

PART G

Flood Plain Conservation District

Section 2301. Declaration of Legislative Intent. In the interest of public health, safety and welfare, the regulations of the Flood Plain Conservation District are intended to protect areas of flood plain subject to and necessary for flood waters, and to permit and encourage the retention of open land uses which will be so located and designed as to constitute a harmonious and appropriate part of the physical development of the Municipality as provided for in the Comprehensive Plan. In advancing these principles and the general purposes of the Zoning Ordinance and Comprehensive Plan, the specific intent of this district is:

a. To combine with present zoning requirements certain restrictions made necessary for the flood plains to promote the general health, welfare and safety of the community.

b. To prevent the erection of structures in areas unfit for human usage by reason of danger from flooding, unsanitary conditions or other hazard.

c. To minimize danger to public health by protecting the water supply and promoting safe and sanitary drainage.

d. To reduce the financial burdens imposed on the community, its governmental units and its individuals by frequent and periodic floods and overflow of lands.

e. To permit certain uses which can be appropriately located in the flood plain as herein defined and which will not impede the flow of flood waters, or otherwise cause danger to life and property at or above or below their locations along the floodway.

f. To permit only those uses in the flood plain compatible to the preservation of natural conditions which are conducive to the maintenance of constant rates of water flow throughout the year by (1) withholding rapid water runoff contributing to downstream flooding and (2) providing area for ground water absorption for maintenance of the subsurface water supply.

g. To provide sufficient drainage courses to carry abnormal flows of storm water in periods of heavy participation.

(Ordinance 559, June 20, 1959, Section 1, as amended by Ordinance 767, September 28, 1970.)

Section 2302. Definition of Flood Plain. Those areas subject to periodic flooding as delineated on maps prepared for the Borough by the Federal Insurance Administration, or where the alluvial soil, Nolin silt loam, is located, as delineated in the Soil Survey, Centre County, Pennsylvania, 1977, prepared by the Soil Conservation Service, United States Department of

Agriculture. Although infrequent floods will exceed the limits of these delineated areas, these areas represent the most realistic flood plain within the Borough.

a. The boundaries of the Flood Plain Conservation District are established as shown on the Zoning District Map, which is declared to be a part of this ordinance.

b. The Flood Plain Conservation District may be revised or modified by an amendment to the Zoning District Map where studies or other information, provided by a qualified agency or person, documents the need for such revision. However, prior to any such change that would modify the delineation as shown on any map provided by the Federal Emergency Management Agency, approval must be obtained from that Agency or its successors.

(Ordinance 559, June 20, 1959, Section 2, as amended by Ordinance 767, September 28, 1970, and Ordinance 1112, August 15, 1985, Section 2.)

Section 2303. Establishment Of The Flood Plain Conservation District. For the purposes of this ordinance, the Flood Plain Conservation District shall be those areas of the Borough identified to be subject to the 100-year flood, as delineated on the most recent Flood Insurance Rate Map (FIRM) which accompanies the Flood Insurance Study, prepared by the Federal Emergency Management Agency (FEMA), as well as any additional areas where the alluvial soil, Nolin silt loam, is located, as delineated by the Soil Conservation Service, United States Department of Agriculture, in the Soil Survey for Centre County, Pennsylvania, 1977.

Where, however, areas of 65A and 65B, Nolin silt loam, local alluvium, have been substantially or completely developed prior to the passage of this amendment, and the natural drainage functions have been either altered such as street cartways, drainage ditches, storm sewers and the like, these areas shall be exempted from the provisions of this ordinance. Those areas that are specifically exempted from the provisions of the ordinance are as follows, provided that no such area is located within an identified flood plain area as delineated on any map provided by FEMA.

a. That almost continuous band of local alluvium corresponding roughly with the alignment of Westerly and Easterly Parkways, from the vicinity of the intersection of West Fairmount Avenue, Dorum Avenue and Westerly Parkway in the west, to the intersection of Easterly Parkway and University Drive in the east;

b. That band of local alluvium running from the vicinity of the intersection of Hamilton Avenue and Fraser Street, in a southeasterly direction, to the vicinity of the intersection of Pugh Street with Easterly Parkway;

c. That band of local alluvium running from the vicinity of the intersection of South Allen Street and Marylyn Avenue, in an easterly direction, to the vicinity of the area of the intersection of University Drive and South Atherton Street;

d. That band of local alluvium running from the vicinity of the intersection of Nimitz Avenue and South Pugh Street, in a southeasterly direction, to the vicinity of the area of the intersection of University Drive and South Atherton Street;

e. That band of local alluvium running from the vicinity of the intersection of Keller Street and East Prospect Avenue, in a northeasterly direction, across University Drive to the University Sewage Treatment Plant;

f. That band of local alluvium running from Graduate Circle, across East College Avenue, to the University Sewage Treatment Plant, in that area now occupied by the interchange of East College Avenue and University Drive;

g. That band of local alluvium running from the vicinity of the intersection of Locust Lane and Calder Way, in an easterly direction to the vicinity of the intersection of High Street and East College Avenue;

h. That band of local alluvium located northwest of the intersection of Southgate Drive and Waupelani Drive, running in a northwesterly direction into the local alluvium found within the Orchard Park drainage way and including all of said drainage way extending northeasterly toward Westerly Parkway.

i. That band of local alluvium running north and south, which is located within the property now occupied by the State College Borough maintenance building.

j. That band of local alluvium located in the vicinity of Smithfield Circle.

k. That band of local alluvium located in the vicinity of Sandpiper Drive and Sawgrass Circle and extending toward East Branch Road.

l. That band of local alluvium running east and west across the lot at 379 Waupelani Drive (tax parcel 36-21-42).

m. That band of local alluvium running east and west across lots 10 and 11 (tax parcels 36-21-043 and 36-21-044) along the north side of Waupelani Drive.

n. That band of local Nolin Soils running in the north westerly direction across the lots with Tax Parcels 36-021-41 A-0000 along the both sides of Waupelani Drive.

(Ordinance 912, May 3, 1977, as amended by Ordinance 1112, August 15, 1985, Section 3³¹⁰, Ordinance 1172, April 10, 1987, Section 2, Ordinance 1291, September 7, 1990, Ordinance 1380, July 22, 1992, Section 1, Ordinance 1527, April 22, 1997, Ordinance 1992, June 18, 2012, Section 1.)

Section 2304. Permitted Uses. The following uses are permitted in the flood plain conservation district:

- a. Cultivation and harvesting of crops according to recognized soil conservation practices;
- b. Pasture, grazing land;
- c. Recreation use, such as park, day camp, picnic grove, golf course, hunting, fishing and boating club, excluding structures;
- d. Forestry, lumbering and reforestation, excluding storage and mill structures;
- e. Harvesting of any wild crops, such as marsh hay, ferns, moss, berries or wild rice;
- f. Game farm, fish hatchery (excluding rearing structures), hunting and fishing reserves;
- g. Wildlife sanctuary, woodland preserve, arboretum;
- h. Outlet installations for sewage treatment plants, sealed public and private water supply wells;
- i. Utility transmission lines; and,
- j. Accessory uses customarily incidental to any of the foregoing permitted uses, when approved as a special exception by the Zoning Hearing Board.

(Ordinance 559, June 20, 1959, Section 4, as amended by Ordinance 767, September 28, 1970.)

Section 2305. Conditional Uses. The following uses shall be permitted in the flood plain conservation district upon approval by the Zoning Hearing Board as a special exception:

a. Residential front, side and/or rear yards and uses customarily incidental thereto, except that no structures shall be permitted. Inclusion of flood plain lands within the residential lots in order to meet minimum lot area or yard requirements is contingent upon complying with the objectives and standards set forth in the Declaration of Legislative Intent of this ordinance (Section 2301) and with any other pertinent municipal regulations. If such compliance cannot be shown, the land area within the Flood Plain Conservation District shall not be calculated for purposes of determining lot areas or yard requirements.

b. Non-paved parking lots where required by the regulations for any other class or district.

c. Front, side and/or rear yards of any other class of district, except that an area so utilized shall not be inconsistent with the objectives and standards set forth in the Declaration of Legislative Intent of this ordinance (Section 2301) and with any other pertinent municipal regulations.

d. Within planned residential developments, it shall be possible to utilize flood plains lands in calculating total units for the entire tract, in accordance with the provisions contained within the Planned Residential Development Ordinance.³²⁰

(Ordinance 559, June 20, 1959, Section 5, as amended by Ordinance 767, September 28, 1970.)

Section 2306. Prohibited Uses. The following uses are prohibited in the flood plain conservation district:

a. All structures and buildings, including substantial improvements to existing buildings, with the following exceptions:

(i) retaining walls, flood retention dams, culverts and bridges, as approved by the Pennsylvania Department of Environmental Resources; and,

(ii) replacement of existing manufactured homes, as provided for in Section 2105.c of this Chapter.

b. The filling in of the flood plain conservation district, removal of topsoil or damming or relocation of any water course. Exception: In instances where existing residential or commercial buildings, including manufactured homes, are located within the flood plain conservation district and such development predates the establishment of the conservation district, fill may be placed only in the flood fringe area encompassed by the existing development to elevate the developed area above the 100-year flood elevation provided that all of the following criteria are met:

(1) Appropriate technical studies are provided which prove to the satisfaction of the Borough's Engineering Department that the placement of fill will not adversely impact the stream or adjacent properties nor raise the 100-year flood elevation.

(2) All applicable state and federal approvals are secured.

(3) The area filled does not extend beyond the boundary formed by the pre-existing developed area.

(4) The area filled shall not encroach into the riparian buffer zone as established in Section 2410.

(5) The area filled shall not be a wetland as designated by state or federal agency.

(6) Obstructions to stream flow as identified by the Borough's Engineering Department which adversely impact stream flow during a flood event shall be removed.

(7) Eroded embankment, as identified by the Borough's Engineering Department, shall be stabilized with rip-rap or similar material as approved by the Department.

- c. Sanitary landfill, dump, junkyard, outdoor storage of vehicles and/or materials.
- d. On-site sewage disposal system.
- e. Swimming pools.

(Ordinance 559, June 20, 1959, Section 6, as amended by Ordinance 767, September 28, 1970, Ordinance 1112, August 15, 1985, Section 4, Ordinance 1380, July 22, 1992, Section 8, and by Ordinance 1500, May 28, 1996.)

Section 2307. Administration.

a. Planning Commission and Council Approval. All plans for structures located within a distance of 100 feet from the flood plain conservation district and all plans for the development of a recreational or utility use within or adjacent to the district shall be approved by the Borough Council after receiving a recommendation from the Planning Commission, which plans shall be such as to comply with the Declaration of Legislative Intent of this ordinance (Section 2301). (Ordinance 559, June 20, 1959, Section 7, as amended by Ordinance 767, September 28, 1970, Ordinance 794, January 5, 1972, Section 3, and Ordinance 1112, August 15, 1985, Section 5.)

b. Zoning Permit. A zoning permit shall be required before any proposed construction or development is undertaken within the Flood Plain Conservation District. An application for a zoning permit shall be filed in accordance with Section 304 of Chapter XIX of the Codification of Ordinances.

c. Issuance of Zoning Permit. Prior to the issuance of any zoning permit, the Zoning Officer shall review the application for permit to determine if all other necessary government permits required by state and federal laws have been obtained, such as those required by the Pennsylvania Sewage Facilities Act (Act 1966-537, as amended); the Pennsylvania Dam Safety and Encroachments Act (Act 1978-325, as amended); the Pennsylvania Clean Streams Act (Act 1937-394, as amended); the U.S. Clean Water Act, Section 404, 33, U.S.C. 1344. No permit shall be issued until this determination has been made.

d. Notice to Other Agencies.

(1) No encroachment, alteration or improvement of any kind shall be made to any watercourse until all adjacent municipalities which may be affected by such action have been notified by the Borough, and until all required permits or approvals have been first obtained from the Department of Environmental Resources, Bureau of Dams and Waterway Management.

(2) In addition, the Federal Insurance Administrator and Pennsylvania Department of Community Affairs, Bureau of Community Planning, shall be notified by the Borough prior to any alteration or relocation of any watercourse.

e. **Variances**. The Zoning Hearing Board may vary or adjust the strict application of the requirements of this Part G on appeal in specific cases, as will not be contrary to the public interest where, owing to special conditions, a literal enforcement of the provisions will result in unnecessary hardship, so that the spirit of the ordinance will be observed and substantial justice done. Any such variance shall be granted in accordance with the provisions of Section 301 and the following:

(1) Notwithstanding the provisions of this Section, no variance shall be granted for:

(a) The commencement of any of the following activities, or the construction of any structure to be used for any of the following activities:

- (i) hospitals
- (ii) nursing homes
- (iii) jails or prisons

(b) The commencement of, or any construction of, a new manufactured home park, or substantial improvement to an existing manufactured home park.

(c) Any new or substantially improved structure which will be used for the production or storage of any of the following dangerous materials or substances or which will be used for any activity requiring the maintenance of a supply (more than 550 gallons or other comparable volume or any amount of radioactive substance) of any of the following dangerous materials or substances on the premises:

- (i) Acetone
- (ii) Ammonia
- (iii) Benzene
- (iv) Calcium Carbide
- (v) Carbon disulfide
- (vi) Celluloid
- (vii) Chlorine
- (viii) Hydrochloric acid
- (ix) Hydrocyanic acid
- (x) Magnesium
- (xi) Nitric acid and oxides of nitrogen
- (xii) Petroleum products (gasoline, fuel oil, etc.)
- (xiii) Phosphorus
- (xiv) Potassium

- (xv) Sodium
- (xvi) Sulphur and sulphur products
- (xvii) Pesticides (including insecticides, fungicides and rodenticides)
- (xviii) Radioactive substances, insofar as such substances are not otherwise regulated.

(d) Any activity within an identified floodway which would cause any increase in flood levels during a 100-year flood.

(e) Any activity within the AE zone which, when combined with all other existing and anticipated development, would cause an increase of more than 1 foot in the 100-year flood elevation.

(2) If granted, a variance shall involve only the least modification necessary to provide relief. If it should become necessary to grant any variance, the applicant shall be required to comply with all applicable requirements of the National Flood Insurance Program Regulations (60.3 a, b and c) including the requirements for elevation, flood-proofing and anchoring. The applicant must also comply with any other requirements considered necessary by the Zoning Hearing Board.

(3) In granting any variance, the Zoning Hearing Board shall attach whatever reasonable conditions and safeguards it considers necessary in order to protect the public health, safety and welfare and to achieve the objectives of this ordinance.

(4) Whenever a variance is granted, the Zoning Officer shall notify the applicant, in writing, that:

(a) The granting of the variance may result in increased premium rates for flood insurance.

(b) Such variances may increase the risks to life and property.

(5) In reviewing any request for a variance from this Section, the Zoning Hearing Board shall consider, at a minimum, the following:

(a) that there is good and sufficient cause;

(b) that failure to grant the variance would result in exceptional hardship to the applicant; and,

(c) that the granting of the variance will (1) neither result in an unacceptable or prohibited increase in flood heights, additional threats to public safety or extraordinary public

expense, (2) nor create nuisances, cause fraud on or victimize the public or conflict with any other applicable state or local ordinances and regulations.

(6) A complete record of all variance requests and related actions shall be maintained by the Borough. In addition, a report of all variances granted during the year shall be included in the Annual Report to the Federal Emergency Management Agency.

Notwithstanding any of the above, however, all structures shall be designed and constructed so as to have the capability of resisting the 100-year flood.

(Ordinance 1112, August 15, 1985, Section 5, as amended by Ordinance 1198, February 8, 1988, Sections 27, 28 and 29, and by Ordinance 1380, July 22, 1992, Sections 2, 3 and 4.)

Section 2308. Appeals. Initial determinations under this ordinance, including questions of the boundaries of the flood plain conservation district, shall be made by the Zoning Officer with the advice of the Borough Engineer and the Borough Planning Commission.

Any party aggrieved by a decision of the Zoning Officer may appeal to the Zoning Hearing Board.

The boundaries can be validated by detailed on-site surveys approved by the Soil Conservation Service, United States Department of Agriculture.

In rendering decisions under this ordinance, the Zoning Hearing Board shall consider, in addition to other evidence and standards, the findings and recommendations of the Soil and Water Conservation District and the recommendations of the Borough Planning Commission and other appropriate agencies. In any appeal procedure, both the property owner (at his expense) and the Municipality or any other of its agencies or agents shall have the right to conduct on-site surveys and other studies and present testimony and evidence of same to the Zoning Officer and to the Zoning Hearing Board.

(Ordinance 559, June 20, 1959, Section 8, as amended by Ordinance 767, September 28, 1970.)

Section 2309. Municipal Liability. The granting of a zoning permit or approval of a subdivision plan in any flood plain district shall not constitute a representation, guarantee or warranty of any kind by the Municipality or by an official or employee thereof, or the practicability or safety of any structure, use or other plan proposed, and shall create no liability upon, or cause of action against, such public body, official or employee for any damage that may result pursuant thereto. (Ordinance 559, June 20, 1959, Section 9, as amended by Ordinance 767, September 28, 1970.)³³⁰

Section 2310. Riparian Buffer Zone.

a. Purpose. Whereas, Slab Cabin Run has been identified through appropriate study as being an important tributary to Spring Creek and a part of the Spring Creek Corridor and, whereas, Spring Creek, including its tributary Slab Cabin Run, is designated as high quality cold water fisheries by the Pennsylvania Department of Environmental Protection and, whereas, the high-quality water can be and would be easily disrupted by excessive sedimentation resulting from stream bank erosion and, whereas, an increase in water temperature, which scientific evidence suggests would occur as a result of increase sedimentation, stream bank denuding and non-point pollution infiltration through surface water runoff, would destroy the water quality and cold water fishery designation and, whereas, the Borough of State College finds that Slab Cabin Run's designation as a high quality cold water fishery is an important natural resource to be preserved and protected, a riparian buffer zone is hereby established along the corridor formed by Slab Cabin Run where it flows through the Borough of State College.

b. Riparian Buffer Zone, Composition and Width. The riparian buffer is a zone established parallel to and on each side of the stream course consisting of a combination of grass area and forest area planted and maintained with indigenous grasses or other ground covers, trees and shrubs. The forest area is that section of the zone next to the stream located between the water course and grass area. It includes the stream bank. The width of the forest area varies according to surrounding slope conditions as shown on the table below. The grass area is that section of the zone adjacent to the forest area located between the forest area and any development. Its boundary is conterminous with the forest area and its width shall be at least 15 feet for all slope conditions.

The width of the zone on each side of the stream is the sum of the widths of the forest area and grass area. Width shall be measured as the distance (prescribed on the table below) measured from the center of the stream to a continuous line paralleling the stream course.

<u>Percent Slope</u>	<u>Forest Width</u>	<u>Total Width</u>
0 - 10	50'	65'
11 -20	70'	85'
21 -40	110'	125'
>41	170'	185'

Slope percentage shall be calculated as the average slope occurring between the stream bed elevation at any given point along the stream course (as shown on the most recent flood insurance study map for the Borough of State College) and the elevation at a point 100 feet perpendicular distance from the stream course.

c. Plantings. The forest area shall be designed and planted to achieve a 50 percent crown cover within 10 years of planting. The grass area shall be planted in a continuous strip with grass. Its purpose is to intercept and filter any surface water runoff that may escape from development adjacent to the Riparian Buffer Zone. Acceptable plant species are listed in Section 2311, Appendix A. In addition to those plants, other species may be used when approved by the Borough Arborist. The Borough Arborist may prohibit invasive and noxious plants in the Riparian Buffer Zone as provided by the Penn State Agricultural Extension Invasive Plants of Pennsylvania and the Pennsylvania Department of Conservation and Natural Resources Noxious Weed Control List of Pennsylvania or other approved standard for those plants.

A riparian buffer planting plan shall be submitted as part of a development plan submission made pursuant to Section 305 of this Chapter. Such plan shall be reviewed by the Borough Arborist. The Arborist is empowered to approve or deny such plan on the basis of its design and plantings with respect to achieving stream bank stabilization, stream shading and intercept and filtration of surface water runoff. All plantings as shown on the approved plan shall be installed prior to authorizing occupancy of the building or site. When required plantings cannot be installed because of weather or other adverse conditions beyond the developer's control, the Planning Department may accept a performance bond or other surety posted to cover the cost of installing required improvements.

d. Uses.

(1) Within the Riparian Buffer Zone, all uses and structures are prohibited except for the following:

- (a) structures related to flood control and stream bank stabilization;
- (b) recreational uses open to the public, (excluding structures); and
- (c) plantings, as prescribed herein.

(2) The area within the riparian buffer zones shall be permitted to be used to meet required yards and open space regulations in the zoning district.

(3) Within a distance of 200 feet, measured from the center of the stream, the following uses, which are deemed to have special hazards for the stream, are prohibited: the storage or dispensing of gasoline, oil or other petroleum products; lube and oil change facilities; vehicle washing facilities; the storage or dispensing of corrosive, poisonous or flammable chemicals and water soluble pollutants or pesticides.

e. Storm Water Management. Storm water discharge shall not be made directly into Slab Cabin Run. Development plans shall be design with storm water management systems that detain runoff pursuant to the Borough's Storm Water Management Plan, Chapter XIV, of the Borough's Codification of Ordinances, Sections 201 - 216.

(Ordinance 1494, March 12, 1996, as amended by Ordinance 1930, April 20, 2009, Section 1.)

Section 2311. Riparian Buffer Zone Native Planting Appendix

Appendix A: Selective Native Plantings

FERNS

Cinnamon fern	<i>Osmunda cinnamomea</i>
Interrupted fern	<i>Osmunda claytoniana</i>
Sensitive fern	<i>Onoclea sensibilis</i>

GRASSES & SEDGES

Big blue stem	<i>Andropogon gerardii</i>
Broom sedge	<i>Carex scoparia</i>
False nut sedge	<i>Cyperus strigosus</i>
Lurid sedge	<i>Carex lurida</i>
Riverbank wild rye	<i>Elymus riparius</i>
Sedge	<i>Carex vulpinoidea</i>
Soft rush	<i>Juncus effusus</i>
Switch grass	<i>Panicum virgatum</i>
Tussock sedge	<i>Carex stricta</i>
Virginia wild rye	<i>Elymus virginicus</i>
Wool grass	<i>Scirpus cyperinus</i>

FLOWERING PERENNIALS

Beard-tongue	<i>Penstemon digitalis</i>
Bottle gentian	<i>Gentiana andrewsii</i>
Blue vervain	<i>Verbena hastata</i>
Blue-eyed grass	<i>Sisyrinchium angustifolium</i>
Boneset	<i>Eupatorium perfoliatum</i>
Cardinal flower	<i>Lobelia cardinalis</i>
Cut-leaf coneflower	<i>Rudbeckia laciniata</i>
Ironweed	<i>Veronia noveboracensis</i>
Jack-in-the-pulpit	<i>Arisaema triphyllum</i>
Joe-pye weed	<i>Eupatorium fistulosum</i>
New England aster	<i>Aster novae-angliae</i>
Partridgeberry	<i>Mitchella repens</i>
Purple stemmed aster	<i>Aster puniceus</i>
Smooth goldenrod	<i>Solidago gigantea</i>
Swamp milkweed	<i>Asclepias incarnata</i>
Tall meadowrue	<i>Thalictrum pubescens</i>
Wingstem	<i>Verbesina alternifolia</i>
Wood geranium	<i>Geranium maculatum</i>

SHRUBS

American elderberry	<i>Sambucus Canadensis</i>
Arrowwood	<i>Viburnum dentatum</i>
Black chokeberry	<i>Aronia melanocarpa</i>
Buttonbush	<i>Cephalanthus occidentalis</i>
Dangleberry	<i>Gaylussacia frondosa</i>
Highbush blueberry	<i>Vaccinium corymbosum</i>
Maleberry	<i>Lyonia ligustrina</i>
Ninebark	<i>Physocarpus opulifolius</i>
Northern arrowwood	<i>Viburnum recognitum</i>
Pussy willow	<i>Salix discolor</i>
Red chokeberry	<i>Aronia arbutifolia</i>
Rosebay	<i>Rhododendron maximum</i>
Silky dogwood	<i>Cornus amomum</i>
Silky willow	<i>Salix sericea</i>
Spice bush	<i>Lindera benzoin</i>
Swamp dogwood	<i>Cornus racemosa</i>
Swamp rose	<i>Rosa palustris</i>
Winterberry holly	<i>Ilex verticillata</i>
Witch-hazel	<i>Hamamelis virginiana</i>

TREES

American beech	<i>Fagus grandifolia</i>
Basswood	<i>Tilia Americana</i>
Black ash	<i>Fraxinus nigra</i>
Black gum	<i>Nyssa sylvatica</i>
Black walnut	<i>Juglans nigra</i>
Black willow	<i>Salix nigra</i>
Green ash	<i>Fraxinus pennsylvanica</i>
Hornbeam	<i>Carpinus caroliniana</i>
Pagoda dogwood	<i>Cornus alternifolia</i>
Pin oak	<i>Quercus palustris</i>
Red maple	<i>Acer rubrum</i>
River birch	<i>Betula nigra</i>
Shadbush	<i>Amelanchier arborea</i>
Shagbark hickory	<i>Carya ovata</i>
Silver maple	<i>Acer saccharinum</i>
Swamp white oak	<i>Quercus bicolor</i>
Sweet birch	<i>Betula lenta</i>
Sycamore	<i>Platanus occidentalis</i>
Tulip tree	<i>Liriodendron tulipifera</i>