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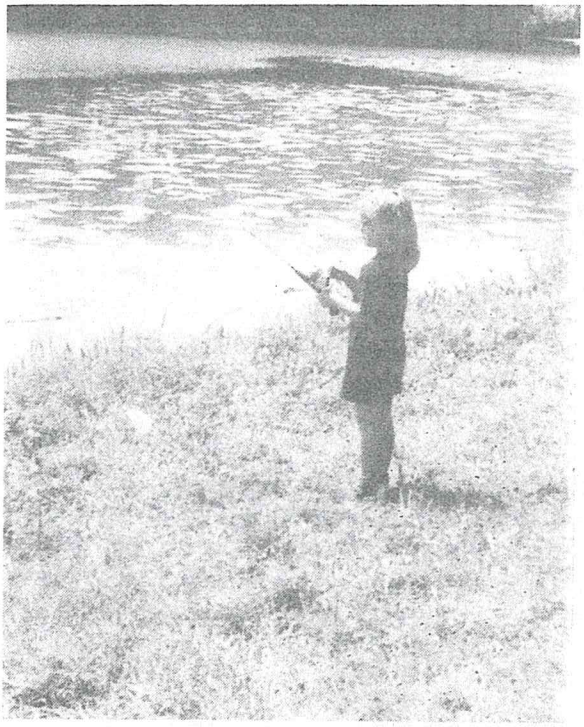
Town of Manchester

Center Springs Pond Restoration Project



Center Springs Park is a 55 acre site, located in the Center of Manchester. The park is a highly valued natural resource providing residents with a variety of recreational opportunities. The central feature of the park is a pond. Center Springs Pond is located to the south of Lodge Drive in the western portion of the Park. The pond has a surface area of 6.1 acres and is fed by Bigelow Brook from the east.

From the late 1920's through the mid 1970's, the pond was a popular site for skating and fishing - attracting people from all parts of Town. In addition during the warm weather, people were drawn to the area for picnic lunches or just to sit by the pond and enjoy the scenery.

The restoration project goals are to improve the water quality in the pond and to re-establish the pond and surrounding area as a focal point for recreational activity in the Town of Manchester.

Park Improvement Plan

In 1988 the Town developed and began to implement a plan to improve Center Springs Park. The first phase of the plan which was completed included reconstruction of the parking lot, installation of new parking lot lights, and other security lights, construction of the new recreation building, clearing brush and undergrowth from the building area and upgrading some amenities. The second phase of the plan is restoration of the pond.

Pond Restoration Project

The pond currently suffers from high nutrient and sediment inputs leading to frequent algae blooms, periodic oxygen deficiencies, and reduced volume. Over years, the pond has filled in with approximately 20,000 cubic yards of sediment and debris. The pond's condition is not conducive to solid ice formation, or the establishment of a stable healthy fish population.

The plan developed to address the pond problems has three main components:

•Installation of a debris control structure (trash rack) upstream of the pond. The trash rack is to collect large debris, (tires, branches, lumber, and other floatables) before they enter the pond. The debris would be held in an area easily cleaned by Town forces.

•Construction of a sedimentation forebay at the eastern end of the pond. The forebay will collect sediment in a confined area designed for easy sediment removal. The forebay will be separated from the main pond by a gabion wall/weir. The wall/weir is intended to direct flows to the southern end of the forebay before water passes into the pond. This maximizes detention time in the forebay which in turn will maximize the volume of solids deposited in the forebay. A maintenance management plan including regular sediment removal will be developed for this area.

•Dredging of the pond, the plan calls for removal of approximately 20,000 cubic yards of material. In general the pond will be excavated to the bottom of the soft sediment. The dredged material is being trucked to the landfill. At the landfill, the material is being stockpiled and de-watered. It will eventually be used as landfill cover.

The dredging will increase the depth of the pond which should reduce the recycling of nutrients, control rooted plant growth, and improve the aesthetic appearance.

Funding for Pond Restoration

The Town applied for and received $250,000 in State Grant Funds and $62,900 in Federal Clean Water Act Section 319 Funds to be used for water quality improvements to Center Springs Pond. In addition $28,500 in Town funds have been committed to the pond restoration.

How Can You Help?

Ponds are much more than individual bodies of water. They are reflections of the way we use the surrounding land. Ponds are part of larger systems known as watersheds or surrounding lands that drain water into a central basin, in this case Center Springs Pond. The Center Springs Pond watershed is over 950 acres. All residents can participate in this project by adopting land use practices which do not negatively effect water quality. Some suggestions are as follows:

Lawn Care

•Lawn fertilizers contain nutrients which can cause a threat to surface waters. During heavy rains, fertilizers wash off lawns, eventually making their way to the central basin -Center Springs Pond. In order to minimize potential contamination, have a thoughtfully designed lawn management plan. First have your soil tested, then apply only the types and amounts of fertilizer required. Assistance regarding soils and fertilizers can be obtained by calling the University of Connecticut Cooperative Extension System at 203-241-4940.

•Dispose of lawn clippings, brush, and leaves in an approved manner. Always keep drainage swales and catch basins clear of leaves and debris. The Town provides a fall leaf pick up program. For information on this and disposal of other debris, please call the Town of Manchester, Sanitation Division at 647-3248. Lawn debris should never be disposed of near stream banks or in streams.

•Pesticides including insecticides, fungicides, and herbicides are known sources of ground water pollution. They should be used sparingly and in accordance with all applicable laws and regulations. If you have any questions concerning purchase and/or application, contact a licensed applicator or call The State Department of Environmental Protection Pesticides Program at 424-3369.

Other Recommended Maintenance Practices

•Divert drain spouts and garden hoses away from impervious surfaces onto lawns allowing for infiltration. Prevent soil erosion by mulching and seeding areas with exposed soil.

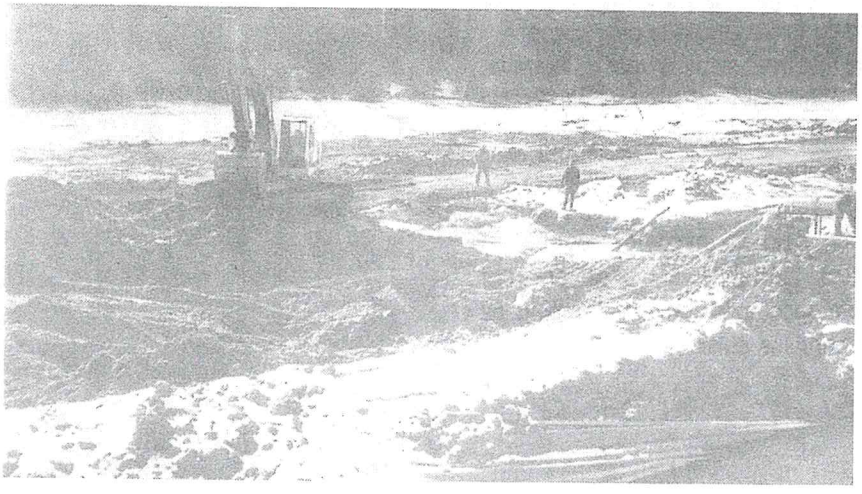
•Pet owners - please clean up after your pets. Town ordinance requires that any person owning, keeping, walking or in control of a dog, or any other animal, clean up any litter deposited by such animal or private property owned by another person or public property including but not limited to parks and school grounds.

Large Debris and Trash

In the past, there has been a problem with trash (bottles, cans, plastic containers, etc.) and large debris (tires, lumber, logs, shopping carts, and even a dog house) washing downstream into the pond. Please do not discard any trash or large debris near stream banks or in streams. For information on proper disposal, call the Manchester Sanitation Division at 647-3248.

Storm Sewers

Storm sewers route water to the pond or its tributaries, put nothing in them. Used oil and other wastes should be disposed of by legal means. Wash cars on lawns not in the street and use low phosphate detergents. Monitor storm drains near your home and report any problems to the Town of Manchester, Public Works Dept at 647-3142.



Septic Systems

If your home has a septic system, you can take steps to help prevent system failure which could cause ground water pollution and result in costly repair bills. The most critical element of a septic system maintenance program is routine pumping of the septic tank. Generally, tanks should be pumped out at least once every three to five years, depending on tank capacity and the amount and quality of solids entering the tank. A common rule of thumb suggests that the clean-out interval is determined on the basis of 100 gallons of tank capacity per person per year. Therefore, a 1000 gallon tank used by a family of four should be cleaned every 2.5 years [1000 / (100 X 4)]. Garbage disposals increase solids loading by about 50%; the use of garbage disposals is therefore discouraged, but where they are used, the tank cleaning frequency should be doubled (use 200 instead of 100 gal/person/yr.)

Disposal of substances such as motor oil, gasoline, paints, thinners, and pesticides down drains should be avoided. These materials may pollute groundwater and may be toxic to micro-organisms in the system. Household cleaners, disinfectants, detergents and bleaches should be used moderately. Although these products do little harm to the system, where there is high septic system density a cumulative impact to the groundwater may occur. Disposal of grease, fats, coffee grounds, paper napkins, disposable diapers, etc. via the septic system should be avoided as these materials tend to clog the system.

It is critical that the leach field be protected. Grass cover should be mowed frequently to promote evaporation and transpiration, trees and shrubs with deep roots should be kept off the leach field. Soils above the leach field should be kept unfertilized. Heavy equipment and automobiles should be kept off of the leach field.

Additives designed as an alternate to proper septic system maintenance are generally ineffective, and do not eliminate the need for routine pumping of the system, commercial additives such as yeasts, bacteria, enzymes or chemicals claiming to improve septic system performance may in fact hinder the system. Many cleaners, for instance, allow solids in an overloaded tank to be resuspended, allowing drainage lines and the leach field to become clogged. In addition, commercial biological additives are not necessary to promote decomposition after pumping, as the sludge residue contains sufficient active micro-organisms.

Annual inspection of a septic system is recommended to make sure it is functioning properly. The area around the septic tank and drain field should be checked for wet solid or lush green growth during summer months; these conditions may alert the homeowner that effluent is rising near the ground surface. During winter months, the leach field should be checked for rapid snow melt and foul-smelling water, often gray in color. If you have any questions regarding your septic system, please contact the Town of Manchester, Health Dept at 647-3173.

Questions?

If you have any questions concerning this brochure, the pond restoration project, or Center Spring Park in general, please call the Parks and Recreation Dept at 647-3084.

Hopefully, Town employees and citizens working together can adopt land use practices which will preserve and protect Center Springs Park and Pond for generations to come.