

**SUBSURFACE DRAIN
(CODE 606)**

DESCRIPTION

A conduit installed beneath the ground surface to collect and convey excess water.

PURPOSE

This practice is used to accomplish one or more of the following purposes:

- Remove or distribute excessive soil water.
- Remove salts and other contaminants from the soil profile.
- Mitigate degraded plant condition, undesirable plant productivity, and health due to saturated soil, ponding, and flooding.

CONDITION

This practice also applies to water distribution through subsurface drain pipe for utilization or treatment.

The practice applies to all land uses where a shallow water table exists and where a subsurface drainage treatment system can improve water quality conditions.

POLICIES

1. NRCS Standards and Specifications for Subsurface Drain (Code 606) shall be followed when applying this practice either alone or as part of a system.
2. Use of this standard will comply with all applicable Federal, State, and local laws and regulations. The landowner must obtain all necessary permissions from regulatory agencies, or document that no permits are required. The landowner or contractor is responsible for locating all buried utilities in the project area, including drainage tile and other structural measures.
3. The applicant and the farm's Nutrient Management Plan must be in compliance with Maryland's Nutrient Management regulations (COMAR 15.20.08) at the time of Application. No Applications will be approved without a Nutrient Management Plan Certification Form submitted with the Application (SECTION III, #30).
4. It is the owner's responsibility to contact MDE and/or the Corps to make a determination whether a permit will be required before a new practice can be installed.
5. This practice must be properly maintained for a minimum of ten (10) years. The applicant agrees to provide all equipment, labor and materials needed to meet this requirement. Financial assistance may be provided for repairs if a BMP previously

installed with MACS support was damaged due to an unpredictable act of nature and not due to the applicant's negligence or poor maintenance.

6. Cost share **is authorized** for the following:

- a. *Lined Waterway or Outlet (code 468)*
- b. *Structure for Water Control (code 587)*
- c. *Saturated Buffer (code 604)*
- d. *Subsurface Denitrifying Bioreactor (code 605)*
- e. *Underground Outlet (code 620)*
- f. *Wetland Creation for Water Quality – Subsurface Drainage (code 658)*

7. Cost share **is not authorized** for the following:

- a) *Vertical Drain*
- b) *Field drainage lateral(s)*

8. When planning, designing, and installing this practice, consider—

- a) The effects to surface water quality.
- b) Use of temporary flow-blocking devices to reduce the risk of drain water contamination from surface applications of manure.

9. Where removal of nitrate nitrogen in subsurface drainage is needed use NRCS CPSs Drainage Water Management (Code 554), Constructed Wetland (Code 656), Saturated Buffer (Code 604), or Denitrifying Bioreactor (Code 605) in conjunction with this standard. The potential existence of a hazardous atmosphere in junction boxes or manholes.

10. If required, a Drainage Water Management plan (code 554) must be followed.

11. Consider measures to reduce the potential for root plugging of distribution lines by woody species. Set planted trees back far enough that distribution lines will not be under the drip line of mature tree canopies. Plant herbaceous species in areas over distribution lines. If the riparian area is currently in trees, either clear the trees or establish an herbaceous zone outside the tree line for the water distribution area.

OPERATION AND MAINTENANCE

Provide an operation and management (O&M) plan and review this with the land manager. Specified actions should include normal repetitive activities in the application and use of the practice, along with repair and upkeep of the practice. The plan must be site specific and include, but not be limited to, a description of the following:

- Planned water level management and timing.
- Inspection and maintenance requirements of the bioreactor and contributing drainage system, especially upstream surface inlets.
- Requirements for monitoring the status of the bioreactor media and replacement/ replenishment of media as needed.
- Monitoring and reporting criteria that demonstrate system performance
- Monitoring information to improve the design and management of this practice as needed.

COST-SHARE RATE

The State cost-share payment, alone or when combined with any other cost-share program, shall not exceed 87.5% of the total eligible cost, not to exceed \$50,000 per project.

ATTACHMENTS

Applicant(s) with an outstanding Unsatisfactory On-Farm Status Review of BMP Maintenance and Use of previous project(s) may be ineligible for MACS Cost-Share funding. When a previous project expires with outstanding unsatisfactory status, the applicant is ineligible for any future MACS funding.

The following items are needed:

1. A copy of a recorded deed(s) for the parcel(s) where the BMP is located. If the current, appropriate deed is already on file in the MACS Office, then record both the agreement number of the file where the deed is kept and the liber/folio numbers in the General Comments section of the application.
2. A copy of the Real Property Data Search page from the Maryland Department of Assessments and Taxation's website (www.dat.maryland.gov) indicating the Maryland Property View Account ID Number and owner information.
3. An aerial photograph indicating the property lines as well as all existing and proposed BMPs. For sediment control practices, also indicate drainage area and direction of flow.
4. A plan view sketch of the area indicating the location of the proposed BMP and graphically demonstrating the layout and details of the project.
5. Nutrient Management Plan Certification Form shall be submitted with the Application (SECTION III, #30).
6. Provisions for Subsurface Drain