

### Pallet Mats as Roadways

#### PLANNING

Application depends on combined weights of machinery and their payload.

For on-site assistance and cost share availability, contact the Tennessee Division of Forestry.

#### INSTALLATION

Mat layout must fit the job and provide for safety.

Manage surface runoff from roads, trails, and crossing approaches by installing water diversions (dips) on both sides of the mat.

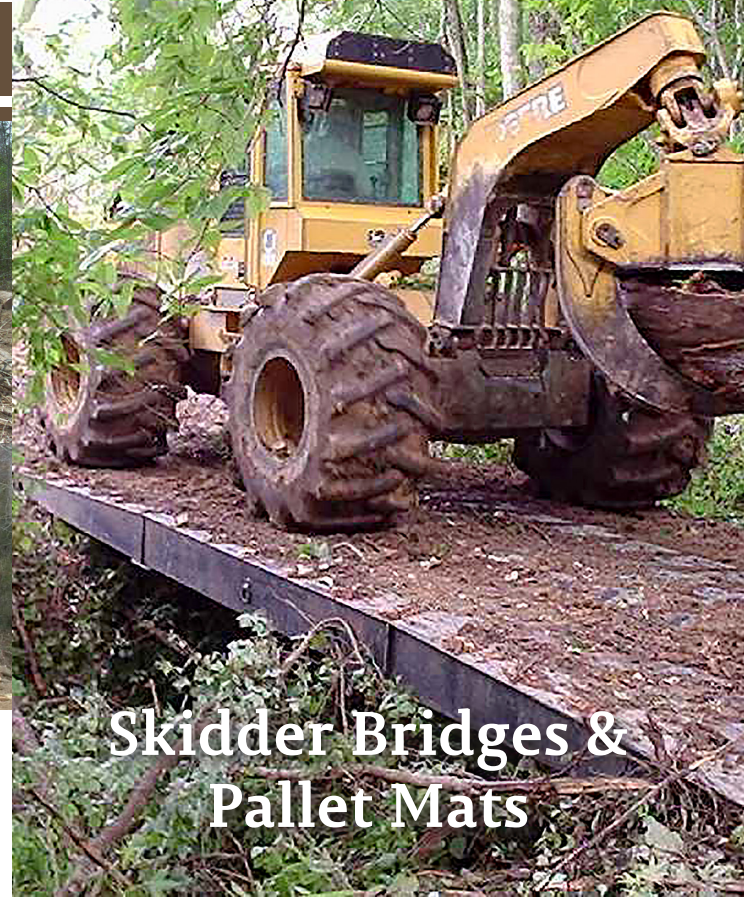
Stabilize bare soil areas with seed, mulch, branches, and tree tops or with other suitable materials when mats are installed and removed.

#### MAINTENANCE

Inspect frequently during ongoing operations for usefulness, safety, and water quality protection.

Correct failing conditions properly and promptly. Stabilize roadways using natural or manmade materials/methods.

Inspect, maintain, and replace as needed to assure usefulness and water quality protection.



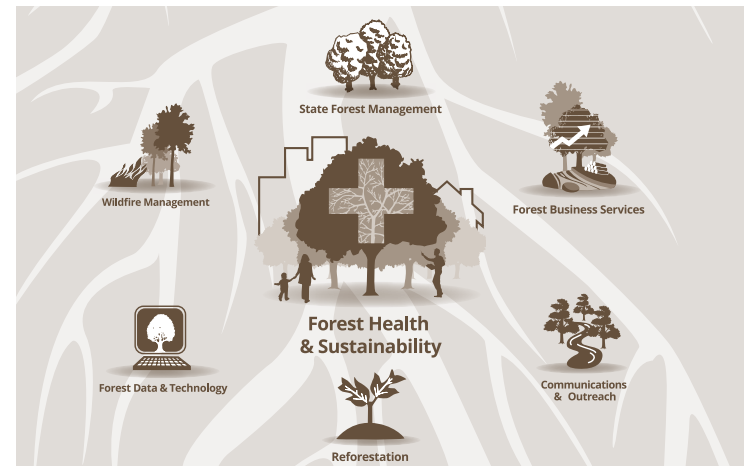
## Skidder Bridges & Pallet Mats



**For more information on the programs, cost share, and services offered by the Tennessee Department of Agriculture Division of Forestry contact your local Division office - or - phone: 615-837-5520 Visit us on the web at: www.TN.gov/agriculture/forestry**



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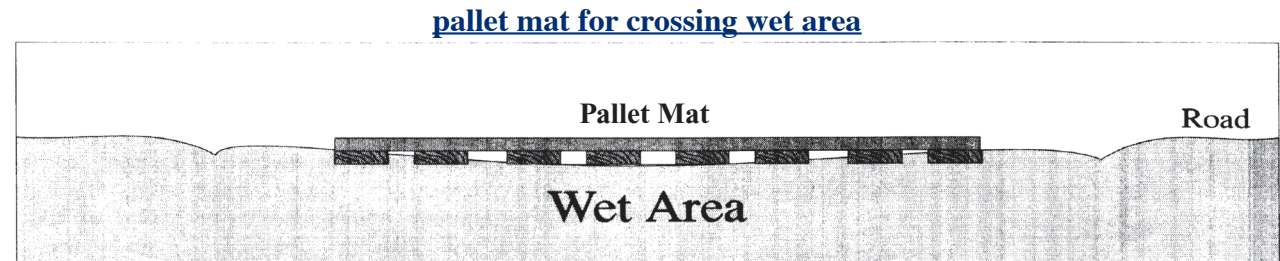
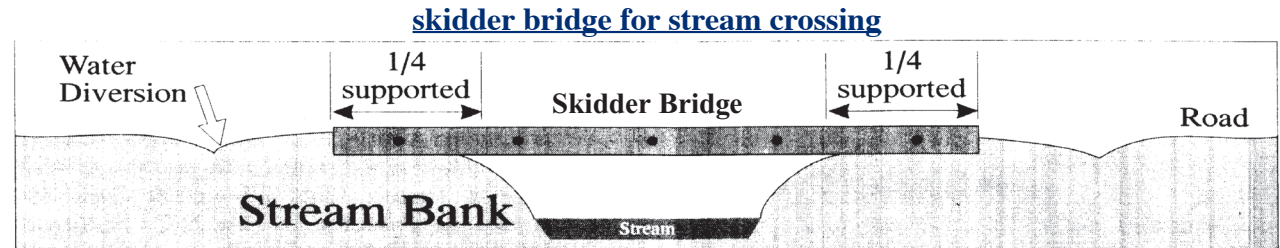




Temporary stream crossings and roads often are necessary for access to forest lands, but they greatly increase the potential for introducing eroded sediment into our waterways. This kind of water pollution can result from stream crossing construction or from road surface runoff. During forestry operations, it is best to avoid crossings if possible. If temporary crossings are necessary, an excellent way to prevent soil sedimentation pollution from getting into waterways is to use skidder bridges (other names include “dragline mat”, “logging mat”, “skidder mats”, “timber bridges”, and “portable panel bridges”). If a wet area temporarily needs crossing, then pallet mats should be used. Correctly installed skidder bridges or pallet mats help protect stream habitats and overall water quality, and help to meet Best Management Practices (BMP’s).

Skidder bridges are made of a wide array of materials—most commonly steel or wood. Typically they consist of 2 or 3 fabricated panels placed side by side to form a bridge. They are easy to pick up and lay down at the end or in the middle with a loader or grapple skidder. These temporary bridges are reusable, so they can be more cost effective than a permanent crossing such as a culvert or ford.

Pallet mats are placed end to end to provide access to or across wet areas with minimum soil damage. When removed, they leave no residue. These mats may also be used for logging decks in wet areas. They are frequently used on roads leading up to highways to minimize the amount of mud tracked onto pavement. Pallet mats are also reusable and provide a cost effective alternative to roads.



## USING SKIDDER BRIDGES FOR STREAM CROSSINGS

### Planning

Avoid crossing if possible.

Keep the number of crossings to a minimum.

Select an acceptable crossing site:

1. where stream channel is straight;
2. where the stream bottom is firm and stable, with moderate stream banks;
3. that allows for gentle approaches.

For on-site assistance, contact the Tennessee Division of Forestry.

### Installation

Bridge layout must fit the job and provide for safety.

During placement, keep materials and vehicles out of the stream channel.

Manage surface runoff from roads, trails, and crossing approaches by installing water diversions (dips) on both sides of the bridge.

Divert runoff into undisturbed forest floor areas rather than allowing it to empty directly into the stream channel.

Stabilize bare soil areas with seed, mulch, branches, and tree tops or with other suitable materials when mats are installed and removed.

### Maintenance

Inspect frequently during ongoing operations for usefulness, safety, and stream water quality protection.

Evaluate crossing for:

1. stream obstruction;
2. soil erosion and sedimentation potential;
3. the handling of surface runoff.

Correct failing conditions properly and promptly.

Stabilize crossing areas using natural or manmade materials/methods.

Inspect and maintain crossing areas to ensure usefulness and stream protection.



Steel skidder bridge being installed with grapple skidder



Steel skidder bridge supporting skidder over drainage



Skidder Bridge



Pallet Mat