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Ecological Restoration - What to Expect

Natural areas are beautiful; they provide rainwater infiltration, filter and improve water quality, attract diverse wildlife and insect populations, and require no watering or fertilizer.

Restoring a natural area requires site preparation, native plant installation, initial maintenance and–of course–the anticipation. The process is worth it because there is nothing as stunningly beautiful and ecologically beneficial as a healthy natural area. The following explanation provides you with an understanding of the process involved in ecological restorations and what you can expect to see.

Site Preparation

Site preparation within a natural area can include a variety of practices. It is usually necessary to first remove invasive trees and shrubs and eradicate existing weedy vegetation. Disking/tilling the soil is the second step and must be done to break up the roots of existing weedy plants. Herbicide is sometimes applied to make sure that the existing weedy vegetation is completely dead prior to native planting.

Sleep-Creep-Leap Native Plant Strategy

Within the first year of an ecological restoration, the question is always "Where are the native plants? All I see are weeds!" The answer is "Yes, it is mostly weeds." But don't panic, this is normal and expected. Most weeds are annuals, which means they germinate, grow, set seed, and die in one growing season.

Most native plants on the other hand are perennials which continue to grow year after year. Native plants invest most of their energy the first growing season (sleep phase) producing roots and show little above ground growth. During the second growing season (creep phase) roots continue to develop and the native plants show more above ground growth. It is during the third growing season (leap phase) when native plants begin to mature and annual weeds are outcompeted.

First Growing Season Maintenance

When the vegetation reaches one to two feet in height, it is typically mowed to a height of six inches or less and may be required several times during the first growing season. Remember that the annual weed strategy is to grow fast and set seed. Mowing prevents the weeds from producing seeds while the native plants are too short to be injured by mowing. Problematic perennial weeds such as thistle are typically spot herbicided during the first growing season.

Second Growing Season Maintenance

Because maintenance mowing was done the first growing season, the number of annual weed seeds in the soil is greatly reduced but mowing may be needed again during the second growing season in combination with spot herbiciding problematic perennial weeds. The native plants, with their well-established root system, begin to allocate more energy to above ground growth. What you begin to see is called "succession," as the native perennial plants begin to replace the annual weeds.

Third Growing Season and Beyond Maintenance

Native plants–with their increased production of above ground structures and their superior root systems will gradually outcompete the annual weeds during the third growing season. At this point, controlled burns can be implemented every three years. Another long term maintenance strategy for natural areas located near homes or buildings is mowing the vegetation in fall each year after the plants are dormant.