

## Good Mud/Bad Mud

Sound planning for water investments starts before the water hits the stream or the lake. To maintain stream flow and lake levels throughout the year the riparian area must not only be recharged each year, it must be in a condition to first hold and then store water to be released later.

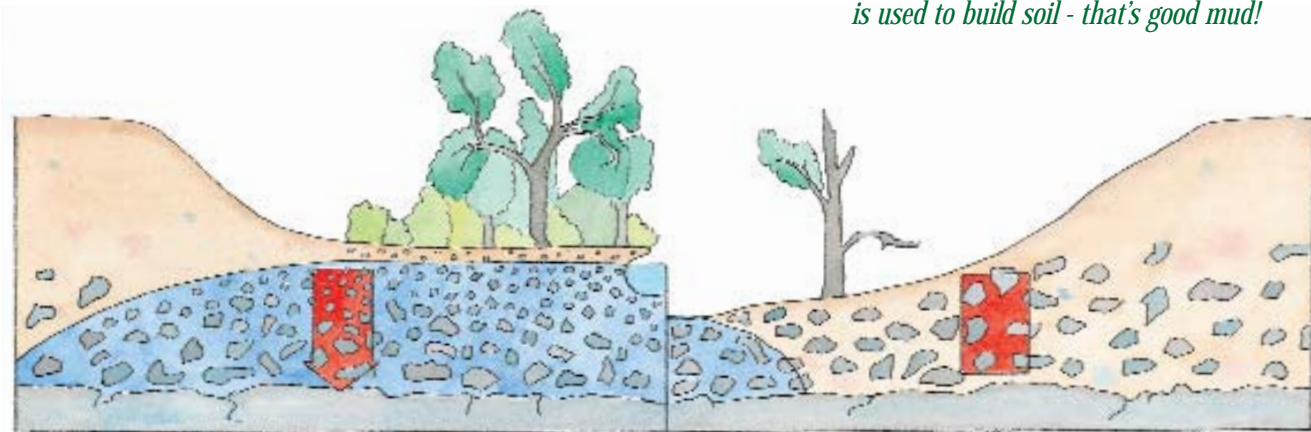
The type and volume of floodplain material - gravel, sand, silt or clay - determines the riparian areas' capability to hold, store and release water. Water moves more slowly through silt or clay than through sand or gravel.

During overbank flooding, areas that are well-vegetated catch more fine sediment than areas that are not. Sediment aids in the ability of soils to hold and store moisture by providing a base for plant growth. Plants return organic matter to the soil which increases the soil's water holding capacity. Organic material can hold nine times its own weight in water.

Nutrients, contaminants and pathogens attach themselves to sediment particles. Improving water quality starts with reducing erosion and sediment transport. Healthy riparian vegetation traps sediment before the load of problems is delivered to downstream water drinkers. Bad mud is transformed into good mud when it is trapped and stored in the riparian area, away from the water.



*Plants bind soil in place and trap moving sediment - when sediment is captured and is used to build soil - that's good mud!*



*Sediments build more quickly on well-vegetated riparian areas. The cycle of flooding, sediment deposition and soil building increases the capability for water absorption and storage.*

*Where vegetation is lacking, less sediment is captured, the capability for water absorption and storage suffers and water quality can deteriorate.*

*Soil holds water and supports vegetation - give it a home on your riparian area.*