

1.1 BMP C101: Preserving Natural Vegetation

1.1.1 Purpose

The purpose of preserving natural vegetation is to reduce erosion wherever practicable. Limiting site disturbance is the single most effective method for reducing erosion. For example, conifers can hold up to about 50 percent of all rain that falls during a storm. Up to 20-30 percent of this rain may never reach the ground but is taken up by the tree or evaporates. Another benefit is that the rain held in the tree can be released slowly to the ground after the storm.

1.1.2 Conditions of Use

Natural vegetation should be preserved on steep slopes, near perennial and intermittent watercourses or swales, in wooded areas, and any other location practicable.

Phase construction to preserve natural vegetation on the project site for as long as possible during construction.

1.1.3 Design and Installation Specifications

Natural vegetation can be preserved in natural clumps or as individual trees, shrubs and vines.

The preservation of individual plants is more difficult because heavy equipment is generally used to remove unwanted vegetation. The points to remember when attempting to save individual plants are:

- Is the plant worth saving? Consider the location, species, size, age, vigor, and the work involved. The City of Tacoma encourages the preservation of native vegetation and trees, where practicable.
- Existing trees to be preserved shall be fenced and protected during construction activities per Tacoma Municipal Code 9.18.030, according to industry standards (ANSI A300 Part 5) and the International Society of Arboriculture's Best Management Practices – Managing Trees During Construction.

Described below are the most common types of injury that occur to trees. The language is adapted from the International Society of Arboriculture's Best Management Practices – Managing Trees from Construction.

- Root cutting or damage which can be caused by excavation equipment, trenching equipment, burial of debris, fill over roots, and alterations made to the water table by grade changes.
- Soil compaction resulting from vehicle, equipment and foot traffic. Compacted soils permit less root growth and biological activity as a result of aeration, higher mechanical resistance to root penetration and slowed water movement.
- Mechanical injury to the tree. Trunks, roots, and tree crowns can be damaged by construction equipment. Injury can affect the ability of the tree or plant to transport water and nutrients, and removes the ability for the plant to protect against pathogens.
- Fill placed near the root collar can facilitate infection and encourage stem-girdling which will affect the long-term longevity of the tree or plant

1.1.4 Maintenance Standards

- Inspect flagged and/or fenced areas regularly to make sure flagging or fencing has not been removed or damaged. If the flagging or fencing has been damaged or visibility reduced, it shall be repaired or replaced immediately and visibility restored.
- If tree roots have been exposed or injured, prune cleanly with an appropriate pruning saw or loppers directly above the damaged roots and recover with native soils.