

Riparian Forest Buffer

Deciding to participate create a riparian forest buffer through a program like the Conservation Reserve Enhancement Program (CREP) is a big decision which requires great effort on your part to implement. With so much time and money invested in creating healthy riparian forest buffers, it only makes sense that you would want to do everything necessary to ensure that your tree/shrub planting is successful. The following maintenance items are required to make your CREP tree planting effective. Keep in mind that you will need to monitor your CREP site to judge when maintenance is needed. There is **no** general timeline for maintenance because each site is different. Hopefully this guide will help you remember what maintenance is needed on your CREP site. Remember, there is **no** set timeline for doing CREP site maintenance. **It is up to you to monitor your site periodically and perform the necessary activities to make your CREP planting successful.**

1. Tree/Shrub Shelters/Cages

Tree/Shrub shelters and/or cages are important components of a successful tree/shrub planting because they help to prevent heavy animal browsing. Exposed seedlings are often eaten before they have the chance to grow to a safe height or are gnawed at the base. However, fallen shelters are a major cause of mortality in CREP plantings. It is extremely important to keep shelters upright. The following should be done soon as fallen shelters are noticed:

- a. Right fallen tubes immediately
- b. Replace broken and rotting stakes
- c. Drive uplifted/leaning stakes into the ground as far as possible
- d. Replace damaged items (shelters, ties, stakes, etc.)
- e. Remove tubes before they girdle the tree as it grows. Removing the shelter when the diameter of the tree at the top of the tube is 1½ – 2” is recommended.
- f. Check tubes for insect nests, dead leaves, debris and grass. Remove unwanted items and replace shelter
- g. Monitor often



2. Bird/Bee Nets

Bird/bee nets are plastic nets placed over the tops of tree shelters to prevent birds from building nests and bees from building hives inside the tubes.

Once the tree starts to emerge from the top of the shelter, these must be removed. If left on, these will cause the tree to grow in a coil shape inside of the net. This coil shape could prevent normal growth of the tree.



3. Noxious Weeds and Invasive Plants

Noxious weeds or invasive plants like the examples below can hinder the growth of your tree/shrub seedlings and development of a healthy riparian forest buffer. Control of noxious or invasive plants (such as thistle, multiflora rose, autumn olive, tartarian honeysuckle, Japanese barberry, johnsongrass, kudzu, etc.) to prevent adverse impacts to the intent of the practice. These plant are prolific and fast growing and are able to out-compete desirable species. Spot mowing and/or herbicide applications are required when the presence of noxious weeds or invasive plants have an adverse impact on the intent of the practice or threaten to escape to neighboring lands. Representatives from NRCS and FSA are able to make this determination. **(Note: Removal of invasive species should not occur during the primary ground nesting period of March 15- July 15).**



4. Competing Vegetation

Competing vegetation like grasses (not necessarily noxious weeds) can slow the growth or even kill planted seedlings. These plants use important nutrients, water, and sunlight that the planted trees need to survive. It is imperative that they be controlled in the first 2-3 years after planting.

The areas around the planted trees and shrubs can be spot mowed or spot sprayed with an herbicide (carefully applied to miss the tree/shrub) to remove competing vegetation. Trees and shrubs should be monitored to determine if spot control is necessary. Always follow herbicide label instructions. (**Note:** neither spot mowing nor chemical treatment should occur during the primary nesting period of **March 15- July 15** after the establishment period (3 years))

Contact the West Virginia Division of Forestry for guidance regarding controlling vegetation that is competing with your newly planted trees/shrubs.



5. Fences

Fences are a very important component of creating a healthy riparian zone. They prevent cattle and other livestock from grazing the desired vegetation. A single cow can do considerable damage to a CREP site in a short amount of time if the fence fails.

Fences should be inspected regularly, especially after storm events, for damaged or down areas. Broken areas should be fixed immediately, making sure to remove any of the broken fence and hardware material which could harm or be ingested by livestock. Fence rows should also be kept free from heavy vegetation.



6. Survival/Predation

Areas devoted to trees and/or shrubs should be checked periodically to determine survival, predation and vigor of desired species.

A 60% survival rate after two years is considered satisfactory if trees/shrubs are well distributed over the planted area. The planted areas should be evaluated to determine whether to replant failed areas or if natural regeneration will meet the objectives of the landowner.

Also, consider moving tree tubes from dead stock to living volunteer seedlings or protecting healthy sprouts on dead stock.



Additional Assistance

CREP is a voluntary program implemented through the combined efforts of various state and federal agencies. If you require further guidance regarding maintenance of your tree/shrub planting, please contact your local Farm Service Agency, West Virginia Division of Forestry or Natural Resources Conservation Service.

The Landowner Guide to Buffer Success also contains valuable information regarding tree/shrub planting maintenance. <http://www.cbf.org/document.doc?id=257>

