Forestry in proximity to water

Pre-commercial thinning of reparian zones

What is a reparian zone?

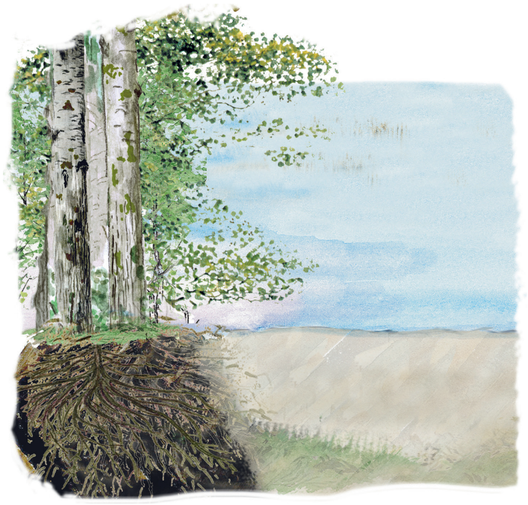
A reparian zone is a transition area between land and water environments, where the land area has an effect on the water environment.

The riparian zone influence the water environment by providing shade, influx of organic matter and dead wood.

It is the part of the water ecosystem with the most ecological functions. The variation in nature is large and the considerationsin forest management needs therefore to be varied as well depending on the conditions in situ.

The functions of the riparian zones

- Shading which limits the light and temperature in the water. Many of the water species living in woodland can not live in water above a certain temperature.
- Filtering of free nutrients, particles and silt.
- Stabilizes the shores and limits erosion.
- Supply of falling leaves, needles and small animals. Leaves are more rich on nutrients than needles and thusly have a greater importance for among other things the production of fish in the watercourses.
- Supply of dead wood create habitats and hidingplaces for fish and small animals.
- Preservation of biodiversity. The reparian zone can often have a greater abundance of species than the surrounding woodland.



The roots of trees and bushes re-enfocred the banks and shores.

Illustration: Bo Persson

Shading prevents the water to warm up.

Illustration: Bo Persson

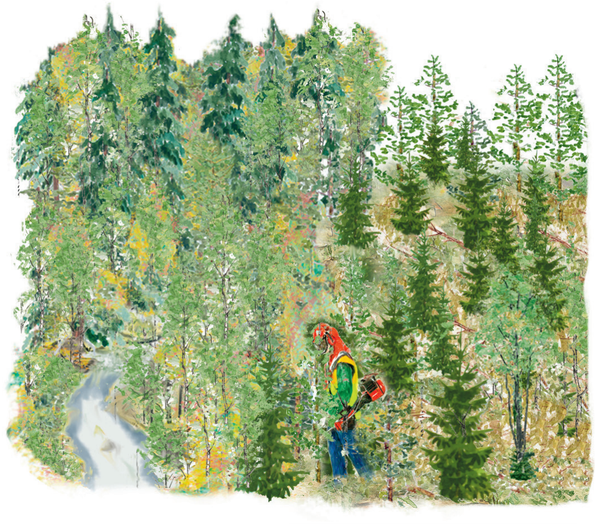
> **Spruce has been cleared out to make room for decduos trees**

Reparian zones bordeing lakes and watercourses have the same basic functions but these differ in importance comparing great lakes to small water course.

The delimitation of reparian zone when clearing it.

All meassures to delimit that can protect the water environment should emanate from the desired function.

Between the path you are standing on and Skidån infront of you, you can see a riparian zone. From the public road and 80 meters towards the lake the riparian zone is both untouched and cleared in various ways for enhanced function and to provide stability. Spruce has been cleared away to give various deciduous species room to develop diameter and bushes the possibility to grow. The stand is juvenile which means that it grows nad changes quickly. The variation in the riparian zone in its entirety will provide a satisfying function over time.When it is time for the next measure within 15 to 20 years there is a possibility to further improve the function if need be.



When thinning on can enhance the function of the riparian zone if need be.

Illustration: Bo Persson

When the stand is mature enough for harvesting a stabile and functional riparian zone will be left, instead of having spruce left all the way down to the waters edge.

To think about when thinning pre-commercially

If the reparian zone is regarded as functional it can be left without further measures and becomes and self-marking boundary for further measures

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