

The Skokie River: Lessons in Land Use



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Most visitors at the Chicago Botanic Garden recognize the Skokie River as, simply, the stream at the west edge of the Garden's property, but it is much more than that. The Skokie River drains some 20 square miles of suburban Chicago, provides a valuable wildlife and plant habitat and is presently serving as a living laboratory in which to test the latest techniques in stream restoration.

The Skokie River has an interesting history. Until the mid-1800s, the river seeped through myriad

wetlands and prairies as a shallow tributary that often dried up and could scarcely have been called a "river." With settlement, wetlands were drained to create the proper conditions for crop production. In many locations, channels were dug to provide better drainage. Trees and shrubs invaded the mounds of soils deposited along what had become an agricultural drainage ditch. These invasive plants grew thick and created a dense shade that prevented the growth of vegetation that stabilized streambanks. Within a period of several years, water flow and erosion increased substantially.

During the construction of the Chicago Botanic Garden in the 1960s, the straight, ditch-like flow of the river was redirected around the west edge of the Garden's property. The river remained unnoticed by most visitors because it still looked like – and had many of the problems associated with – an agricultural drainage ditch. Eroding banks, turbid water, weedy bank vegetation, unpredictable floods and little wildlife use were among the river's undesirable characteristics.

Last year, the Skokie River Restoration Project was begun to improve the river habitat and make it a part of the visitor experience at the Garden. Work was begun to stabilize eroding banks, reduce undesirable vegetation and plant appropriate native plants that will create an attractive wildlife habitat and provide benefits such as improved water quality. Great blue herons, kingfishers, foraging Caspian terns and other species of birds were spotted along the river this past summer. Several green frogs were also observed; an infrequent occurrence prior to 1994.

Major accomplishments during 1994 included the creation of five wetland areas within the river's flood plain and the establishment of 12 acres of prairie plants that create an upland buffer to filter rainwater runoff. Approximately 68,000 plants of 65 species were planted along the river and more than 80 pounds of prairie grass and wildflower seeds were sown in the upland buffers.

In 1995, an additional 30-40,000 plants will be planted and several hundred thousand willow stem cuttings will be installed into unstable areas of the riverbank. Root systems of these native plants will grow together to form a dense, woven lattice that will stabilize the soil from the surface to a depth of 5 to 10 feet. By contrast, Kentucky bluegrass, which previously grew along the river, has a root system of

only 8 to 10 inches in depth, and provided minimal streambank stabilization and no significant wildlife habitat.

Beginning early this spring, work will focus on planting the most severely eroded streambanks. Native prairie and wetland grasses, sedges and flowers will be used to provide stability, beauty and habitat. In some locations, plantings will be integrated with biodegradable coconut fiber rolls that will withstand the erosive onslaught of running water, providing stability and time for plant growth.

There are many opportunities for involvement in the Skokie River Restoration Project. If you like getting your hands dirty, thousands of native plants will need to be planted this spring. Several organized tours and workshops are also being planned for homeowners with similar stream problems, as well as educators, landscape architects and planners interested in the new and innovative techniques being used. Anyone interested in learning more about the Skokie River is also welcome to attend. For more information on upcoming programs and opportunities for involvement, please call Cynthia Baker, Skokie River Restoration Project Manager, at (708) 835-8300.