



Protocol 2 BMP Coordination with Other Utilities

A. Purpose of this Protocol

This protocol (Protocol 2) provides the designer with guidance regarding BMP selection and location in coordination with other existing or proposed utilities.

B. Types of Utilities To Be Considered

In designing BMPs, it is almost certain that there will be other existing or proposed utilities that must be considered in the design of the stormwater management system. This is especially true in redevelopment or retrofit sites served by existing utilities. Common utilities encountered include:

- Water lines and laterals
- Combined sanitary/storm sewers, sanitary sewers and separate stormwater sewers, and sewer laterals
- Gas lines
- Fiber optic and telecommunication cables
- Steam lines
- Valves and vaults associated with the utilities listed above
- Utility boxes
- Underground electric lines
- Aboveground utility lines and utility poles
- Others

C. Setbacks of Utilities from BMPs

For construction purposes and to avoid utility disturbance, a minimum horizontal setback of at least 5 feet should be maintained from the edge of a BMP to the outer edge of a utility. In certain situations, this may not be feasible, as discussed below. For utilities that are adjacent to an infiltration BMP, setbacks should follow Protocol 1, Infiltration BMP Setbacks from Structures.

D. Design Considerations for Existing and Proposed Utilities

The designer should confirm that the existing conditions plan or site survey indicates the location, and if available, depth of all existing underground utilities. To the greatest extent possible, BMPs should not be located above existing or proposed underground utilities for several reasons:





- The need for future repair of the utility may result in disturbance or damage to the BMP.
- The utility may be damaged during construction of the BMP.
- For infiltration BMPs located above a utility, the possibility exists that infiltrated water may travel along the pipe bedding material or damage an older utility.
- For buried utilities that pass through the BMP, the possibility exists that water may travel laterally along the utility line, possibly to an undesirable location such as a basement. This situation should be avoided if possible. If it cannot be avoided, water stops must be used to prevent lateral movement of water. Water stops must be used for all pipe crossings into and out of BMPs where the utility will be located in saturated conditions. In new development projects, such as laterals to homes, defined utility corridors will reduce the need for utilities to “pass through” a BMP.

The potential for utility damage must be considered both during and after site construction. Older pipe systems, such as unlined corrugated metal pipes greater than 25 years in age, may be more susceptible to damage. Potential damage of a utility below a BMP system may be reduced by the use of a geo-grid; however, each utility location should be evaluated by the designer on a case-by-case basis.

E. Construction Considerations

Mapped information may be inaccurate or incomplete. During construction, the actual utility locations and dimensions must be confirmed by the contractor, and field changes may be required by the designer to address unanticipated utility locations. The construction plans should provide direction to the contractor to stop work and contact the designer when unanticipated utility locations or conditions are encountered.

F. Protection of Trees and Utilities

The types and locations of existing and proposed trees should be considered in the BMP design process. Trees are a valuable tool for reducing stormwater runoff, and existing trees are often damaged by the placement of new utilities. At a minimum, new utilities should be set outside the existing tree canopy.

Conversely, new trees planted as part of site design and stormwater management should be located to minimize future utility damage from tree roots.

G. Overhead Utilities and Future Vegetation Maintenance Needs

Overhead wires may limit the type and selection of planting material in a BMP. If trees are planted, the impact on overhead wires should be considered in both species selection and provisions for tree trimming and maintenance.

