

Attachment A

COMMENTS OFFERED

BY

ADAM J. BROWER, P.E.

A REPRESENTATIVE OF

CHESTER COUNTY ENGINEERS ORGANIZATION

SUBJECT:

DEPARTMENT OF ENVIRONMENTAL PROTECTION

FINAL RULEMAKING

ENVIRONMENTAL QUALITY BOARD #7-440

25 PA. CODE CHAPTER 102

JUNE 10, 2010

OVERVIEW OF SECTIONS OF CONCERN

Harmful Impacts to the Environment:

1. Section 102.14(i) – Riparian Buffer Requirements: The rigid requirement of providing an 150 foot wide buffer from both sides of a watercourse, regardless of site conditions or potential design, is counterproductive and will be more harmful to the watershed instead of the result intended by the regulation.
2. Section 102.14(i) – Maintaining Existing Riparian Buffers in all Watersheds: The requirement to maintain all existing buffers, regardless of the watershed designation, will lead to development of the remaining upland areas in a more dense style to offset the undeveloped area remaining in the buffer.

Excessive Inspections and Fees:

3. Section 102.8 (K & L) – The required inspections and certifications of the construction of the stormwater management facilities by a Licensed Professional is excessive, considering a Municipal Representative is already on site for inspections.

As a Design Engineer, it is my responsibility and obligation to my client and the property owner to generate the best design that I can that incorporates the design parameters created by the reviewing entities while providing plans that meet the goals of my client in a cost effective manner. I design projects for people to live in and where they work. As people's lives occur at these sites, it is imperative that the projects are designed with careful consideration to aesthetics, how the site functions, and how the development affects neighboring communities and the environment, as that affects all of us.

During the plan design, the Engineer and/or Planner must be a good steward to the environment and ensure that the development does not degrade the environment. To that extent, as a Design Engineer during each site design, I acknowledge each site and the proposed improvements as unique and may require a unique design.

A rigid requirement with respect to a riparian buffer width does not allow an Engineer to create the best plan for both the client and the environment. Section 102.14.a establishes set widths as a minimum to be provided and incorporated into a project. The width varies from 100 feet for all waters to 150 feet for impaired waters or section protection waters. Depending on the specific site and the vegetation in the required buffer width, there may be little value gained by maintaining the existing cover. Examples of this scenario are when the buffer consists of maintained lawn area or previously developed sites where there is impervious cover in the buffer area. I note that I have worked on projects with both of these scenarios.

Protecting the watersheds should be a primary focus of both public and private entities. The goal of a buffer is to provide an area for water that enters the buffer to be treated and therefore not degrade the Waters of the Commonwealth. The current local Municipal Regulations and State Regulations (DEP BMP Manual) do not permit undetained flow from improved areas in residential and commercial developments. In fact, the runoff from improved areas must be conveyed to stormwater management facilities where the proper design ensures the discharge of flow that will not degrade the watershed. If the runoff from improved areas does not discharge to the buffer, then the buffer is not treating the runoff; therefore has little value with respect to water quality leaving the site. The only runoff that the buffer treats is rain that falls directly in the buffer.

The corridor along a watercourse typically consists of environmentally sensitive features, including wetlands. The corridor, in its existing condition, receives surface and subsurface flow from the upland watershed. To maintain the viability of these sensitive areas, it is important to maintain the flow to the corridor from the site. Under the new regulations, it will be necessary to convey flow from the upland areas to stormwater management systems. The regulations will eliminate designs that incorporate constructed wetlands systems and other similar systems, along the stream corridor. This will reduce the flow to the watercourse corridor on the site versus the flow going to the corridor during existing conditions. The reduction in flow to portions of the corridor on the parcel being developed will have an adverse impact on the environmentally sensitive features along the corridor.

To create a meaningful regulation, the buffer requirement should utilize flexibility that recognizes the existing site conditions and proposed improvements. If the intent of the buffer is

to treat the runoff prior to it entering a watercourse, then it would be applicable when the site improvements propose undetained discharge to the Waters of the Commonwealth. The regulations should allow for stormwater management systems that meet BMP guidelines in the buffer area. In many instances, the BMP would serve as a better tool to treat the runoff than the existing buffer and it would maintain the flow to the environmentally sensitive features.

The location of the watercourse on a parcel of ground may result in a large percentage of the property being in a buffer area within the rigid buffer dimensions. To maintain any value for the parcel of ground, it will be necessary to generate a design that creates the maximum density possible in the upland areas. This type of design will eliminate any opportunity to incorporate into a design many BMP's that treat and retain runoff. In addition, upland areas that contain woodlands will now be considered for development to provide a density that provides a value to the land. The removal of woodlands and the creation of developments with minimal BMP's in the upland areas does not provide the optional design for infiltration and treatment of runoff for water quality considerations.

The protection of the set buffer width, as noted in Section 102.14, is a direct conflict with the ability to restore floodplains to their historic cross-section. The restoration of floodplains would restore the relationship between plants and tree roots with the water table. This connection is lost when sediment accumulates in a floodplain area over time. This disconnection of the roots over time will create an area that has less and less vegetation in the buffer area. At that point, the riparian buffer is not functioning as intended by these requirements. The DEP Best Management Practices Manual includes the ability for an applicant to restore floodplains to their historic cross-section. Chapter 102 should not include rigid buffer widths that would prevent floodplain restoration.

Similar to floodplain restoration, the requirements should include the ability to disturb the noted riparian buffer areas in redeveloped projects. This type of project may have existing impervious and/or contaminated areas in the buffer. These areas should be removed as part of the redevelopment project. Often times a redevelopment project can be very challenging, not only in planning, but also in making the project viable due to costs associated with this type of development. The noted buffer width being maintained as undisturbed area that can not be developed as part of the site, or even for stormwater management, may render a redevelopment project not feasible.

In other scenarios, the body of water requiring a buffer may be located on an adjacent property where a buffer is not being maintained. It would seem to be of little value to then require a buffer on the property to be developed.

I recommend that the buffers allow discretion to permit a variation in the required width. This would permit a design to improve a riparian buffer while integrating it into a site design. It is appropriate to allow an Engineer to design a system that is better than the existing buffer. A system could be designed to collect runoff and treat it to improve that water quality prior to this discharge to a wetlands or buffer. This type of system would create a treatment train that is an improved scenario for water treatment. There is no reason that a water quality system could not be implemented in the open space in the required riparian buffer zone. The goal of the

requirements should be the treatment of runoff to the extent practicable, not create a set of rigid parameters for reviewing efficiency.

Section 102.8 requires the inspection of stormwater management facilities during critical phases of construction and the certification that the facilities were constructed in accordance with the PCSWM Plan and Design. The inspections and certifications must be performed/completed by a licensed professional. The disturbance of the area designated for a stormwater management system at any time during construction may have an adverse impact on how the system functions. For this reason, it is necessary for inspection of the site throughout the site construction. The current allowances in the PA Municipal Planning Code permit municipalities to inspect the site construction at the expense of the builder. The proposed regulation in Section 102.8 will now require a second professional to inspect the same site at the same time at the expense of the builder. In addition to the excessive costs, there may be differing instructions provided by the two entities performing the inspections.

To avoid the noted issues, it is recommended that the regulation require the certification of the construction of the facility be signed by the entity assuming responsibility for the inspection of the facility and by the construction company performing the construction. Multiple entities being responsible for inspections will lead to confusion and delay in the construction at double the cost to the builder.

Thank you for the opportunity to offer my comments on the PA Code 25, Chapter 102 Regulations.

Adam J. Brower, P.E.

BIOGRAPHICAL SKETCH

NAME: Adam J. Brower, P.E.

EDUCATION: Temple University, Philadelphia, Pennsylvania
Bachelor of Science in Civil Engineering, 1992

Drexel University, Philadelphia, PA

REGISTRATION: Registered Professional Engineer – Pennsylvania (1997)

PRESENT POSITION AND RESPONSIBILITIES:

Edward B. Walsh & Associates, Inc. – Exton, PA (January, 1992 – Present, May 1989 to September 1991, May 1988 to February 1989).

Partner/Project Engineer – Responsible for preparation of residential, commercial, and industrial subdivisions and land development plans. Engineering design of sanitary sewer, storm drainage, roadway, water system, erosion and sedimentation controls, preparation of quantity and cost estimates, legal descriptions, construction inspection and client representation at public meetings and hearings, and liaison with Federal, State and Local Agencies.

Chester County Engineers Organization – West Chester, PA (2007 – Present)

Serving as Vice President on the Board of Directors

Chester County Engineers Organization was founded in 2007. It is composed of 24 member Engineering Companies and Municipal Engineers in Southeast Pennsylvania.