

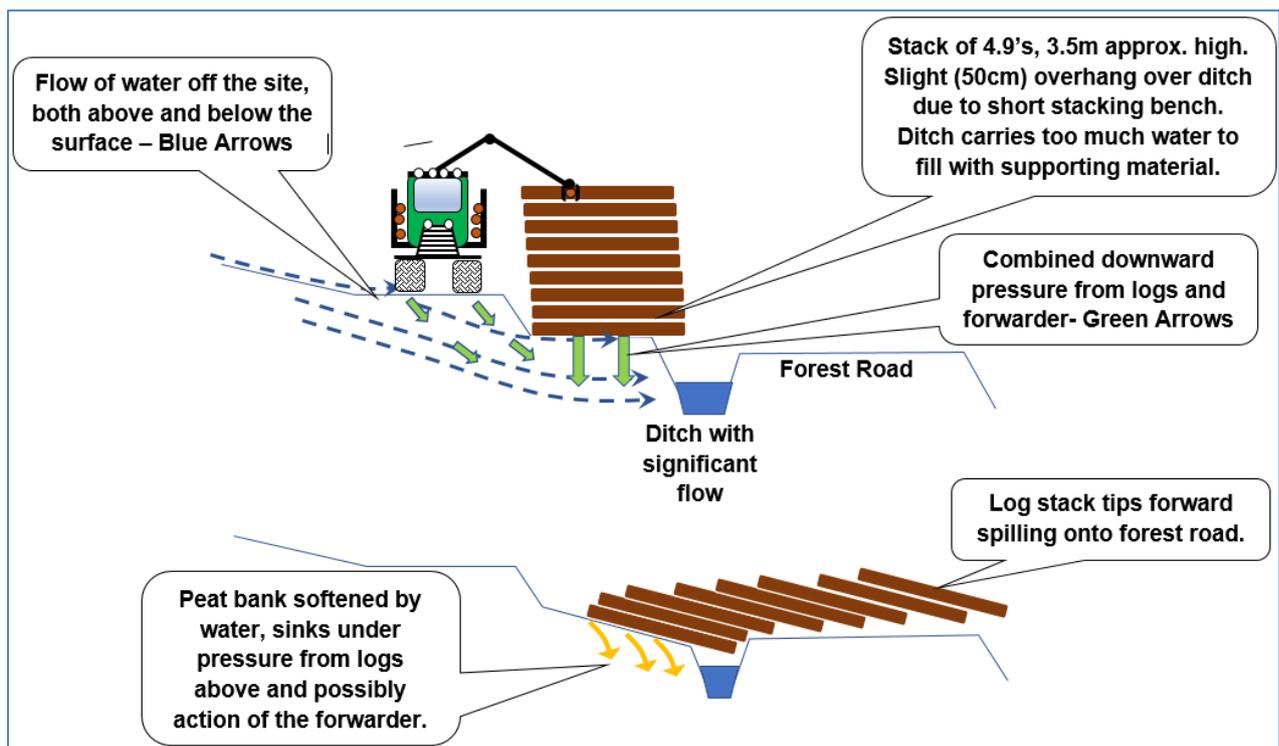
Near Miss - Timber Stack Collapses

What happened?

A roadside stack of 4.9m logs destabilised and collapsed out onto the forest road. No one was in the vicinity at the time of the collapse and no one was injured

What was the cause?

Water flowing through the peat under the timber stack caused the preformed stacking bench to subside, destabilising the timber stack.



What were the contributing factors?

1. There is a significant amount of water flowing off the site, much of this is through the peat, although there is some surface flow evident in the old furrows and open drain system. This water seepage through the peat below the timber stack was the main contributing factor to the ground giving way.
2. At the stacking area there is a deep ditch which carries a significant flow of water. Filling this ditch with timber to support the stack was not possible without causing flooding.
3. The Logs were not stacked straddling the ditch and using the edge of the forest road as support, due to the narrowness of the road - the operator did not want to interfere with the free flow of traffic or limit the space for the stabiliser legs of lorries when loading.
4. The width of the stacking bench is too narrow for a 4.9m log leaving about a 0.5m overhang.
5. The compression weight, the repeated movement and ground vibration of the forwarder, operating at the rear of the stack may have contributed to the stack destabilisation.

What Can We Learn?

1. Be aware of water gathering at the rear of timber stacks and look for water seeping from banks underneath stacks. This may be an early indication that the bank may begin to sink. Be especially careful where peat overlies a less permeable layer where the peat may be acting like a sponge. Harvesting activity may disrupt previous drainage patterns concentrating water in localised areas.
2. Always ensure that a timber stack is fully supported at both ends of the log. Even a small overhang can contribute to instability if other factors come into play.
3. Consider the use of lateral timber bearers at the base of your stacks, to both support your stacks and ensure they sit level.
4. Consider stacking over the ditch using the solid road edge formation if this is wide enough. Alternatively, if you are stacking behind the ditch, ensure there is enough space to accommodate the full length of the product.
5. Be aware that the passage of machinery to the rear of a stack may cause some destabilisation, especially on soft ground. Ground compaction and vibrations from machinery could also be a contributing factor – make sure these areas are well ‘brushed-up’ to limit the effects of this.
6. Whenever possible, water running in roadside ditches should be diverted away from stacking areas prior to harvesting work commencing, enabling supporting timber to be placed in the ditch if required. This also helps diffuse pollution management, but logs must not impede water flow.

On this site the operator has now developed a safe working solution, where the first log is stacked fully over the ditch for stability, with subsequent logs stepped back to maintain sightlines and prevent damage to lorry wingmirrors and other road users.



Scottish Woodlands have produced a Guidance Note on Planning the Safe Stacking of Timber. A Copy of this will be re-issued with this

Toolbox Talk. If you have not received a copy, ask your Scottish Woodlands Manger, contact your local Scottish Woodlands Office for a copy or use this link for a pdf version...

<https://www.scottishwoodlands.co.uk/contractors-area/> (password – logger1) under Harvesting

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