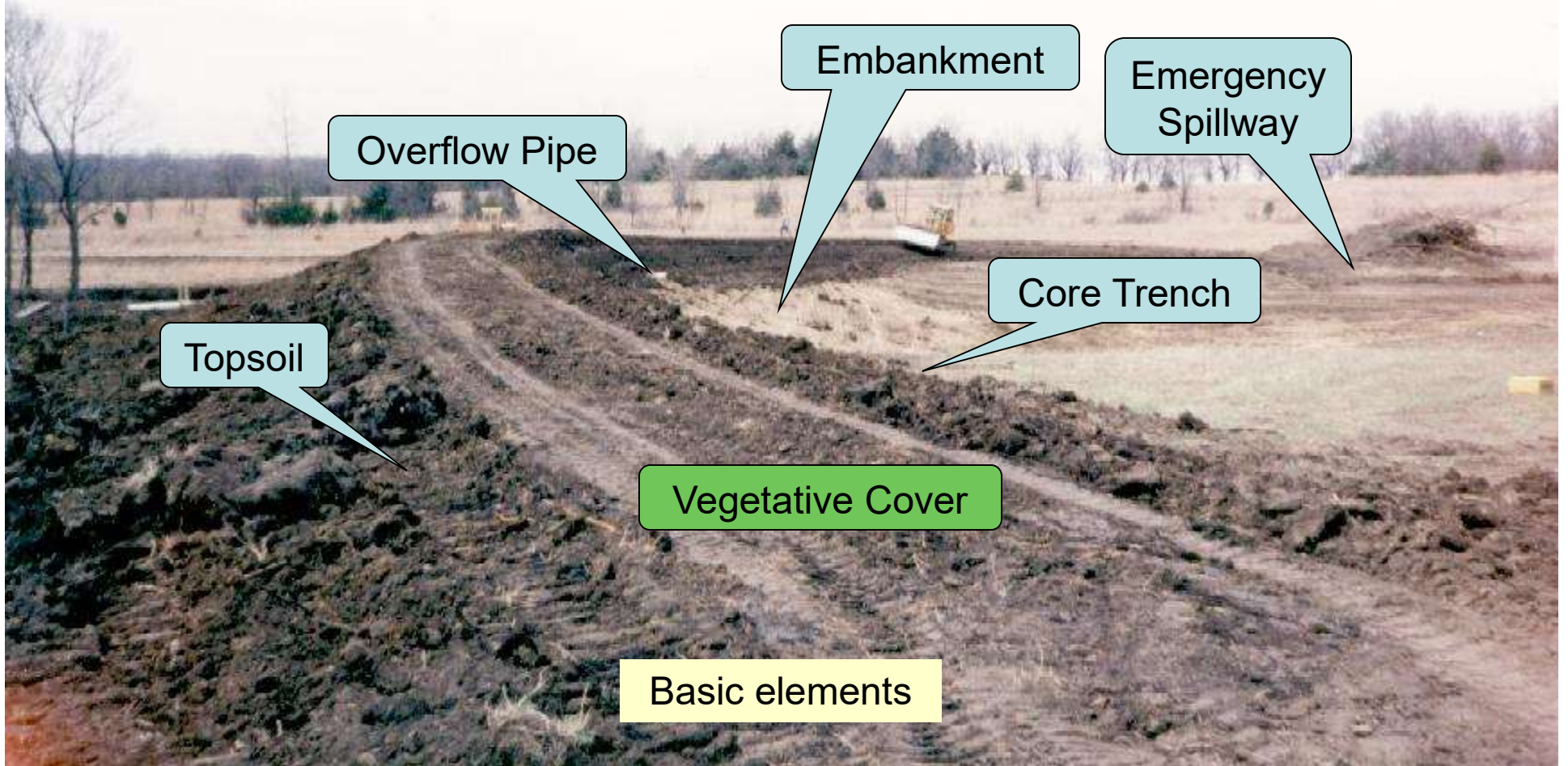


Pond Dams Built Right



There is a desire to have a pond dam built. Or you come across one with problems. An actual design specific for the site is best. But many times, that is not possible. This presentation outlines components key to having a "Pond Dam Built Right."

Pond Dams Built Right



Overflow Pipe

Embankment

Emergency Spillway

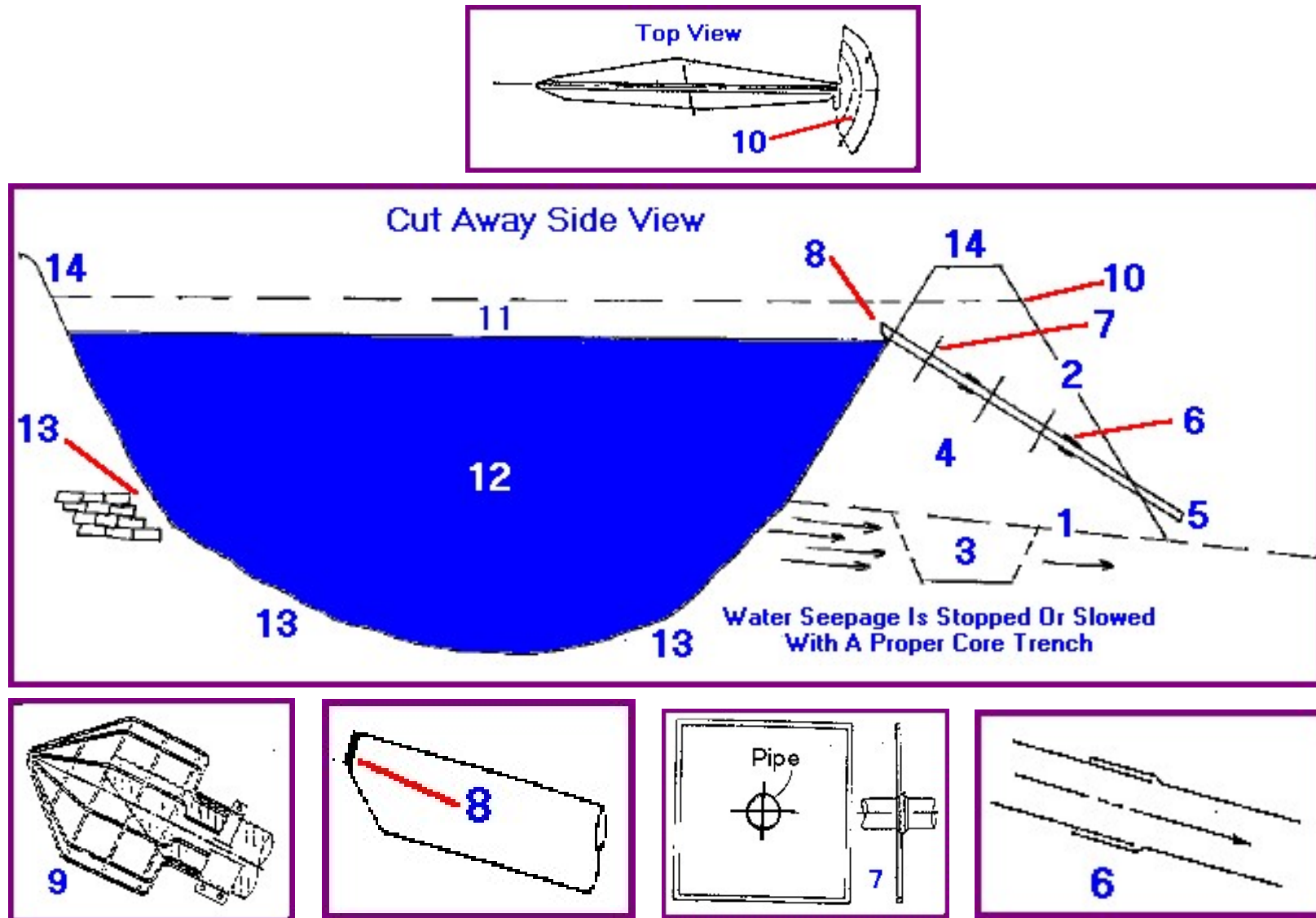
Topsoil

Core Trench

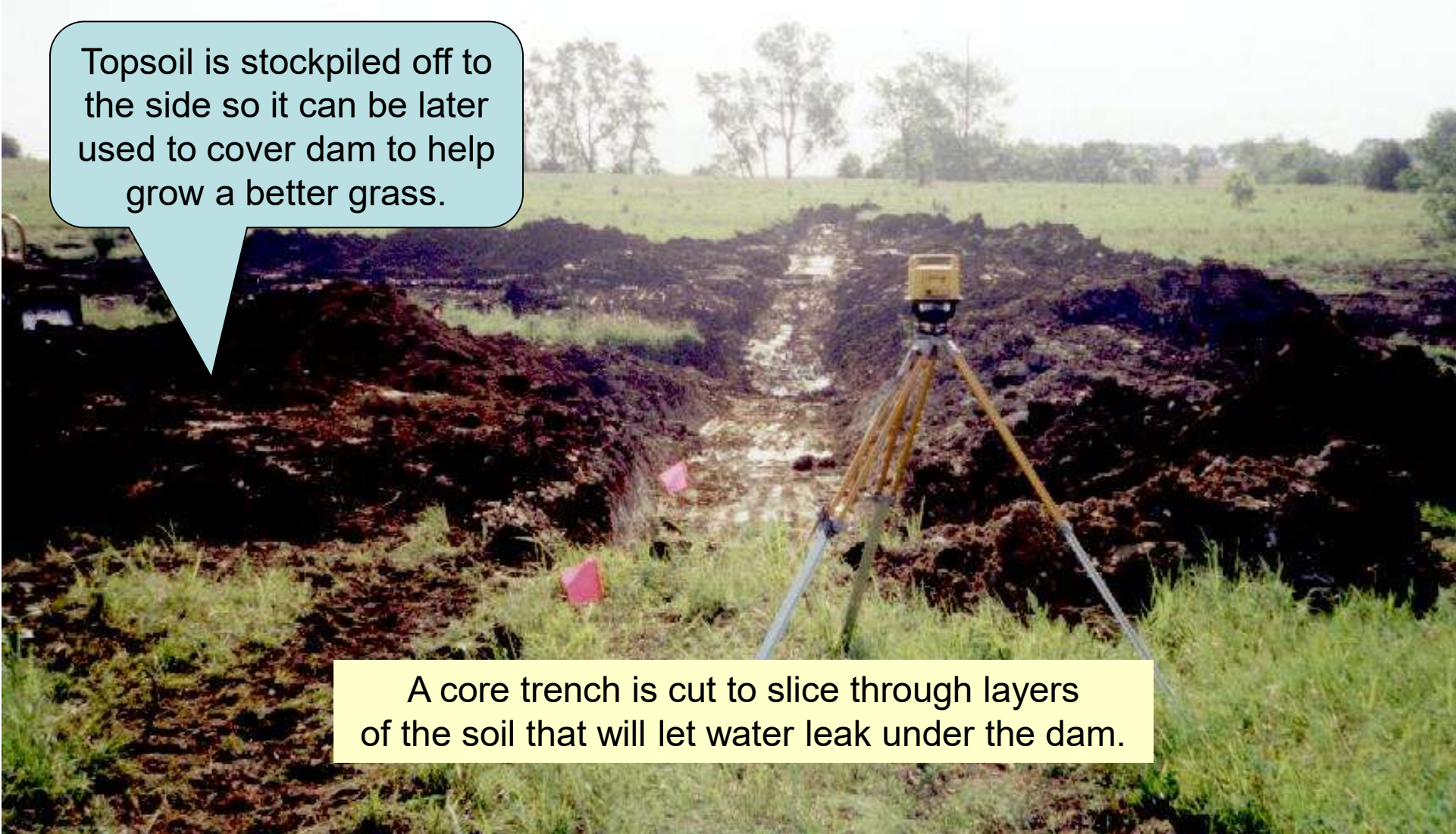
Vegetative Cover

Basic elements

BASIC ELEMENTS OF A POND DAM



A referenced number guide to this image is available on this website under "Pond Dams Built Right – Drawings and Text"

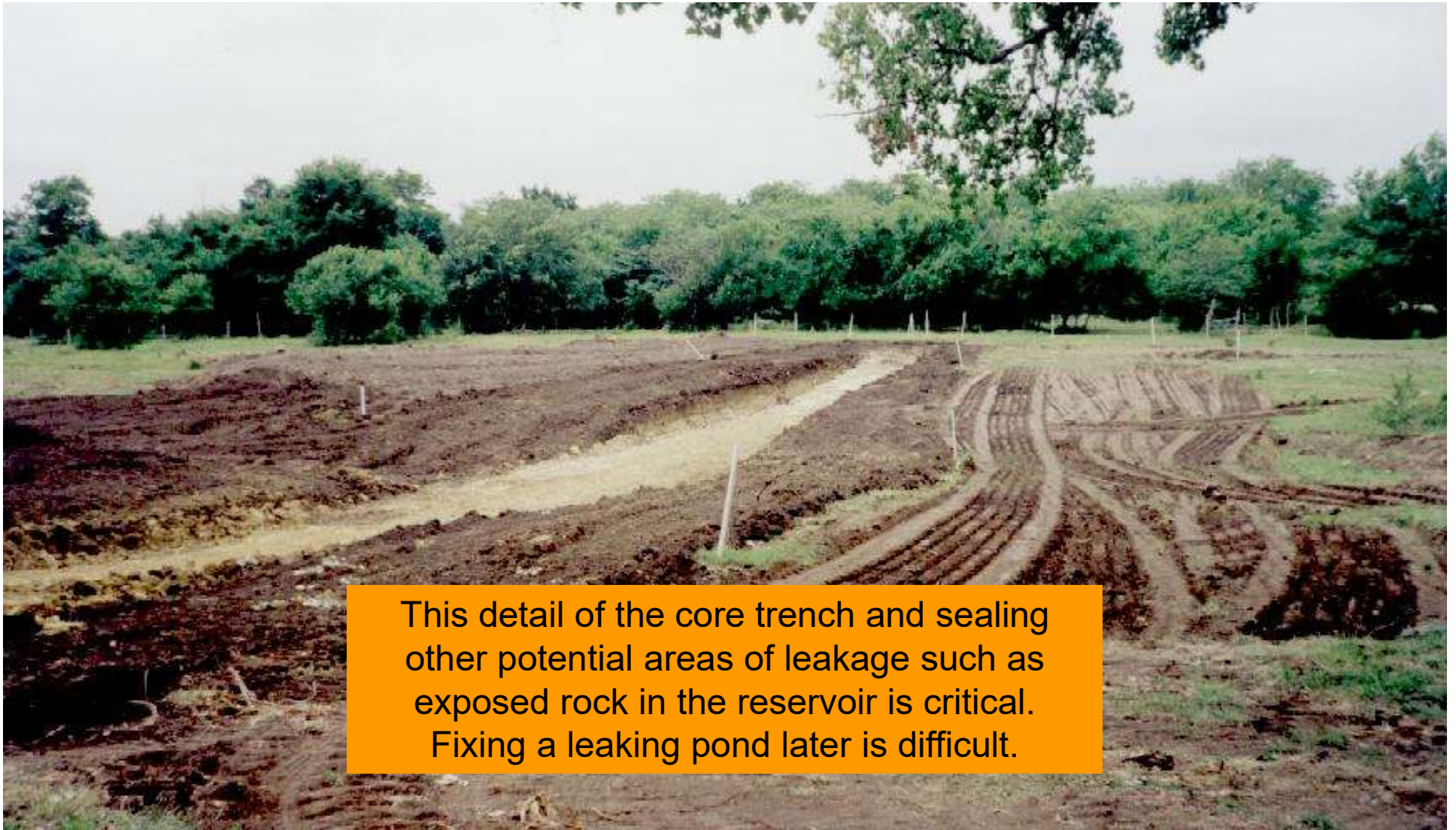


Topsoil is stockpiled off to the side so it can be later used to cover dam to help grow a better grass.

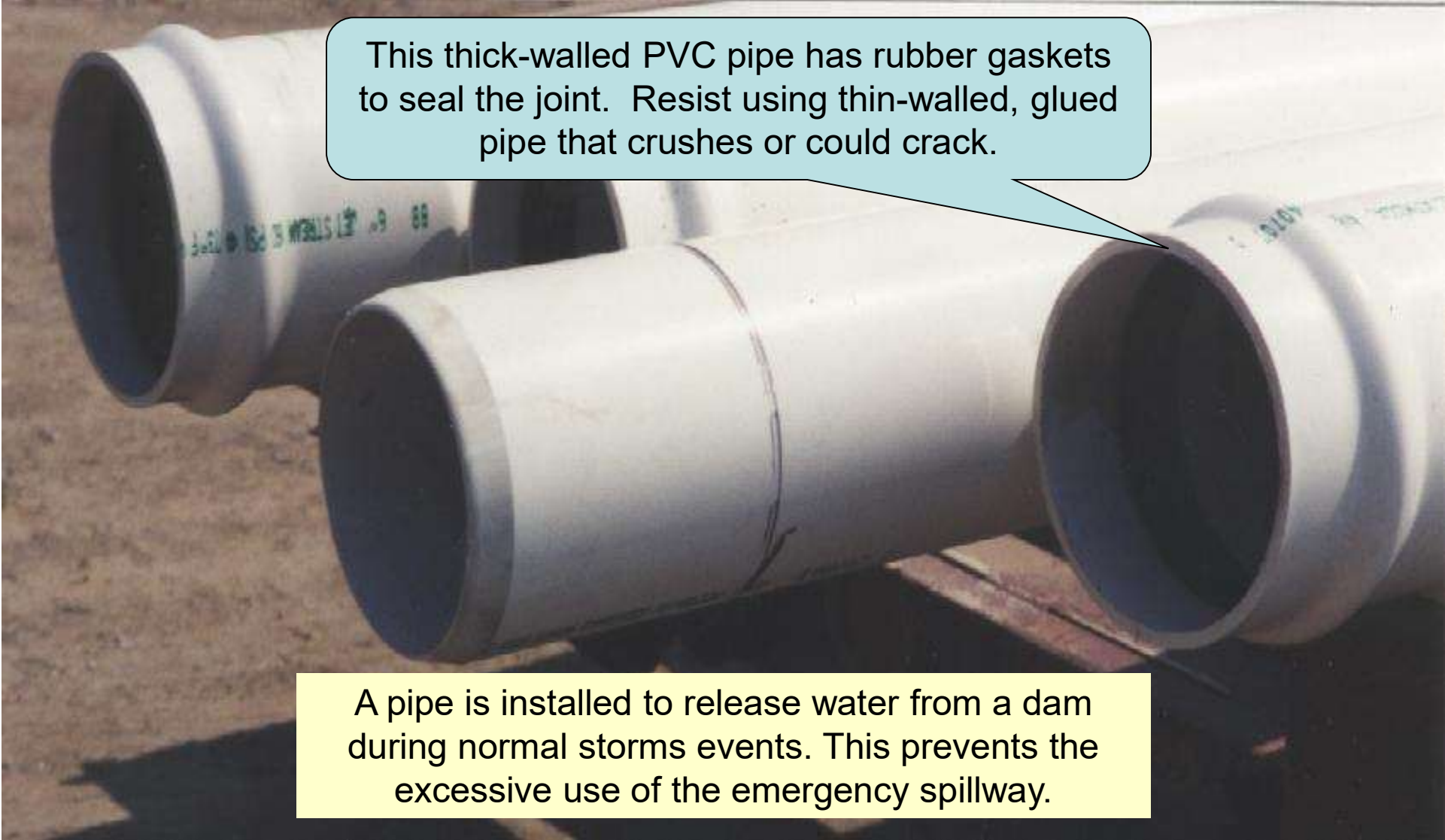
A core trench is cut to slice through layers of the soil that will let water leak under the dam.



The core trench is filled with compacted clay.

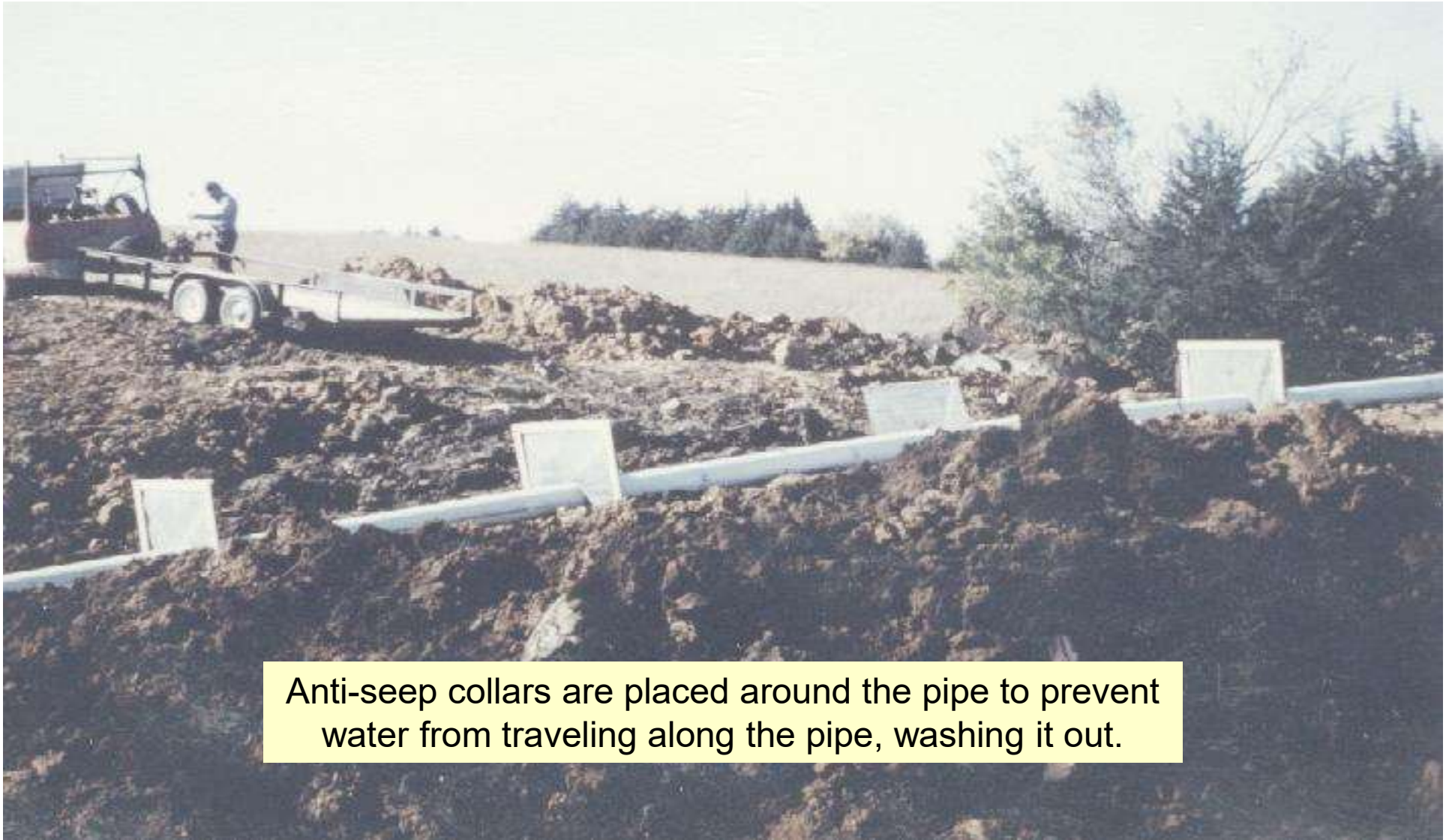


This detail of the core trench and sealing other potential areas of leakage such as exposed rock in the reservoir is critical. Fixing a leaking pond later is difficult.

The image shows three large, white, thick-walled PVC pipes lying horizontally on a wooden pallet. The pipes are arranged in a slightly overlapping manner. The background is a plain, light-colored surface, possibly concrete or a wall. The lighting is bright, casting soft shadows. A light blue speech bubble with a black border is positioned in the upper center, pointing towards the pipes. A yellow rectangular box with a black border is located at the bottom center of the image.

This thick-walled PVC pipe has rubber gaskets to seal the joint. Resist using thin-walled, glued pipe that crushes or could crack.

A pipe is installed to release water from a dam during normal storms events. This prevents the excessive use of the emergency spillway.



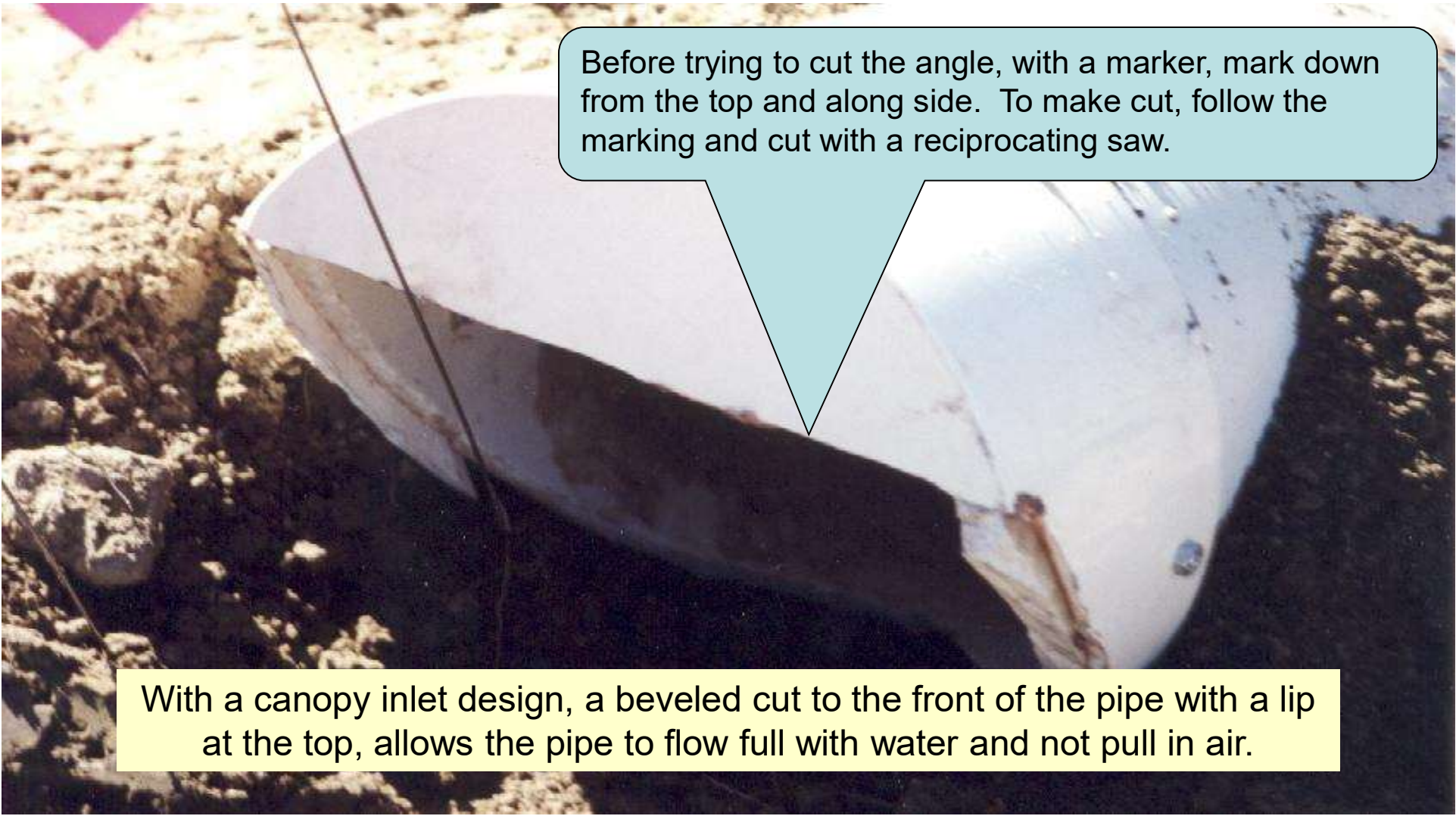
Anti-seep collars are placed around the pipe to prevent water from traveling along the pipe, washing it out.



Dams built without a pipe and/or anti-seep collars is a major cause of dam failure.



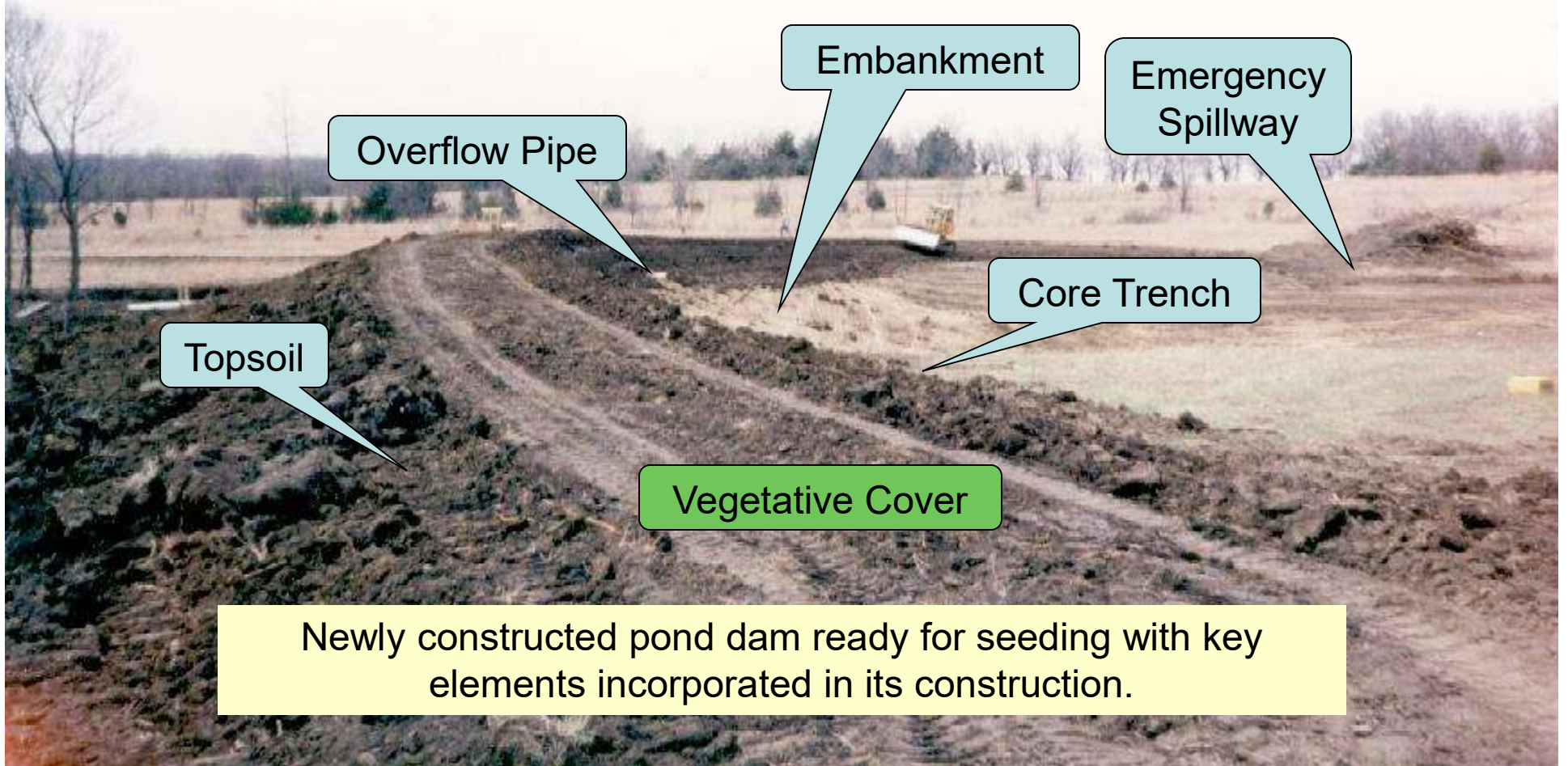
Anti-seep collars were not installed.
The pipe and dam will soon fail.



Before trying to cut the angle, with a marker, mark down from the top and along side. To make cut, follow the marking and cut with a reciprocating saw.

With a canopy inlet design, a beveled cut to the front of the pipe with a lip at the top, allows the pipe to flow full with water and not pull in air.

Pond Dams Built Right



Overflow Pipe

Topsoil

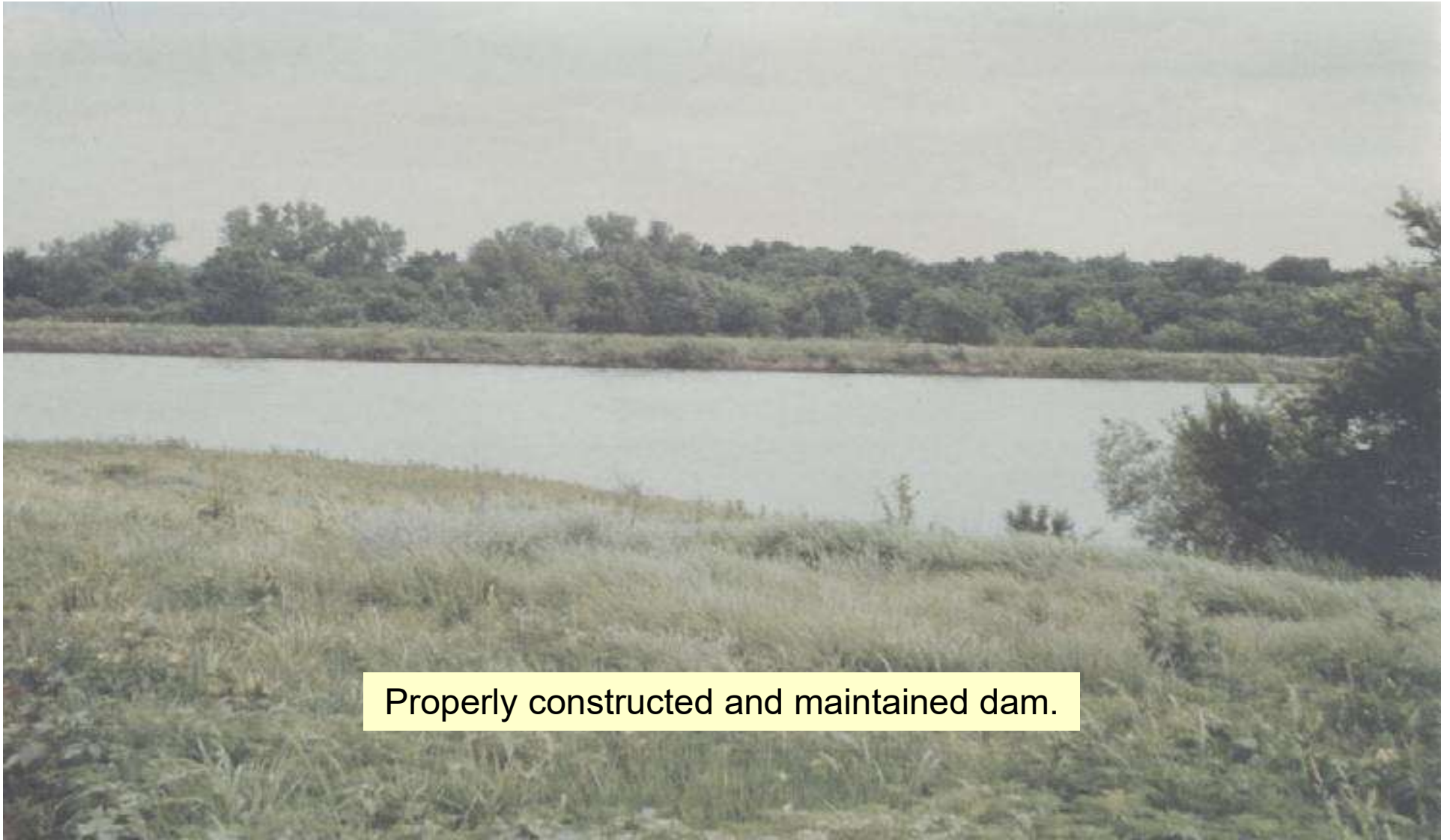
Embankment

Emergency Spillway

Core Trench

Vegetative Cover

Newly constructed pond dam ready for seeding with key elements incorporated in its construction.



Properly constructed and maintained dam.



Presentation Developed By:

**Dennis Brinkman
Technician
Shawnee County Conservation District**