

plan that addresses activities for the next approval period, including any new actual or potential sources of *Cryptosporidium* contamination and details of any proposed or expected changes from the existing State-approved program. The plan must address goals, prioritize specific actions to reduce source water *Cryptosporidium*, explain how actions are expected to contribute to achieving goals, identify partners and their role(s), resource requirements and commitments, and the schedule for plan implementation.

The annual program status reports, watershed control plan and annual watershed sanitary surveys must be made available to the public upon request. These documents must be in a plain language format and include criteria by which to evaluate the success of the program in achieving plan goals. If approved by the State, the system may withhold portions of the annual status report, watershed control plan, and watershed sanitary survey based on security considerations.

b. *How was this proposal developed?* The M-DBP Advisory Committee recommended that systems be awarded 0.5 log *Cryptosporidium* treatment credit for implementing a watershed control program. This recommendation was based on the Committee's recognition that some systems will be able to reduce the level of *Cryptosporidium* in their source water by implementing a well-designed and focused watershed control program. Moreover, the control measures used in the watershed to reduce levels of *Cryptosporidium* are likely to reduce concentrations of other pathogens as well.

EPA concurs that well designed watershed control programs that focus on reducing levels of *Cryptosporidium* contamination of water sources should be encouraged, and that implementation of such programs will likely reduce overall microbial risk. A broad reduction in microbial risk will occur through the application of control measures and best management practices that are effective in reducing fecal contamination in the watershed. In addition, plant management practices may be enhanced by the knowledge systems acquire regarding the watershed and factors that affect microbial risk, such as sources, fate, and transport of pathogens.

Given the highly site-specific nature of a watershed control program, including the feasibility and effectiveness of different control measures, EPA believes that systems should demonstrate their eligibility for

0.5 log *Cryptosporidium* treatment credit by developing targeted programs that account for site-specific factors. As part of developing a watershed control program, systems will be required to assess a number of these factors, including watershed hydrology, sources of *Cryptosporidium* in the watershed, human impacts, and fate and transport of *Cryptosporidium*. Furthermore, EPA believes that the State is well positioned to judge whether a system's watershed control program is likely to achieve a substantial reduction of *Cryptosporidium* in source water. Consequently, EPA is proposing that approval of watershed control programs and allowance for an associated 0.5 log treatment credit be made by the State on a system specific basis.

A watershed control program could include measures such as (1) the elimination, reduction, or treatment of wastewater or storm water discharges, (2) treatment of *Cryptosporidium* contamination at the sites of waste generation or storage, (3) prevention of *Cryptosporidium* migration from sources, or (4) any other measures that are effective, sustainable, and likely to reduce *Cryptosporidium* contamination of source water. EPA recognizes that many public water systems do not directly control the watersheds of their sources of supply. EPA expects that systems will need to develop and maintain partnerships with landowners within watersheds, as well as with State governments and regional agencies that have authority over activities in the watershed that may contribute *Cryptosporidium* to the water supply. Stakeholders that have some level of control over activities that could contribute to *Cryptosporidium* contamination include municipal government and private operators of wastewater treatment plants, livestock farmers and persons who spread manure, individuals with failing septic systems, logging operations, and other government and commercial organizations.

EPA has initiated a number of programs that address watershed management and source water protection. In 2002, EPA launched the Watershed Initiative (67 FR 36172, May 23, 2002) (USEPA 2002b), which will provide grants to support innovative watershed based approaches to preventing, reducing, and eliminating water pollution. In addition, EPA has recently promulgated new regulations for Concentrated Animal Feeding Operations (CAFOs), which through the NPDES permit process will limit discharges that contribute microbial pathogens to watersheds.

SDWA section 1453 requires States to carry out a source water quality assessment program for the protection and benefit of public water systems. EPA issued program guidance in August of 1997, and expects that most States will complete their source water assessments of surface water systems by the end of 2003. These assessments will establish a foundation for watershed vulnerability analyses by providing the preliminary analyses of watershed hydrology, a starting point for defining the area of influence, and an inventory and hierarchy of actual and potential contamination sources. In some cases, these portions of the source water assessment may fully satisfy those analytical needs.

As noted earlier, EPA has published and is continuing to develop guidance material that addresses contamination by *Cryptosporidium* and other pathogens from both non-point sources (e.g., agricultural and urban runoff, septic tanks) and point sources (e.g., sewer overflows, POTWs, CAFOs). The Toolbox Guidance Manual, available in draft with today's proposal, includes a list of programmatic resources and guidance available to assist systems in building partnerships and implementing watershed protection activities. In addition, this guidance manual incorporates available information on the effectiveness of different control measures to reduce *Cryptosporidium* levels and provides case studies of watershed control programs. This guidance is intended to assist water systems in developing their watershed control programs and States in their assessment and approval of these programs.

In addition to guidance documents, demonstration projects, and technical resources, EPA provides funding for watershed and source water protection through the Drinking Water State Revolving Fund (DWSRF) and Clean Water State Revolving Fund (CWSRF). Under the DWSRF program, States may provide funding directly to public water systems for source water protection, including watershed management and pathogen source reduction plans. CWSRF funds have been used to develop and implement agricultural best management practices for reducing pathogen loading to receiving waters and to fund directly, or provide incentives for, the replacement of failing septic systems. EPA encourages the use of CWSRF for source protection and has developed guidelines for the award of funds to address non-point sources of pollution (CWA section 319 Non Point Source Pollution Program). Further, the Agency is promoting the broader use of