

Silvicultural Options for Riparian Zones

Hard as it can be to imagine today, when the first settlers arrived on Prince Edward Island they found clear flowing streams and rivers which teemed with fish. The fish lived in cool spring-fed waters which were protected by the forests which grew up to the water's edge. These waterways had rock and gravel bottoms well suited to the habitat needs of our native freshwater species.

Today, the situation is very different on most Island streams and rivers. In many areas the forest has been cleared away to make room for farms, roads, towns and other developments. Those once clear streams are often choked with silt and overloaded with nutrients resulting in a variety of problems for the streams and the creatures and people who depend upon them.

The reasons for this decline are well known and most of them relate directly to land use practices near or next to the water. While we need food to eat or places to live and work, often we have not paid the true cost of meeting these needs. In many cases this is because we have not truly valued the forest and the many services and benefits they provide to use each and every day.

In recent years, the province have made an effort to create mandatory buffer zones along waterways as a way of dealing with these problems. In many cases, the move has led to the creation of more forested buffers but in some cases, these create of a new forest has led to the loss of older ones because the owner sees this as a loss of productive land and thus potential income. In these cases, they may clear older forests growing on other areas of their property to create land for agriculture or other developments.

Because the lands adjacent to streams and rivers are usually very productive, there are often other opportunities which land owners can use to offset any losses. These can range from managing individual trees for high value products, to producing nut and berry crops, bio-energy, decoratives, florals, and many more products. The key concept is identifying what is growing there already or what can be produced on this land and then connecting this information with the land owners needs and capabilities and local and global markets.

Standing forests can be managed to produce low volumes of high value wood products. Riparian zones usually have excellent potential due to their deep, rich soils and ample water supplies. As any gardener knows good soils and reliable water are essential to growing a good crop and forests are no different. By focusing on individual trees with the greatest economic potential and managing each one to enhance that potential, the land owner can realize good returns as they mature..

Non-timber forest products such as nuts and berries are well suited to riparian zone conditions too. Wild cherries and serviceberries provide excellent fruit which can be used in jams, jellies and wines. Native Island species such as Beaked Hazelnut and American Beech produce edible nuts which are sought after by high end restaurants,, while Butternut (an Acadian Forest species which does not occur naturally on PEI) can produce edible, oil producing nuts.

Bio-energy is another emerging area. In some places, willows and poplar are planted along streams and rivers to stabilize soils, remove excess nutrients, and produce biomass for fuel. Riparian zone growing conditions are well suited to poplar and willow resulting in high growth rates. When the trees reach the desired size, the tree trunk and branches are harvested and chipped for fuel. However, their root system is retained to ensure the continued stabilization of the soil and to allow the root system to sprout and renew the site.

These and many other ideas can be employed in forest riparian zones to generate income and conserve the soils. However, permits must be obtained from the Department of Environment before any work can begin. The Forest Enhancement program www.gov.pe.ca/forestry/FEP provides land owners with information and support they require to manage forest lands for any number of reasons and uses. As well, many watershed management groups are seeking to help land owners in their area realize more opportunities from well managed riparian zones