

INSTALLATION AND DEACTIVATION OF SNOWFILLS

USED FOR THE PURPOSE OF A ROADWAY

BEST MANAGEMENT PRACTICE

Design:

- Location has been prescribed in a road plan or harvesting block plan
- Simple crossings can be constructed by filling the channel with compacted, clean snow (free of soil and debris).
- Larger crossings can utilise banded, log bundles to make stable fill.
- Suitable structure option for dry or frozen S3, S4, S and S6 streams.
- Suitable structure option for flowing S5 & S6 streams where a heavy steel pipe is utilised to accommodate flows.
- Not suitable structure for flowing S3 & S4 streams.
- Suitable structure option on a NCD (non classified drainage).
- Log bundles should be 1.5X wider than bladed running surface
- A routine snowfill would not exceed 1.5m in height (stream bottom to running surface)
- Snowfills may exceed 1.5m in height, but a higher level of care is required to ensure the installer has experience commensurate with the complexity of the crossing.
- Road grades should not exceed 10% in either direction

Installation:

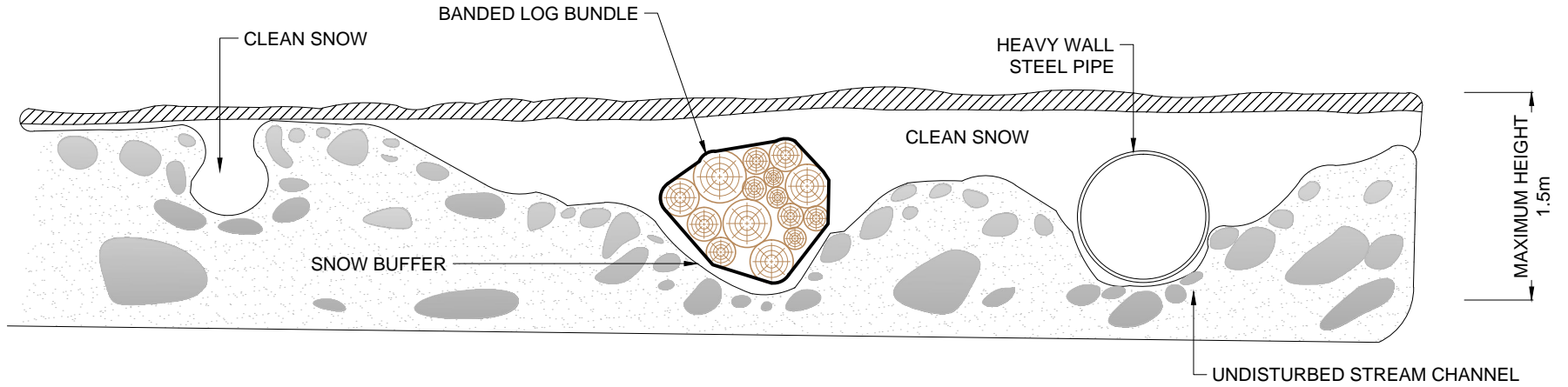
- Deliver clean snow with whatever equipment is on site
- Wait for significant frost prior to installation
- Even if log bundles or pipes are to be used in the construction, ensure a layer of clean snow between stream bed and stream banks to buffer these components from bonding to the stream channel
- Avoid use of geotextiles as they will often bond to the stream channel and complicate and compromise suitable deactivation
- Clearly mark both ends of the snowfill so the snowfill can easily be found when it comes time to deactivate the crossing and works can be oriented
- Contractor has 3 options in the event sufficient snow is unavailable
 - o Wait for natural snow to occur
 - o Use a water truck to freeze in; or truck in snow where there is snow
 - o Modify the road or harvest plan to accommodate an alternate crossing method

Deactivation:

- This is a case where less is better than more. There is a requirement to re-establish natural drainage patterns. But snow and ice naturally occurs in streams in winter. Ensure natural drainage routing is established, but do not alter stream banks and stream bed by excessive excavation.
- All components that are not snow and ice must be removed from the channel. Metal banding and/or pipe materials must be removed from site. Logs formerly in the bundle(s) can be dispersed on road or into timber above the apparent high water mark.
- Snowfills must be removed prior to freshet.
- Excavated snow and ice is best placed on the downstream side of the crossing and perpendicular to the stream. Avoid the creation of a temporary dam.

SAMPLE ILLUSTRATION OF SNOWFILLS

PROFILE VIEW:



**SIMPLE
SNOW FILL**
(S3, S4, S5, S6, or NCD)

**LARGE
SNOW FILL**
(S3, S4, S5, S6, or NCD)

**FLOWING
SNOW FILL**
(S5 & S6)

PLAN VIEW:

