

Maryland Clean Water State Revolving Fund Sustainable Communities Pilot Project Report



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Background

On June 16, 2009, EPA joined the Partnership for Sustainable Communities with the U.S. Department of Housing and Urban Development (HUD) and the U. S. Department of Transportation (DOT) to help improve access to affordable housing, provide more transportation options, and lower transportation costs while protecting the environment in communities nationwide. The Partnership coordinates actions, policies, and investments across the three agencies to achieve these goals.

Ensuring that communities make wise clean water infrastructure investments is an important part of the Partnership's work. Decisions about where to provide public wastewater infrastructure affect development patterns and influence where and how a community will grow. Regions are shaped by such decisions that ultimately affect the cost of all public infrastructure, including roads; utilities; schools; and police, fire, and ambulance service. By aligning public investments across sectors to support sustainability goals, communities can focus resources in locations that best leverage past public investments.

Many states have also undertaken various initiatives to promote more sustainable communities and are instituting a range of requirements and incentives to try to achieve this goal. State Revolving Fund (SRF) programs across the country have modified their project selection criteria and instituted other programmatic changes for consistency with statewide initiatives or to achieve their own program goals. For example, New Jersey revised its project priority system to incentivize projects that support smart growth development, which include fixing existing systems and investing in transit hub areas, by giving a zero 0-percent interest rate to 75 percent of the total loan. In another example, Minnesota requires communities considering new centralized sewerage to complete an evaluation of wastewater needs that includes decentralized treatment alternatives in an effort to encourage consideration of all prudent and feasible options.

EPA has supported and encouraged such state efforts by releasing a Clean Water and Drinking Water Infrastructure Sustainability Policy¹ that helps to ensure that federal investments, policies, and actions support water infrastructure in efficient and sustainable locations to best aid existing communities, enhance economic competitiveness, and promote affordable neighborhoods. EPA also sponsored a pilot technical assistance program with three state Clean Water SRF (CWSRF) programs to explore potential modifications that could encourage these types of investments to provide models that other states could follow to use their SRF programs to support sustainable communities. EPA selected Maryland, New York, and California for this assistance. EPA worked with these state CWSRF programs to review their intended use plans, project priority systems, borrower application processes, and other funding guidelines. State limitations due to legislation, regulations, and policies were examined as well as potential avenues for change.

¹ U.S. EPA. "EPA's Clean Water and Drinking Water Infrastructure Sustainability Policy" (2011)
<http://water.epa.gov/infrastructure/sustain/upload/Sustainability-Policy.pdf>

The result of each pilot program is a set of options for the state to consider when evaluating CWSRF program policies and documents. The states that participated in this pilot program are under no obligation to incorporate or implement any of the proposed changes. A whole host of factors may make a potential change more or less useful for any given state. However, the ideas (whether adopted or not) may serve as a useful thought piece for other SRF programs. EPA's ultimate goal is to gather lessons learned and best practices in these pilot states and other states undertaking similar initiatives so that all SRF programs can benefit from this information and thereby facilitate more widespread adoption of practices that encourage states to focus resources in existing communities and infrastructure systems to leverage past investments.

The Maryland CWSRF is managed by the Maryland Department of Environment (MDE) Water Quality Financing Administration. Maryland's CWSRF program has advanced sustainability principles in a number of ways, the most recent effort being an innovative overhaul of the CWSRF project priority system to identify and promote projects that help meet Maryland's nutrient load targets for the Chesapeake Bay. Maryland's project priority system is used for rating and ranking water quality improvement capital projects to develop an annual project priority list that will be used to select projects for financial assistance. The new system identifies specific sustainability criteria against which all projects are evaluated. The goals of EPA's pilot project with MDE were twofold: to provide a case study of Maryland's recent changes, focusing on the state's efforts to target sustainable projects through revised project rating procedures and criteria; and to explore possible refinements to the new project priority system, now in its second year of implementation.

Motivation for MDE's Recent Revisions to Project Rating Procedures

Maryland's efforts to revise its project priority system are aligned with several goals and actions being advanced at the national level, including those of the HUD-DOT-EPA Partnership for Sustainable Communities. In addition, in May 2010, EPA issued the FY 2011 National Water Program Guidance² identifying two major priorities: fostering sustainable communities and promoting healthy watersheds through a focus on key geographic areas. Around the same time, President Obama's Chesapeake Bay Executive Order³ and the Chesapeake Bay Total Maximum Daily Load,⁴ a comprehensive "pollution diet" established in December 2010, were driving forces for MDE to change its project ranking approach to focus on pollution reductions impacting the bay. In addition to supporting pollution reduction and sustainability goals, MDE emphasized the importance of supporting cost-effective infrastructure investments. MDE sought to incorporate all of these goals into its revised Integrated Project Priority

² U.S. EPA. "National Water Program Guidance" (2010)

http://water.epa.gov/grants_funding/cwf/upload/nwp_program_guidance508_050510.pdf

³ Chesapeake Bay Program Office "Chesapeake Bay Executive Order" (accessed September 2011)

<http://executiveorder.chesapeakebay.net/default.aspx>

⁴ The Total Maximum Daily Load (TMDL) identifies the necessary pollution reductions from major sources of nitrogen, phosphorus and sediment across the District of Columbia and large sections of Delaware, Maryland, New York, Pennsylvania, Virginia and West Virginia, and sets pollution limits necessary to meet water quality standards in the Bay and its tidal rivers. See <http://www.epa.gov/chesapeakebaytmdl/>

System (IPSS), while still maintaining its overall emphasis on achieving clean and safe water. The result was a set of priorities that became the cornerstone of MDE's new approach to ranking applications for CWSRF assistance: public health and water quality; smart growth and sustainability; targeting investments to key watersheds; and cost-effectiveness.

MDE's Threshold Criteria

All projects ranked on the CWSRF priority list must pass MDE's threshold criteria: the project and service area must be located entirely within a Priority Funding Area (PFA), and the project must be consistent with the County Water and Sewerage Plan that demonstrates how safe and adequate water and sewerage facilities will be provided to support planned redevelopment and new growth, outlined in the county's adopted Comprehensive Land Use Plan. PFAs were established by the 1997 Maryland Priority Funding Areas Act to identify locations where the state and local governments want to target their efforts to encourage and support economic development and new growth. Certain developed areas were automatically included, and local jurisdictions added areas they had designated for future growth. Every sewerage project applying for CWSRF funding must submit a PFA map with the project location indicated within the PFA, as well as the Water and Sewerage Plan that includes the proposed project. Applications are sent to MDE's Water Resources Planning Unit for a detailed review for PFA and Water and Sewerage Plan consistency. The Unit's findings are shared with MDE CWSRF managers, who will not fund projects that are located outside of a PFA (unless PFA exception is approved due to public health) or are found to be inconsistent with the County Water and Sewerage Plan. This review process provides an incentive for communities to address any identified inconsistencies between planning documents so that they may be eligible for future SRF funding. The threshold criterion ensures that communities consider local land use plans in planning water infrastructure projects that will be funded through the CWSRF and that CWSRF infrastructure investments will be made only in areas where the community has determined development is appropriate.

MDE's use of a threshold criterion requiring SRF projects to be located in PFAs, areas in which state and local governments want to encourage and support economic development and new growth, also aligns well with the Partnership for Sustainable Communities' goal of integrating housing, transportation, water infrastructure, and land use planning and investment. The ability to establish such a criterion depends on a state or regional process to create area boundaries because their effectiveness as a tool to align infrastructure spending depends on application to all infrastructure types, not just clean water infrastructure through the state SRF program.

Ultimately, the effectiveness of such criteria depends on the content of local land use plans and the PFA boundaries themselves, i.e., whether they create meaningful distinctions between areas where growth should be targeted and areas that are designated for rural or natural resource uses. Evaluation of how effective PFA boundaries were in achieving their aims would be most appropriately done at the state or regional level that established the boundaries. However, MDE could consider whether it might differentiate between areas within PFA boundaries that are more suitable for clean water infrastructure

spending because of existing development, and areas where public investment in infrastructure may not yet be warranted, even if the area is ultimately planned to accommodate growth.

Revised Project Rating Procedure and Criteria

Prior to 2010, the Maryland CWSRF's IPPS ranked projects based on the existing condition of the infrastructure (10 possible points), the proposed project benefits (10 possible points), water quality improvement (10 possible points), and the location of the project within State Priority Watersheds (5 possible points), for a total of 35 possible points. Maryland's revised rating system is based around an initial categorization of the benefits of the project (Section I), which then determines which criteria will be used to rate and rank the project (Sections II-V).

Section I—Primary Project Benefit Category

MDE evaluates projects using a project score sheet. Projects are ranked in descending order based on the total points awarded on the score sheet. Beginning in 2011, a maximum of 100 points can be awarded to any project. After determining a project is eligible to receive SRF assistance, MDE selects the project's primary benefit from among three defined categories that determine which scoring criteria will be used to evaluate the project:

1. **Environmental Water Quality Benefits**—Examples include projects that reduce nutrients and/or are required to comply with more stringent permit limits (e.g., wastewater treatment plant upgrade, stormwater best management practices). If MDE determines water quality to be the primary benefit of a project, it uses Sections II, IV, and V of the score sheet to determine the project's point total.
2. **Public Health Benefits**—Examples include projects that address public health that may or may not be required to comply with a legal order (e.g., combined sewer overflow, sanitary sewer overflow, sewer extension to homes with on-site failing septic systems). If MDE determines public health to be the primary benefit of a project, it uses Sections III, IV, and V of the score sheet to determine the project's point total.
3. **Other Benefit, neither Environmental Water Quality nor Public Health**—Examples include projects that do not have a primary water quality or public health benefit but that are otherwise beneficial for facility/community sustainability (e.g., equipment replacement, energy conservation). If MDE determines that the primary benefit of a project is neither water quality nor public health, it uses Section V of the score sheet to determine the project's point total.

Section II—Project Environmental Water Quality Benefit Score (65 possible points)

This section awards points in accordance with Maryland's efforts to achieve Chesapeake Bay Total Maximum Daily Load (TMDL) and its statewide nutrient reduction efforts. Supported by the multi-state development of the Chesapeake Bay Total Maximum Daily Load (TMDL) and the Chesapeake Bay Executive Order, MDE decided to award the maximum number of environmental water quality priority points to projects with the greatest benefit to the Chesapeake Bay. The reduction in pounds of nutrients reduced at the source is adjusted to reflect the actual delivery to the bay, known as relative

effectiveness (RE). Additional points in Section II are awarded to projects being undertaken in accordance with a compliance requirement (e.g., a judicial order or permit requirement).

35

Priority Points

For projects that yield calculated nutrient reduction benefits

Up to 15 points are awarded to projects providing varying degrees of total nitrogen (TN) or total phosphorous (TP) reduction, whichever is greater.

Up to 20 points are awarded to projects based on the RE of the nutrient reduction based on the 8-digit watershed where that reduction will take place.

30

Priority Points

For projects being undertaken in accordance with a compliance requirement

Up to 30 points are awarded to projects being undertaken in accordance with a compliance requirement. Compliance requirements could include administrative or judicial orders, projects required due to an MS-4 permit, or projects that are required due to newer, more restrictive National Pollutant Discharge Elimination System (NPDES) or State Groundwater Discharge permit limits.

Section III—Public Health Benefit Score (65 Possible Points)

This section gives priority to projects that address the public health hazards posed by water quality problems.

35

Priority Points

For projects that address public health hazards posed by water quality problems

Up to 35 points are awarded to projects that mitigate a public health emergency; mitigate the confirmed repeated contamination of a drinking water supply, surface water, or groundwater; mitigate or other public health concerns associated with limited risk exposure.

30

Priority Points

For projects being undertaken in accordance with a compliance requirement

Thirty points are awarded to projects being undertaken in accordance with a compliance requirement. Compliance requirements could include administrative or judicial orders, projects required due to an MS-4 permit, or projects that are required due to newer, more restrictive National Pollutant Discharge Elimination System (NPDES) or State Groundwater Discharge permit limits.

Section IV—Project Cost Efficiency Score (10 Possible Points)

Maryland’s CWSRF program now receives more applications than it has resources to fund. In an effort to reach as many projects as possible, the new project priority system includes a cost-effectiveness category that calculates how cost efficient a project is. Many water quality problems have low-impact solutions such as green infrastructure, leak detection, source water protection, and decentralized systems, which can frequently be more cost-effective than traditional infrastructure solutions. Thus the new cost-effectiveness category may have the added benefit of incentivizing projects that support sustainable communities.

10

Priority Points

Projects that are cost efficient

Up to 10 priority points are awarded to projects resulting in efficiencies in one of the following four categories:

- Annualized capital cost per lbs. per year TN or TP reduction.
- Capital cost per household (for non-biological nutrient removal and/or enhanced nutrient removal wastewater projects).
- Capital cost per drainage acre (for stormwater projects).
- Capital cost per linear feet of restoration (for stream restoration and shoreline erosion projects).

Section V—Sustainability Benefit Score (25 possible points)

The revised CWSRF project priority system awards extra points to projects supporting sustainable development, which MDE defines as “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (U.N. World Commission on the Environment and Development). MDE’s priority system incentivizes sustainable development though.” These points are divided into the following categories:

7

Priority Points

Projects that benefit the needs of existing sustainable communities

- Expansion less than 20 percent equivalent dwelling unit (EDU)⁵ growth or increase in design capacity for sewerage projects, including decentralized wastewater treatment systems; or
- Expansion is for new development or redevelopment to support sustainable communities. MDE provides the following examples of communities that would meet this criterion: the project is in close proximity to a transit station or takes place within a Base Realignment and Closure (BRAC) or brownfield revitalization area, a Department of Housing and Community Development-designated Community Legacy Area, or other relevant site.

3

Priority Points

For each sustainable utility practice incorporated by the project

- Project provides for reuse/recycling of stormwater, wastewater, or treatment products (e.g., biosolids/biogas for energy generation, treated effluent or stormwater reuse, etc.).
- Project's owner has an Asset Management and/or Environmental Management System, as confirmed by documentation submitted by the applicant.
- Project's owner has a full-cost-pricing sewer use charge or dedicated fee system for non-sewerage projects, as confirmed by documentation submitted by the applicant.
- Project will be financed by multiple partners, in addition to MDE and the applicant (e.g., Department of Transportation, Housing and Urban Development Community Block Grant, etc.).
- Project is located in a designated Maryland Environmental Benefits District.
- Project includes sustainable green elements (e.g. Leadership in Energy and Environmental Design (LEED) rating, WaterSense-certified products, U.S. EPA Water Quality Scorecard, positive climate change impact, etc.)

⁵ MDE defines "equivalent dwelling unit" as "a measure of wastewater generated where one unit is equivalent to: (1) If a local government or billing authority for a wastewater facility has established a definition for "equivalent dwelling unit" on or before January 1, 2004, the average daily flow of wastewater generated that the local government or billing authority has established to be equivalent to the average daily flow of wastewater generated by a residential dwelling, which may not exceed 250 gallons; or (2) If a local government or billing authority has not established a definition for "equivalent dwelling unit" on or before January 1, 2004, or if a local government or billing authority has established a definition that exceeds 250 gallons of wastewater generated per day, an average daily flow of 250 gallons of wastewater generated."

Considerations for Refining the Project Priority System

MDE is focused on continual refinement of the project priority system. Identifying and assigning weight to the relevant factors that determine priority takes a considerable amount of planning and evaluation by state staff. When new criteria are added to the point system, it may take several years before there is a noticeable impact on the type of projects submitted to MDE as communities use the project priority system to tailor their projects in the planning stages towards those most likely to get funded. Below are several considerations that MDE might explore as it seeks to find ways for its project priority system to help the state achieve its objective to promote community sustainability through CWSRF funding.

Refine Sustainability Benefit Criteria. MDE has made a significant step towards funding more sustainable projects by allocating a quarter of the possible points in the scoring system for sustainability attributes.

A possible next step for MDE is to evaluate the impact of the point system to determine the extent to which it is helping MDE achieve its goals. One question is whether the sustainability benefit score actually makes a substantive difference in determining which projects get funded. MDE could consider which projects would be funded if it used a 75-point scale without considering any of the sustainability criteria. How many projects would lose funding due to the lack of sustainability points? Such an analysis could suggest whether more points would need to be associated with the sustainability benefit score to substantively influence funding. In the first year of use, approximately 40-50 percent of applicants received points for one or more of the sustainability ranking criteria. MDE may find that over time the number of applicants (and therefore the number of funded projects) that have sustainability attributes increases. Indeed, one purpose of identifying certain criteria is to inform project applicants of the types of projects MDE considers to be a priority for funding. In principle, such a message should encourage more applicants who have such projects to apply or might encourage applicants to modify their project design in order to earn more points.

Another possible option would be to evaluate ways that the existing sustainability criteria could be modified to target points more tightly to projects meeting the goals of the criteria. For example, MDE may want to evaluate the criterion that sewerage projects are eligible for 7 out of the 25 sustainability points if they increase the existing design capacity by less than 20 percent. If a significant percentage of applicants are meeting this criterion, MDE could consider lowering the percentage increase in design capacity allowed, or even switching to a threshold criterion where projects are excluded from funding (except in special circumstances) if the primary purpose is to serve or attract growth in previously unserved areas. Such changes might better target these points to projects that serve the needs of existing communities.

Another example is the criterion that awards three points if sustainable green elements are included in the project (e.g., Leadership in Energy and Environmental Design rating, WaterSense certified projects, U.S. EPA Water Quality Scorecard, or positive climate change impact, etc.) For future refinements, MDE could evaluate how many projects meet each of these criteria and the projects' contributions to meeting

Maryland's sustainability goals. The criterion could be revised to include only some of the green elements listed or to provide greater specificity. For example, the criterion could require a *specific* LEED rating, define the scope of the project that must be certified by WaterSense, explain how the Water Quality Scorecard would need to be used, or set a quantitative level of climate change impact needed (e.g., amount of greenhouse gas emissions reduced).

Encourage Projects Located on Sites with Existing Infrastructure. Siting SRF projects on brownfield,⁶ greyfield,⁷ and other infill sites fosters efficient use of existing wastewater systems, as well as other public infrastructure such as roads and housing. Stormwater projects are good candidates for such sites, as are new treatment plants needed to accommodate infill development if the brownfield/greyfield sites located on the urban periphery. MDE could consider a number of steps that might encourage more use of these sites for SRF projects.

The demolition of abandoned buildings and greyfield sites is eligible to be funded from the Green Project Reserve (GPR)⁸ if replaced by green infrastructure features. MDE could promote this option for blighted neighborhoods and regional economic development committees to make areas ripe for redevelopment more attractive while addressing stormwater runoff. New applicants may seek funding from the SRF program if their chances for successfully receiving funding are significantly increased by being GPR-eligible and they are made aware of this advantage. Other applicants may consider moving a project to a greyfield site for this reason as well. MDE could award priority points to applicants that evaluate the feasibility of siting the proposed project on a brownfield or greyfield site as part of the facilities plan analysis of alternatives (while continuing to award additional points for those projects that are sited within a brownfield revitalization area). MDE could establish regular communications with the Brownfield Revolving Loan Fund program to identify opportunities to cross-promote each funding program to the other program's customers. For example, the two programs could coordinate to offer interest rate breaks, grants, or other incentives if the community uses both funding programs by locating an SRF project on a remediated brownfield.

Improve Coordinated Infrastructure Planning. Maryland already has programs in place to encourage comprehensive infrastructure plans that align investments in housing, transportation, utilities, and other infrastructure. For example, MDE requires that publicly owned treatment works projects must be included in and consistent with County Water and Sewerage Plans. Each Maryland county and Baltimore City is required to prepare, adopt, and periodically review a 10-year forecasted Water and Sewerage Plan to demonstrate how safe and adequate water and sewerage facilities will be provided to support planned redevelopment and new growth as set forth in its adopted Comprehensive

⁶ Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

⁷ Greyfields are economically obsolescent, outdated, failing, moribund and/or underused real estate assets or land.

⁸ The American Recovery and Reinvestment Act of 2009 (ARRA) required state CWSRF programs to allocate 20 percent of their capitalization grants to the Green Project Reserve.

Land Use Plan. Legislation was passed in 2009 that reemphasized and clarified the requirement that the Water and Sewerage Plans must be consistent with the Comprehensive Land Use Plan. The Water and Sewerage Plan must be approved by MDE; the Maryland Department of Planning (MDP) advises MDE concerning the consistency of these Water and Sewerage Plans and plan amendments with the local comprehensive plans and other development-related policies and programs. In 2006, legislation was passed that required new comprehensive plan elements that increased the importance of managing water resources and required a more thorough examination of proposed land use effects. . As part of this process, MDP provides technical assistance and planning guidance to local governments, where requested, to help in the preparation of these plans.

MDE also requires publicly-owned treatment works projects to be located within and serve a PFA or to have received a PFA exception. The 1997 Priority Funding Areas Act directs state spending to existing communities and places where local governments want state investment to support future growth. Growth-related projects covered by the legislation include sewer and water construction because of its ability to encourage or support growth and development. The following areas qualify as PFAs:

- All municipalities, as they existed in 1997.
- Areas inside the Washington Beltway and the Baltimore Beltway.
- Areas already designated as enterprise zones, neighborhood revitalization areas, heritage areas and existing industrial land.

Counties may designate areas as PFAs if they meet guidelines for intended use, availability of plans for sewer and water systems, and permitted residential density. Areas eligible for county designation are existing communities and areas where industrial or other economic development is desired. In addition, counties may designate areas planned for new residential communities that will be served by water and sewer systems and meet density standards.

An evaluation of the impact of these policies and programs could suggest refinements that could give comprehensive plans more influence in the SRF project selection process or ways to better integrate state priorities with clean water goals. For example, MDE could award priority points for projects in areas that have coordinated with and solicited input on their County Water and Sewerage Plan from county housing and transportation agencies as a way to better align public infrastructure investments across sectors. MDE could also evaluate the location of the projects the SRF program has funded and consider how effective the targeting of assistance to PFAs has been in directing SRF dollars to existing communities. If undesired growth is still being funded, a stricter criterion may be desirable.

Improve Evaluation of Long-term Infrastructure Needs. In order to effectively use the "fix-it-first" approach and target investments to the backlog of needs in existing communities, MDE could encourage CWSRF applicants to accurately assess the state of their system's assets as well as current and future project needs. Because of financial limitations, many systems have not conducted such assessments and are addressing system problems in a piecemeal fashion without the benefit of a longer term strategy for where scarce infrastructure dollars should be spent. Communities that are considering funding new infrastructure need to understand the long-term costs of repairing and maintaining their existing system so that such investments can be supported by their ratepayers.

Maryland's current project priority system encourages planning for long-term infrastructure needs by providing three priority points for applicants that use a full-cost-pricing sewer user charge or dedicated fee system for non-sewerage projects and three priority points for projects whose owner has an asset management plan. MDE may be able to take additional steps to assist communities in long-term assessment of infrastructure needs, production capacity, replacement schedules and CWSRF financial planning.

For example, MDE could modify the funding application to require applicants to include projected operations and maintenance costs for the anticipated project to ensure that applicants are aware of the financial obligations they are undertaking by doing the project. The affordability of operations and maintenance costs will depend heavily on the number of ratepayers served by the infrastructure, and explicitly considering this cost can encourage communities to build more compactly.

MDE could also consider creating a policy that allows for streamlined funding of projects listed on the capital improvement plan (CIP). For example, MDE could offer 0-percent planning and design loans to assist communities in moving these CIP projects forward. Additional subsidy, when it is available, may also be used for planning and design grants. For example, the Iowa CWSRF offers 0-percent planning and design loans that can be rolled into a construction loan for an SRF project. These loans provide "cradle-to-grave" CWSRF financing in which different types of CWSRF assistance carry the community through capacity development, planning, design, environmental review, and construction. This type of support can result in a higher success rate for projects in the CIP while supporting state and local government goals. When considering funding for planning activities, MDE will have to balance the desire to help all worthy projects move forward with the goal of ensuring that planning funds ultimately support a capital project.

MDE might also consider offering grants to further incentivize development of asset management plans, environmental management systems, energy audits, and other planning activities that could reasonably lead to a capital project. Additional subsidy dollars would need to be used for this purpose because these activities would not have a revenue stream associated with them that could be used for loan repayment. For example, the Maine SRF provides principal forgiveness to communities that establish a 2 percent reserve fund for asset management.

Improve Decentralized System Management. The choice of whether to sewer a community or service wastewater needs through decentralized wastewater treatment is a local choice best informed by analysis of the life-cycle costs of the alternatives in line with broader community goals and planning.⁹ Where decentralized solutions are appropriate, well designed, correctly installed and well managed,

⁹ A larger discussion of decentralized wastewater treatment and how communities can help ensure that their wastewater infrastructure choices support community growth and environmental development goals is found in the U.S. EPA document, "Essential Smart Growth Fixes for Rural Planning, Zoning, and Development Codes" (2012).
http://www.epa.gov/smartgrowth/pdf/rural_essential_fixes_508_030612.pdf.

they can be a low-impact and cost-effective wastewater treatment option. Responsible management entities with dedicated funding sources are critical for the sustainability of decentralized wastewater treatment systems.

Maryland's point system recognizes the importance of maintaining decentralized wastewater treatment as a viable option for communities by offering priority points for those with dedicated funding. If a significant number of decentralized projects seeking SRF funding are receiving these points, MDE could consider requiring decentralized system projects to include provisions to establish a Responsible Management Entity (RME), provide an ongoing operations and maintenance plan, and demonstrate a reliable source of funding for ongoing operations and maintenance. Further, any municipality that is continuing to permit new decentralized systems could be required (or encouraged through awarding of priority points) to have a RME with a dedicated revenue source in place in order to receive SRF funds to address water quality problems caused by failing decentralized systems. Technical assistance will play an important role in building capacity for decentralized system management. MDE could consider using additional subsidy money to provide technical assistance grants to help entities develop the necessary capacity for decentralized system management.

Several states have undertaken initiatives to improve decentralized system management and thereby retain these systems as a long-term, viable wastewater treatment option. In Minnesota all unsewered communities seeking CWSRF funding for decentralized systems must create a financing plan that provides a dedicated source of revenue for debt service and operations and maintenance (typically special assessments or user charges). Communities must also provide a management plan with a schedule for inspections, pumping, repair, and replacement and must analyze alternatives using a wastewater treatment hierarchy.

Planners in Maryland expect that nitrogen production related to decentralized systems will continue to be a growing source of nutrient pollution in the state under a business-as-usual scenario. Given Maryland's goals to reduce nutrient pollution to the Chesapeake Bay, Maryland has created a task force to study the environmental and health impacts of on-site sewage disposal. MDE will need to consider the recommendations of this task force when adopting any changes to its funding requirements and incentives for decentralized systems to ensure that the state has a coordinated approach to addressing its Chesapeake Bay obligations.