



Financing Mechanisms for BMPs

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est Management Practices (BMPs) are those practices used to alleviate problems associated with stormwater quality and/or quantity. Implementing BMPs in the form of a coordinated stormwater management plan requires evaluation and selection of financing mechanisms.

Six alternative financing mechanisms are as follows:

1. General funds,
2. Long-term borrowing,
3. Pro-rata share fees for new development projects,
4. Stormwater utility,
5. Special districts, and
6. A combination of the above.

General Funds

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he first option is to fund stormwater projects from the general fund. This approach distributes the costs among all county taxpayers, rather than allocating it among the urban development projects that contribute to the drainage problems. General fund revenue may be appropriate for

supporting some of the front-end costs required to construct the regional detention basins (followed by reimbursement by the new development projects on a pro-rata basis). Likewise, general fund revenues are often used to support annual operation and maintenance activities carried out by the local government (e.g., maintenance of regional detention basins).

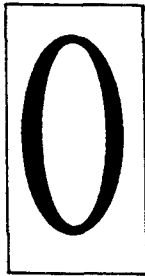
Long-Term Borrowing

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ong-term borrowing, in the form of general obligation bonds or, less commonly, revenue bonds, is one of the most popular mechanisms for financing stormwater management projects. Revenue bonds have not

been widely used for stormwater management, in part because of the higher interest rates in comparison with general obligation bonds and, in part, because of the lack of a significant revenue base. Long-term borrowing distributes costs to all taxpayers, if it is approved by the voters.

Pro-rata Share



ffsite pro-rata share contributions are used by many jurisdictions to finance regional stormwater management facilities for new urban development.

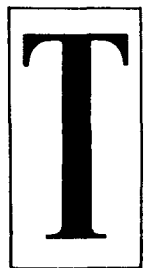
Rather than require each land developer to construct a stormwater management facility on his own site,

each development project is assessed a fee that covers a pro-rata share of the capital costs for the regional detention basins. The pro-rata share assigned to each developer can be based upon a number of factors, including: cost per impervious acre; cost per acre for different land use categories; and cost per development site based upon each site's contribution to the peak flow or nonpoint source runoff that must be controlled by the offsite facility. Use of the offsite pro-rata charge approach in Virginia is covered by section 15.1-466 of the *Code of Virginia*, which requires that a general improvement program (i.e., master plan that identifies offsite controls) be developed in advance and that the charges only be applied to

the construction cost of the offsite facility, not to annual maintenance costs. Three important features of this financing approach are discussed below.

First, for the management plan to be successful, local governments must finance the construction of the offsite control facilities in advance of urban development and the receipt of all pro-rata share contributions. Typically, long-term borrowing mechanisms and general fund revenues are used to finance these front-end construction costs. Second, the charges may only be assigned to new urban development, even though it may be desirable to strategically locate some offsite facilities that control the runoff impacts of existing development as well. This funding mechanism does not provide for the recovery of any costs from existing development in the watershed. Third, the land development fees can only cover construction costs, meaning that maintenance costs must be assumed by the local government.

Stormwater Utility



he creation of a stormwater utility is currently being considered in several urban areas around the U.S. as a preferable alternative to the land development fee approach. It involves creating a continuing funding source by designating stormwater management as a utility,

much like sanitary sewers, gas, and electricity are considered as public utilities. Under the stormwater utility concept, property owners within a jurisdiction are assessed a monthly fee that covers both capital and operation and maintenance costs for stormwater management.

The financing of capital projects is accomplished with a combination of bonds and revenue from the utility fees. With the broad revenue base that is available under the stormwater utility approach, the use of revenue bonds to fund the construction of stormwater management controls becomes a more viable option. Thus, the stormwater utility provides a continuing funding source for both capital and operating costs without affecting a local government's general fund. The end result is that the local government will have an adequate revenue source to construct more cost-effective regional facilities and to carry out maintenance activities.

Special Assessment District

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nder existing Virginia enabling legislation, the most relevant special assessment district for stormwater management activities is a watershed improvement district (WID). Designation of a WID by the Virginia Soil and Water Conservation

Commission must be preceded by special petition, hearings, and a referendum vote by the property owners within the watershed, with two-thirds approval required. WIDs can issue bonds and assess property owners within the watershed to finance the construction of

stormwater management projects. One of the elements of the WID that may make it politically difficult for local stormwater management activities is that it is governed by an independently elected board of directors, thereby delegating to an independent governing board some of the powers that can influence local land use decisions. Another factor that may limit its feasibility for regionwide implementation is that separate referendums would have to be approved by two-thirds of the property owners in each watershed.

Selection

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s is evident from the preceding descriptions, each financing mechanism has advantages and disadvantages depending upon a number of factors. State and local legislation can define which mechanisms are allowed in given locations. A stormwater management

plan itself is an important factor in evaluating financing mechanisms. The BMPs specified in a plan have associated capital and operation and maintenance costs. Any financing plan developed should ensure that both types of costs will be covered. The magnitude and distribution of these costs can be a determining factor in selecting the proper method of financing.





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