

§ 270-20. Water quality requirements.

- A. In addition to the performance standards and design criteria requirements of §§ 270-18 and 270-19 and §§ 270-21 through 270-23 of this chapter, the applicant shall comply with the following water quality requirements unless otherwise exempted by provisions of this chapter.
- (1) The applicant shall first provide infiltration facilities in areas where soils are suitable for infiltration and shall direct the runoff from impervious surfaces into those infiltration facilities. The volume of storage to be provided shall be no less than the net increase in runoff from the two-year storm event, or one inch of runoff from the total area draining to the infiltration facility, whichever is greater.
 - (2) Detain the two-year, twenty-four-hour design storm runoff based on using the SCS Type II distribution. Provisions shall be made so that the detained runoff takes a minimum of 24 hours to drain from the facility from a point where the maximum volume of water is captured (i.e., the maximum water surface elevation is achieved in the facility). Release of water can begin at the start of the storm (i.e., the invert of the water quality orifice is at the invert of the facility). The design of the facility shall minimize the chances of clogging and sedimentation potential. The applicant may also utilize infiltration facilities in lieu of extended detention. The volume of infiltration provided for the contributing area may be deducted from the volume requirement for extended detention.
 - (3) The Riparian Buffer Area (RBA). Areas immediately adjacent to the Township's perennial streams, intermittent streams and waterways as mapped on US Geological Survey 1:24,000 scale quadrangle maps are **defined** as the Riparian Buffer Area (RBA). In the RBA, special requirements as set forth in this section apply in order to maintain important natural functions. These RBA requirements are based on both the heightened sensitivity of the RBA Zone and the potential to negatively impact the stream system when this RBA Zone is disturbed, as well as the potential of this RBA Zone to mitigate to the maximum extent the negative effects of development in areas adjacent to the stream system. The RBA includes three subzones, Zones 1 through 3, extending landward from the top of the stream bank where different requirements are imposed:
 - (a) Zone 1, a minimum twenty-five-foot setback zone, plus wetlands, measured from the top of the bank of the water body, as reviewed and approved by the Township, where no disturbance of vegetation and soil except for restoration and or reforestation shall occur, in order to shade the stream with natural vegetation, to provide a source of numerous other organic inputs to the aquatic system, to anchor the stream bank and floodplain area and to consume and otherwise remove nitrogen, sediment and other substances which can adversely affect stream systems. Where prohibitive slopes (25% +) are located within 35 feet of a watercourse, Zone 1 shall extend the entire distance of this sloped area.
 - (b) Zone 2, a one-hundred-foot managed buffer zone, extending outward from Zone 1 (for a total of 125 feet), where disturbance of natural vegetative cover shall be limited to selective logging, not to exceed 25%, and other activities which minimally disrupt existing tree cover and soil mantle, in order to maximize filtering and overall physical removal of particulate-form pollutants from runoff generated upgradient and to promote subsurface vegetative uptake of nitrogen and other nonparticulate elements from stormwater generated upgradient.
- [1] In cases where Zone 1 extends beyond 25 feet due to the presence of prohibitive slopes, the width of Zone 2 shall be adjusted so that the full riparian buffer equals a

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total width of 125 feet.

- [2] Where the Zone 2 riparian buffer is not wooded, it shall be maintained as a filter strip of dense grass and forbs or other features to provide sediment filtering, nutrient uptake, and convert concentrated flow to uniform, shallow, sheet flow. When a subdivision or land development is proposed where there is no established vegetated or wooded buffer (such as in areas previously cultivated for agriculture) a one-hundred-twenty-five-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 sites devoid of vegetation to stimulate native species and discourage invasive species.
 - [b] Plant selection and planting shall be consistent with Chester County Conservation District, PADEP or USDA riparian forested buffer guidance.
 - (c) Zone 3, a zone of varying width extending outward from Zone 2. Zone 3 is defined in those cases where upslope areas adjacent to the RBA are being disturbed during the land development process and where direct discharge of stormwater would otherwise occur. Zone 3 is intended to include level spreading or similar devices as necessary to ensure that any direct discharge flows are properly distributed as sheet flow and channelization and point source discharges are avoided. Zone 3 shall include a minimum twenty-five-foot setback from impervious surfaces.
 - (d) The RBA may be included in net density calculations with uses permitted in Chapter 325, Zoning, of the Code of the Township of West Whiteland, unless this RBA is required to be subtracted out as the result of other applicable regulations of Chapter 325, Zoning, such as regulation of the floodplain.
 - (e) An RBA adjacent to "high quality waters" and "exceptional value waters" designated under the Pennsylvania Department of Environmental Protection, Chapter 93, Rules and Regulations, shall be subject to the provisions of the Pennsylvania Department of Environmental Protection "Special Protection Waters Implementation Handbook" and its amendments.
- (4) Riparian buffer zones shall be restricted to the following uses:
- (a) Zone 1 (Very Restricted): flood control, utility rights-of-way, pervious footpaths.
 - (b) Zone 2 (Restricted): pervious, passive recreational uses, natural stormwater BMPs, pervious bike paths, tree removal by permit.
 - (c) Zone 3 (Limited Restrictions): residential uses, including lawn, sheds (or similar structures) less than 150 square feet, garden, compost, yard wastes, nonstructural stormwater BMPs.
- (5) Riparian buffers shall be preserved or restored with native vegetation that can be maintained through the delineation, plan review, construction, and occupancy stages of development.