



GREEN INFRASTRUCTURE in New Jersey



PRACTICES

GREEN INFRASTRUCTURE PRACTICE: RIPARIAN BUFFERS

Riparian buffers are vegetated areas along streams; the vegetation is typically native and is generally a combination of trees, shrubs and grasses.

HOW IT WORKS:

Stormwater runoff flows into the riparian buffer where it slows down and drops its litter and coarser debris; some of this runoff is then either taken up by the plants or is infiltrated into the soils, where chemical and biological reactions occur that treat the pollutants in the runoff. This results in less runoff entering the stream, and the portion of the runoff that does enter the stream is cleaner. It is also moving more slowly; this is important because the slower the water moves, the less likely it is to cause erosion. Slower moving runoff also has a chance to cool down as it goes through the vegetated buffer; this can be important if there are temperature-sensitive species present.

CONSIDERATIONS:

When restoring a riparian buffer, it is important to make sure that the amount of water and the slope into the stream will not cause the buffer to erode. It is also important, when choosing plants for a stream buffer, to select as many native plants as possible. Native plants are less likely to need fertilizer to thrive, and fertilizer should not be applied this close to a waterbody because of the potential for the nutrients to enter the stream where they can act as pollutants.

Additional information regarding the design of riparian buffers for the treatment of stormwater runoff (also known as vegetative filter strips) is available at www.njstormwater.org/bmp_manual2.htm.