



a context for planning

The process of comprehensive planning for Barrington Hills has taken into consideration those factors which influence the amount, type, and location of development to be accommodated by the Village in accordance with its goals and objectives. These factors fit four basic categories – land suitability, accessibility, community character, and community services.

Over the years, a wealth of well-documented information related to the Barrington area has been assembled and analyzed by BACOG and other governmental agencies. That information has been incorporated into the analysis for developmental factors contained herein.

This chapter summarizes these factors as they apply to the Village and its 1-1/2 mile extraterritorial planning jurisdiction, as provided in State Statute.

Land Suitability

The suitability of land for conservation or development is influenced by topography, geology, and soils; surface water and ground water resources; wildlife and its habitat; flood hazards; and air quality. One is related to the other – hence, this Village's emphasis on its fragile ecological balance.

The Village is located amidst the attractive natural morainic system created by Wisconsin glaciation. The rolling topography is characterized by glacial lakes and wetlands, woodlands and prairie remnants, and a broad outwash plain adjacent to the Fox River. Bedrock exists from 100 to 200 feet below the unconsolidated glacial drifts.

Groundwater Resources

Residential water supply in the Barrington Hills area is obtained by private wells from shallow aquifers of high quality. Shallow aquifers can be relied on by individual property owners in low density areas as an economically feasible water supply. This source is vulnerable to overuse or misuse. The shallow aquifers extend far beyond the boundaries of the village, and are therefore subject to use and overuse by others outside the control of property-owners or the Village of Barrington Hills.

Studies indicate that localized well-water problems have occurred around the periphery of Barrington Hills, typically adjacent to higher urban densities. This is even evident where density and use is managed by control of lot size and development density commensurate with the groundwater capacities and flow rates. Well drillers servicing Barrington Hill's residents claim that the water table may drop due to increased demand in the greater Barrington area. In the adjacent Village of Algonquin, high demand for water induced by suburban density development has outstripped groundwater resources, causing a recent failure of one of its municipal wells.

A report by the Village of Inverness noted that the Spring Creek watershed in Barrington Hills is the primary recharge area for Inverness, because of its porous characteristics and the slope of underlying rock formations. This is evidence that the balance between future development and resource protection of Barrington Hills is critical to the future of its neighbors.



A similar case can be made for air quality. Prevailing westerly winds and breezes in northeastern Illinois are such that the water and vegetative cover of Barrington Hills act as a natural filter and air conditioner for a large segment of the metropolitan area.

Vegetation and Ecology

The vegetative ecology of this area can be divided into three basic communities: wetland, woodland, and prairie.

Perhaps the most significant natural feature in Barrington Hills is the wetlands, most of which are located along Flint and Spring Creeks. These wetlands are where cattails, wild iris, and water hemlock line the water's edge. Muskrats, beavers, mink, raccoons, Canada geese, mallard ducks, herons, egrets, and redwing blackbirds live amid this rich resource. Water retained by wetlands seeps back into the surrounding land and air during dry seasons, replenishing water resources upon which much of the region depends.

The woodlands throughout the Village are dominated by a variety of oaks and hickories with the White Oak as the dominant tree. One also finds smaller numbers of Maple, Black Walnut, Hackberry, American Elm, Black Cherry, Willow, and White Ash. Of these trees, the oak family is most susceptible to injury and elimination by urban development. The root structure of this tree lies close to the surface and is easily damaged by ground leveling and soil compaction by heavy construction equipment. Dense-growing lawn grasses also impact the well-being of these trees by competing for and receiving precipitation and soil nutrients first.

The secondary layer, or understory, in the woodlands consists of younger trees and shrubs which rarely reach much stature. They include some of the less dominant trees mentioned above, plus Wild Grape, Virginia Creeper, Gray Dogwood, Elderberry, and Honeysuckle. Each tree is a valuable resource of nest sites, food, shade, and protection from the elements for wildlife – including white-tailed deer, red and gray foxes, coyotes, squirrels, great horned owls, and a wide variety of songbirds, including threatened and endangered species.

Common wildflowers of this community include the Trout Lily, Shooting Star, Prairie Trillium, Wild Geranium, Solomon's Seal, and, in mesic (moderately moist) areas, the Great White Trillium.

The prairie community of Barrington Hills, in its primeval state, was dominated by tall grasses which are said to have grown at least to four feet in height. The vast majority of this community has been destroyed by urban development, agricultural cultivation, grazing, and gravel mining. What remains of native prairie is exemplified by two types: the hill prairies, appearing on the west side of glacial moraines and kames along the west ridge of Spring Creek watershed, and the alkaline fen prairies.

A typical hill prairie would support such plants as the Little Bluestem Grass, Side-oats Grama Grass, Silky Aster, Stiff Aster, and the Cylindrical Blazing Star. An alkaline fen would support the Ohio Goldenrod, Grass-of-Parnassus, Turtlehead, White Lady's Slipper, and Small Fringed Gentian. Typical wildlife includes hawks, wrens, pheasants, prairie mice, and woodchucks.



Of the few prairies which do exist today in Barrington Hills, two examples are under the protection of the Cook County Forest Preserve District in conjunction with the Illinois Nature Preserve Commission. Other existing dry hill prairies on private property are endangered by gravel extraction and construction.

Maintenance activities of existing prairies and woodlands are controlled by burning, which replaces the natural fire burn-off of years past. Fire serves to destroy encroaching nonnative shrubs and trees and also clears away matted grasses and forbs which die each year, thus enriching the soil. Under an Illinois Environmental Protection Agency (IEPA) permit, controlled burning is performed yearly by the Cook County Forest Preserve District upon its prairies and woodlands located within Barrington Hills. Land is managed similarly by Citizens for Conservation on their Grigsby Prairie at Oak Knoll Road as well as by individuals on their own properties.

The prairie wetlands of Barrington Hills resulted from grasslands having poor drainage. These may hold water permanently or only in Spring. The characteristic vegetation of the area is Cattail, Blue-Joint Grass, Swamp Milkweed, Prairie Cord Grass, and a variety of sedges and forbs.

Steep slopes of over 12 percent are especially sensitive to erosion, and tend to be found in the northern half of Barrington Hills. Often coinciding with woodlands, these areas are among the most attractive natural settings.

Finally, the lake waters of the Village also provide a habitable environment for wildlife. In addition to providing feeding and breeding grounds for a myriad of amphibians and insects, local water bodies, most notably Spring Lake, support many fish, including Brook Silversides (90% of the Spring Lake fish population), Black Bullhead, White Crappie, Largemouth Bass, Yellow Perch, Pumpkinseed Sunfish, Orange-Spotted Sunfish, Northern Pike, and Black Crappie.

Soils

Soil characteristics in Barrington Hills result from glacial activity during the Pleistocene Period 13,500 years ago. During that period, the land was repeatedly covered by continental ice sheets which scraped and deposited as much as 300 feet of glacial drift composed of till and outwash soils. Till is an unsorted, ice-deposited sediment composed of silt, clay and sand. Outwash refers to poorly-sorted to well-sorted sand and gravel deposited by glacial meltwater taking on a variety of forms: conical hills (kames); elongated ridges (eskers) formed by streams in, on, or under the ice; sheet-like deposits (outwash plains) formed by meltwater running off the front of the glacier; deposits in valleys (valley trains) formed by debris-laden meltwater.

Generally speaking, Barrington Hills can be divided into two large Corridors defined by soil characteristics. The eastern half of the Village, or the Flint Creek Corridor, can be described as broad, rolling uplands and plains created by bulldozing effects and sedimentary deposits of glacial activity. The basic soil type of this sector is silty-clay till (such as Markham and Morley silt loams) which provides good load-bearing capacities, but is relatively impermeable to water. As a result, the lowlands of this sector, being at or near the water table, hold water and sedimentary runoff, creating peat and muck soil conditions. In contrast to the silt loams, these soils, because of their structure and high organic content, are highly compressible, have a high shrink-swell potential, and have a poor load-bearing capacity. Such lowland soils are scattered throughout the eastern half of the Village and are identified by standing water and hydrophytes.



2030 Comprehensive Plan

On the other hand, the western half of the Village, the Spring Creek Corridor, is underlain by sandy till and extensive deposits of glacial outwash. This difference in soil character can be attributed to glacial streams and rivers that deposited these sand and gravel materials. These soils are relatively permeable and provide a good load-bearing capacity for the construction of buildings. These same features make them valuable as construction material for roadbeds and aggregate for asphalt and concrete.

Dominated by those of the Drummer, Pella, and Ashkune series, other soils in the Spring Creek Corridor provide the proper combination of slope, moisture, and nutrient levels to merit the U.S. Soil Conservation Service prime agricultural rating.

The soils of both Corridors present problems when required to accept the demands placed by urban development. For example, the till soils of eastern Barrington Hills present problems when used for septic seepage fields, due to soil impermeability, low percolation, and proximity to open surface water drainage systems. Fortunately, the present five-acre residential zoning which exists in Barrington Hills generally is adequate for septic seepage fields in these critical areas. The use of septic systems at residential densities greater than presently exist would warrant close study to establish whether a specific proposed use or density would unduly burden the soil and endanger the health of the community. Wet peat and muck soils present further complications, because they do not handle septic effluent well. When built upon, these compressible, unstable soils often shift, causing cracks in foundations and walls.

Problems also exist in the drier soils of the western portion of the Village. While offering good building platforms with appropriate drainage, local sands and gravels have the disadvantage of proximity and accessibility to shallow and deep water aquifers. These water resources are vulnerable to pollutants which might quickly percolate down to contaminate water supplies not only in Barrington Hills, but in other nearby communities as well.

Water Quality

Water quality has been the subject of extensive research by the Northeastern Illinois Planning Commission in response to the Federal Clean Water Act. The quality of Spring Creek, having a mean average flow of 24.6 cubic feet per second, is considered “good”. Pollution is insignificant relative to ammonia, nitrate, and lack of dissolved oxygen; but phosphate is a potential problem, especially if water along the stream is to be impounded.

A primary reason for good water quality in Spring Creek, in addition to the absence of major wastewater dischargers, is the natural ground cover in the area. Wetlands and native vegetation help cleanse runoff and curtail algae growth in the Creek.

Flint Creek, the mean average flow of which is 41.3 cubic feet per second near its mouth at the Fox River, is less clean and is considered only “fair” to “poor” in quality. One principal discharger of pollutants has been the Barrington Sewage Treatment Plant. There are periods when wastewaters exceed sewer system capacity, untreated and partially treated effluents are discharged directly into Flint Creek east of Old Hart Road.

The Villages of Barrington Hills and Barrington entered into an intergovernmental agreement dated June 26, 1978 which provided for substantial protection of Flint Creek in Barrington Hills. The Barrington Sewage Treatment Plant continues to expand its service area with ongoing monitoring to meet all required Federal and State standards. However, phosphates and sediments entering the Creek from properties within Barrington Hills require attention also.



Accessibility

The Village of Barrington Hills is located 35 miles from Chicago's Loop in the low-density wedge between high-accessibility developmental Corridors described by the Northeastern Illinois Planning Commission. Although reasonably accessible to high-capacity transportation facilities (I-90, U.S. 12), and the Union Pacific Railroad (formerly Chicago & North Western), these and other major transportation facilities are located at or beyond the periphery of the community. Most areas of the Village are accessible only by highways and countryside roads of limited capacity and continuity.

Residents of Barrington Hills are dependent on the automobile and on the supporting services of the Village of Barrington and other nearby communities. For a broader variety of goods and services, they may frequent such regional shopping centers as Woodfield Mall and the Deer Park Town Centre to the east or Spring Hill Mall and Algonquin Commons to the west. The industrial employment centers of the northwest suburbs are also accessible to Barrington Hills by automobile, as is O'Hare International Airport.

Residents who work in Chicago's Loop may utilize the Union Pacific Railroad (formerly Chicago & North Western) commuter stations in Barrington and Fox River Grove. Peak hour service is frequent and dependable, and travel time approximates 50 minutes on express trains and 1 hour on non-express trains, excluding driving time to and from the station.

By comparison with other northwest suburbs, the level of accessibility to and from Barrington Hills ranges from low (for general purposes) to moderate (for specific trip purposes). The BACOG Comprehensive Plan and the 2010 Chicago Area Transportation Study Plan envision no change in this assessment.

Community Character

Living with nature and adjusting to a relatively low level of accessibility and municipal services are conscious choices for those who reside in Barrington Hills. Residents have selected a more remote countryside life as an alternative to more intense urban and suburban life. Recognizing this, the Village supports a safe, secure, and functional nighttime environment free from clutter, light trespass, and light pollution and will continue to take measures to retain this "community feature". Additionally, Barrington Hills is an intentionally open countryside oasis within a more chaotic urban metropolitan area. The BACOG plan, the plans of Cook, Lake, McHenry and Kane Counties, and the NIPC plan all provide for this alternative as being integral to the full range of opportunities available to residents of metropolitan Chicago.

The Comprehensive Plan for the Village of Barrington Hills recognizes the desirable heterogeneity of residential opportunities within Barrington Hills and nearby communities. Through cooperative planning and intergovernmental agreements, the Village and its interdependent BACOG neighbors are actively pursuing a pluralistic composite of living and built environments. Responsibility for stewardship of natural resources is an obligation which the residents of Barrington Hills are to willingly accept in return for this quality of life.

The International Dark-Sky Association (IDA) is a non-profit organization committed to "preserve and protect the natural night environment and our heritage of dark skies through quality outdoor lighting." Formed in 1988, IDA has been very active in research on technology and applications of outdoor lighting. "IDA's goals are to be effective in stopping the adverse environmental impact on dark skies by building awareness of the problem of light pollution and of the solutions, and to educate everyone about the value and effectiveness of quality nighttime lighting." They promote using specific lamps sources and fixtures as well as regulations to enforce their use to reduce the sky glow now common over urban and suburban areas, as well as light trespassing onto other's property. The IDA's website (www.darksky.org) serves as a clearinghouse of relevant resources, publications, and model ordinances that the Village may consider consulting.



Community Services

The Village of Barrington Hills is a Home Rule municipality. Its Village Hall, located on Algonquin Road, was first occupied in 1975 and expanded in 1994. As a predominantly residential community, its need for municipal services as well as its financial resources is limited.

The three principal activities of the Village are law enforcement including 911, road maintenance, and land-use guidance (including planning, zoning, subdivision, building, and health administration). The first two activities account for almost two-thirds of the annual budget. Regarding the third, the Village contributes annually to the Barrington Area Council of Governments and the Northeastern Illinois Planning Commission in addition to funding its own efforts.

The residents of Barrington Hills have chosen to assume many responsibilities and costs themselves. For example, water supply, wastewater disposal, and solid waste collection including recycling are all provided privately as are many recreational facilities. The decision to establish and maintain the community without public water supply and wastewater disposal was and is a conscious, intentional decision made by community leadership and regularly supported by village voters and property-owners. It should be noted that the Village of Barrington provides public water and sanitary service in the Bianica Subdivision and public sanitary service to the Barrington Hills Country Club.

The Barrington Countryside Park District was established in 1967. With minor exceptions its borders are coterminous with the Village. Its primary asset is a 15-acre equestrian center (the “Riding Center”) which is on Bateman Road near its intersection with Algonquin Road, which provides the primary gateway to Cook County’s Spring Creek Forest Preserve’s equestrian and walking trails. The Riding Center is used extensively by Village Residents and others, both equestrians and non-equestrians, and is the home base to the Riding Club of Barrington Hills, and the Fox River Valley Pony Club. The Park District also maintains a softball field at the District 220 Countryside School on Lake-Cook Road and tennis facilities on land leased from the School District adjacent to that school.

The Village has many common goals with the Park District. Cooperation and coordination of manpower, intellectual property, management, planning, and funding resources is necessary to reach common goals of the governmental units. Areas of cooperation between the Village and Park District include:

- Land acquisition;
- Land conservation and preservation;
- The Spring Creek Forest Preserve;
- Preservation of our unique rural character;
- Preservation of the equestrian heritage;
- Cooperation in future projects of interest to the Village and Park District Residents;
- Cooperation regarding zoning and planning issues which impact the Village and the Park District; and
- Park District impact assessments for new commercial and residential development.

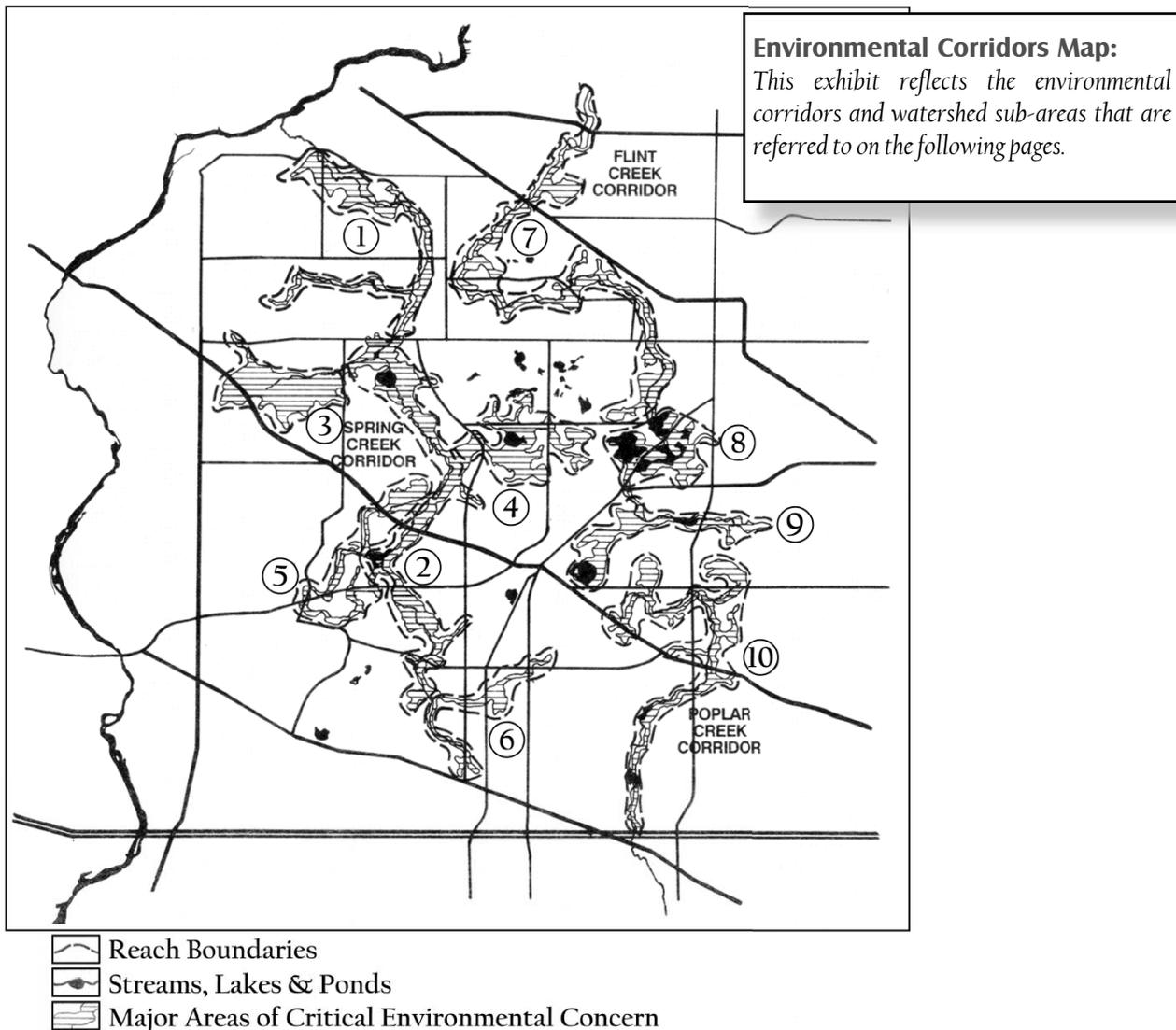
The Village is almost wholly served by the Barrington Library District and Barrington Unit School District 220. However, the far northwestern portion of the Village is served by School District 300.

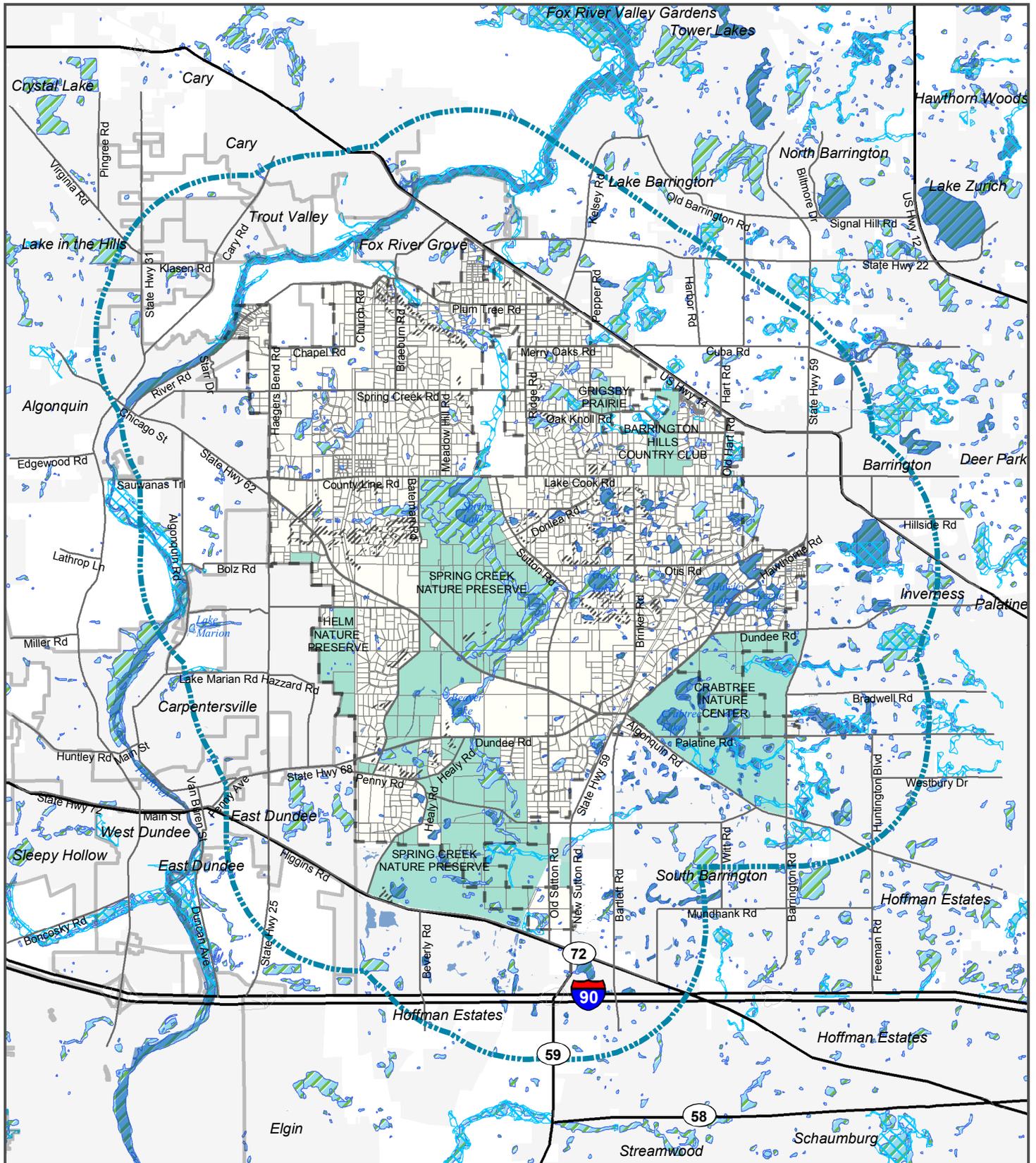


Fire protection is provided by five special districts: Barrington Countryside, Algonquin/Lake in the Hills, Carpentersville, East Dundee Countryside, and Fox River Grove.

Overall Concept

Based on the foregoing developmental factors, the goals and objectives for Barrington Hills can be achieved by a concept of land use which has six fundamental components: (1) protecting scarce and critical environmental resources - especially groundwater - most of which are located in corridors adjacent to waterways; (2) maintaining limited municipal services supplemented by individual responsibilities; (3) preserving a community character which provides personal opportunities consistent with a countryside environment; (4) perpetuating the keeping of horses and agricultural activities as a viable element of the community, along with the expansion of the interwoven open space and equestrian trail system; (5) protecting property from vehicular traffic, noise and equestrian/vehicular conflicts by limiting road capacity and arterial road penetration through the open countryside; and (6) preserve the 5 acre lot pattern with the exception of properties located on the village periphery where density and development in adjoining communities has the predominant influence on use and character.





Environmental Features

Comprehensive Plan

Village of Barrington Hills

-  Village Limits
-  1.5 Mile Planning Limits
-  Wetlands
-  Steep Terrain
-  Floodplain



NORTH



0 0.5 1 2



Scale in Miles

Base Map Data Provided by
Gewalt Hamilton Associates, Inc.

