

Section 4

Structural Measures — Permanent

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Structural Measures

Structural measures are used where vegetative measures are not adequate to prevent erosion, or where control of runoff is required to protect a facility or area of use. Structural measures are engineering practices which require careful planning, design, and installation to function as intended and be effective soil erosion control structures. Designs are based on many factors, including expected storm runoff, hazard to life and property should the structure fail, expected sediment accumulation, future land use, and maximum allowable water velocity. General information, design criteria and aids, and construction specifications are included in the following discussion of each practice.

Federal, State, and Local Laws

All federal, state, and local laws, rules, and regulations governing water use, pollution abatement, health, and safety shall be followed. The owner or operator shall be

responsible for securing all required permits or approvals and for performing in accordance with such laws and regulations.

Permits may be required from the following agencies:

1. U.S. Army Corps of Engineers
2. West Virginia Department of Natural Resources
3. West Virginia Public Lands Corporation

Embankments for nonagricultural use that will be 6 feet or more in height, measured from the stream bottom at the downstream toe and that will or can impound 50 acre-feet or more of water will require that the owner submit an application for a certificate of approval. Embankments that will be 25 feet or more in height and that will or can impound 15 acre-feet or more of water will require that the owner submit an application for a certificate of approval from the state.

A lined waterway provides a safe outlet.

