

**SECTION 540
Riparian Setback Regulations**

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540.1 PURPOSE.

It is hereby determined that the system of streams within Springfield Township contribute to the health, safety, morals and general welfare of the residents of Springfield Township and therefore should be protected. These Riparian Setback development regulations are enacted in order to protect and preserve the water quality within the streams of Springfield Township and to protect residents of Springfield Township from property loss and damage because of flooding and other impacts of the stream. These regulations shall control uses and development within a Riparian Setback that would impair the ability of the riparian area to:

- A. Reduce flood impacts by absorbing peak flows, slowing the velocity of floodwaters and regulating base flow;
- B. Stabilize the banks of streams to reduce bank erosion and the downstream transport of sediments eroded from stream banks;
- C. Reduce pollutants in streams during periods of high flows by filtering, settling and transforming pollutants already present in streams or in runoff before they enter streams;
- D. Provide areas for natural meandering and lateral movement of stream channels;
- E. Reduce the presence of aquatic nuisance species to maintain diverse and connected riparian vegetation;
- F. Provide high quality stream habitats with shade and food to a wide array of wildlife by maintaining diverse and connected riparian vegetation;
- G. Benefit Springfield Township economically by minimizing encroachment on stream channels and reducing the need for costly engineering solutions such as dams and riprap, to protect

structures and reduce property damage and threats to the safety of watershed residents, and by contributing to the scenic beauty and to the environment of Springfield Township, the quality of life for Springfield Township residents and corresponding property values.

H. Protect the health, safety, morals and general welfare of the citizens of Springfield Township.

540.2 APPLICATION OF AND COMPLIANCE WITH RIPARIAN SETBACK REGULATIONS.

The riparian setback requirements set forth in Section 540 shall apply to all streams, as defined in Section 210, that appear on at least one of the following maps: 1) United States Geological Survey (USGS) topographical map; 2) Summit County Riparian Setback map; 3) Soils maps found in the Soil Survey of Summit County, Ohio, United States Department of Agricultural (USDA), National Conservation Resource Service (NCRS).

No zoning approvals or zoning permits shall be issued by Springfield Township to any applicant whose lot falls within the jurisdiction of these regulations without full compliance with the terms of these provisions.

540.3 MINIMUM RIPARIAN SETBACK REQUIREMENTS.

The following minimum riparian setbacks shall be established along each stream within the Township.

- A. The width of the setback shall be measured as a horizontal map distance outward from the ordinary high water mark on each side of a stream, and are established as follows:
1. A minimum of 300 feet on each side of all streams draining an area greater than 300 square miles.
 2. A minimum of 100 feet on each side of all streams draining an area greater than 20 square miles and up to 300 square miles.
 3. A minimum of 75 feet on each side of all streams draining an area greater than 0.5 square miles (320 acres) and up to 20 square miles.
 4. A minimum of 50 feet on each side of all streams draining an area greater than 0.05 square miles (32 acres) and up to 0.5 square miles (320 acres).
 5. A minimum of 30 feet on each side of all streams draining an area less than 0.05 square miles (32 acres).

- B. The following are exempt from the terms and protection of these regulations: grassy swales, roadside ditches, drainage ditches created at the time of a subdivision to convey storm water to another system, tile drainage systems and stream culverts.

540.4 ADJUSTMENTS TO MINIMUM RIPARIAN SETBACKS.

Based on the characteristics of the land adjacent to the stream, the minimum riparian setbacks set forth in Section 540.3 shall be increased to comply with the following:

- A. Floodplain. Where the 100-year floodplain is wider than the riparian setback on either or both sides of the stream, the riparian setback shall be extended to the outer edge of the 100-year floodplain. The 100-year floodplain shall be defined by FEMA and approved by the County of Summit Department of Building Standards.
- B. Steep Slopes. Because the gradient of the riparian corridor significantly influences impacts on the stream, the following adjustment for steep slopes will be integrated into the Riparian Setback formulae for width determination:

Average Percent Slope	Width of Setback
15% through 20%	Add 25 feet
Greater than 20% through 25%	Add 50 feet
Greater than 25%	Add 100 feet

Average percent slope of the streambank is to be calculated for the area within the Riparian Setback and is to be measured as a line perpendicular to the stream channel at the location where structures or uses are proposed in the plan. All of the following measurements are to be performed using County of Summit Geographical Information system data (1994, 2000). Calculate slope as follows: Change in elevation from the edge of stream channel to edge of Riparian Setback divided by Horizontal map distance from the edge of stream channel to the edge of the Riparian Setback.

- C. Wetlands. Where wetlands protected under federal or state law are identified within the riparian setback:
 - 1. The riparian setback shall consist of the full extent of the wetlands plus the following additional setback widths:
 - a. A 50-foot setback extending beyond the outer boundary of Category 3 wetlands.
 - b. A 30-foot setback extending beyond the outer boundary of Category 2 wetlands.
 - c. No additional setback shall be required adjacent to Category 1 wetlands.

2. Wetlands shall be delineated by a qualified professional under guidelines established by the U.S. Army Corps of Engineers and Ohio Environmental Protection Agency and the site delineation approved by the appropriate agencies. All wetland delineations shall also include the latest version of the Ohio Rapid Assessment Method for wetland evaluation approved at the time of application of the regulations.

540.5 DELINEATION OF RIPARIAN SETBACK.

The applicant shall be responsible for delineating the Riparian Setback, including any expansions or modifications as required by Section 540.4 and identifying the setback on all subdivisions, site plans, and/or zoning permit applications. This delineation shall be indicated on all plans submitted for zoning review.

- A. This delineation shall be subject to review and approval by the Summit SWCD, which may require additional studies from the applicant.
- B. Prior to any soil disturbing activity, the riparian setback shall be clearly delineated identified on the site with construction fencing or other suitable material by the applicant, and such delineation shall be maintained throughout soil-disturbing activities. The delineated area shall be maintained in an undisturbed state unless otherwise permitted by these regulations. All fencing shall be removed when a development project is completed.
- C. No approvals or permits shall be issued by Springfield Township prior to delineation of the riparian setback in conformance with these regulations.
- D. Upon completion of an approved subdivision, the riparian setback shall be permanently recorded on the plat records for Summit County.

540.6 USES PERMITTED IN THE RIPARIAN SETBACK WITHOUT A PERMIT.

The following uses and activities shall be permitted in the riparian setback without prior approval from the Township.

- A. Passive recreational uses, such as hiking, non-motorized bicycling, fishing, hunting, picnicking and similar uses (as permitted by federal, state and local laws) and associated structures including boardwalks, pathways constructed of pervious materials, picnic tables and wildlife viewing areas.
- B. Removal of damaged or diseased trees, provided that logs and branches resulting from the removal of said trees that are greater than 6 inches in diameter shall be anchored to the shore or removed from the 100-year floodplain.

- C. Revegetation and/or reforestation with the approval of Summit SWCD. Species of shrubs and vines recommended for stabilizing flood prone areas along streams are listed in Appendix 540.
- D. Modification of natural vegetation. Modification shall be limited to conservation maintenance that the landowner deems necessary to control noxious weeds; for such plantings as are consistent with these regulations; and for the passive enjoyment, access and maintenance of landscaping or lawns existing at the time of passage of these regulations. The landowner is not required to plant or undertake any other activities in the Riparian Setback provided the landowner allows for natural succession.
- E. Authorized work of the Summit County Engineer. The Summit County Engineer maintains the right of access to all streams within Summit County for the purposes outlined in the Ohio Revised Code, Sections 6131.01 to 6131.64, 6133.01 to 6133.15, 6135.01 to 6135.27, and 6137.05.1.

540.7 USES PERMITTED IN THE RIPARIAN SETBACK WITH PRIOR APPROVAL.

The following uses and activities may be permitted in the riparian setback upon review and approval from the Township.

- A. Streambank Stabilization/Erosion Control Measures. Best Management Practices (BMP's) for stream bank stabilization or erosion control may be allowed if such practices are within permitted uses by the local, state and federal government regulations and are ecologically compatible and emphasize the use of natural materials and native plant species where practical and available. Such streambank stabilization/erosion control practices shall only be undertaken upon approval of a Storm Water Pollution Prevention Plan (SW3P) by the Summit SWCD.
- B. Crossings. In reviewing plans for stream crossings, Springfield Township may confer with the Summit SWCD; the Ohio Department of Natural Resources, Division of Natural Areas; the Ohio Environmental Protection Agency, Division of Surface Water; the Summit County Engineer; the Summit County Department of Environmental Services; the Summit County Health Department; or other technical experts as necessary.
 - 1. Limited crossings of designated streams through the riparian setback by vehicles, storm sewers, sewer and/or water lines and public utility lines will be per the approval of local, county and state governing agencies and as a part of the regular subdivision review process.
 - 2. One driveway crossing per stream per tax parcel shall be allowed for individual landowners.
 - 3. No more than two roadway crossings per 1,000 linear feet of stream center for major and minor subdivisions, planned residential developments or any other non-single family

residential use. All roadway crossings shall be designed and constructed according to the Summit County Engineer's design standards and as approved by the Summit County Planning Commission and Springfield Township.

4. All roadway crossings shall be perpendicular to the stream flow and shall minimize disturbance to the Riparian Setback and shall mitigate any necessary disturbances.

C. Storm Water Retention Or Detention Facilities: Such facilities may be considered within the riparian setback when in compliance with the following:

1. Storm water quality treatment that is consistent with current state standards is incorporated into the basin; and
2. The storm water quality treatment basin is located at least 50 feet from the ordinary high water mark of the stream.

540.8 PROHIBITED USES IN THE RIPARIAN SETBACK.

The following uses and activities shall be prohibited in the riparian setback.

- A. Construction. There shall be no structures of any kind constructed, except as permitted under these regulations.
- B. Dredging or dumping. There shall be no drilling for petroleum or mineral products, mining activity, filling or dredging of soils, spoils, or any material – natural or man-made – except as permitted under these regulations.
- C. Motorized vehicles. There shall be no use of motorized vehicles of any kind, except as permitted under these regulations.
- D. Parking lots. There shall be no parking lots or other man-made impervious cover, except as permitted under these regulations.
- E. New surface and/or subsurface sewage disposal or treatment area. No disposal or treatment of sewage shall be allowed except for the following:
 1. Undeveloped parcels that have received site evaluation approval and/or permit approval prior to the enactment of these regulations.
 2. Dwellings served by disposal/ treatment systems existing at the time of passage of these regulations when such systems are properly sited (approved site evaluation) and/or permitted in accordance with the Summit County Health Department and/or the Ohio Environmental Protection Agency. Existing failing systems that are located within the Riparian Setback can be upgraded with approval of the Summit County Health Department and/or the Ohio Environmental Protection Agency.

540.9 NON-CONFORMING STRUCTURES & USES IN THE RIPARIAN SETBACK.

Structures and uses within the riparian setback existing on November 19, 2005 and that are not permitted under these regulations, may be continued but shall not be expanded except for residential structures or uses as follows:

- A. The expansion conforms to the existing zoning regulations.
- B. The expansion shall not impact the stream channel or the 100-year floodplain.
- C. The expansion shall not exceed an area of 15% of the footprint of the existing structure or use that lies within the riparian setback.
- D. Existing situations that may be addressed by the Township Board of Zoning Appeals.
 - 1. Expansions exceeding 15% of the total footprint within the Riparian Setback must be obtained through a variance from the Board of Zoning Appeals.
 - 2. Non-residential structures or uses shall be permitted only through a variance from the Board of Zoning Appeals.

540.10 APPEALS AND VARIANCE PROCEDURE.

In the event an applicant deems himself or herself to be adversely affected by any decision of the Zoning Administrator, the following procedures shall apply.

- A. Appeals Related to Boundary Interpretation.
 - 1. When an applicant disputes the boundary of the Riparian Setback or the ordinary high water mark of a stream, the applicant shall submit evidence to the Summit SWCD, with a copy to the Springfield Township Zoning Administrator, that describes the boundary, presents the applicant's proposed boundary and presents all justification for the proposed boundary change.
 - 2. The Summit SWCD shall evaluate all materials submitted and shall make a written recommendation to the Springfield Township Board of Zoning Appeals within a reasonable period of time not to exceed sixty (60) days. A copy of this recommendation shall be submitted to the applicant. If during this evaluation the Summit SWCD requires further information to complete this evaluation, the applicant may be required to provide additional information.
 - 3. The Springfield Township Board of Zoning Appeals shall decide such boundary disputes. The party contesting the location of the Riparian Setback or the ordinary high water mark of the streams as determined by these regulations shall have the burden of proof in case of any such appeal.

- B. Variances. The Springfield Township Board of Zoning Appeals shall have the power to hear and decide all applications for variances to the provisions of Section 540. Application for a variance shall be submitted according to the procedures set forth in Section 740 of this Zoning Resolution.
1. The Springfield Township Board of Zoning Appeals shall consult with representatives of the Summit SWCD; the Ohio Department of Natural Resources, Division of Natural Areas; the Ohio Environmental Protection Agency, Division of Surface Water; the Summit County Engineer; the Summit County Department of Environmental Services; the Summit County Health Department; or other technical experts as necessary to consider variance requests.
 2. Expansions of residential structures or uses exceeding 15% of the footprint area and expansions of all non-residential structures or uses are subject to consideration based on the following provisions:
 - a. The expansion conforms to the existing zoning regulations.
 - b. The expansion must not impact the stream channel or 100-year floodplain.
 - c. The expansion of a non-residential structure or use shall not effect upstream or downstream hydrologic conditions which could cause damage from flooding or streambank erosion to landowners in those areas. Only non-residential applicants shall complete a hydrologic study as a process of the variance application.
 - d. The expansion of a non-residential structure or use shall not exceed 25% of the footprint area. The 25% expansion limit is for the portion of the structure or use that lies within the riparian setback.
 3. Requests for variances for subdivisions shall be considered for the following:
 - a. An additional stream crossing or crossings for a subdivision or planned residential development that is necessary for the health, safety and welfare of the residents in the subdivision.
 - b. A reduction of setback width, not to exceed 10% of the prescribed riparian setback width.
 4. No variances shall be granted for expansion of the following structures or uses:
 - a. Facilities that use, store, distribute, or sell petroleum-based products or any hazardous materials, such as but not limited to, asphalt plants, dry cleaners, gasoline service stations, and road maintenance facilities.
 - b. Facilities that use, store, distribute, or sell products which may contribute higher than acceptable concentrations of dissolved or particulate matter to storm water runoff around the facility, such as but not limited to, landfills or transfer stations, junk yards, recycling facilities, quarries and borrow pits, sand and gravel extraction operations and road salt storage barns.

5. In reviewing whether or not to grant variances to these regulations, the Springfield Township Board of Zoning Appeals shall consider the following:
 - a. The extent to which the requested variance impairs the functions of the riparian area, based on sufficient technical and scientific evidence as provided by the applicant and the agencies listed in the preceding portions of Section 540.10.
 - b. The soil type and natural vegetation of the parcel as well as the percentage of the parcel that is in the 100-year floodplain.
 - c. The degree of hardship these regulations place on the applicant and the availability of alternatives to the proposed activity.
 - d. Whether a front, side or rear yard setback variance should be considered to maintain the required riparian setback area.

APPENDIX 540

APPROVED PLANTING: WOODY PLANTS SUITABLE FOR RIPARIAN AREAS

This list was assembled by Roger Gettig, The Holden Arboretum for Chagrin River Watershed Partners. Definitions of tolerance are included at the end of the plant list.

Species - Listed according to Flood Tolerance*	Shade Tolerance**	Common Name
High Flood Tolerance		
<i>Aronia arbutifolia</i>	3	Red chokeberry
<i>Aronia melanocarpa</i>	3	Black chokeberry
<i>Cephalanthus occidentalis</i>	5	Common buttonbush
<i>Clethra alnifolia</i>	2	Summersweet clethra****
<i>Cornus amomum</i>	4	Silky dogwood
<i>Cornus stolonifera (sericea)</i>	5	Redosier dogwood
<i>Hamamelis vernalis</i>	3	Vernal witchhazel ***
<i>Ilex decidua</i>	3	Possumhaw ***
<i>Ilex glabra</i>	2	Inkberry ***
<i>Ilex verticillata</i>	3	Common winterberry
<i>Itea virginica</i>	1	Virginia sweetspire ***
<i>Magnolia virginiana</i>	2	Sweetbay magnolia ****
<i>Myrica pensylvanica</i>	4	Northern bayberry
<i>Physocarpus opulifolius</i>	4	Common ninebark
<i>Potentilla fruticosa</i>	4	Bush cinquefoil
<i>Sambucus Canadensis</i>	1	American elderberry
<i>Salix x cotteti</i>	5	“Bankers” willow ***
<i>Salix exigua</i>	5	Sandbar willow
<i>Salix purpurea</i>	5	“Streamco” willow ***
<i>Viburnum cassinoides</i>	2	Witherod viburnum
<i>Parthenocissus quinquefolia</i>	1	Virginia creeper (vine)
Moderate Flood Tolerance*		
<i>Calycanthus floridus</i>	1	Common sweetshrub
<i>Hypericum kalmianum</i>	5	Kalm St. Johnswort
<i>Viburnum dentatum</i>	2	Arrowwood viburnum
<i>Xanthorhiza simplicissima</i>	1	Yellowroot ***
Intermediate Flood Tolerance*		
<i>Aesculus parviflora</i>	2	Bottlebush buckeye ****
<i>Aesculus pavia</i>	2	Red buckeye ***
<i>Cornus racemosa</i>	2	Gray dogwood
<i>Lindera benzoin</i>	1	Common spicebush
<i>Rosa setigera</i>	4	Prairie rose
<i>Campsis radicans</i>	3	Trumpetcreeper (vine)

Species - Listed according to Flood Tolerance*	Shade Tolerance**	Common Name
<i>Lonicera dioica</i>	2	Limber honeysuckle (vine)
<i>Corylus Americana</i>	2	American filbert
<i>Diervilla lonicera</i>	1	Dwarf bushhoneysuckle
<i>Fothergilla gardeni</i>	1	Dwarf fothergilla ***
<i>Fothergilla major</i>	1	Large fothergilla ***
<i>Hydrangea arborescens</i>	1	Smooth hydrangea
<i>Hydrangea quericifolia</i>	1	Oakleaf hydrangea ***
<i>Mahonia aquifolium</i>	1	Oregongrape holly ***
<i>Rosa carolina</i>	4	Carolina rose
<i>Rubus odoratus</i>	1	Fragrant thimbleberry
<i>Vaccinium stamineum</i>	2	Common deerberry
<u>Low Flood Tolerance</u>		
<i>Arctostaphylos uva-ursi</i>	4	Bearberry
<i>Cornus rogersia</i>	1	Roundleaf dogwood
<i>Corylus americana</i>	2	American filbert
<i>Diervilla lonicera</i>	1	Dwarf bushhoneysuckle
<i>Fothergilla gardeni</i>	1	Dwarf fothergilla ***
<i>Fothergilla major</i>	1	Large fothergilla ***
<i>Hydrangea arborescens</i>	1	Smooth hydrangea
<i>Hydrangea quericifolia</i>	1	Oakleaf hydrangea ***
<i>Mahonia aquifolium</i>	1	Oregongrape holly ***
<i>Rosa carolina</i>	4	Carolina rose
<i>Rubus odoratus</i>	1	Fragrant thimbleberry
<i>Symphoricarpos albus</i>	1	Common snowberry
<i>Vaccinium stamineum</i>	2	Common deerberry
<u>No Flood Tolerance</u>		
<i>Amorpha canescens</i>	5	Leadplant ***
<i>Ceanothus americanus</i>	3	New Jersey tea
<i>Comptonia peregrina</i>	2	Sweetfern
<i>Dirca palustris</i>	1	Leatherwood
<i>Hypericum frondosum</i>	5	Golden St. Johnswort
<i>Juniperus communis</i>	5	Common juniper
<i>Juniperus horizontalis</i>	5	Creeping juniper ***
<i>Rhus aromatica</i>	5	Fragrant sumac
<i>Sambucus pubens</i>	1	Scarlet elder
<i>Symphoricarpos albus</i>	1	Common snowberry

*** Flood Tolerance:**

1. **High Flood Tolerance:** Generally lowland wet species surviving when flooded or exposed to high water table more than 40% of the growing season.
2. **Moderate Flood Tolerance:** Generally lowland wet species surviving when flooded or exposed to high water table more than 30% of the growing season but less than 40%.
3. **Intermediate Flood Tolerance:** Generally lowland wet-mesic species surviving occasional inundation or elevated water table between 20% and 30% of the growing season.
4. **Low Flood Tolerance:** Generally upland mesic and mesic-dry species rarely inundated or exposed to an elevated water table for periods of short duration, between 5% and 20% of the growing season.
5. **No Flood Tolerance:** Generally upland dry species exhibiting immediate and rapid decline frequently culminating in death if inundated or exposed to elevated water table for more than 5% of the growing season.

**** Shade Tolerance:** Shade tolerance means able to grow in a state of health and vigor beneath dense shade. In this ranking, shrubs and vines are ranked on a scale of 1 to 5, with 1 being very shade tolerant, and 5 being very shade intolerant.

***** Common Name:** Indicates plant species that are not native to Northeastern Ohio.

Note:

- A. The majority of plants listed are available on the local commercial market and do not displace native species.
- B. The cultivated varieties (“cultivars”) of the species listed above may also be used.
- C. Primary information taken from Hightshoe, Gary, 1987. *Native Trees, Shrubs, and vines for Urban and Rural America*. Van Nostrand. NY, NY.
- D. For further assistance contact Roger Gettig, Landscape Consulting Program, The Holden Arboretum, or Steve Roloson, ODNR Scenic Rivers Program.