NORTH FORK NATIVE PLANTS
hardy plants for the mountain environment

Wetland Sod Hydrology Needs

Preface

Wetland Sod is grown hydroponically in a coir (coconut fiber) mat. Because these mats do not contain soil they are subject to rapid drying under hot windy conditions. If the appropriate natural or supplemental hydrology is not present at the time of installation plant stress and mortality is likely.

All Wetland Sod mixes need to be installed on soils that are at least fully saturated and many mixes perform best under slight inundation. Saturated soils are not merely moist but are defined as those that have water filling the voids between the soil particles and are so wet they appear to glisten. If the soil is probed, the hole created should fill relatively quickly with water. Wetland Sod mats planted in appropriate hydrology establish quickly and usually cannot be pulled from the soil surface within 4 to 5 weeks after installation

When it is not possible to plant Wetland Sod on naturally saturated soils - artificial irrigation is required until natural hydrology returns. For example when using Wetland Sod in bio-engineered streambank applications, it is generally recommended that installation occurs after peak high flows. Under this scenario Wetland Sod should be irrigated in for the first growing season; well rooted plants are then ready for highwater the following year.

Supplemental Irrigation Specifications

Unlike upland sod, Wetland Sod requires high rates of initial supplemental irrigation when soils in the installation zone are not naturally saturated or inundated. This is particularly true for mid-summer installations. Overlapping directional heads with large droplet size are usually needed to keep the mats thoroughly saturated during establishment. ***Upon installation, mats should receive at least two hours of irrigation, twice per day to ensure proper saturation***. If weather conditions are extremely hot and dry or windy more irrigation may be required until plants are well rooted in the substrate. Initially this irrigation schedule must be maintained 7 days per week and potentially throughout the first growing season. The mats cannot receive too much moisture (unless the irrigation regime is causing pooling that overtops the plants for extended periods).

The challenge is to devise an irrigation schedule that supplies constant moisture to the plants but avoids undercutting the mats from upslope erosion or rills. Careful monitoring is critical on the front end.