintain the structure to ensure material does not build up on the runners / decking and the stream banks remain stable.

TB21.

**To remove timber or pre-fab construction temporary bridges:**

Clean off bridge surface. Dispose of material in an area where it will not migrate back to the watercourse.

Completely remove the crossing structure and all construction materials from the crossing location and dispose of in a manner acceptable to Nova Scotia Environment.

Stabilize the approaches and the streambanks immediately upon removal with rock, hydro-seeding or hay mulch.

Use sediment and erosion control measures on the approaches.