

Pennsylvania Chamber of Business & Industry

Comments on Draft Stormwater Best Management Practice Manual

July 2006

The Pennsylvania Chamber of Business and Industry (“PCBI”), is the largest broad-based business association in Pennsylvania. Our thousands of members statewide represent over 50% of the private workforce. The Pennsylvania Chamber of Business & Industry appreciates the opportunity to provide comments to the Pennsylvania Department of Environmental Protection (DEP) on the revised draft *Pennsylvania Stormwater Best Management Practice Manual* (“Manual”).

General Comments

As noted in the Chamber’s March 2005 comments on the first draft of the Manual, the importance of stormwater management and its nonpoint contribution to contaminants to Pennsylvania’s waters is well documented. The revised Manual prepared by the Bureau of Stormwater Management is an improved and detailed document, presenting a thorough range of structural and nonstructural best management practices (BMP’s) for reducing the environmental impacts associated with stormwater management.

Having said this, significant issues still remain that need to be addressed prior to final publication and implementation of the Manual.

- A clear methodology and process for reconciling the differences of stormwater management approaches needs to be established. It is unclear how differences between requirements, standards, criteria and approvals at the local, county, and the state or DEP regional level will be reconciled in advance of projects being run through the process. Based on the experience of many Chamber members engaged in development projects, current approaches at various levels of government are not consistent and sometimes are directly contradictory in their requirements. (For example, where the Manual calls for BMPs that foster infiltration of stormwater, some communities with karst conditions or other concerns have ordinances which preclude such infiltration designs.)
- The Manual calls for measures and procedures that are not currently reflected in local ordinances or many county stormwater management plans. However, left unaddressed is who will pay for the changes to ordinances and/or watershed stormwater management plan updates, and in what time frame that will be accomplished.
- The tone of the Manual and its focus and bias against development has not been resolved. The Manual appears to retain a bias against green field development. At the same time, the Manual potentially seeks to undue past urban and suburban development impacts, but does so in a manner that seems to impose the costs of such corrective actions addressing past problems upon new development.

- The document has clearly grown beyond its original scope of managing stormwater in Pennsylvania to include quality and quantity issues impacting many other DEP guidance documents, regulations and laws. However, we have not seen from the Department an indication as to how these myriad of documents will be reconciled and harmonized.
- While recognizing that Pennsylvania is a state of many socio-economic and physiographic regions, and that solutions from one region may not be desirable for another region, DEP must, as part of its implementation of the Manual, ensure that inconsistencies in interpretation and application between regions and programs are reduced. In that regard, one of our more serious concerns is that this Manual will be treated by some regional DEP staff as if it were a “regulation,” providing a cookbook recipe for what BMPs can or should be undertaken at each development. Our experience has been that such an approach is impractical and unworkable. Department staff, as well as county and municipal officials, need clear direction that this Manual is a reference point and resource for BMP ideas, not a prescription for every case. Site-by-site considerations and a balancing of factors is required to select the right BMPs for any property or development, and creativity, common sense and good engineer practices must be applied in the BMP selection and implementation process.
- Concerns with the geologic, geotechnical and public safety issues still remain as articulated in the Chamber’s prior comments and explained further in the detailed comments presented below.
- The Manual as written does not evaluate or address the economic costs associated with implementation of the recommended BMPs. Early in the Commonwealth’s development of this proposal, it was determined that DEP did not need any further laws or regulations to meet the EPA requirements for stormwater management. Given the breadth of the program and its increased scope to address water quality and quantity issues, this decision needs to be reopened. The Manual creates an iterative process for managing stormwater. This approach provides little regard for the costs involved in this process. Those costs will be passed on to home buyers and consumers, and/or can have significant impacts on the economic competitiveness of the Commonwealth in attracting new plants and investments. The full range of costs associated with how these BMP’s will be implemented (including costs on governmental agencies at all levels, and capital and O&M costs imposed on property owners) need to be clearly articulated and understood. In order to understand the true impact of the regulatory program being promoted, this Manual should go through the same type of socio-economic impact evaluation as would be applied to a regulation.

Specific Comments

The following comments are offered on specific sections of the Manual.

Section 1.1

The statement of the Manual’s purpose raises the initial concern – is this a regulatory document, merely flexible guidance, or a combination. The purpose section refers to the Manual as establishing standards, and indeed our fear is that some regions and many communities will be tempted to treat the Manual as if it were a regulation, or alternatively simply adopt the Manual by cross-reference, giving the entire document the imprimatur of a regulation.

From the outset of the purposes section and throughout the remainder of the document, the point must be emphasized that this Manual is not a regulation, a cookbook, or a document intended to be adopted by cross-reference as a rule. As noted above, site-by-site considerations and a balancing of factors is required to select the right BMPs for any property or development, and creativity, common sense and good engineer practices must be applied in the BMP selection and implementation process.

Section 1.3

This section raises several issues. For example: What efforts will be taken to reconcile differences between the DEP “Manual,” local ordinances, and previously adopted and approved watershed stormwater management plans (which municipalities are mandated to implement pursuant to the Stormwater Management Act)? Simply developing a model ordinance does not resolve this issue.

Discrepancies between the local ordinances, watershed plans and this Manual will lead to increased confusion and the potential for multiple revisions of designs, *e.g.*, the local government approves or mandates one concept, DEP will not concur without changes and the applicant must then go back to the local government for more changes.

Lack of consistency between the approaches will delay and add cost to the approval process for projects in Pennsylvania. In addition, the manual notes that in “order to achieve regulatory status the manual must be implemented in ordinances and local zoning at the municipal level. This approach could lead to another set of issues very similar to what Pennsylvania experienced with the Act 537 sewage facilities planning program and over-involvement in local issues by state agencies.

Section 3.1

Section 3.1 of the Manual states that these “guidelines” are the “basis for municipal stormwater regulation” and implies that local governments will have to change local ordinances to conform to the state guidance. However, as we understand the statutory and regulatory framework, there is no legal basis for requiring municipalities to conform their ordinances to the type of “guidance” provided in this Manual. The only mandate on local governments is to adopt ordinances that implement county-adopted and DEP-approved watershed stormwater management plans. Indeed, to the extent that those watershed plans do not reflect the approach suggested in this Manual, municipalities are probably precluded from adopting some or all of the BMPs in this Manual until those watershed plans are changed.

As noted above, DEP appears to have skipped a very important step in terms of laying out the process and schedule for implementation. Key questions need to be answered. Will the state pay for the cost associated with making the required changes to watershed plans and ordinance? Who will approve or disapprove the local ordinance changes and how will the DEP ensure consistency across watersheds or across the state? Again, simply publishing a model ordinance does not solve the issue.

Section 3.2

Again, these “guidelines” have all of the earmarks of being regulations. At the same time, it appears to foster the notion that new development must not only manage its own stormwater, but must also contribute toward restoring natural hydrology – that is, undoing the impacts of past development on other properties. If this is truly the objective of this Manual, that imposition needs to be proposed, debated, and evaluated as a regulation – as it would truly be a major regulatory imposition on property owners.

Section 3.3.2

As with the previous version of the Manual, “Volume Control Alternatives” will be essentially be created by trial and error. This approach will create a great deal of tension between the regulator, county, municipality and the applicant. There is no predictability of outcome. By extrapolation the applicant will have to prepare at least one draft of the site plan and then plan on numerous revisions afterwards to meet the goals of the regional office and that of the local government. There is little or no consideration of economic impact to development costs in the document. Project delays will likely occur due to how the local approval process actually functions, *e.g.*, if you miss this meeting we will see you next month.

Sections 3.3.3 and 3.3.4

It is unclear from these sections whether DEP is proposing that communities adopt all of these “control guidelines,” or whether these are alternative approaches. Based on experience in a variety of settings, these approaches may or may not be appropriate in given instances. For example, Control Guideline 2 calls for permanent removal of the first 1” of runoff in all storms, capture of the initial 2 inches of runoff from impervious surfaces, and infiltration of at least 0.5 inches in each storm. It also calls for the drainage of all retention/detention facilities in 48-96 hours. The fact is that in some portions of Pennsylvania, with dense hard rock close to the surface, infiltration at such rates may not be practical or effective. Alternatives, such as capture of the stormwater and reuse of that stormwater over time (for example in maintaining golf course, recreation or open space area) may be just as effective and more efficient (particularly where that reuse avoids groundwater or surface water withdrawals). (This control guideline, to capture and remove a certain quantity of stormwater from surface runoff, was also reflected in PaDEP’s draft Model Stormwater Ordinance; and this attempt to establish regulatory enforcement of this “guideline” reinforces the concern that PaDEP is intending to ultimately enforce the “guideline” contents of the Best Management Practices Manual as, in effect, a regulation – without following the proper procedures for adopting a regulation.)

The “unbolded” comment at the end of §3.3.4 seems to acknowledge this fact, but it is so buried and deemphasized that the point may be entirely missed. The Manual sets forth in bold print guidelines which appear to be touted as universal truths, and the acknowledgement that there may be other situations is missed. We would recommend breaking out an additional section to discuss these other conditions, describing the situations which may call for exceptions or adjustments, and the alternatives that should be considered.

Section 3.5

The recommended control guideline for water quality control is both confusing in its statement, and troublesome in terms of how it is to be implemented. In stating that measures must achieve an 85% reduction in post-development particulate, 85% reduction in post-development total phosphorus, and 50% reduction in post-development solute NO₃-N loadings, the “guideline” fails to state “from what” the reductions are measured. Is this to be a pre-development/post-development comparison of loadings (similar to the way water quantity and runoff rates are regulated), or a comparison of reductions from anticipated post-development loads without BMPs compared to loadings with BMPs implemented. Further, how is this to be judged? Does DEP expect that communities will impose conditions requiring monitoring of runoff before and after the stormwater passes through the BMPs; is modeling required; or are developers/municipalities allowed to assume that certain BMP’s perform the required reductions?

In other situations we are familiar with, the approach to this issue has been to promote selection of one or more water quality BMPs, without trying to set a specific loading reduction guideline or standard. We believe the loading reduction standard approach is doomed to complexity and ultimately incredible frustration on the part of both municipalities and property owners. We need something that is relatively simple, understanding, and implementable without needing legions of water quality modelers, or even worse, a complex system of monitoring.

Section 3.6

What is meant by the first sentence in the section, which states that CG-1 and CG-2 may have to be modified before applying to Special Areas? This statement provides little to no guidance, and seems to simply “punt” the issue to municipal officials.

In this regard, we note that there are several times in the Manual where the authors state that the Manual is incomplete, and although not stated here, this seems to be one of them. These omissions in the Manual will only lead to further unpredictability and confusion in its implementation. The document should be complete when published as final.

Section 4.1

The recommended site design procedure is certainly interesting, but if Figure 4-1 is supposed to be a flow chart, it is extremely difficult to follow. At the same time, the chart and the text fail to mention the requirements of Act 167 stormwater management plans, and just how they fit in this process. Indeed, the Manual seems to dismiss the Stormwater Management Act entirely, and assumes that stormwater management is simply a matter of municipal input coupled

with the suggested guidance and design recommendations in this Manual. (This is again mirrored in the draft Model Stormwater Ordinance, which as we read it attempts to establish municipal stormwater control measures that exceed the requirements of the Stormwater Management Act as well as the PaDEP Comprehensive Stormwater Management Policy.)

It appears now that we will have state, county and local requirements all going in potentially different directions to regulate stormwater. The process needs to be streamlined.

Section 4.3

There are a number of issues raised in this section of the document.

On the one hand, in §4.3.1, the Manual correctly acknowledges that a number of site features must be balanced and weighed in the design of a development (along, of course, with the purpose of the development itself). However, §4.3.3 goes on to provide a categorical statement that calls for only building on the least permeable soils on a site. How will “least” be quantified? What about other requirements, such as setbacks, preservation of historic areas, municipal requirements for avoidance of construction on steep slopes or on rock outcrops, etc.?

This section also discusses depressions as a sign of sinkholes. Depressions are not always a sign of sinkholes, and the way the term is defined in the manual is inappropriate. Further, not all carbonate geology will lead to sinkhole formation. These terms need to follow the reality of Pennsylvania geology.

As written, the Manual’s discussion of site factors will likely set up conflicts for land development and the ability for regional staff to override the recommendations of licensed professionals retained by the developer and local planning officials in dealing with the different geologic areas of Pennsylvania.

Section 7.3

We are concerned that safety issues are glossed over in this section. Street widths are often set by local ordinance, PennDOT or FHWA standards. How will differences between these legal requirements and DEP staff “recommendations” be resolved? The integration between local, state and federal requirements still requires reconciliation.

In discussing the use of subsurface systems for roadway stormwater runoff systems, the Manual notes the potential need to replace such systems in the event of a spill. That’s easy to say, but difficult to accomplish. Once roads are constructed, ripping up such systems after a spill is a difficult and expensive process, and pending that process, a significant potential exists for contamination to reach groundwater. Unlike surface water spill discharges, where environmental intrusion may be acute, but recoverable, groundwater contamination once engendered involves a long and slow recovery process. Although this Manual seems inclined to favor underground and infiltration systems, do we really want to encourage such stormwater systems that present threats of long-term contamination?

Section 7.7

Section 7.7 states that care must be taken in planning stormwater infiltration within two miles on either side of special protection waters or surface water used for public water supply. As set forth, this statement makes no sense. As to special protection waters, if the project is not located within the special protection watershed itself, the rationale for special care is illusive and the two mile limit is arbitrary and irrational. Regarding public water supplies, this seems to say that if a development project is within two miles of a surface stream, and a public water supply is located anywhere downstream, special care must be taken.

The implied or perceived equating of all surface waters used for public water supply and “special protection waters” is misleading, irrational, and far exceeds regulatory and scientific boundaries. Special protection waters (High Quality or Exceptional Value) attain their designations due to achieving water quality criteria that exceeds criteria in 25 PA Code §§93.7 or 93.8a(b) (toxic substances), and exceeds levels necessary to support aquatic life, wildlife, and recreation, providing a high or exceptional quality biological community, exceptional recreational resource, State or National game or wildlife refuge, Class A or wilderness trout stream, etc. (see 25 Pa. Coe §93.4b). A surface water utilized for public water supply is only required to meet certain specific water quality criteria in §93.7, and as a Statewide water use (§93.3) provide water suitable for public consumption and use as defined by the Safe Drinking Water Act after conventional treatment. The comparison of criteria are, very simply, like comparing the proverbial “apples and oranges”. Special protection waters are more sensitive environments than statewide waters used for conventional drinking water treatment. The range of land development activities that would, or may, impact a “special protection” water is very different than the activities that would impact a surface water which will undergo conventional treatment in a public water supply. The Manual should clearly differentiate between special protection watersheds and those streams that, like virtually every other surface water across the Commonwealth (except impaired waters) support downstream public water use.

With respect to waters meriting special protection, the special care called for in the Manual is “maximum pollutant removal,” a phrase which is not defined. Later, the Manual discusses some measures that provide for enhanced control of pollutants, but it’s not clear whether that qualifies as “maximum pollutant removal.”

Sections 7.8 and 7.9

The discussion in both of these sections should be revisited in relationship to brownfields redevelopment. This idea of infiltration in urban areas fails to consider the potential for adverse impacts to already contaminated groundwater aquifers and the potential to push contamination plumes offsite into new areas.

Finally, is the Department recommending retrofitting of urban areas with new BMP’s such as green roofs? What authority does the state have to require these changes or will they require new buildings to construct these retrofits as part of new projects?

Final Words

In closing, it is clear that a significant effort has gone into making the Manual more user-friendly and appropriate for Pennsylvania. However, a number of practical and implementation issues still need to be worked out. First, consideration of local geological, hydrological, and environmental issues and conditions must be more clearly emphasized. Second, as stated previously, prior to implementation, training for regulatory staff at the state, county and local level is essential. At the same time, consulting professionals will also need a period of time to assimilate the principles into their design and engineering practices. Third, the program suggested in this Manual needs to be harmonized with watershed plans and local ordinances before full-scale implementation can be launched. Fourth, the manual must be consistent with current state and local laws and regulation. Fifth, schedules for implementation need to be developed, and those schedules must be consistent across the state and individual DEP regions or county conservation districts must follow these schedules. Finally, a uniform transition process should be established, to determine how existing projects already in the “review process” will be “grandfathered”; forcing such projects to go back to “square one” is simply not practical.

We appreciate the opportunity to provide these comments, and look forward to working with the Department as efforts to improve Pennsylvania’s stormwater management program progress.