

**STATE WATER RESOURCES CONTROL BOARD  
BOARD MEETING SESSION  
DIVISION OF FINANCIAL ASSISTANCE, OFFICE OF ENFORCEMENT,  
AND DIVISION OF WATER QUALITY  
JULY 7, 2009**

**ITEM 11**

**SUBJECT**

UPDATE ON THE STATE WATER RESOURCES CONTROL BOARD'S (STATE WATER BOARD) EFFORTS TO PROMOTE STRATEGIES TO ASSIST SMALL AND/OR DISADVANTAGED COMMUNITIES WITH WASTEWATER NEEDS

**DISCUSSION**

Small and/or disadvantaged communities face specific challenges related to their drinking water and wastewater systems. Many are on failing septic systems or have old and undersized wastewater treatment plants (WWTP) that cannot meet current water quality standards. Such systems can cause significant health and safety problems, endanger surface water uses, and pose a threat to groundwater supplies.

Due to their small rate base, small (i.e., population less than 20,000 persons) and/or disadvantaged (i.e., median household income [MHI] less than 80 percent of statewide MHI) communities often cannot provide the economies of scale necessary to build and maintain adequate wastewater systems. Small and/or disadvantaged communities are also commonly located in rural, sparsely populated areas that require greater pipeline and pumping infrastructure. Small and especially small and rural communities generally face higher per capita capital and operations and maintenance (O&M) costs, which result in higher, sometimes prohibitive, sewer rates.

The challenges small and/or disadvantaged communities face generally result from a lack of adequate local monetary resources combined with insufficient access to technical expertise. Small and/or disadvantaged communities often lack the funds necessary to retain qualified operators. When their wastewater systems violate water quality requirements, they are unable to come up with the capital to fix the problem and may be unable to pay the fines associated with non-compliance. In addition, many small and/or disadvantaged communities lack the resources and in-house expertise necessary to apply for grants and loans to help make wastewater projects more feasible. Even if communities are able to secure financial assistance, they often do not have the in-house technical expertise to determine the best project alternative or to appropriately plan for long-term O&M needs.

The State Water Board is committed to addressing the human health and water pollution problems associated with small and/or disadvantaged communities, especially in cases where these problems may present an environmental injustice. In 2008, State Water Board staff, in coordination with Regional Water Quality Control Boards (Regional Water Boards) staff (collectively referred to as Water Boards), developed a *Small Community Wastewater Strategy* (Strategy), which provides an overview of the problems faced by small and/or disadvantaged communities and proposed solutions to address those problems.

The Strategy was referenced in [State Water Board Resolution No. 2008-0048](#), adopted July 1, 2008, which promotes strategies to assist small and/or disadvantaged communities with wastewater needs.

### **UPDATE ON SMALL AND/OR DISADVANTAGED COMMUNITY WASTEWATER ACTIONS: FISCAL YEAR 2008/2009**

The State Water Board directed staff to report annually, beginning July 2009, on progress made pursuant to Resolution No. 2008-0048. The following is a summary of progress with respect to actions outlined in Resolution No. 2008-0048 and the Strategy:

1. State Water Board staff continues to work with staffs from the California Department of Public Health (CDPH), Department of Water Resources (DWR), United States Department of Agriculture (USDA), United States Environmental Protection Agency (U.S. EPA), and others to identify opportunities to leverage resources.
2. Staff refined procedures to process and disburse small and/or disadvantaged community payments within 30 days of submittal of a complete payment request. Those procedures are available to the public on the [Strategy webpage](#).
3. The State Water Board implemented improvements to the Clean Water State Revolving Fund (CWSRF) Program to make it more appealing and affordable to small and/or disadvantaged communities, including:
  - a. Incorporating the following changes into the September 16, 2008, and March 17, 2009, amendments to the *Policy for Implementing the CWSRF for Construction of Wastewater Treatment Facilities (Policy)*:
    - Planning financing at zero percent (0%) interest, during a draw period of up to three (3) years. At the end of the draw period, the recipient may elect to refinance the planning financing principal as part of a construction financing agreement with the CWSRF Program, or repay it (at half the general obligation bond rate) over a period of five (5) years.
    - Refinancing existing local debts incurred for a CWSRF-eligible project, when necessary to make CWSRF financing for a new project affordable.
    - Extended Term Financing (ETF), for small, disadvantaged communities with wastewater rates that are 1.5 percent or more of the community's MHI. The State Water Board received approval from U.S. EPA to offer ETF in October 2008, and subsequent follow up guidance was provided April 2009. As of June 1, 2009, ETF has been granted to two communities.
    - Financing at a reduced interest rate, not less than zero percent (0%), to the extent necessary to make CWSRF financing affordable.
    - Additional subsidy, as available through the State Water Board, when reduced interest rates are not sufficient to lower wastewater rates to 1.5 percent of the community's MHI.

- b. [State Water Board Resolution No. 2009-0027](#) reserves 25 percent (25%) of the CWSRF Program's American Recovery and Reinvestment Act of 2009 (ARRA) funds for principal forgiveness to disadvantaged communities. There are strict conditions regarding when the recipients must submit their application, execute an agreement with the State Water Board, select a contractor, and begin construction. Since many small, disadvantaged communities have relatively limited resources, staff is working to ensure that these communities are moving forward as quickly as possible so they are able to take advantage of this opportunity to the maximum extent possible.
4. State Water Board staff continues to look at new and alternative funding sources to assist small and/or disadvantaged communities with their wastewater needs. As of June 1, 2009, six small, disadvantaged community wastewater projects have been funded through the Cleanup and Abatement Account (CAA) under the Small Community Wastewater Grant (SCWG) Program. Communities have been funded for various phases of work, including planning, design, and construction, depending on their status/needs.
5. The State Water Board is preparing to execute one or more contracts with existing non-profits that support small and/or disadvantaged communities with wastewater training and technical assistance needs. The contracts will include assistance within the following general areas: preparation of financial assistance applications; defining board member roles and responsibilities; community outreach, awareness, and education; fiscal management and accountability; capital improvement planning and asset management; rate setting and the Proposition 218 process; wastewater laws and regulations; review of design and operational solutions; and preparing O&M manuals.
6. State Water Board staff developed a statewide list of small and/or disadvantaged communities in need of wastewater assistance. The Regional Water Boards and various environmental justice and small community assistance organizations have reviewed the list. Staff will continue to update this list as additional small and/or disadvantaged community wastewater projects are identified.

## **PROPOSED SMALL AND/OR DISADVANTAGED COMMUNITY WASTEWATER ACTIONS**

The following is a summary of potential financial, regulatory, and technical strategies to assist small and/or disadvantaged communities with wastewater needs.

### **Financial Assistance Strategies**

In addition to continuing ARRA administration, primary objectives for assisting small and/or disadvantaged communities over the next year include:

1. Utilizing all available means of financial assistance for small and/or disadvantaged communities, including planning financing and ETF.
2. Begin accumulating funds in the CWSRF Small Community Grant Fund (Grant Fund), which was created by Assembly Bill (AB) 2356 (Statutes 2008, Chapter 609, Arambula). AB 2356 allows the State Water Board to assess an annual charge, which is to be deposited into the Grant Fund, in lieu of interest that would otherwise be charged in association with a financing agreement. The State Water Board has the authority to deposit up to \$50 million into the Grant Fund by 2014. State Water Board staff has developed new template language regarding the assessment of such an annual charge.

This new language will be incorporated into new financing agreements and amendments, as appropriate.

3. Executing and implementing the aforementioned small community assistance contracts with a focus on getting potential financial assistance applicants ready-to-proceed with necessary wastewater upgrades and compliance projects, and making those systems sustainable for the long term.
4. Development of a process, through the CWSRF Program or other means, to encourage larger entities to help support the needs of small and/or disadvantaged communities. The State Water Board could offer larger entities financial incentives, such as lower interest rates, in exchange for efforts to assist small and/or disadvantaged communities. Assistance could include, for example: preparation of applications; legal, financial, or technical advice or analysis; operator or managerial training/service; etc.
5. Updating the SCWG Program's Competitive Project List and the *SCWG Program Guidelines* (Guidelines). Staff intends to send a request for additional project information to all identified communities to get more information about their needs, and the status of their wastewater projects. This was planned for early 2009; however, due to the extensive staff time involved in implementing ARRA, updates have been postponed until 2010. Key items under consideration for incorporation in the updated Guidelines include: adjusting the funding approval process to mirror the CWSRF Program, to the extent possible; requiring the evaluation of regional wastewater alternatives, including a cost-effectiveness evaluation; setting a maximum amount of grant funding per household, that cannot be exceeded without sufficient justification; consideration of affordability in determining the maximum grant amount; and requiring local agency board members to submit certification of participation in a course regarding their roles and responsibilities prior to funding. Such classes could be offered by existing non-profits and paid for through the small community assistance contracts mentioned above.

### **Regulatory and Technical Assistance Strategies**

Based on Water Boards staffs' experiences in administering both the regulatory programs and the actions recommended in the Strategy, non-compliance at small and/or disadvantaged community facilities will likely continue to exist until fundamental changes in how ongoing operation, maintenance, and major equipment repair are managed. Other actions to improve the retention of qualified operators, available revenue to support facility needs, and compliance at these facilities are being evaluated and, where appropriate, will be brought back before the State Water Board for further direction/action. These additional actions generally fall under the following categories:

#### ***Retaining Qualified Operators***

1. Establish an additional grade of WWTP Operator Certification, for operators working at small WWTPs.

Under the current regulations, it takes between one and two years to train and certify a Grade I WWTP Operator. This process also requires the employment of two people (an Operator-In-Training [OIT] and a certified operator to supervise the OIT during the minimum one-year training period) for a WWTP that in general would require only a part-time operator. This is not only a substantial financial drain on the community, but it is also often difficult for a small community to find a certified operator willing to train the OIT.

The proposed solution would, in most cases, eliminate the need for a certified operator to train an OIT during the one-year training period. The State Water Board, in partnership with other training organizations would provide necessary training for a fraction of the cost that most communities currently spend (mostly in salaries) on operator training. The program would enhance the retention of operators by small communities, ensure better compliance with regulatory requirements through more focused training of new operators, and reduce the number of complaints requiring investigation and enforcement.

After complying with specific educational and training requirements, qualified candidates would be issued a certificate valid for the specific WWTP at which they work. The proposed program would allow a qualified person to obtain a WWTP operator certificate within a few weeks. The proposed program would cover all pond treatment systems with a design capacity of one million gallons per day or less and some small “package” WWTPs. A change in the current Operator Certification Regulations will be required.

2. Re-establish a Water Boards training program for WWTP operators.

The State Water Board used to run such a program and it was extremely popular with the operator community. It was supported by tuition fees and funding from U.S. EPA and the Water Boards. Based on past inspections and complaint investigations, Water Board staffs have noticed that a significant number of operators are poorly trained in WWTP O&M. Although this lack of training is more evident at small WWTPs, it is also a problem at medium-size WWTPs. This training program would focus on areas of noted deficiencies and would provide training to new operators as well as continuing education for existing operators.

This program could be implemented in partnership with a college or university and local (larger) WWTPs. At least three full-time positions will be needed to run this training program. Working with larger WWTPs that have laboratories and equipment, or organizations such as the California Rural Water Association (CRWA), to provide hands-on training would be necessary. Many larger agencies would likely be willing to support operator training by providing their facilities and expertise at very little or no cost. The State Water Board is also considering financial incentives to larger agencies to encourage cooperation and assistance between larger and smaller entities.

3. Establish a fund (similar to the California Environmental Protection Agency’s Environmental Enforcement and Training Fund, Penal Code 14300), which would be used exclusively for operator training and compliance assistance for small and/or disadvantaged communities (discussed below). This would require legislative action. The funds would come primarily from penalty fees and Supplemental Environmental Projects.

This would secure supplemental long-term funding for the training programs described above at no direct cost to the Water Boards.

4. Update the WWTP Operator Certification exams to include maintenance management, permit, and monitoring and reporting requirement questions.

The WWTP Operator Certification exams administered over the past 30 years focus primarily on the technical aspects of WWTP operation. However, a substantial number of documented violations are a direct result of poor maintenance and failure to understand the general reporting and monitoring requirements. Revising the current exams to emphasize these areas would eventually improve compliance with permit requirements.

## ***Improving Financial/Asset Management for Long-term Sustainability***

1. Establish a program to require communities to budget for long-term maintenance, repair, and replacement costs.

Small and/or disadvantaged communities have historically had difficulty collecting adequate revenue to support the basic O&M of their WWTPs. Replacement of more expensive mechanical and electrical components can be relatively expensive, and sometimes impossible, unless budgeted for in advance. As a result, non-critical (and sometimes critical) equipment is often neglected or abandoned leading to shortened plant life and compliance problems. To address this problem, communities need to collect adequate revenue for daily O&M and set aside a reserve for major equipment replacement.

This could be approached in multiple ways, for example:

- a. Establish a program to pool funds, or set up an “escrow” account maintained by the State, into which a discharger would be required to deposit funds either annually or on a lump sum basis; or
  - b. Require dischargers to budget a specific portion of their wastewater rates for long-term needs, and to deposit those funds into a local dedicated capital replacement and improvement fund.
2. Require energy efficient systems and renewable power sources (solar, wind, or hybrid systems), when technologically feasible and cost-effective, at least for all grant and loan-funded WWTPs, to reduce long-term operating costs.

Electrical power costs can be a relatively significant part of operational costs at many WWTP. A small pond treatment system with a couple of pumps and aerators typically requires \$10,000-\$20,000 per year in electricity to operate. A \$50,000-\$100,000 investment in a solar power system would provide most of the power needs for a small WWTP. These systems are reliable, easy to maintain, and have a long life expectancy (solar panels are guaranteed for a period of 20-30 years). Such supplemental energy systems could pay for themselves in a few years by significantly reducing the operational cost of the WWTP. The money saved could be redirected toward equipment, maintenance, and personnel salaries.

## ***Effective Compliance Assistance and Regulatory Oversight***

1. State Water Board staff is developing contracts with some non-profit organizations to identify and recruit volunteers (or paid staff) willing to help with identification of problem facilities, training, and compliance assistance. In addition to the current efforts in this area, the State Water Board could develop a standard contract agreement with qualified operators across the State to assist small communities that employ the additional grade of WWTP Operators mentioned earlier.

These contracts would provide emergency response/assistance in situations that are beyond the control or capabilities of the small community’s operator.

2. Mandate a periodic review of revenue programs by the discharger and the State Water Board.

An annual review of revenue programs will ensure that the communities are continuing to set aside the necessary funding for future O&M needs as well as capital improvement projects.

3. Require O&M inspections to be conducted every two years for WWTPs with chronic or serious violations.

Small and/or disadvantaged community WWTPs receive substantial funding from federal and state programs. Oversight of these WWTPs ceases one year after funding has been disbursed. Regulatory inspections are infrequently performed on WWTPs. Routine inspections for grant and loan funded WWTPs are essential in protecting the taxpayers' investment.

4. Ensure consistent, effective enforcement against negligent operators and dischargers at WWTPs that have received the benefit of funding assistance, new certificate options, enhanced O&M funding, training, or WWTP consultative services designed to bring these WWTPs into compliance. This initiative would ensure that communities are utilizing the available services to achieve compliance. Operators who have received the training and assistance described above and who continue to be negligent in their duties, or do not use care and good judgment while operating WWTPs, should be disciplined.
5. Implement proposed changes in the Operator Certification Regulations to provide for Executive Management review of Operator Certification disciplinary appeals, in lieu of the existing appeal process. This will promote more consistent enforcement against negligent and incompetent operators.

### ***Improved Permitting of Small WWTPs***

Existing permits for WWTPs discharging to land are often outdated and difficult to enforce. Many of these WWTPs have similar treatment processes and similar impacts to water quality. Water Boards staff will explore ways to improve the permitting process for like WWTPs, beginning with small WWTPs discharging to land. A major part of this investigation will be the feasibility of issuing general permits for different classes of small WWTPs. If this proves to be a viable option, the use of general permits may allow staff resources now used for permitting activities to be redirected towards compliance assistance activities.

### **SMALL AND/OR DISADVANTAGED COMMUNITY WASTEWATER UPDATE MEETING**

State Water Board staff hosted a meeting with various environmental justice and small community assistance organizations on Thursday, June 11, 2009, to provide an overview of the Water Boards' efforts to date and to discuss our plans for the future. In addition to providing an update, State Water Board staff solicited feedback from the organizations on the effectiveness of the Water Boards' efforts to date, and other strategies to be considered. The State Water Board staff presentation regarding this informational item will include a report on new items and ideas discussed at the meeting.

**POLICY ISSUE**

None at this time; informational item.

**FISCAL IMPACT**

None at this time; informational item.

**REGIONAL BOARD IMPACT**

None at this time; informational item.

**STAFF RECOMMENDATION**

None at this time; informational item.

State Water Board action on this item will assist the Water Boards in reaching Goals 1, 2 and 5 of the Strategic Plan Update: 2008-2012 to implement strategies to fully support the beneficial uses for all 2006-listed water bodies by 2030 (Goal 1), improve and protect groundwater quality in high-use basins by 2030 (Goal 2), and improve transparency and accountability by ensuring that Water Board goals and actions are clear and accessible, by demonstrating and explaining results achieved with respect to the goals and resources available, by enhancing and improving accessibility of data and information, and by encouraging the creation of organizations or cooperative agreements that advance this goal, such as establishment of a statewide water data institute (Goal 5).