

Riparian Corridor Management Principles and Practices



Riparian - relating to or living or located on the bank of a natural watercourse (as a river)



Recommended by:

Lake Erie Watersheds Riparian Corridor Management Subcommittee
Friends of the Detroit River

Originally Developed by:

Riparian Corridor Management Technical Advisory Committee
Friends of the Rouge

Wayne County Department of Environment

Principle #1

Understand your property is part of a larger system.

- There are no easy or complete fixes. You are operating within a complex and dynamic system. For the full benefits of RCM to be realized, the principles and practices must be employed throughout the watershed.
- Actions must be designed to minimize adverse impacts upstream, downstream and onsite.
- Implement actions using the least disruptive equipment and techniques possible.
- MDEQ, County or local permits may be required.

Principle #2

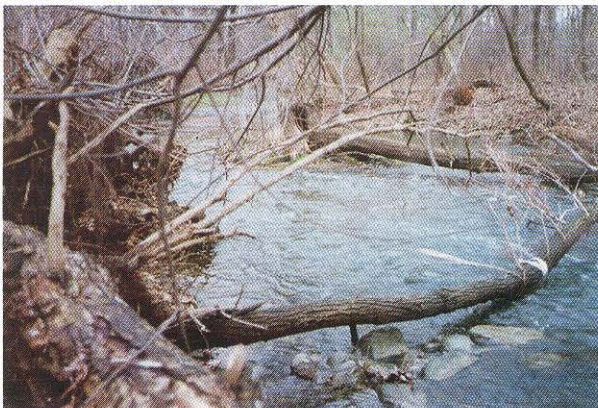
Logjams, Bank Erosion and Flooding are Natural Processes

- These processes are how the river adapts to land changes. Changes to the land accelerate these processes to unnatural levels. Logjams, bank erosion and flooding are symptoms rather than the true cause of problems. The amount and velocity/energy in the water is the problem.
- Leave most logjams in place to slow river flow, reduce erosion and preserve and maintain existing habitat.
- Use logjams as a natural screen for collecting urban litter.
- Utilize woody material from logjams for stream bank protection and habitat creation.

Principle #3

Riparian buffers are critical.

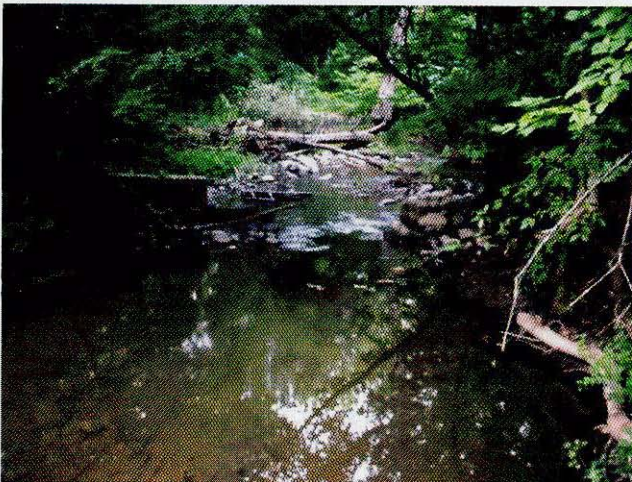
- Establish a vegetated buffer. Generally, the more the better in terms of amount of plants (trees, shrubs, tall grasses vs. turf grass) and the length and width of the vegetated buffer area.
- Buffers help filter stormwater runoff and reduce the ability of flood water to erode stream banks.
- When creating and expanding buffers, practice river friendly, healthy lawn and garden care to grow healthy plants, build fertile soils and increase onsite infiltration.
- When creating and expanding buffers, select plants suited for the site and climate conditions ("Right plant, right place"). Plant for diversity; maximize the use of native species.



Principle #4

What Happens to the Land Determines the Quality of the Water: Knowledge, Education and Advocacy

- RCM techniques enhance the transition between the river and the urbanized environment through which it flows. This urbanized environment is the source of many of the river's problems, chief among them the constantly increasing growth of impervious surfaces due to development.
- Educate yourself and others about natural river processes, the impacts of development and the benefits of utilizing RCM principles, practices and techniques. By understanding how water erodes a bank, how a well placed log and/or plantings can solve problems, you can apply those concepts to improve and enhance riparian corridors.
- Be active in your community regarding the impacts of development. Encourage and support implementation of local community ordinances, policies and initiatives to better manage storm water and to protect (possibly expand) water resources, riparian corridors, natural areas and greenways.
- Knowledge of these adverse impacts, education of the public regarding the impacts, how to prevent them and political advocacy to encourage governmental entities to adopt more river friendly policies are functions of RCM.



Principle #5

ASK FOR ADVICE!

- Always evaluate site conditions and choose the appropriate method to solve the problem. **Make sure there is a real problem.** Sometimes, RCM techniques will not solve the problem. It is appropriate to use traditional engineered techniques in certain situations. You don't need to use RCM for RCMs sake. You can always "green" up traditional methods with native vegetation.
- Need Help? Contact the Riparian Corridor Management Work Group! Call Wayne County Department of Environment at (888) 223-2363.



Since 2003, the RCM Work Group and the Technical Advisory Committee have been working together, sharing knowledge and experiences related to riparian corridor management principles, practices and public education efforts.

The RCM principles and practices represented in this document are a starting point for public and private property owners to protect, improve and restore riparian corridors.

Riparian zones (areas adjacent to lakes, streams and rivers,) have the capacity to buffer rivers and other waters from non- point source runoff from agricultural, urban, or other land uses. Healthy riparian zones can absorb sediments, chemical nutrients, and other substances contained in non-point source runoff. They also provide for aquifer recharge, diverse habitats and water storage and release. A healthy, functioning riparian area and associated uplands dramatically increase benefits such as fish and wildlife habitat, erosion control, forage, late season stream flow, and water quality. Management decisions must be designed with these processes in mind.

Riparian Corridor Management (RCM) is a system that allows for the protection of water resources while still allowing sustainable mixed use of surrounding riparian area. It is a combination of techniques that protect, and in some cases, improve water quality and biodiversity

Help protect, improve and restore riparian corridors in your community

Participate in a Riparian Corridor Improvement Project!



The Riparian Corridor Management Work Group and Technical Advisory Committee involves individuals, communities and community groups in protecting riparian corridors in the Rouge River watershed and in Southeastern Michigan. By participating in this program, you will learn about riparian corridors, their importance to our urban/suburban environment and how small, daily changes can protect our lakes, streams and rivers.

You will also have the opportunity to participate in programs implementing RCM principles and practices such as river clean-ups, woody debris management projects, riparian buffer enhancements, streambank stabilizations, native plant workshops and invasive species removals.

Interested in learning more about how you can learn about and use RCM techniques? Contact Wayne County Department of Environment at (888) 223-2363.



Brochure adapted from SOCRRA's (Southeastern Oakland County Resource Recovery Authority) healthy garden brochure.

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