

# Alternative Tile Intakes

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## What is an alternative tile intake?

Alternative tile intakes, such as rock inlets, replace open tile inlets with a rock filled trench. This design offers farmers the convenience of no longer having to worry about running over the open inlet with heavy equipment and causing damage to the system. In addition, alternative tile intakes are a step towards improving water quality. Monitoring done in Carver SWCD demonstrates that rock inlets deliver 15-20% less sediment to streams and ditches during runoff events. Rock inlets should be coupled with residue management and other best management practices for optimal effectiveness and longevity.

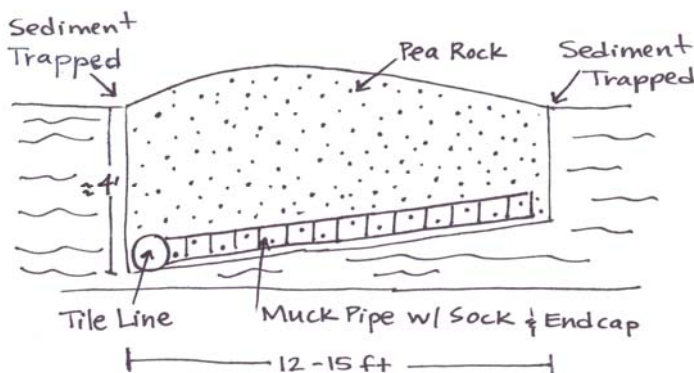
## Why use rock inlets or other alternative tile intakes?

- Excess surface water is removed as effectively as open inlets
- Less sediment is delivered in to the subsurface tile system
- Producers can plant through the rock inlet area without harm to equipment
- Subsurface drainage is increased in the area around the inlet
- Freeze up time is shorter
- Suction voids do not form around rock inlets
- Allows for venting of the subsurface drainage system



## Cost Share is available!

Funds are available provide cost share assistance to replace open tile inlets with rock inlets. Landowners or operators are eligible to receive 75% cost share not to exceed \$375.00 per intake. Those operating in the Chippewa River Watershed are also eligible for \$100 per intake incentive payment through a Clean Water Legacy grant. Stop by the Douglas SWCD to apply before you begin work.



## Rock Inlet Specifications

### Materials:

- 5" diameter muck pipe with 5/8" holes and "Big O" sock
- T-Connector, 5" to size of existing tile
- 4 cubic yards of Pea Rock 1/4"- 7/8" diameter

### Earth Work:

- Excavate 2-3' wide x 12' long x 3-4' deep (depending on existing tile depth)

### Notes:

- Pea rock should be mounded at least one foot above grade
- Using larger rock may allow sediment into structure
- Cost varies depending upon the number installed
- Modifications made to this design must be approved by Douglas SWCD

Source: T. Gieske 10/97 (Carver SWCD), adapted from Morriem Drainage, Freeborn Co.