

Comments to the Middletown Planning & Zoning Commission on Chapter 7 of the Proposed POCD Draft
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Protecting and improving water resources and water quality in the City of Middletown is critical to the health of Middletown's environment. As mentioned in the draft of Chapter 7, the biggest current threat to our water resources is nonpoint source (NPS) pollution, which occurs when runoff carries accumulated pollutants from roads, parking lots, residential lawns, agricultural fields and construction sites into nearby wetlands and water bodies. The Federal Environmental Protection Agency considers NPS pollution to be the leading cause of water quality impairment nationwide. Land use changes, including urban and suburban development, have already resulted in degradation of water resources in Middletown. In fact, numerous water bodies in the City do not meet State Water Quality Standards and are included on the State "Impaired Waters List," including the Mattabesset and Coginchaug Rivers, Sawmill Brook, Miner Brook, Sumner Brook, Long Hill Brook, Crystal Lake and Wadsworth Falls Park Pond.

There are many opportunities to protect and improve the City's water resources, some of which are already addressed in the draft of Chapter 7:

- Impacts from land development and management should be minimized to prevent future impairments through sensitive planning and design considerations, and use of a whole tool box of widely accepted best management practices;
- Restoration and retrofit projects should be undertaken to correct existing impairments and eliminate pollution sources;
- Individual stewardship of "backyard" wetlands, ponds, streams and rivers should be promoted;
- The City should make a commitment to take an active role in implementing recommendations in existing "watershed management plans" for the Mattabesset and Coginchaug Rivers;
- Organic Land Care and ecological landscaping practices should be adopted by the City and promoted city-wide.

Specific suggestions for the POCD Chapter 7 draft are included below. I would be happy to assist with re-drafting this section of the plan to incorporate these additions, and answer any questions you may have. Thank you for your consideration.

Protecting Water Quality

1. Low Impact Development (LID) should be referenced specifically. LID is a widely accepted method for addressing stormwater management and site development to minimize off-site impacts and promote development that is more sensitive to natural resources, often associated with efforts to promote sustainable communities. LID techniques include LID site planning and design; reduced use of impervious surfaces, like roads and parking areas; use of permeable paving; bio-retention, like rain gardens; vegetated swales; grassed filter strips; and green roofs.
2. Good housekeeping practices, including catch-basin cleanout and street sweeping, are also very important and should be mentioned in this section.
3. Maintaining vegetated buffers along water resources should be promoted; they play an important role in filtering pollutants and protecting water quality.
4. Inspection and monitoring of soil erosion and sedimentation controls during the site development process is critical to preventing, and catching and addressing active pollution concerns.
5. Enhanced stewardship of "backyard" water resources citywide has the potential for a great cumulative benefit, and should be promoted by educating residents and business owners about

best management practices for lawn and landscape care, septic maintenance, hazardous product use and disposal, and drainage and runoff control. A good reference for these practices geared toward homeowners is the Connecticut River Coastal Conservation District's "The Backyard Water Resources Guide."

Protecting Rivers and Watershed Management

Chapter 7 should include a general section on protecting rivers and watershed management, and recommendations in the Coginchaug section should be broadened to apply to all rivers in the City. Additional points to be made include:

1. River corridors should be targeted for land protection, which will in turn protect water quality and aquatic habitat.
2. Development in river corridors should be done with special consideration for protecting water quality and aquatic habitat, including use of Low Impact Development (LID) practices.
3. Vegetated buffers should be maintained along streams and other water bodies for their multiple water quality and aquatic habitat benefits (provide shade, stabilize stream banks, slow runoff, help to avoid flooding, filter pollutants, and provide food and shelter to wildlife).
4. Stream restoration projects should be undertaken to address impairments and improve stream habitat (like stabilizing eroding streambanks and planting vegetated buffers).
5. The City should work to address existing water quality impairments to remove Middletown water bodies from the State "Impaired Waters List," a list of CT water bodies not meeting the State Water Quality Standards. Middletown water bodies included on this list are: the Mattabesset and Coginchaug Rivers, Sawmill Brook, Miner Brook, Sumner Brook, Long Hill Brook, Crystal Lake, and Wadsworth Falls Park Pond.
6. The City should implement recommendations in existing watershed management plans, including the Mattabesset River Watershed Management Plan and the Coginchaug River Watershed-based Plan.
7. The City should work to address the *E. coli* bacteria load reduction goals in the Department of Environmental Protection's Total Maximum Daily Load Analysis (TMDL) for the Mattabesset River Regional Basin.

Landscape and Lawn Care

1. Chapter 7 should include a section on landscape and lawn care practices, with a reference to Project Green Lawn, the City of Middletown public awareness campaign to encourage residents and businesses to maintain healthy lawns free of chemicals that are harmful to people, pets and the environment. Scientific evidence has linked lawn care chemicals to asthma, childhood and adult cancers, and birth defects, among other serious health problems. Children may be particularly sensitive due to their developing bodies, and dogs and other pets are susceptible as well. Once applied, these chemicals can run off lawns making their way into streams and other water bodies impairing water quality and aquatic habitat, and get passed through the food chain, contaminating fish and other wildlife.
2. The City has already taken steps to switching to organic turf care on city-owned properties; these efforts should also be highlighted in this section, and a commitment made to further them.
3. Ecological landscaping practices, for example lawn alternatives that promote healthy, diverse ecosystems, and use of native plants that are adapted to our climate and conditions, are also part of the campaign and should be addressed in this section.
4. Use of non-native invasive plant species should be discouraged throughout Middletown. The City should demonstrate its commitment by replacing non-native invasive plants on city-owned properties with CT native plants.