

How We Restore Agricultural Areas

Rights-of-way through rural areas are carefully restored so that agricultural uses – such as pastures and cultivated crops – can resume.

Topsoil Segregation

- Topsoil is segregated from the construction work areas in annually cultivated or rotated agricultural lands (except pasture), hayfields and other areas at the landowner's request.
- To prevent the mixing of topsoil with subsoil, topsoil is stripped from either the full work area or from the trench and subsoil storage area (ditch plus spoilside method).
- Where the topsoil layer is less than 12 inches, every effort is made to segregate the entire topsoil layer; and where the topsoil layer is more than 12 inches deep, at least 12 inches of topsoil will be segregated.
- Gaps are left in the topsoil piles to allow water to be diverted off the construction work areas.
- No topsoil is used for padding over the pipe, to backfill the trench, or for trench plugs across the trench.

Trench Plugs

- Temporary trench plugs are barriers across the open trench that typically consist of compacted subsoil or sandbags (soft plugs) or unexcavated portions of the trench (hard plugs). These serve to reduce erosion and to provide access across the trench for livestock. The livestock crossings are located as specified by the landowner.

Restoration

- Excess rock is removed from at least the top 12 inches of soil to the extent practical in all rotated and permanent cropland, hayfields, pastures and other areas at the landowner's request. The size, density, and distribution of rock on the construction work area should be similar to adjacent areas not disturbed by construction.
- Every effort is made to remove stones greater than four inches if the off right-of-way areas do not contain stones greater than four inches. The landowner may approve other rock size provisions in writing.
- Topsoil and subsoil is tested for compaction at regular intervals in agricultural areas disturbed by construction

activities. Tests are conducted on the same soil type under similar moisture conditions in undisturbed areas to identify approximate preconstruction conditions. U.S. Army Corps of Engineers-style cone penetrometers or other appropriate devices are used to conduct tests.

- Severely compacted areas are plowed with a paraplow or other deep tillage implement. In areas where topsoil is segregated, the subsoil will be plowed before replacing the segregated topsoil. Or, the landowner could opt to plant and plow under a "green manure" crop, such as alfalfa, to decrease soil bulk density and improve soil structure. If subsequent construction and cleanup activities result in further compaction, additional tilling is conducted.
- Segregated topsoil is spread back over the construction work area and restored to its original profile.
- The disturbed areas are limed, fertilized, seeded and mulched.

Monitoring after Construction

- Follow-up inspections of all disturbed areas are conducted after the first and second growing seasons to determine the success of revegetation.
- Crops are monitored for at least two years to determine the need for additional restoration.
- Revegetation is considered successful if, upon visual survey, the density and cover of non-nuisance vegetation (or crops in cultivated cropland) are similar in density and cover to adjacent undisturbed lands.
- Problems with drainage and irrigation systems resulting from pipeline construction in active agricultural areas are monitored and corrected.
- We will file quarterly activity reports with the Federal Energy Regulatory Commission that document problems, including those identified by landowners, and corrective actions taken, for at least two years following construction.

