

VII. Conservation Plan

Introduction

The Township of Bloomfield is almost fully developed with 164 parcels of vacant land. Bloomfield contains, however, areas of significant open space and environmentally sensitive natural features. These include bodies of water, flood plain, wetlands and steep slopes. The Township also contains contaminated brownfield sites. This Element is designed to provide for the preservation, conservation and utilization of natural resources in the Township. Issues surrounding the preservation of Bloomfield’s remaining natural resources are examined. This section also analyzes the physical characteristics of the Township, including surface waters, flood hazard areas, wetlands, steep slopes, woodlands, brownfields and scenic corridors.

Legal Basis and Purpose

The New Jersey Municipal Land Use Law, Article 3, Section 40:55D-28 states that a conservation plan element should “provide for the preservation, conservation, and utilization of natural resources, including, to the extent appropriate, energy, open space, water supply, forests, soil, marshes, wetlands, harbors, rivers and other waters, fisheries, endangered or threatened spaces wildlife and other resources, and which systematically analyzes the impact of each other component and element of the master plan on the present and future preservation, conservation and utilization of those resources.” The Conservation Plan Element will establish the basis for a critical areas ordinance to regulate development in environmentally sensitive areas.

Issues

The Conservation Plan recognizes the vital role that conservation plays in maintaining the unique residential character of the Township of Bloomfield. The purposes of the Plan are as follows:

- 1 Preservation of environmentally sensitive features, such as surface waters (i.e. lakes, ponds and streams), flood hazard areas (i.e. floodplain and 100 year flood zone), wetlands, steep slopes and woodlands;
- 1 Preservation of wildlife habitat, such as woodlands, open space and bodies of water;
- 1 Remediation of brownfields and known contaminated sites as per the New Jersey Department of Environmental Protection;
- 1 Protection of existing residential neighborhoods, especially those prone to flooding; and
- 1 Protection of scenic visual corridors.

Natural Features

Surface Waters

The Township of Bloomfield contains surface waters that are part of the lower Passaic River/Saddle River watershed. Surface water features provide an im-

portant function for storm water drainage, wildlife habitat and the growth of some vegetative species requiring wet roots. The general pattern of surface water hydrology drains from high elevation to low elevation, or northwest to southeast in Bloomfield. Major waterways are the Second River, Third River, Wigwam Brook and Toney's Brook. Major lakes in the Township are Clark's Pond and Hendrick's Pond. These features should be maintained and protected and the impacts of development should be mitigated where possible. Major issues include water quality, stormwater management and non-point source pollution.

Flood Hazard Areas

The Township of Bloomfield has floodplain along existing surface water bodies that are prone to flooding during periods of heavy precipitation. Flooding problems are exacerbated by the extent of development, impervious coverage, loss of wetlands, encroachment on the floodplain and degradation of stream beds. Flooding occurs along the Second River, Third River, Wigwam Brook and Toney's Brook during periods of heavy rain. This increasingly results in property damage and disruption to residential neighborhoods because of the frequency and severity of flood events during the past few years.

Three streams converge at Watsessing Park. The swelling of Toney's Brook, Wigwam Brook and the Second River during 100 year floods affects approximately 104 acres, and most of this flooding is confined to the park and a ten block residential section located west of Glenwood Avenue. Recent flood events have increased in severity and duration.

Another area of flooding is Toney's Brook, which extends from the Glen Ridge municipal boundary and joins Second River and Wigwam Brook in Watsessing Park. The flood hazard area is limited to a 10 or 12 block area on either side of the stream and consists of 52 acres. The land use character is mixed and 2,400 linear feet along the stream is maintained as open space. Flood damage is mitigated by the fact that the Brook is largely piped or in a culvert until reaching the Park.

Serious flooding also occurs along the Third River, which meanders more than four miles from the Clifton municipal boundary on the north to the Belleville municipal boundary on the east. The Third River corridor has experienced significant flooding problems due to the extent of development, lack of adequate buffers and proximity of residential uses. The most extensive flood hazard area consists of 72 acres from the Clifton municipal boundary to West Passaic Avenue. While the area is relatively large, it includes the Garden State Parkway and Upper Montclair Country Club so the impact of flooding is minimal. The flood hazard area between West Passaic Avenue and Watchung Avenue (12 acres) is confined to a variable width strip on either bank and the potential impact on the adjacent residential area is fairly

substantial. Between Watchung Avenue and Hoover Avenue, the flood hazard area is extensive (88 acres) and flooding has been severe. However, Clark’s Pond, Brookside Park and Glen Ridge Country Club are located in this area and help to reduce the impact of flooding on residential land uses. There is a need, however, to address upstream issues that affect Clark’s Pond such as nonpoint source pollution, loss of recharge areas and streambank erosion. Finally, the segment from Hoover Avenue to the Belleville municipal boundary (32 acres) contains Memorial Park, the Garden State Parkway, the Forest Hill Field Club (golf course) and Glendale Cemetery, as well as publicly owned lands adjacent to Forest Glen School.

A substantial area of the Township of Bloomfield is subject to some flooding, such as Ampere Parkway, and the balance of open space to developed land requires careful consideration. A policy of preserving and maintaining open spaces in the floodway and 100 year flood zone should be pursued in order to protect existing residential neighborhoods and other developed areas.

Wetlands

Bloomfield contains limited wetlands associated with existing surface bodies of water. Wetlands are an important aspect of the hydrologic characteristics of the Township and serve several purposes. They support wildlife and distinct species of plant life. They also act as a retention basin for floodwaters and control various types of water pollution by reducing water velocity and acting as a pollutant sink.

The exact location and delineation of wetlands is dependent upon field investigations. The development of freshwater wetlands is regulated at the State and federal level. The Freshwater Wetlands Protection Act categorizes wetlands into three groups: exceptional value, intermediate value and ordinary value. Transition areas or buffers are required ranging from 50 to 150 feet depending on the resource value of the wetlands. These regulations are imposed on a site-specific basis based on wetland delineations that are reviewed and approved by the N.J. Department of Environmental Protection (NJDEP).

The wetland areas in Bloomfield are illustrated in the Conservation Plan Map. The majority of wetlands are located in small areas: along Wigwam Brook in Watsessing Park; along Second River near the Township’s eastern municipal border; north of Forest Hill Field Club and south of Glendale Cemetery; along Third River north of Bay Street and south of Brookdale Gardens; and east of the Garden State Parkway in the northern end of the Township.

According to New Jersey Department of Environmental Protection’s 1995-1997 Land Use/Land Cover maps, the type of wetlands located in the Township of Bloomfield are deciduous wooded wetlands. This category of wetlands is described as closed canopy swamps dominated by deciduous trees normally as-

sociated with watercourses, edges of marshes and isolated wetlands. The typical species in deciduous wooded wetlands combine to form a series of mixed hardwood lowland habitats. These environmentally sensitive areas should be protected from encroachment and development.

Topography/Steep Slopes

The Township of Bloomfield is characterized by relatively level topography and limited areas of steep slopes. Bloomfield’s topography can be characterized as gently rolling land, with level areas and areas of slopes greater than 10 percent. The highest point in the Township is approximately 208 feet above sea level, which is located on the western municipal boundary line along Watchung Avenue. The lowest area of the Township is at an elevation of approximately 120 feet through Watsessing Park in the southern portion of the Township.

The steepest slopes in the Township are located along the western municipal boundary running from Watchung Avenue to Bay Avenue. The majority of this land is developed. Undeveloped parcels that contain significant steep slopes and other environmental constraints should be identified and recommended for lower density development, where appropriate.

Woodlands

The Township of Bloomfield has several wooded areas that are scattered throughout the Township. According to NJDEP’s 1995-1997 Land Use/Land Cover map, there are three categories of forest in Bloomfield. The majority of the forested areas are classified as deciduous. Deciduous trees are those species which lose their leaves at the end of the growing season. These trees remain leafless throughout the winter and sprout new leaves the following spring.

A strip of land containing deciduous trees is located south of Watchung Avenue between the Garden State Parkway and Bloomfield’s municipal boundary with Nutley. Other deciduous forest is located: in Watsessing Park; between the Garden State Parkway and the Forest Hill Field Club; near the Glen Ridge Country Club north of Bay Avenue and south of Watchung Avenue; in Brookdale Park; and along the Garden State Parkway north of West Passaic Avenue.

Another type of woodland in Bloomfield is a mixture of deciduous and coniferous trees. Coniferous species are those trees commonly known as evergreens. They do not lose their leaves (needles) at the end of the growing season but retain them through the year. This category contains natural forested areas less than 20 feet in height with a mixture of coniferous and deciduous trees. This type of woodland is located in Brookdale Park.

The third type of woodland in Bloomfield is brush and shrubland that is less than 20 feet in height. Vegetative communities in these areas may range from early successional species which are only a few years old, to climax or sub-climax communities which are many years old. Also included in this category are old fields that are covered primarily by grasses and some shrubs. This type of forest is located east of the Garden State Parkway to the north of West Passaic Avenue and west of the Garden State Parkway to the south of Belleville Avenue.

Trees and other vegetation enhance the local environment and the residential areas of Bloomfield. While these stands of mature trees are located in the Township, other trees help provide scenic corridors along many of the Township roads. The woodlands and trees also provide buffering, storm water control, erosion control, animal habitats, shade and moderation of the surrounding microclimate and other functions to the community. The preservation of remaining woodlands and provision of street trees/shade trees with new development is recommended.

Brownfields and Known Contaminated Sites

The Township of Bloomfield has a number of contaminated or brownfield sites that are a legacy of its industrial history. Brownfields are defined as former or current commercial or industrial use sites that are presently vacant or underutilized, on which there has been or there is suspected to have been a discharge of a contamination to the soil or ground water at concentrations greater than applicable cleanup criteria. The NJDEP maintains a list of brownfields, which are extracted from the Site Remediation Program (SRP) Comprehensive Site List. The present site listings, which are current as of September 1997, have been self-reported by the person(s) responsible for cleanup of the brownfields property with the specific intent for redevelopment. There are four major brownfield sites in Bloomfield.

The first and most significant such site is the Westinghouse Electric Corporation site at One Westinghouse Plaza. The Westinghouse site is a former manufacturing facility that once supplied weapons grade uranium/plutonium as part of the Manhattan Project. Site remediation is almost complete, subject to approval by the Nuclear Regulatory Commission and NJDEP.

The second brownfield is the former Ray Lar Tool and Manufacturing Company site located at 179 Walnut Street. The third brownfield is Scientific Glass located at 735 Broad Street off of Liongate Drive. Both sites are under the same remedial program in the Bureau of Field Operations. The complexity level of these two sites is C1, which is remedial action that does not involve formal design because the source of pollution is known and identified. A C1 designation may include potential (unconfirmed) groundwater contamination.

The fourth brownfield is Semonian Service Station of Bloomfield Township located at 200 Darling Avenue. The complexity level of this site is C-2, which is a

Table VII-1 Known Contaminated Site List, 1997 Township of Bloomfield, New Jersey					
Site ID	Name	Address	Lead	XY Origin	Remedial Level
NJL000034678	Bloomfield Town Water Department Well 1	Bloomfield Avenue and Alva Street	Unk SO	ZIP	C3
NJL000046409	Foley Field Memorial Park	29 James Street	BFO-N	ADDMATCH	B
NJL600105589	Lou's Service Center	41 Franklin Street	BUST	ADDMATCH	C1
NJL600011555	Getty Service Station Bloomfield Township	1079 Broad Street and Watchung Avenue	BUST	GPS	C2
NJL600079206	Mobil Service Station Bloomfield Township	Broad Street and Bay Avenue	BUST	ADDMATCH	C2
NJL800101545	Zach Auto Repair	21 Prospect Street	BUST	ADDMATCH	C1
NJL800178543	261 Franklin Avenue	261 Franklin Avenue	BFO-N	GPS	C1
NJL800200891	600 Bloomfield Avenue	600 Bloomfield Avenue	BFO-N	ADDMATCH	C1
NJL800213803	8 Franklin Street	8 Franklin Street	BFO-N	ADDMATCH	C1
NJL800248932	375 Belleville Avenue	375 Belleville Avenue	BFO-N	ADDMATCH	C1
NJX000289488	Getty Service Station Blomfield Township	721 Passaic Avenue E	BUST	ADDMATCH	C2
NJX000292789	Roseart Industries Incorporated	53 La France Avenue	BEECRA	ADDMATCH	C1
NJX000295501	Getty Service Station Bloomfield Township	171 Bloomfield Avenue	BUST	ADDMATCH	C2
NJP000857235	Exxon Service Station Bloomfield Township	218 Glenwood Avenue	BUST	ADDMATCH	C2
NJD000693424	Sunoco Service Station Bloomfield Township	10 to 14 Linden and Glenwood Avenue	BUST	GPS	C2
NJD000693432	Sunoco Service Station Bloomfield Township	347 Broad Street	BUST	LATLONG	C2
NJD000693440	Sunoco Service Station Bloomfield Township	72 Bloomfield Avenue	BUST	LATLONG	C2
NJD002157139	General Plastics Corporation	55 La France Avenue	BFO-M	LATLONG	C2
NJD002452605	Eskimo Pie Corporation	118 John F Kennedy Drive N	BFO-M	ADDMATCH	C2
NJD061073151	National Starch and Chemical Corporation	225 Belleville Avenue	BUST	LATLONG	C2
NJD096877725	Schering Corporation	60 Orange Street	BEECRA	CASEMAN	D
NJD980757686	R&S Strauss	26 to 48 Bloomfield Avenue	BUST	ADDMATCH	C2

(Table VII-1 continued on following page.)

(Table VII-1 continued from preceding page.)

Site ID	Name	Address	Lead	XY Origin	Remedial Level
NJD982276727	Garden State Parkway Brookdale NB Service Area	Garden State Parkway MM 153 1	BUST	MAP-	C2
NJD982276735	Garden State Parkway Brookdale SB Service Area	Garden State Parkway MM 152.9	BUST	MAP-	C2
NJD986572428	Edgerley & Gilson Oil Company	41 Arch Street	UNK SO	LATLONG	C3
NJD986587749	Peerless Tube Company	58 Locust Avenue	BUST	GPS	C2
NJD986593093	Shell Service Station Bloomfield Township	211 Watchung Avenue	BUST	ADDMATCH	C2
NJD986593101	Shell Service Station Bloomfield Township	Franklin Street and Weaver Avenue	BUST	ADDMATCH	C2
NJD986598555	Exxon Service Station Bloomfield Township	491 Bloomfield Avenue	BUST	ADDMATCH	C2
NJD986647147	Amoco Service Station Bloomfield Township	560 Broad Street and Bay Avenue	BUST	ADDMATCH	C2

Source: New Jersey Department of Environmental Protection, January 1997

Metadata

Lead:

- UNK SO Unknown Source
- BEECRA Bureau of Environmental Evaluation, Cleanup and Responsibility Assessment
- BFO-N Bureau of Field Operations - Northern
- BUST Bureau of Underground Storage Tanks

Remedial Level:

- B (1) A single phase remedial action in response to a single contaminant category effecting only soils. May be a sub-site of a more complex case. Does not include ground water investigation or remediation. (2) Examples of level B cases include, but are not limited to "cut-n-scrape"; surface drum removals; fences; temporary capping or tarping.
- C-1 (1) A remedial action which does not involve formal design where source is known/identified. May include the potential for (unconfirmed) ground water contamination. (2) Examples of C-1 cases are regulated or unregulated storage tanks containing gas or heating oil; septic tanks etc.
- C-2 (1) A remedial action which consists of a formal engineering design phase, and is in response to a known source or release. Since the response is focused in scope and address a known, presumably quantifiable source, this remedial level is of relatively shorter duration than responses at sites with higher remedial levels. Usually involves cases where ground water contamination has been confirmed or is known to be present.
- C-3 (1) A multi-phase remedial action in response to an unknown and/or uncontrolled source or discharge to the soils and/or ground water. In this remedial level the contamination is unquantifiable (or presumed unquantifiable) and, therefore, no determinable timeframe for the conclusion of the remedial action is known.
- D (1) A multi-phase remedial action in response to an unknown and/or uncontrolled source or discharge to the soils and/or ground water. In this remedial level the contamination is unquantifiable (or presumed unquantifiable) and, therefore, no determinable timeframe for the conclusion of the remedial action is known.

XY Origin:

- ADDMATCH Address matched using ArcView 3.0a.
- GPS Coordinates pulled from DIFF database.
- LATLONG Latitude and Longitude provide by responsible parties.
- MAP~ Interactively mapped using ArcView 3.0a
- ZIP Zip code centroid

remedial action consisting of a formal engineering design phase, and is in response to a known source or release. Remediation to address the release of fuel from underground tanks is underway.

The NJDEP also maintains a list of Known Contaminated Sites in New Jersey. These sites are under the oversight of the NJDEP Site Remediation Program and have or had contamination present at levels greater than the applicable cleanup criteria for soil, ground water standards and/or maximum contamination levels (MCL's) of the Safe Drinking Water Standards. Contamination is normally identified at a site through sampling of soil, surface water and/or ground water. However, there are instances where visual inspection has been used to confirm the existence of contamination. The list of known contaminated sites presented in Table VII-1 dates from January 1997, accordingly a number of the sites may have been cleaned up since that time.

Scenic Corridors/Areas

The Township of Bloomfield has several scenic visual corridors associated with natural and man-made development. Such areas within the Township should be preserved. These areas are generally characterized by natural features such as vegetation, lakes, streams, rocks and wildlife. Township parks and open spaces, such as Clark's Pond North, Brookside Park, Brookdale County Park and the Historic Township Green are significant visual assets. These vistas should be maintained and protected.

Recommendations

1. Establish a critical areas ordinance to regulate development where environmentally sensitive natural features exist (flood hazard zone, wetlands, steep slopes).
2. Explore the possibility of creating a Township Greenway along all stream corridors for flood protection, recreation and open space.
3. Identify key parcels for preservation as open space for flood protection, recreation and open space.
4. Undertake an Environmental Resources Inventory (ERI).
5. Promote environmentally friendly development through amendments to the Zoning Ordinance including regulations for lot/building coverage, buffers/setbacks and site design including increased landscaping, use of species native to New Jersey and street trees.
6. Promote the clean-up and reuse of contaminated brownfield sites through coordination with NJDEP and participation in the State Brownfields program.
7. Consider applying for funding under the State Environmental Infrastructure Trust for flood control and stormwater management improvements.

Conservation Plan Element

8. Consider amending the Township Zoning Ordinance to require an Environmental Assessment Report for certain types of intensive development.
9. Prepare a comprehensive Street Tree Plan to plant street trees in areas where there are gaps in the urban forest and maintain existing areas with street trees. Such a plan should include a goals statement, tree planting plan, list of recommended trees and other design guidelines.