



**TOWNSHIP OF UPPER PROVIDENCE  
MEETING TO BE HELD IN TOWNSHIP MEETING HALL—1286 BLACK ROCK ROAD  
PLANNING COMMISSION AGENDA  
APRIL 6, 2022– 7:00 PM**

**CALL TO ORDER / ROLL CALL**

**PUBLIC COMMENT FOR NON-AGENDA ITEMS**

**GENERAL DISCUSSION ITEMS:**

- Minutes: March 16, 2022, Planning Commission Meeting
- Zoning Text Amendment—Clean Up amendment
- Riparian Buffer Discussion

**APPLICATIONS TO BE HEARD ON APRIL 6, 2022: NONE**

**APPLICATIONS PENDING REVIEW: DATE FOR DISCUSSION TO BE DETERMINED**

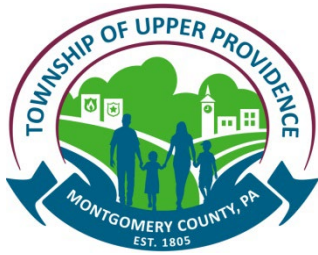
- 1. Toll Brothers – Foley Tract Preliminary Plan**  
Property Address: 301 Rittenhouse Road  
Proposed Development: 54 total units  
Township #: 8001-0362-0005 [PLD]  
Submission Date: December 27, 2021  
MPC expiration date: NONE (signed wavier)
- 2. AutoZone Conditional Use and Tentative Plan**  
Property Address: 1811 E. Ridge Pike  
Proposed Development: AutoZone Store  
Township #: 8005-0376-0001 [CU] & 8005-0376-0002 [TLD]  
Submission Date: October 28, 2021, | MPC expiration date: NONE (signed wavier)
- 3. DeVimy Equities Amended Final Plan**
- 4. Amelia Street Townhomes**  
Property Address: 105 /109 Amelia Street  
Proposed Development: 8 townhomes  
Township #: 3028-0373-0001 [TLD]  
Submission Date: June 2, 2021, | MPC expiration date: NONE (signed wavier)
- 5. 172 Hopwood Road Conditional Use and Tentative Plan**  
Property Address: 172 Hopwood Road  
Proposed Development: 48-unit carriage home development  
Township #: 6033-0341-0001 CU / 6033-0341-0002 [TLD]  
Submission Date: February 5, 2020 | MPC expiration date: NONE (signed wavier)  
Conditional Use Hearing Clock: Open Extension (per January 27, 2021 letter)  
Land Development Clock Expiration: Open Extension (per January 27, 2021 letter)

**FUTURE AGENDA ITEMS FOR DISCUSSION:**

- April 20, 2022 Planning Commission agenda

**ADJOURNMENT**

## **Minutes: Planning Commission Meeting , March 16, 2022**



**UPPER PROVIDENCE TOWNSHIP  
PLANNING COMMISSION  
REORGANIZATION AND REGULAR MEETING  
March 16, 2022**

*A meeting of the Upper Providence Township Planning Commission was held at the Upper Providence Township Meeting Hall, 1286 Black Rock Road in Phoenixville, Pennsylvania on Wednesday March 16, 2022. Attending were Planning Commission members Chairman, Tom Wright; Secretary, Nicole Lyddane; Robert Gilinger and AJ Kruppa. Also in attendance were Joe Bresnan Esquire, Township Solicitor; William Dingman, Township Engineer, Anthony Valencia, Traffic Engineer and Geoffrey Grace, Township Director of Planning and Zoning Officer.*

**Call to Order/Roll Call:**

Chairman Wright called the meeting to order at 7:00PM.  
Mr. Grace performed roll call.

**Public Comment for Non-Agenda Items:**                      None.

**General Discussion Items:**

**Minutes to be approved:**

Mr. Kruppa asked that the Planning Commission's minutes from January 5, 2022 be changed to Motion carried 4-0. The minutes should reflect that AJ Kruppa abstained from voting on the minutes since he was not present for the January 5, 2022 meeting.

The following minutes were reviewed:      February 2, 2022

Mr. Gilinger motioned, seconded by Mr. Kruppa, to approve the Planning Commission minutes from February 2, 2022. Motion carried 4-0.

Zoning Hearing Board Application #22-08 (Steep Slopes 21- Mingo Road) – Mr. Grace explained the applicant's request to subdivide the property. The application requires the Planning Commission to review and provide comments if any. Planning Commission decided to have no comment.

**Applications to be heard:**

**Ciaccio Minor Subdivision**

Property Address: 1009 Second Avenue (1133 Second Avenue)  
Proposed Development: 2 lots  
Township #: 4021-0381-0001 {MSD}  
Submission Date: February 8, 2021  
MPC expiration date: NONE (signed waiver)

*Present:* Michael Ciaccio III – Co-Applicant  
Michael Ciaccio Jr – Co-Applicant

Mr. Grace explained the applicant requested an address change to 1133 Second Avenue from Montgomery County. Michael Ciaccio II stated the address change will be effective on March 15, 2022.

Mr. Ciaccio III reviewed the request to subdivide the property with the intent to use 2<sup>nd</sup> avenue as the dividing line between the two lots. Lot 1 would be between the railroad tracks and 2<sup>nd</sup> Avenue; Lot 2 would be to the right of 2<sup>nd</sup> Avenue when looking at plan. Mr. Ciaccio explained that there is a PECO easement that cuts through Lot 2 which creates two additional triangular shaped parcels. One triangular piece is landlocked, the other extends to Hafner Road. Although the two triangular shaped pieces have different parcel numbers, they are part of the proposed lot 2.

There was discussion about the accuracy of acreage calculation for Lot 2 as indicated on the plan. Mr. Dingman requested a review of the acreage calculations of Lot 2, identifying that all three parcel numbers are in Lot 2 and updated accordingly. Mr. Dingman also requested the plan be revised to include the Hafner right-of-way, and a note on the plan referencing a deed or the like indicating the rights to cross the PECO right-of-way to access the landlocked parcel.

Chairman Wright motioned, seconded by Ms. Lyddane to recommend the requested subdivision be sent to the Board of Supervisors for final approval with the caveat that the plan be revised with accurate acreage totals for Lot 2; the plan identifies that Lot 2 incorporates all 3 parcel numbers and accurately deducts the 2<sup>nd</sup> Avenue, PECO and Hafner Road rights-of-way. The plan should also include a note referencing a letter or deed indicating the rights to cross the PECO right-of-way to access the landlocked parcel. Motion carried 4-0.

**Toll Brother – Foley Tract Preliminary Plan**

Property Address: 301 Rittenhouse Road

Proposed Development: 54 total units

Township #:8001-0362-0005 [PLD]

Submission Date: December 27, 2021

MPC expiration date: NONE (signed waiver)

*Present:* Alyson Zarro – Attorney for Applicant, Toll Brothers  
Brian Thierrin – Toll Brothers, Applicant

Alyson Zarro, Esquire reviewed the proposed project. Attorney Zarro explained that the presentation is a review and update based on Township staff and consultant feedback and would like to get the Planning Commissions comments. No decisions or approvals are

requested at this meeting. Attorney Zarro reviewed proposed trail connections on the site which would connect to trails from other housing developments and existing trails in township open space.

Attorney Zarro reviewed three changes to the filed plan. First change is to provide only one controlled crossing across Rittenhouse Road at the development intersection and to remove the one proposed at Valley View Drive and the high school trail. No documentation was found for the trail right of way at the high school. The second proposed change was to extend the trail along the frontage of the development along Rittenhouse from Valley View to the development intersection farther down Rittenhouse. The final change is to widen and extend a right turn lane on Rittenhouse at the intersection with Township Line Road.

Mr. Kruppa asked if Spring-Ford School District has been contacted to add comments about increased bus traffic. Mr. Thierrin stated they would contact the school district. Mr. Grace commented that the School District receives a copy of the plans when they are submitted to the township. Mr. Kruppa inquired about lighting along the trail at Rittenhouse and at the crossing. Mr. Dingman explained there will be standard street lighting at the intersection, a flashing beacon at the crossing and that the township does not light trails. Trails and parks are dawn to dusk in the township.

Chairman Wright and Mr. Gilinger had favorable comments for having only one controlled crossing at the development intersection. The Commission had no other comments regarding the proposed changes.

**Future Agenda Items for Discussion:**

Next Planning Commission meeting is scheduled for April 6, 2022.

Main discussion will be a cleanup amendment. The Planning Commission is to review the amendment prior to it being sent to the Board of Supervisors.

**Adjournment:**

Ms. Lyddane motioned, seconded by Mr. Kruppa, to adjourn at 7:38p.m. Motion carried 4-0.

Respectfully submitted,

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Nicole Lyddane, Secretary  
Upper Providence Township Planning Commission

## **Clean Up Ordinance Discussion**

UPPER PROVIDENCE TOWNSHIP, MONTGOMERY COUNTY, PA

ORDINANCE NUMBER \_\_\_\_\_

**AN ORDINANCE MAKING VARIOUS AMENDMENTS TO THE TOWNSHIP ZONING ORDINANCE, INCLUDING AN INCREASED MAXIMUM BUILDING HEIGHT IN THE VC ZONING DISTRICT FROM 30 FEET TO 35 FEET, ARTICLE VIII, 182-66.C; CLARIFYING A FIVE YARD SETBACK FOR ALL ACCESSORY USES INCLUDING A FRONT YARD ON A CORNER LOT WHICH THE PRIMARY STRUCTURE DOES NOT PREDOMINANTLY FACE, ARTICLE I, 182-14; ADDING A DEFINITION OF "MURAL" TO THE ZONING ORDINANCE IN ARTICLE II, SECTION 182-24 ("DEFINITIONS") AND ADDING SECTION 182-162 TO ARTICLE XIX OF THE ZONING ORDINANCE, SETTING FORTH CRITERIA FOR THE DISPLAY OF MURALS; MODIFYING SECTIONS 182-195.D OF ARTICLE XXIV OF THE ZONING ORDINANCE TO ADD AN EXCEPTION TO THE SIX MONTH EXPIRATION PERIOD FOR PERMITS WHERE THEY WERE PRECEDED BY ZONING RELIEF; AMENDING THE DEFINITION OF "BUILDING HEIGHT", ARTICLE II, 182-24, TO PROVIDE THAT THE MINIMUM ELEVATION REQUIRED BY THE FLOODPLAIN ORDINANCE, ARTICLE III, 182-28.3, SHALL NOT BE INCLUDED IN THE CALCULATION OF THE HEIGHT OF THE BUILDING; DELETING ORDINANCE SECTION 182-137.A(2), WHICH REQUIRES A CONSERVATION DISTRICT RECOMMENDATION ON APPLICATIONS FOR SPECIAL EXCEPTIONS TO DEVELOP WITHIN THE STEEP SLOPE CONSERVATION DISTRICT; DELETING ORDINANCE SECTION 182-27.2.D(1), WHICH REQUIRES CONSERVATION DISTRICT REVIEW OF ANY PROPOSED CONSTRUCTION OR DEVELOPMENT IN THE FLOODPLAIN; INCLUDING SEVERANCE AND REPEALER CLAUSES; EFFECTIVE FIVE DAYS AFTER ADOPTION**

The Township of Upper Providence, by and through its Board of Supervisors, hereby adopts various amendments to the zoning ordinance and specifically ORDAINS as follows:

1. In Article VIII of the codified zoning ordinance, section 182-66.C, the sentence which reads, "No building hereafter erected in the VP District shall exceed a height of 30 feet" is hereby amended to read, "No building hereafter erected in the VP District shall exceed a height of 35 feet."
2. Article I of the codified zoning ordinance, section 182-14, is amended by the addition of the following sentence after the existing language: "Where a front yard of a corner lot allows for the placement of an accessory structure, it is subject to the same minimum five- foot setback as set forth herein for side and rear yards."
3. Article II, section 182-14 of the zoning ordinance ("Definitions") is amended by the addition of the word "Mural", and to include the following definition: "Artwork applied to the wall of a building, the primary purpose of which is the expression of non-commercial speech. Artwork that does not have the expression of non-commercial speech as its primary purpose is a sign and may not be painted or applied to the wall of a building."
4. Article XIX of the zoning ordinance shall have added to it a new section 182-162, the text of which shall be as follows:
  - A. "Whether the primary purpose of artwork painted on a building is commercial or non-commercial is a fact-based inquiry and the initial determination is to be made by the

Township zoning officer. The determination to be made is whether the expression depicted in the artwork is primarily intended to advance the economic interests of a business. Factors in making this determination include:

- a. whether the wall is part of a business;
  - b. whether the artwork includes the name or advertising slogans of a business;
  - c. whether the artwork depicts specific elements of a transaction or business activity associated with a particular business or trade;
  - d. whether the artwork includes depictions of the owner or employees of a particular business;
  - e. if volunteered by the building owner or artist, the stated non-commercial expression sought to be expressed in the art work;
  - f. Whether the artwork, in consideration of these and any other relevant factors, is intended to call attention to a business or commercial activity.
- B. If the zoning officer determines the artwork to be a sign, then it shall be prohibited unless it complies with the signage criteria for wall signs in that zoning district, if any. If it is determined to be a mural, then it is subject only to the requirements set forth in this part. Specifically:
- a. It may not be larger than the wall on which it is painted;
  - b. It may not cover doors or windows;
  - c. It may not contain electronic elements and may not be internally illuminated;
  - d. It may not include words or graphic depictions of violence or sexuality that would be considered obscene applying contemporary community standards;
  - e. It may not project into any public right of way;
  - f. It must be created using materials durable enough to last approximately as long as ordinary exterior paint applied to the same wall in a single, uniform color.
- C. Persons intending to create a mural within the Township may apply to the zoning officer free of charge for a determination that the artwork does not constitute a regulated sign. A mural that is painted without zoning officer approval is subject to removal if it is in violation of this ordinance.
- D. The perceived cultural, artistic, historical, or societal significance of any depiction in any artwork is unrelated to a determination made by the zoning officer pursuant to this ordinance.”
5. Article XXIV of the zoning ordinance, 182-195.D, is amended by the addition of the following language: “ Where the parcel(s) that were before the Zoning Hearing Board for the grant of variances or special exceptions require land development approval (as set forth in the Pennsylvania Municipalities Planning Code) prior to the issuance of building permits, the land development process must be initiated by the filing of a tentative sketch plan within three months of the grant of relief by the Zoning Hearing Board, and permits must be applied for within six months of the grant of final land development approval, or else the relief granted by the Zoning Hearing Board shall be null and void.



6. Article II, section 182-24, ("Definitions"), is amended by adding language to the existing definition of "Height of Building". The additional language is: " In calculating the height of a building, the minimum building elevation required to satisfy section 182-28.3 of the floodplain ordinance, regarding elevation to the regulatory flood elevation (base flood elevation plus freeboard), shall be excluded from the calculation."
7. Ordinance 182-137.A(2), which reads, "Prior to submission of an application for special exception, the applicant shall submit a soil erosion and sedimentation control plan to the Montgomery County Conservation District. The results of said review and any recommendations of the Conservation District shall be submitted as part of said application", is deleted in its entirety. Sub-paragraph A(2) shall be identified as reserved for future use.
8. Ordinance 182-27.2.D(1), which reads, "Review by County Conservation District. A copy of all applications and plans for any proposed construction or development in any identified floodplain area to be considered for approval shall be submitted by the Floodplain Administrator to the County Conservation District for review and comment prior to the issuance of a permit. The recommendations of the Conservation District shall be considered by the Floodplain Administrator for possible incorporation into the proposed plan", is deleted in its entirety. Sub-paragraph D(1) shall be identified as reserved for future use.
9. Any provision of any existing ordinance which is inconsistent with this ordinance shall to the extent of such inconsistency be considered repealed.
10. In the event that a court of competent jurisdiction determines that any part of this ordinance is invalid, then to the extent possible such invalid provision shall be severed from the remainder, which shall continue in full force and effect.
11. This ordinance is effective five days after its adoption.

SO ORDAINED this \_\_\_\_ day of \_\_\_\_\_, 2022.

\_\_\_\_\_  
William Starling, Board Chair

Attest: \_\_\_\_\_  
Timothy J. Tieperman, Board Secretary

## **Riparian Buffer Discussion**

## **Examples of Ordinance Language for Riparian Buffers**

Following are examples of ordinance language and requirements that may be helpful to those preparing County-wide Act 167 ordinances who may be considering inclusion of “Riparian Buffer” standards as mentioned in the Note to Editor for Subsection 301.T of the County-wide Act 167 Model Ordinance. These examples have not been reviewed or revised as part of the County-wide Act 167 Model Ordinance, and should not be considered as “recommended” text or “model ordinance language”, but are good examples of adopted riparian buffer standards that have been applied in the urban, suburban, and rural landscapes of Chester County. A number of other Chester County municipalities have adopted ordinances that include language and requirements for riparian buffers, and those can also be a source for additional examples.

One example presented here is taken from an approved PA Act 167 Model Ordinance for Crum Creek watershed (in Chester and Delaware Counties) and has been adopted by a number of municipalities within that watershed, and by municipalities in other watersheds of Delaware County. An earlier version of this example language was included in the Chester Creek and Darby and Cobbs Creeks Act 167 Model Ordinances and adopted by a number of municipalities.

Three of the examples included here are taken from the zoning ordinances of Modena Borough, Kennett Township, and Pennsbury Township. These were prepared with the assistance of the Chester County Planning Commission and adopted by the noted municipalities within their larger Natural Resource Protection articles of their zoning ordinances. Select other sections of the article are included with the general standards to show how and when they apply. The ordinances from which these examples were taken include buffer protection standards for wetlands and wetland margins within other sections of the ordinance and those have not been excerpted for inclusion here but may be important considerations for inclusion in buffer standards. Some municipalities and planners apply the same protection standards to riparian buffers and to wetland margins; other municipalities and planners apply protection standards to wetlands margins that are different from those applied to riparian buffers.

The final example is taken from the stand-alone Natural Resource Protection Ordinance prepared and adopted by Easttown Township. In this case, the Township chose to establish a full set of resource protection standards within a separate ordinance. This provides an example of a suburban township that modified riparian buffer standards to work in a more developed area.

There are multiple approaches used by planning professionals for codifying riparian buffer standards. Chester County Planning Commission recommends that riparian buffer standards (and other natural resources protection standards) be codified in the municipality’s zoning ordinance because they have wider application than if they were included in the subdivision and land development ordinance. Other planning professionals recommend they be included in subdivision and land development ordinances for implementation during land development activities; and others recommend a stand-alone ordinance. As mentioned above, basic riparian buffer standards have also been included within previous Act 167 stormwater ordinances. The municipalities should consider the approach that best fits its needs and interests and anticipated circumstances for most effective implementation and enforcement.

## Riparian Buffers – Example # 1

The following is a verbatim excerpt from, “*Crum Creek Watershed Act 167 Stormwater Management Plan*” (approved by PADEP February 27, 2012), Appendix 1 - Crum Creek Watershed Stormwater Management Model Ordinance, Section 306.C. This language was developed to provide a relatively simple set of basic standards for use by municipalities in Crum Creek and adjacent watersheds (shared by Chester and Delaware Counties) that are relatively more densely developed areas.

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### *Crum Creek Act 167 Model Ordinance* (approved by PADEP 2012)

#### **Article II. Definitions**

**Riparian Buffer** – An area of land adjacent to a body of water and managed to maintain the integrity of stream channels and shorelines to 1) reduce the impact of upland sources of pollution by trapping, filtering, and converting sediments, nutrients, and other chemicals, and 2) supply food, cover and thermal protection to fish and other wildlife.

#### **Article III. Stormwater Management**

##### **Section 306. Water Quality Requirements**

- C. If a perennial or intermittent stream passes through, or a waterbody (i.e., lake, pond, wetland) is present on the site, the Applicant shall create a riparian buffer extending a minimum of *[fifty (50) to one hundred fifty (150) - subject to federal and state buffer policies and regulation]* feet, to either side of the top-of-bank of the channel, lake, or wetland. The buffer area shall be planted with native vegetation and maintained in a vegetated state (Refer to Appendix B, Pennsylvania Native Plant List, contained in the PA BMP Manual).
1. The following provisions also apply to riparian buffers on lots in existence at the time of adoption of this Ordinance:
    - a. If the applicable rear or side yard setback is less than *[fifty (50-150) feet]*, the buffer width may be reduced to twenty-five (25) percent of the setback or twenty-five (25) feet, whichever is greater.
    - b. If a stream traverses a site in a manner that significantly reduces the use of the site, the buffer may be either:
      - i. Reduced to twenty-five (25) feet on either side, with municipal approval, or
      - ii. Reduced to ten (10) feet with municipal waiver
  2. Permitted uses within the buffer include the following, subject to municipal approval and provided that they comply with all federal, state, and local regulations:
    - a. Recreational trails. See Ordinance Appendix J Riparian Buffer Trail Guidelines
    - b. Utility rights-of-way
    - c. Bridges
    - d. Other uses subject to municipal approval
- D. If an existing buffer is legally prescribed (i.e., deed, covenant, easement, etc.) and it exceeds the requirements of this Ordinance, the existing buffer shall be maintained.

## Riparian Buffers – Example # 2

The following is a verbatim excerpt from Article 11, Natural Resource Protection, of the Modena Borough Zoning Ordinance (2009), and provides an example of applying riparian buffer standards in an urban context. See Article 11 for full context and applicability.

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### *Modena Borough Riparian Buffer Standards - 2009*

#### **Article II: Definitions**

**Riparian Buffer.** An area of land adjacent to a watercourse, that may contain trees and other vegetation, that forms a transition area between the aquatic and terrestrial environment. A riparian buffer provides the following benefits: reduces the amount of nutrients, sediments, pesticides, and other harmful substances that reach watercourses, wetlands, and other surface water bodies; provides for shading of the aquatic environment to moderate temperatures and protect fish habitat; provides organic matter which provides food and habitat for bottom dwelling organisms essential to the food chain; increases stream bank stability and reduces streambank erosion and sediment production; conserves natural features important to land and water features (e.g., headwater areas, groundwater recharge zones, streams, and prime wildlife habitat); and conserves natural, scenic, and recreation areas and promotes the functioning of greenways.

#### **Section 1105. RIPARIAN BUFFERS**

##### **A. Purpose.**

1. To protect streambanks, water quality, sensitive soils, natural habitat and scenic vistas through the provision and protection of a vegetated strip of land surrounding the resource.
2. Regulating uses and structures, and providing transitional provisions, at or near watercourses, floodplains, wetlands and other bodies of water.
3. Establishing continuous vegetated strips along water bodies that serve to filter and remove pollution laden runoff from entering water bodies and protecting against streambank erosion and tree loss.
4. Promoting and protecting stabilized streambanks, which will reduce downstream transport of eroded sediment and pollutants.
5. Preserving species-rich vegetative communities along and adjacent to water bodies.
6. Providing shade for streams and other water bodies to reduce direct sunlight and lower water temperatures.

B. General Provisions.

1. These regulations apply only to those portions of a tract or lot delineated by this Section; portions not under this Section shall conform to the standards of the underlying zoning district.
2. An applicant filing an application for a subdivision or land development, building permit, zoning permit, variance, conditional use, or special exception where applicable, shall indicate riparian buffers. Field verification to determine evidence and location of natural channelized flow may be required for a specific determination.

C. Delineation.

1. Delineation of Riparian Buffer by type. (See Figure 11-1)
  - a. Identified Watercourses. Riparian buffers shall occupy a margin of land beginning at the top of each edge of the streambank of a watercourse and extending a minimum width of fifty (50) feet measured horizontally on a line perpendicular to the streambank of the watercourse, as approved by the Borough Zoning Officer, with the assistance of the Borough Engineer, at the discretion of the Borough.
  - b. Intermittent streams. Riparian buffers shall extend twenty (20) feet to either side of the center line of the channel.
  - c. Lakes and ponds. Riparian buffers shall extend twenty (20) feet from the mean water level edge.
2. Where steep slopes, twenty-five (25) percent and greater in accordance with Section 1104, are located within and extend beyond an identified riparian buffer, the riparian buffer shall be extended ten (10) feet beyond the riparian buffer required in Section 1105.C.1, above.
3. The riparian buffer zone shall not be designated along industrial ponds, sewerage treatment lagoons, man-made irrigation ditches, stormwater management basins and other artificial features with similar water quality or storage facility.

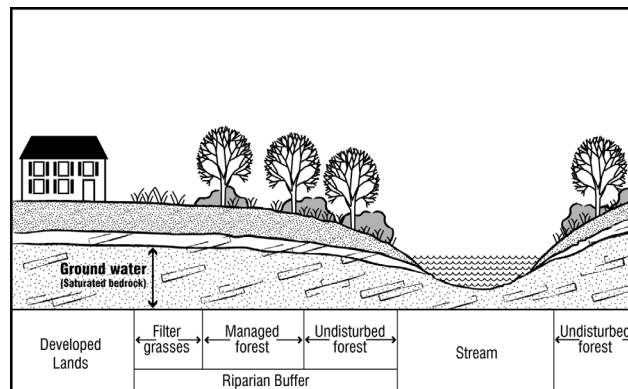
D. Resource Protection Standards.

1. Buffer Composition. A riparian buffer shall be a dense ground cover of grasses, shrubbery, and trees preserved with no buildings, structures, or impervious surface. This buffer shall not be cleared, regraded, filled, built upon, or otherwise altered; with the exception to restore such area to its natural state or for those uses or activities listed below. Riparian buffers shall be established and maintained in accordance with the following guidelines:
  - a. Vegetation may be established through natural succession. Selective planting may be incorporated on sites devoid of vegetation to stimulate native species and discourage invasive plant species; and/or

- b. Planting plans may be prepared jointly by a PA registered Landscape Architect in consultation with other professionals having a practical knowledge of riparian ecosystems (such as horticulturists, wetland specialists, wildlife biologists, ecologists) such as the Chester County Conservation District, the Department of Environmental Protection, or the Department of Conservation and Natural Resources. All planting plans shall include a planting schedule that summarizes the quantity, size, type, and root condition of all plantings. All riparian buffer enhancements shall be installed using practices accepted by the American Association of Nurserymen. (The applicant is encouraged to involve local volunteer groups in the buffer planting.)
  - c. The preparation and planting procedures may include, but shall not be limited to, invasive plant removal and control; stream bank stabilization; the provision of animal browse protection, such as plastic tubes for seedling trees; erosion control matting; the provision of any markers or signs identifying the riparian buffer; and mowing schedules for meadow grass establishment.
- 2. Permitted uses within riparian buffers. The following uses or activities and no other, shall be permitted within a riparian buffer:
  - a. Regulated activities permitted by the Commonwealth of Pennsylvania (i.e. permitted stream or wetland crossing). Maximum area disturbance permitted for this use shall be five (5) percent of the designated riparian buffer.
  - b. Provision for unpaved, ungraded, or natural trails parallel to the watercourse not to exceed six (6) feet in width. Such trail shall not come within ten (10) feet of any stream bank.
  - c. Clearing of a foot-path to the watercourse or trail access not to exceed six (6) feet in width, provided that a cleared line of sight to the watercourse through the buffer is not created.
  - d. Selective removal of a safety hazard, diseased trees, or invasive plant species;
  - e. Vegetation management in accordance with an approved planting plan in accordance with Section 1105.D.1.b, above.
  - f. A soil conservation project, including reforestation and streambank stabilization, approved by the Chester County Conservation District.
- 3. Within a riparian buffer the following stormwater management practices may be utilized:
  - a. Conservation design practices, as identified and approved by the Chester County Conservation District, to minimize stormwater generated and maximize pervious surfaces.
  - b. Comprehensive stormwater management practices that ensure development conditions are consistent with the natural characteristics of the receiving stream or waterbody.

- c. Stormwater quality treatment practices, such as water quality inlets, bioretention facilities, and other such practices as needed to address water quality issues.
  - d. Stormwater management practices that disperse overland flow.
4. In no case shall a riparian buffer be reduced to less than ten (10) feet in width. Where a riparian buffer is permitted to be reduced to less than twenty (20) feet by variance or other legal means, the following measures shall be provided:
- a. Best Management Practices (BMPs) such as level spreaders, meadow grass filter strips, or similar techniques to disperse overland flow prior to entering the protected buffer area where the width of the buffer is less than twenty (20) feet.
  - b. Comprehensive stormwater management practices to ensure that post-development conditions are consistent with the natural characteristics of the receiving stream, including stormwater quality BMPs.
  - c. Conservation design techniques that minimize the amount of stormwater runoff and maximize the use of pervious areas for infiltration of rainfall and stormwater.

**Figure 11-1: Riparian Buffer Example**





## Riparian Buffers – Example # 3

The following is a verbatim excerpt from Article XVIII Natural Resource Protection Standards, of the Kennett Township zoning ordinance (2006), and is an example of riparian buffer standards appropriate for a rural or low density suburban area. See Article XVIII for full context and applicability.

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### *Kennett Township Riparian Buffer Standards - Last Revised June 2006*

#### **Article II: Definitions**

**Riparian Buffer.** An area of trees and other vegetation adjacent to a watercourse that forms a transition area between the aquatic and terrestrial environment. The riparian buffer is designed to separate more intensive human land uses from sensitive water resources and especially to intercept runoff from upland sources for the purpose of mitigating the effects of nutrients, sediment, organic matter, pesticides or other pollutants prior to entry into surface waters. The riparian buffer shall be divided into two Zones:

- A. **Zone One: Inner Riparian Buffer.** This zone shall begin at each edge of any identified watercourse and shall occupy a margin of land on each side, each with a minimum width of thirty-five (35) feet. The width of such margin shall be measured horizontally on a line perpendicular to the nearest edge of the water at bankfull flow, as reviewed and approved by the Township Engineer. Where very steep slopes (+25%) are located within and extend beyond such margin, Zone One shall extend to include the entirety of the very steep slopes up to a maximum dimension of one hundred (100) feet on either side of the subject watercourse.
- B. **Zone Two: Outer Riparian Buffer.** This zone begins at the outer edge and on each side of any area delineated within Zone One and occupies any additional area, if any, within one hundred (100) feet of the nearest edge of any watercourse, measured as for Zone One.

*Note: In this example, the minimum required buffer widths have been included in the definitions rather than in Section 1802 with related standards. Other users may prefer to include the minimum required width standards within the same section as related standards (or include a cross-reference if placed in the definitions).*

## Article XVIII: Natural Resource Protection Standards

*Note: Sections 1800 and 1801 apply to all of the natural resource protection standards in Article XVIII and provide the full context in which the riparian buffer standards apply.*

### SECTION 1800. PURPOSE

The following natural resource protection standards are established to protect the public health, safety, and welfare by minimizing adverse environmental impacts. These standards are intended to meet the following purposes:

- A. Establish a balance between land use and the ability of the natural systems to support development.
- B. Define and delineate selected natural resources within the Township and establish resource protection standards to assist the Township in reducing the impact proposed uses will have on the environment.
- C. Conserve valuable natural resources within the Township in accordance with the following community objectives of the *Kennett Township Comprehensive Plan* (2004), as amended:
  - 1. Direct growth away from areas with sensitive natural resources and toward those areas most suitable for development in terms of existing infrastructure (i.e., sewer, water, transportation), compatible land uses, and the least impact on protected resources.
  - 2. Upgrade the Township's existing zoning and subdivision and land development ordinance standards to further protect natural resources including: stream corridors and riparian buffers, floodplains, woodlands, steep slopes, wetlands, wetland margins, groundwater, and stormwater management.
  - 3. Ensure the Township's resource protection standards are uniformly and consistently enforced.
  - 4. Develop a Township-wide open space network using riparian corridor and woodland corridor networks. Determine the best implementation methods to preserve the open space network.
  - 5. Protect groundwater quantity and quality through a combination of approaches.
- D. Conserve and protect natural resources within the Township and the Kennett Area Region in accordance with the following policies of the *Kennett Area Region Comprehensive Plan* (2000), as amended:
  - 1. Preserve and protect areas which are naturally unsuitable for development or which provide valuable wildlife habitat including stream valleys, steep slopes, floodplains, woodlands, wetlands, hydric soils, and hedgerows.

2. Continue to preserve sensitive natural areas and wildlife habitats from development by strengthening natural resource protection standards contained in each municipality's zoning and subdivision and land development ordinance.
3. Protect regional watersheds and the quality of groundwater and streams within the Region and pursue measures to maintain and, where possible, improve water quality.

#### **SECTION 1801. GENERAL PROVISIONS**

- A. In the event that the provisions of this Article and the provisions of other applicable Township ordinance standards are in conflict, the more restrictive provisions shall apply.
- B. In the event that two or more natural resource areas identified in this Article overlap, the resources with the most restrictive standard (the least amount of permitted alteration, regrading, clearing, or building) shall apply to the area of overlap.
- C. It shall be a violation of this Ordinance to regrade, fill, pipe, divert, channel, build upon, or otherwise alter or disturb a natural resource protected by this Article prior to the submission, review, and approval of:
  1. Applications for zoning or building permits;
  2. Conditional use or special exception approvals;
  3. Zoning variances;
  4. Subdivision or land development plans;
  5. Timber harvesting plans; or
  6. Any other applicable permit or approval required by the Township that would involve disturbance of natural resources protected in this Article.
- D. Where disturbance of a natural resource is permitted, it shall not take place until it has been determined that such disturbance is consistent with the provisions of this Article and other applicable ordinance provisions.
- E. Restrictions to the disturbance of resources shall apply before, during, and after construction on a site.
- F. Plan information required by this Article shall be verified as correct by the Township Engineer or other qualified professional as determined by the Township Engineer.

#### **SECTION 1802. SPECIFIC PROTECTION STANDARDS**

##### **E. Watercourse and Riparian Buffer Standards.**

1. Resource Protection Standards
  - a. Zone One - With the exception of those uses or activities listed below, no woodland disturbance or other land disturbance, shall be permitted within the Zone One riparian buffer:
    - 1) Regulated activities permitted by the Commonwealth (i.e. permitted stream or wetland crossing;

- 2) Provision for trail and trail access;
  - 3) Selective removal of hazardous or invasive alien vegetative species;
  - 4) Vegetation management in accordance with an approved landscape plan or open space management plan; or
  - 5) A soil conservation project approved by the Chester County Conservation District.
- b. Zone Two - With the exception of those uses or activities listed below, no more than twenty (20) percent of a Zone Two riparian buffer shall be regraded, filled, built upon, or otherwise altered or disturbed.
- 1) Those activities permitted in the Zone One riparian buffer; or
  - 2) Timber harvesting operation, when conducted in compliance with a timber harvesting plan approved by the Township.

2. Delineation

The applicant shall delineate watercourses and Zone One and Zone Two riparian buffers located on the site, in accordance with Section 1803.

## Riparian Buffers – Example # 4

The following is a verbatim excerpt from Article XIV of the Pennsbury Township zoning ordinance (2006) and is an example of riparian buffer standards appropriate for a rural or low density suburban area. See Article XIV for full context and applicability.

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### *Pennsbury Township*

### *Riparian Buffer Standards - 2006*

#### **Article II: Terminology**

**RIPARIAN BUFFER** – An area of trees and other vegetation adjacent to a watercourse that forms a transition area between the aquatic and terrestrial environment. The riparian buffer is designed to separate more intensive human land uses from sensitive water resources and especially to intercept runoff from upland sources for the purpose of mitigating the effects of nutrients, sediment, organic matter, pesticides or other pollutants prior to entry into surface waters. Where the riparian buffer is not wooded, it shall be maintained as a filter strip of dense grass and forbs no less than one (1) foot high or other features to provide sediment filtering, nutrient uptake and convert concentrated flow to uniform, shallow sheet flow. The riparian buffer shall be divided into two Zones; Zone One, Inner Riparian Buffer, 35' wide and Zone Two, Outer Riparian Buffer, 65' wide for a minimum total of 100 feet:

- A. **ZONE ONE: INNER RIPARIAN BUFFER** – This zone shall begin at each edge of any identified watercourse and shall occupy a margin of land on each side, each with a minimum width of thirty-five (35) feet. The width of such margin shall be measured horizontally on a line perpendicular to the nearest edge of the watercourse at bankful flow, as reviewed and approved by the Township Engineer. Where very steep slopes (+25%) are located within and extend beyond such margin, Zone One shall extend to include the entirety of the very steep slopes up to a maximum dimension of one hundred (100) feet on either side of the subject watercourse.
- B. **ZONE TWO: OUTER RIPARIAN BUFFER** – This zone begins at the outer edge and on each side of any area delineated within Zone One and shall occupy a minimum width of 65' and occupy any additional area, if any, within one hundred (100) feet of the nearest edge of any watercourse, measured as for Zone One. [Added 9-18-06, Ord. No. 06-09-18-3]

<p><i>Note: In this example, the minimum required buffer widths have been included in the definitions rather than in Section 162-53 with related standards. Other users may prefer to include the minimum required width standards within the same section as related standards (or include a cross-reference if placed in the definitions).</i></p>
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**ARTICLE XIV**  
**Natural Resource Protection Standards**

**SECTION 162-52. Purpose.**

The purpose of this article is to promote the public health, safety, and welfare by minimizing adverse environmental impacts. This article is intended to meet the following objectives:

- A. Evaluate the potential environmental impacts on valuable natural resources and protect these resources through the implementation and enforcement of natural resource protection standards.
- B. Identify and conserve environmentally sensitive lands including floodplains, steep slopes, woodlands, lakes, ponds, watercourses, and wetlands.
- C. Minimize disturbance of steep slope areas to limit soil erosion, protect natural vegetative cover, prevent siltation of streams and the degradation of water quality, and to prevent damage to property.
- D. Protect water resources associated with carbonate geologic formations from land use and development patterns which would threaten their quality and quantity as a result of pollution and the alteration of natural drainage patterns.

**SECTION 162-53. Natural resource protection standards.**

All uses and activities established after the effective date of this chapter shall comply with the following standards. Site alterations, regrading, filling, or clearing of any natural resources prior to the submission of applications for zoning or building permits or the submission of plans for subdivision or land development shall be a violation of this chapter. In the event that two or more resources overlap, the resource with the greatest protection standard (the least amount of alteration, regrading, clearing, or building) shall apply to the area of overlap.

- E. **Watercourses/Riparian Buffers [Amended 9-18-06, by Ord. No. 06-09-18-3]**
  - (1) The following practices and activities are restricted within Zones 1 and 2 of the riparian buffer, except with approval by the Township and if required, the Pennsylvania Department of Environmental Protection:
    - (a) Clearing of existing vegetation.
    - (b) Soil disturbance by grading stripping or other practices.
    - (c) Filling or dumping.
    - (d) Use, store or application of pesticides, except for the spot spraying or noxious weeds or non-native species.
    - (e) Housing, grazing or other maintenance of livestock.
    - (f) Storage or operation of motorized vehicles, except for maintenance or emergency use approved by the Township.

- (2) Zone One – With the exception of those uses or activities listed below, no woodland disturbance or other land disturbance shall be permitted within the Zone One Riparian Buffer:
- (a) Regulated activities permitted by the Commonwealth, Army Corps of Engineers or other Federal Agency (i.e. permitted stream or wetland crossing.)
  - (b) Provision for unpaved trail and trail access;
  - (c) Selective removal of hazardous or invasive alien vegetative species;
  - (d) Vegetation management in accordance with an approved landscape plan or open space management plan; or
  - (e) A soil conservation project approved by the Chester County Conservation District.
  - (f) Removal of hazardous material or septic system, junk material, overhanging tree or diseased tree.
- (3) Zone Two – Except for the following activities, no more than twenty (20) percent of a Zone Two Riparian Buffer on the lot that is effected shall be regraded, filled, built upon, or otherwise altered or disturbed:
- (a) Activities permitted in the Zone One Riparian Buffer.
  - (b) Timber harvesting, when conducted in compliance with a timber harvesting plan approved by the Township. Clear-cutting or grubbing of timber shall not be permitted within the riparian buffer.
- (4) When a subdivision or land development is proposed where there is no established vegetated or wooded buffer, i.e. agricultural areas, a one hundred (100) foot riparian buffer shall be established and maintained in accordance with the following guidelines:
- (a) Forested and unforested vegetation shall be established through natural succession. Selective planting shall be incorporated on site devoid of vegetation to stimulate native species and discourage invasive species.
  - (b) Plant selection and planting shall be planned by a Landscape Architect under the guidance of the Chester County Conservation District, PaDEP, USDA, a Land Conservancy or Land Trust or licensed ecologist.
  - (c) The required width for all riparian buffers (i.e., the base width shall be a minimum of 100' with the requirements to expand the buffer depending on:
    - i. Riparian buffer shall be modified if there are steep slopes that are within a close proximity to the watercourse and drain into the

watercourse system. In those cases, the riparian buffer width can be adjusted by adding 25' to slopes between 15 and 25% and 50' to slopes greater than 25%.

- ii. Riparian buffers shall be extended to encompass the entire 100-year floodplain and zone with minimum width or 25' beyond the edge of the floodplain.
  - iii. When wetland or critical areas extend beyond the edge of the required buffer width, the buffer shall be adjusted so that the buffer consists of the extent of the wetland plus a 25' zone extending beyond the wetland edge.
- (d) The following land uses and or activities are designated as potential water pollution hazards and must be set back from any watercourse or waterbody by the distance indicated below:
- i. storage of hazardous substances (150').
  - ii. above or below ground petroleum storage facilities (150').
  - iii. drainfields from on-site sewage disposal and treatment system (100').
  - iv. raised septic systems (250').
  - v. solid waste landfills or junkyards (300').
  - vi. confined animal feedlot operations (250').
  - vii. subsurface discharges from a wastewater treatment plant (100').
- (5) The riparian buffer, including wetlands and floodplains shall be managed to enhance and maximize the unique value of these resources. Management includes specific limitations or alteration of the natural conditions of these resources.
- (6) All riparian buffers created by a new subdivision shall be maintained through a declaration of protective covenant, which is required to be submitted for approval by the Township. The covenant shall be recorded in the land records and shall run with the land and continue in perpetuity. Management and maintenance requirement information shall be included.
- (7) The Riparian Buffer may be included in net density calculations with uses permitted in the Township Zoning Ordinance, unless this riparian buffer is required to be subtracted out.



## **Riparian Buffers – Example # 5**

The following is a verbatim excerpt from Article V of the Easttown Township Natural Resources Protection Ordinance (2005). Other portions of the Ordinance include provisions related to and inter-interconnected with these standards and should also be reviewed and considered along with the language presented below. This example provides appropriate standards for a higher density suburban landscape where wider riparian buffer widths may not be possible.

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### ***Easttown Township***

### ***Riparian Buffer Standards - 2005***

#### **Article I: General**

#### **Section 99-6: Definitions**

RIPARIAN BUFFER - An area surrounding a watercourse, floodplain or wetland, containing trees and other vegetation that intercepts surface water runoff, wastewater, subsurface flow, and/or deep groundwater flows from upland sources and function to remove or buffer the effects of associated nutrients, sediment, organic matter, pesticides, or other pollutants prior to entry into surface waters. This transition area between aquatic and terrestrial environments may also provide wildlife habitat, control water temperature, attenuate flood flow, and provide opportunities for passive recreation.

#### **Article V: Riparian Buffer Zone**

#### **§ 99-18. Purpose.**

- A. To protect stream banks, water quality, sensitive soils, natural habitat and scenic vistas through the provision and protection of a vegetated strip of land surrounding the resource.
  - 1. Regulating uses and structures, and providing transitional provisions, at or near watercourses, floodplains, wetlands and other bodies of water.
  - 2. Establishing continuous vegetated strips along water bodies that serve to filter and remove pollution laden runoff from entering water bodies and protecting against stream bank erosion and tree loss.
  - 3. Promoting and protecting stabilized stream banks, which will reduce downstream transport of eroded sediment and pollutants.
  - 4. Preserving species-rich vegetative communities along and adjacent to water bodies.
  - 5. Providing shade for streams and other water bodies that reduce direct sunlight and lower water temperatures.

**§ 99-19. Delineation.**

- A. An undisturbed vegetated area shall extend a minimum of fifty (50) feet, measured horizontally, outward from the edge of a protected wetland, floodplain, or watercourse, and completely surround the protected natural resource(s).
- B. In the case of a stream or pond, the minimum buffer width shall be measured from the top of the bank.
- C. In the case of an intermittent stream, it shall be measured from the center of the channel.
- D. The riparian buffer zone shall also apply to the perimeter of approved wetland mitigation areas where all state and federal permits have been received.
- E. The riparian buffer zone shall not be designated along industrial ponds, sewerage treatment lagoons, man-made irrigation ditches, stormwater management basins and other artificial features with similar water quality or storage facility.
- F. The limit of the hydric soils shall be as defined in this Chapter, unless reclassified by a Certified Soil Scientist.
- G. The riparian buffer zone shall be delineated on the Conservation Plan, in accordance with Section 99-7.

**§ 99-20. Resource Protection Standards.**

- A. With the exception of those uses or activities listed below, the riparian buffer zone shall not be regraded, filled, built upon, or otherwise altered or disturbed. Any permanent disturbance shall be of a design and so located so as not to conflict with the purpose of a RBZ to protect water quality.
  - 1. Regulated activities permitted by the Commonwealth, e.g. a permitted stream or wetland crossing;
  - 2. Selective removal of diseased, hazardous or invasive plant species;
  - 3. A soil or stream conservation project approved by the Chester County Conservation District, including stream bank stabilization and restoration;
  - 4. Vegetation installation and management in accordance with an approved Landscape Plan and Riparian Buffer Zone Management Plan;
  - 5. Trails, composed of pervious surfaces, however, such trail shall not come within fifteen (15) feet of any stream bank.
- B. Non-conforming uses or structures are subject to the following:
  - 1. Where existing non-conforming structures occupy properties on which less than two thousand (2,000) square feet of additional impervious surface area or less than five thousand (5,000) square feet of total land disturbance is proposed, a one-time

encroachment into the RBZ of up to twenty-five (25) feet for such improvements is permitted, without seeking a variance or conditional use approval.

2. In the event that fifty percent (50%) or more of an existing non-conforming structure is voluntarily demolished, the area of impervious surface and land disturbance shall fully conform to the requirement of Section 99-19 of this Article.
3. Minimally invasive disturbance associated with stormwater management, or the installation of sealed water supply wells, water pipelines, and storm and sanitary sewer lines, provided they are designed and constructed to eliminate infiltration of flood water into the system and discharges from the system into waters of the Commonwealth, may be permitted as a Conditional Use, with proof of minimal disturbance and restoration practices of exposed earth, with approval from the Board of Supervisors.
4. The planting, supplementing, or re-establishment of vegetation that will slow stormwater runoff velocities, filter silt and pollutants from runoff, form a fibrous root system to hold soil in place and prevent erosion, shade streams, and stabilize eroded stream banks shall be provided, in accordance with a Riparian Buffer Zone Management Plan, as required by this Chapter.

#### **§ 99-21. Riparian Buffer Zone Plantings**

A riparian buffer provides the following benefits: reduces the amount of nutrients, sediments, pesticides, and other harmful substances that reach watercourses, wetlands, and other surface water bodies; provides for shading of the aquatic environment to moderate temperatures and protect fish habitat; provides organic matter which provides food and habitat for bottom dwelling organisms essential to the food chain; increases stream bank stability and reduces stream bank erosion and sediment production; conserves natural features important to land and water features (e.g., headwater areas, ground water recharge zones, streams and prime wildlife habitat); and conserves natural, scenic and recreation areas and promotes the functioning of greenways.

- A. At a minimum, the first twenty-five (25) feet adjacent to the natural resource that does not contain existing trees, shall be planted in accordance with Section 99-33. This is in order to establish a fibrous root system, to protect the stream banks from erosion, and to shade watercourses.
- B. Any areas of woodland disturbance, for any purpose, within the entire width of the RBZ shall be reforested in accordance with Section 99-33, even if the amount of disturbance falls within that permitted by Section 99-30.B.
- C. If replacement plantings are required by Article VIII, Woodlands and Wooded Lots, of this Chapter, all or part of the required replacement plantings may be used to accomplish the planting requirements of this section. The plantings, which may include trees, shrubs, and seedling trees, should complement and extend the existing surrounding vegetation and natural systems.
- D. The remainder of the RBZ and the area between newly installed plants shall be stabilized and established with meadow grasses and wildflowers.

## **§ 99-22. Riparian Buffer Zone Management Plan Requirements**

- A. A Riparian Buffer Zone Management Plan shall be submitted as part of preliminary and final plan application. In the case of a conditional use, the RBZ Management Plan shall be submitted along with the application for conditional use approval. The Plan may be provided on a separate sheet in the development plan set or may be a separate bound document, and shall include the following information:
  - 1. A narrative describing the development of the subject property;
  - 2. A description of the existing natural resources on the property;
  - 3. A narrative describing the significance and purpose of the RBZ;
  - 4. A description of any proposed impacts within the delineated RBZ;
  - 5. Plant lists, notes, details and any other pertinent information needed to fully describe the proposed procedures and methods necessary to accomplish the establishment of a healthy, vegetated RBZ; and
  - 6. The maintenance activities that will be performed to ensure the control of erosion and the continued health and vigor of the plants within the RBZ. Such activities may change over the course of plant establishment, and may include mowing schedules.
- B. The preparation and planting procedures may include, but shall not be limited to, invasive plant removal and control; stream bank stabilization; the provision of animal browse protection, such as plastic tubes for seedling trees; erosion control matting; the provision of any markers or signs identifying the RBZ; and mowing schedules for meadow grass establishment.
- C. The maintenance narrative shall include, but shall not be limited to, the following provisions:
  - 1. A list of prohibited activities that may lead to excessive erosion or pollution, which may include restrictions on traffic, the removal of plant material, and the use of chemicals;
  - 2. An annual inspection and report by a qualified professional;
  - 3. Inspections immediately following severe storm events to monitor erosion and sedimentation;
  - 4. Procedures for corrective action to erosion;
  - 5. A timeframe for removal of planting aids, such as staking and tree tubes;
  - 6. A guarantee and procedures for replacement and/or supplement of plantings that die or do not become well-established in perpetuity.