

WATER BOARDS'
SMALL COMMUNITY WASTEWATER STRATEGY
STAFF DOCUMENT

This *Small Community Wastewater Strategy* is referenced in a Resolution Promoting Strategies to Assist Small and/or Disadvantaged Communities with Wastewater Needs, which is scheduled to be presented for State Water Resources Control Board consideration at the July 1, 2008 Board Meeting.

June 16, 2008

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LIST OF ACRONYMS AND ABBREVIATIONS

ACL	Administrative Civil Liability
CAA	Cleanup and Abatement Account
CFCC	California Financing Coordinating Committee
CIWQS	California Integrated Water Quality System
CPL	Competitive Project List
CRLAF	California Rural Legal Assistance Foundation
CRWA	California Rural Water Association
CWA	Clean Water Action
CWC	Community Water Center
DFA	Division of Financial Assistance
DPH	Department of Public Health
DWQ	Division of Water Quality
DWR	Department of Water Resources
EJWC	Environmental Justice Coalition for Water
GO	General Obligation
Guidelines	<i>Small Community Wastewater Grant Program Guidelines</i>
IRWM	Integrated Regional Water Management
JPA	Joint Powers Authority
LAFCO	Local Agency Formation Commissions
MHI	Median Household Income
MOU	Memorandum of Understanding
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
OE	Office of Enforcement
ORPP	Office of Research, Planning, and Performance
Policy	<i>Policy for Implementing the State Revolving Fund for Construction of Wastewater Treatment Facilities</i>
RCAC	Rural Community Assistance Corporation
RCRC	Regional Council of Rural Counties
Regional Water Boards	Regional Water Quality Control Boards
SAG	Stakeholder Advisory Group
SCSWG	Small Communities Strategy Work Group
SCWG	Small Community Wastewater Grant
SD	Special District
SHE	Self-Help Enterprises
SRF	State Revolving Fund
State Water Board	State Water Resources Control Board
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements

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Executive Summary

Small communities face specific challenges related to their drinking water and wastewater systems. Many are currently on failing septic systems or have old and undersized wastewater treatment plants 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 communities lack the economies of scale to build and maintain adequate wastewater systems. Small 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 results in higher, sometimes prohibitive, sewer rates. Disadvantaged (median household income [MHI] of less than 80 percent of the statewide MHI) and severely disadvantaged (MHI of less than 60 percent of the statewide MHI) small communities face the additional burden of lower household incomes. This combination of higher per capita costs with low MHI means that residents of disadvantaged small communities often pay an even more substantial percentage of their income for wastewater collection and treatment service.

Many small 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 access to technical expertise to determine the best project alternative or to appropriately plan for long-term O&M needs. Therefore, more financial, technical, and regulatory assistance is needed to bring small communities into compliance.

This *Small Community Wastewater Strategy* provides an overview of the problems faced by small communities and proposed solutions to address those problems. As described in Section 2, recommended actions have been separated into three parts: Financial Assistance; Technical Assistance; and Regulation and Enforcement. As this *Small Community Wastewater Strategy* is implemented, analyses will be conducted to evaluate how broadly assistance efforts can be applied based on small community needs and available resources. Prioritization will be based on economic need, and efforts will be directed first to disadvantaged small communities, which generally have the most limited local resources. Performance evaluation and assessment measures are outlined in Section 3. These measures will be used to track improvements resulting from the implementation of this *Small Community Wastewater Strategy*.

The following appendices have been included for reference purposes: Appendix A: Key Terms and Definitions; Appendix B: References and Useful Website Links; Appendix C: List of State and Regional Water Boards Wastewater Contacts; Appendix D: Initial Findings of the Small Community Strategy Work Group; and Appendix E: Chronology of Coordination with Non-Profit Organizations.

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1 BACKGROUND

Small communities face specific challenges related to their drinking water and wastewater systems. Within the Water Boards, small communities are generally defined as communities with financial hardship and either: (1) a population of 10,000 persons or less for wastewater enforcement purposes, per Water Code Section 13385(k)(2); or (2) a population of 20,000 persons or less for financial assistance purposes, per Public Resources Code, Section 30925(a). The Department of Public Health (DPH; formerly known as the Department of Health Services) defines small community drinking water systems as those serving less than 10,000 persons.

Due to their small rate base, small communities lack the economies of scale to build and maintain adequate wastewater systems. Small communities are commonly located in rural, sparsely-populated areas that require greater pipeline and pumping infrastructure. Contributing to the problem, in both rural and non-rural areas, are poor land use planning decisions. In some cases these communities were formed more than 30 years ago, before the development of general plans; however, some new subdivisions and developments are inappropriately sited, without adequate infrastructure or beneficial economics to sustain their wastewater infrastructure.

Small, and especially small rural, communities generally face higher per capita capital and O&M costs, which results in higher, sometimes prohibitive, sewer rates. In addition, small communities are more likely to qualify as disadvantaged (MHI of less than 80 percent of the statewide MHI) or severely disadvantaged (MHI of less than 60 percent of the statewide MHI). This combination of higher per capita costs with low MHI means that residents of disadvantaged small communities often pay an even more substantial percentage of their income for wastewater collection and treatment service. Throughout this *Small Community Wastewater Strategy* reference to small and/or disadvantaged communities is intended to denote both small and disadvantaged small communities. These communities tend to face similar issues, with disadvantaged small communities facing the additional burden of lower household incomes.

As described in the *Draft Strategic Plan Update: 2008-2012*, the Water Boards are committed to addressing environmental justice issues. Disadvantaged small communities are often populated by low-income minority populations, particularly within many of the small farm worker communities located throughout the Central Valley of California. The Water Boards are committed to addressing the human health and water pollution problems associated with small and/or disadvantaged communities, especially in cases where these problems present an environmental injustice. A variety of financial and technical assistance actions are recommended in Section 2. As this *Small Community Wastewater Strategy* is implemented, analyses will be conducted to evaluate how broadly assistance efforts can be applied based on small community needs and available resources. Prioritization will be based on economic need, and efforts will be directed first to disadvantaged small communities, which generally have the most limited local resources.

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Many small and/or disadvantaged communities are on failing septic systems or have old and undersized wastewater treatment plants 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. Approximately ten percent of the small community wastewater facilities in California discharge to surface water under the National Pollutant Discharge Elimination System (NPDES), and the remainder discharge to land and are regulated under Waste Discharge Requirement (WDR) Orders. Based on information obtained from the California Integrated Water Quality System (CIWQS), 81 percent of those small communities regulated under NPDES had at least one violation between January 1, 2000, and June 31, 2006; and 77 percent of those small communities regulated under WDRs had at least one violation during that same period.

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. Another contributing problem is changes in regulatory requirements and the consequent cost of technological upgrades. Small and/or disadvantaged communities also 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. More financial, technical, and regulatory assistance is needed to bring small and/or disadvantaged communities into compliance.

The Water Boards formed a staff work group to look at the problems faced by small and/or disadvantaged communities and to develop strategies to address those problems. The Small Community Strategy Work Group (SCSWG) consists of State Water Resources Control Board (State Water Board) staff from the Division of Financial Assistance (DFA), Division of Water Quality (DWQ), Office of Enforcement (OE), Office of Research, Planning, and Performance (ORPP), and staff from the Regional Water Quality Control Boards (Regional Water Boards). Water Boards staff involved with the SCSWG have also been coordinating with outside entities (other state agencies, as well as community based non-profits) that are involved in addressing small and/or disadvantaged community wastewater issues.

The initial scope of the SCSWG's efforts has been primarily focused on issues relating to wastewater, as the State and Regional Water Boards: 1) are responsible for regulating discharges from wastewater treatment facilities; and 2) offer financial assistance to assist with funding wastewater treatment projects. However, the Water Boards will also be working with DPH to try to leverage funding and regulatory efforts to address small and/or disadvantaged community drinking water and wastewater issues

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in tandem. In addition, in the future, SCSWG efforts may be expanded to address storm water issues, or water reuse, recycling, and sustainability, as appropriate.

A summary of the SCSWG's initial findings regarding small and/or community wastewater compliance is provided in Appendix D.

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2 RECOMMENDED ACTIONS

Each division or office involved with the SCSWG has developed strategies within their program to address problems faced by small and/or disadvantaged communities. These strategies have been arranged into three primary types, as discussed below: Financial Assistance; Technical Assistance; and Regulation and Enforcement.

2.1 FINANCIAL ASSISTANCE

2.1.1 Increased Coordination with Other Agencies and Non-Profits

Water Boards staff plan to increase coordination and work with DPH, Department of Water Resources (DWR), United States Department of Agriculture (USDA), and United States Environmental Protection Agency (USEPA) to provide better coordinated assistance, funding fairs, and hands-on outreach.

The State Water Board hosted a one-day Funding Fair on January 11, 2008. The purpose of the Funding Fair was to provide an overview of funding opportunities, as well as tips for completing funding applications and managing projects. Partner agencies, including DWR, DPH, USDA, and USEPA, as well as nonprofits that assist small and/or disadvantaged communities, such as CRWA and RCAC, participated and shared information with interested stakeholders.

Water Boards staff participated in a series of California Financing Coordinating Committee (CFCC) Funding Fairs in both Northern and Southern California in early 2008. The CFCC consists of state and federal agencies and departments that work together to offer coordinated and streamlined access to subsidized infrastructure financing for California communities.

State Water Board staff has provided DWR with the Small Community Wastewater Grant (SCWG) Program's 2004 and 2007 Competitive Project Lists (CPL), and has requested that DWR work to support or possibly require inclusion of small and/or disadvantaged communities in Integrated Regional Water Management (IRWM) planning efforts. DWR is planning to put together a workshop to discuss how to support effective inclusion of disadvantaged communities in IRWM planning and how to effectively define a disadvantaged community. Other items, such as disadvantaged community water and wastewater management issues and their needs, particularly with regard to technical assistance will also be discussed at these workshops. Water Boards staff attended the initial planning meeting to begin developing the agenda and list of invitees with DWR and DPH. The Environmental Justice Coalition for Water (EJCW), the Planning & Conservation League, Clean Water Action, and the Sierra Club have all expressed interest in participating, and more agencies will be involved as planning progresses.

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Water Boards staff also attended the Drinking Water Program Funding Stakeholders Committee Meeting to learn more about DPH's grant and loan programs. Water Boards staff will continue to work with DPH, DWR, and others to identify opportunities to leverage resources and encourage funding of projects that address the needs of small and/or disadvantaged communities.

It is critical that small and/or disadvantaged communities weigh proposed engineered solutions with long-term O&M costs, as well as their ability to hire and maintain qualified operators for the different types of treatments proposed. Nonprofit organizations can provide an essential role in this process, as they are able to provide the communities with technical advice and oversight that the Water Boards, as a regulatory agency, are unable to offer. Some of these nonprofit organizations are able to work directly with local personnel to: (1) teach them responsible approaches to planning for long-term compliance; and (2) prepare them for problems they will encounter while managing their wastewater systems.

The Water Boards have been working with existing community-based nonprofit organizations to better understand the resources these nonprofit organizations provide and to determine how the Water Boards can assist their efforts. A more detailed summary of coordination with community-based nonprofits is provided in Appendix E. Examples of such entities include: California Rural Legal Assistance (CRLA), California Rural Water Association (CRWA), Clean Water Action (CWA), Community Water Center (CWC), EJCW, Rural Community Assistance Corporation (RCAC), and Self-Help Enterprises (SHE).

2.1.2 Determining How to Evaluate Affordability

Some consider it problematic to define a community as needy based on MHI alone, as other factors can significantly affect the affordability of a community's wastewater project. Another common method for evaluating affordability is to compare the household sewer rate as a percentage of MHI to the generally accepted affordable rate of 1.5 to 2 percent of the MHI. USDA and DPH both use 1.5 percent of the MHI as a baseline for evaluating sewer rate affordability.

Water Board staff have reviewed approaches for evaluating financial need and wastewater affordability from various states, including Florida, Pennsylvania, and Texas to get an idea of the different factors that they consider in evaluating a community's ability to pay for water and wastewater infrastructure. Water Board staff have also met with Regional Council of Rural Counties (RCRC) and various representatives from cities and counties that are concerned about wastewater affordability to discuss the problems they are facing and to get their input regarding what factors should be included in evaluating wastewater affordability. Based on initial research and discussion, the following potential affordability criteria have been identified: MHI, sewer rates as a percentage of MHI, population density and rate base, distance from larger regional systems, debt service and long-term O&M costs, regional cost of living, and status of

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the local and/or regional economy. Such affordability criteria can be used to determine which applicants are the most needy and deserving of grants, extended term financing agreements, or lower interest rate loans. The Water Boards will continue to research approaches to evaluating wastewater affordability and will determine how to incorporate affordability criteria into the SCWG Program and the State Revolving Fund (SRF) Program.

Regionalization is an important planning consideration that, in some cases, can significantly affect project affordability. However, in some cases, regionalization may not be an option due to geography, topography, or other constraints. With the adoption of the SCWG Program's 2007 CPL, the State Water Board modified the maximum grant amount to \$2 million per eligible community (rather than per project) to encourage consideration of regionalization alternatives and implementation of such alternatives when they represent the most economically feasible option. State Water Board staff will continue to look for other opportunities to encourage regional approaches to solving wastewater problems, particularly when proposing modifications to grant or loan program guidelines, applications, or policies.

2.1.3 Making the State Revolving Fund Program Appealing to Small and/or Disadvantaged Communities

Less than ten percent of obligated SRF financial assistance goes to communities with populations of less than 20,000 persons. Unfortunately, funds have not been allocated for the SCWG Program since 2002, when Propositions 40 and 50 were passed. Water Boards staff are proposing modifications to the SRF Program to create an affordable funding source for small and/or disadvantaged community wastewater projects. To address feedback from representatives of various nonprofits and communities, Water Boards staff will also be evaluating ways to simplify and expedite the application and funding process for small and/or disadvantaged communities.

State Water Board staff members have been working with the USEPA to conduct an on-line survey of wastewater systems. The goal of the survey was to learn more about current and potential California borrowers. The results of the SRF Program Survey have been collected and compiled. Water Boards staff will be conducting follow-up meetings with stakeholders and focus groups to receive additional feedback on the SRF Program. Community-based nonprofits that address small and/or disadvantaged community wastewater issues have been invited to participate in the SRF Stakeholder Advisory Group (SAG). Based on the results of the survey, stakeholder input, and further internal evaluation of potential program changes, specific improvements will be proposed for State Water Board consideration.

The SRF Program currently offers construction loans only. Therefore, one modification being evaluated is to offer planning and design loans to help support small and/or disadvantaged community projects at an earlier stage. In addition, once funding is committed to a project, it is often months later before the agency is able to be

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reimbursed for project costs. Therefore, Water Boards staff will also be evaluating ways to get disbursement requests processed and out to the local agency more quickly. Potential approaches include: expedited payments and/or wire transfers, streamlining approval of complete submittals, and allowing for cash advances (when not restricted due to the funding source). Another potential improvement being considered for small and/or disadvantaged communities is to allow for refinancing of existing eligible debts, in cases where it will make it possible to proceed with a wastewater project that would otherwise be unaffordable due to existing debt repayments.

2.1.3.1 Linked Deposits and Mini-Loans

Linked deposits and mini-loans are two SRF Program funding mechanisms used by the State Water Board to provide assistance to private parties for eligible water quality improvement projects.

- With the linked deposit program, a local agency typically applies to the State Water Board to address a specific water quality concern in its area. The State Water Board then makes arrangements with local banks to provide loans to private parties for specific eligible projects that have been reviewed and approved by the local agency. The State Water Board then deposits funds in the local banks to serve as collateral for those loans.
- The mini-loan program is similar to linked deposits, in that local public agencies can borrow SRF funds and issue loans to private parties. With mini-loans the local public agency acts as banker and administers all aspects of the program, including: promotion, eligibility determinations, inspecting and approving work completed, and submitting invoices to the State Water Board.

The State of Ohio currently uses a linked deposit program to make low-interest rates available, through participating counties, to individual homeowners needing to upgrade or replace their home sewage disposal systems. A similar program could be setup in California, using either linked deposits or mini-loans, to finance septic tank upgrades or lateral installations to connect private residences to community wastewater collection systems.

2.1.3.2 Interest Rate and Financing Term

The two most significant issues that affect a community's ability to repay a loan are the interest rate and the term. Therefore, the State Water Board is also evaluating the possibility of offering extended term finance agreements and/or lower interest rates to those communities most in need of financial assistance, in hopes of making the SRF Program a more affordable funding option. These two potential approaches could have an impact on the health of the SRF, and therefore will most likely only be offered to the most deserving needy communities. Prior to implementation of lower interest rates or extended term financing, financial analyses will be conducted to evaluate the potential impact of these approaches on the health of the SRF. It is expected that extended term

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finance agreements and lower interest rates will be offered primarily to those communities that meet the SCWG Program's definition of a disadvantaged small community (with a MHI of less than 80 percent of the statewide MHI). However, lower interest loans or extended term financing may also be offered to: (1) larger entities that assist small and/or disadvantaged communities with wastewater projects, or (2) small communities that do not meet the SCWG Program's definition of a disadvantaged community, when necessary to make a wastewater project financially feasible.

Current SRF financing terms are limited to 20 years. Extended term finance agreements will involve the State Water Board buying the debt of municipalities and having the municipalities pay off that debt over a period of up to 30 years. Although the municipality will be paying more in total interest, the extended term agreements will make loans more affordable since the municipalities will have lower yearly debt repayments. The State Water Board will need to get permission from USEPA to setup extended term financing, and staff are in the process of preparing an application package. The specifics of the administrative and legal processes for extended-term financing, as well as a template agreement, are being developed.

Assembly Bill 1742 (Statutes 2007, Chapter 455) allows the State Water Board to charge an interest rate that does not exceed half of the General Obligation (GO) bond rate for SRF financing. By allowing the State Water Board the discretion of charging less than half the GO bond rate, we have the ability to provide loans at a reduced rate, or possibly with no interest rate, to the communities most in need of financial assistance. However, this change to the SRF Program will have to be incorporated through the development of SRF Program Regulations, rather than an amendment to the existing Policy. The time required to develop regulations is variable, but generally ranges from 1.5 to 2 years. Therefore, lower interest rate loans probably will not be available to small and/or disadvantaged communities until 2010.

2.1.4 Revising the Small Community Wastewater Grant Program Guidelines

SCWG Program funds are depleted. Given the obvious value of this program for disadvantaged small communities (only communities with a MHI of less than 80 percent of the statewide MHI qualify for the program), the Water Boards encourage efforts to advocate for replenished SCWG Program funds through bonds and/or legislation. The estimated project costs for disadvantaged small community wastewater projects that are listed on the SCWG Program's CPL, adopted by the State Water Board on September 4, 2007, and eligible for funding (listed under Classes A and B), but have not yet been assisted with construction grant funds, total over \$400 million. Additionally, many disadvantaged small communities that have not yet submitted an application to be listed on the SCWG Program CPL, or that are small but do not meet the SCWG criteria for financial hardship, are not accounted for on the CPL. Therefore, the actual need for small and/or disadvantaged community wastewater projects is probably significantly higher.

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If and when new funds are allocated to the SCWG Program, the *Small Community Wastewater Grant Program Guidelines* (Guidelines) will be updated. Appropriate amendments will be evaluated at that time. Items to be considered may include, but are not limited to, the following:

- Streamline the application process to make it easier and less resource intensive to apply for grant funding.
- Incorporate methods, such as expedited payments, streamlined approval of complete submittals, and/or cash advances (when not restricted due to the funding sources), to process and disburse payment requests more quickly.
- Accept applications on a rolling basis and update the SCWG Program CPL on a semi-annual basis, rather than every few years.
- Revise the criteria for ranking projects to give existing human health or pollution problems priority over potential human health or pollution problems (currently, existing or potential human health problems are given priority over existing or potential pollution problems).
- Evaluate the eligibility criteria for those projects classified as existing or potential public health problems (Class A) to allow the local governing agency to issue a declaration that there is a potential or existing public health hazard, rather than requiring a declaration from the County Board of Supervisors or the County Health Officer, and/or to allow the Regional Board Executive Officer to accept local declarations, rather than requiring a Regional Board resolution.
- Incorporate appropriate affordability criteria into the prioritization process to ensure that the communities most in need receive higher priority, and to evaluate whether or not to provide grants in cases where sewer use rates are, or historically were not, high enough.
- Revise the prioritization process to better target high-priority water quality, human health, and/or pollution issues, rather than focusing on readiness-to-proceed.
- Require upfront training or certification for local board members, treatment plant operators, or others involved in disadvantaged small community wastewater planning and management (through classes offered by nonprofits like SHE, CRWA, and RCAC, if available, or by reviewing an online training course).
- Limit planning grants to a maximum amount.
- Require evaluation, and if appropriate, implementation, of the following options during the project planning phase: regional approaches to gain larger economies of scale; integration with water system projects; the design-build approach, which can help to weed out unnecessarily expensive technical alternatives; natural systems and/or incorporation of water reuse and recycling components.
- Require a more thorough review of individual facilities' revenue plans, including long-term O&M cost analyses, prior to approval.

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- Evaluate possible measures to expedite the funding process, such as setting maximum time limits for project approvals and/or incorporating potential accounting efficiencies such as expedited payments and/or wire transfers.
- Reevaluate the funding cap, which is currently \$2 million per eligible community, based on an evaluation of the following types of information: the total amount of funding available; the number of eligible projects; estimated project construction costs; and any restrictions included in future bond language.

Amendments to the Guidelines will be made pending allocation of additional funds. Efforts will be made to minimize the amount of additional submittals and approvals required of those communities that have already submitted complete applications and received Facilities Plan Approval based on the existing Guidelines. Additional outreach efforts will also be coordinated at that time, to reach disadvantaged small communities directly and ensure that the communities most in need are aware of available financial assistance options.

2.1.5 Pursuing New or Supplemental Sources of Funding for Small and/or Disadvantaged Communities

Funding for small and/or disadvantaged community wastewater projects is imperative. The State Water Board is looking into various funding source options, including: Cleanup and Abatement Account (CAA) Funds; the SRF Administration Fund; and Private Foundations.

2.1.5.1 Cleanup and Abatement Account Funds

Administrative Civil Liability (ACL) complaints may be issued to dischargers in response to violations. Assessments collected through the ACL process are paid to the State Water Boards' CAA. The State Water Board administers the CAA, and funds are used to address important water quality cleanup and abatement activities throughout the State. The Water Boards are looking into developing a process to fund small and/or disadvantaged community wastewater projects with CAA funds. It is anticipated that a resolution regarding this issue will be presented to the State Water Board for their consideration by Fall 2008.

2.1.5.2 SRF Program Administration Fund

The SRF Program Administration Fund is used to pay for costs incurred by the State Water Board in connection with the administration of the SRF Program. State Water Board staff are evaluating prioritization of efforts and funding: (1) for Water Boards staff, which are focused specifically on technical assistance, to make site visits and phone calls to help support small and/or disadvantaged communities with financing and project development; and/or (2) to set up contracts with existing community-based non-profits to support their ongoing technical assistance efforts.

2.1.5.3 Private Foundations

Water Boards staff also plans to pursue coordination with private foundations, in hopes of having them participate in small and/or disadvantaged community wastewater

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projects to fill un-met needs. Private foundations may be interested in funding planning or research related tasks so that their funds can be leveraged with other state and federal funding. This is a new approach to funding. The viability of this approach will be evaluated, and potentially implemented in a few target areas.

2.2 TECHNICAL AND COMPLIANCE ASSISTANCE

At this time, available funding and resources to support technical and compliance assistance efforts are limited. Water Boards staff will continue to support small and/or disadvantaged communities to the extent possible, and will also refer communities to existing non-profit technical assistance organizations, when appropriate.

Water Boards staff will also be evaluating potential incentive programs to encourage counties to pro-actively address small and/or disadvantaged community wastewater problems. For example, offering lower interest loans and/or extended term financing to larger entities that assist small and/or disadvantaged communities. This may facilitate greater involvement by the counties in planning, financing, and local decision-making regarding the selection, implementation, and long-term operation of small and/or disadvantaged community wastewater treatment facilities.

In addition, as discussed in Section 2.1.5, Water Board staff are looking into new and supplemental funding sources to help support technical and compliance assistance for small and/or disadvantaged communities. Given the current deficiency of funds for this purpose, initial technical assistance efforts may be specifically targeted toward disadvantaged small communities, then expanded, as funds allow, to non-disadvantaged small communities. If feasible funding mechanisms are identified, some or all of the following assistance measures could be implemented:

- **Contract Funds to Support Nonprofits-** These organizations are often very involved in assisting small and/or disadvantaged communities with the preparation and submission of financial assistance applications. In addition, once overall project funding is obtained by a community, nonprofit groups can provide third party review of engineering proposals. Many small and/or disadvantaged communities suffer from cash flow problems, as grant and loan funding is generally distributed on a reimbursement basis. This can create problems, such as late payments to contractors, particularly in the case of small and/or disadvantaged communities, as they often have limited resources available. Some nonprofits are able to offer bridge loans to help mitigate these problems.

It is especially critical that these communities weigh proposed engineered solutions with long-term O&M costs to the community, as well as their ability to hire and maintain qualified operators for the types of proposed treatments. Many of these non-profits also conduct workshops and classes to educate the boards and districts responsible for water and/or wastewater systems. Nonprofits could

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use contract funds to train local personnel to deal with problems they encounter in managing their wastewater systems, and to teach responsible approaches to planning for long-term compliance. These nonprofits are also able to assist communities with drinking water systems, and in many cases, are able to assist communities in addressing both drinking water and wastewater issues in tandem.

- **Outreach and Assistance with Financial Assistance Applications-** Some of the most disadvantaged communities in need of assistance are unaware of available funding options and/or do not have the resources necessary to prepare financial assistance applications. Unfortunately, the State Water Board currently has limited available resources to provide hands-on help and advice to these communities. With additional funding, the State Water Board, in conjunction with existing nonprofits, could provide additional outreach and assistance with preparing applications.
- **Review of Asset Management and O&M Cost Analyses-** Small and/or disadvantaged communities often struggle with preparing adequate O&M costs analyses. Adequate planning for O&M costs could be improved with regulatory oversight and assistance with review of assets. Most Regional Water Board permits for wastewater treatment plants require adequate funds to maintain the facility. However, current staff resources do not allow for specific review of individual facilities' asset management and O&M cost analyses. Additional funding would allow Water Boards staff, specializing in this aspect of public financing and management, to review this critical aspect and provide feedback during the annual permit reporting cycle. Staff could then work with the facility operators and governance bodies to provide follow-up in assessing options.
- **Targeted Compliance Assistance Inspections-** Staff could perform targeted compliance assistance inspections of select wastewater systems to perform detailed assessments. The assessment would include conducting a review of plant operations and making recommendations to the plant operator. Recommendations could also be made to the Regional Water Boards regarding appropriate changes to permits and/or basin plans. The results of these inspections and evaluations could be used to determine if any large-scale changes to the Water Boards' financial assistance, or regulation and enforcement programs are necessary. One potential change could be to setup a Compliance Assistance Program, which could be coordinated with the Water Boards' traditional enforcement programs, and implemented by either Water Boards staff or community based nonprofits contracted through the Water Boards. Another could be to setup a Small Communities Technical Advisory Committee, which would recommend potential plant design and operational solutions to help small and/or disadvantaged communities identify low-cost sustainable treatment technologies.

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One of the first steps in addressing the needs of small and/or disadvantaged communities throughout California is to work on quantifying and prioritizing the technical assistance needs of these communities. Water Boards staff are currently developing a list of the communities in need of assistance and will be determining the current status of wastewater project planning and design efforts within those communities. This information will then be used to estimate the amount of money necessary to support technical assistance for these communities. The amount of funding necessary to support all of these communities through planning, to design and construction of their wastewater projects, will be more than the State can undertake in the near term. However, it is nevertheless important that the State have a better understanding of the magnitude of this issue, and this information will be useful in identifying immediate priorities and/or specific regions to target with available resources.

2.3 REGULATION AND ENFORCEMENT

2.3.1 Establishing Requirements for Proper Operations and Maintenance

Small and/or disadvantaged community compliance problems are often the result of poor O&M. Wastewater collection agencies are regulated under State Water Board Order No. 2006-0003-DWQ, which contains the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, including requirements to develop and maintain a Sewer System Management Plan for proper O&M of collection systems. The statewide template for NPDES permits also includes standard language requiring proper O&M. However, the majority of small and/or disadvantaged community wastewater facilities in California discharge to land and are regulated under WDR. The Water Boards plan to develop a statewide WDR template that will include standard language requiring proper O&M.

As discussed in Sections 2.1.5 and 2.2, the Water Boards are pursuing new funding sources to try to support technical assistance and compliance assistance for small and/or disadvantaged communities. Part of such an effort would include review of asset management and O&M cost analyses to ensure that communities are planning appropriately for their long-term needs.

2.3.2 Improving County Support of Small and/or Disadvantaged Communities

Small and/or disadvantaged community systems, which are often organized and operated as special districts (SDs) could avail themselves of greater technical and administrative support from larger wastewater entities (e.g., county public works department) if they were to sign either a Memorandum of Understanding (MOU) or a Joint Powers Authority (JPA) to share wastewater management responsibilities with the larger entity. Water Boards staff plan to evaluate both the MOU and the JPA approach, and develop the appropriate template, which will be made available to interested small and/or disadvantaged communities.

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There are circumstances under which a county may be liable for the failures of a SD within the county boundaries. County liability will depend on a number of factors related to the formation of the SD, including but not limited to: the composition of the Board; whether the SD is an independent special district; the manner in which the SD application was initiated; the involvement of the county in the SD approval process; any promises or representation by a county to undertake obligations of the SD in plans or ordinances; and whether Local Agency Formation Commissions (LAFCO) policy and procedures were followed in approval of the SD. Liability will be evaluated on a case-by-case basis, and where it is deemed appropriate to hold a county liable for failure of a SD to properly treat and discharge wastewater, the Water Boards will pursue appropriate enforcement measures.

As discussed in Section 2.2, Water Board staff are also evaluating incentive programs to encourage counties to pro-actively address small and/or disadvantaged community wastewater problems.

2.3.3 Evaluating Small and/or Disadvantaged Community Compliance and Enforcement

Complete, accurate, and up-to-date information about municipal wastewater treatment plants and the agencies running them is important for the management and evaluation of issues related to small and/or disadvantaged communities. Water Boards staff has struggled to collect hard data about the character and conditions of California's wastewater treatment facilities, particularly with respect to disadvantaged communities, as there are deficiencies in the current data collection and tracking system.

During the Fiscal Year (FY) 2007-08 Wastewater User Charge Survey, the State Water Board received information from 606 public agencies (of 726 statewide) that provide some form of wastewater service to 785 service areas (of 920 statewide). Many agencies also use the *Wastewater User Charge Survey Report* as a reference tool. Therefore, the existing annual survey is a useful mechanism for collecting additional data about: the age and status of facilities; existing capacity and expected growth; sources of funding; spending per capita for capital improvements versus O&M and debt repayment; and upcoming capital costs.

Such data will be useful in assessing wastewater affordability, and will be used in evaluating ways to make the Water Boards' small and/or disadvantaged community enforcement more effective. For example, enforcement strategies that consider a community's past spending on sewage projects could be implemented. If a community is spending less than 1.5 to 2 percent of the MHI for wastewater (or another definition of affordability), indicating that the community should have been spending more to address their wastewater problems, this would be considered in assessing an appropriate penalty. Spending beyond this amount would be considered as well.

The FY 2008-09 Wastewater User Charge Survey will be distributed in the Fall of 2008. Water Board staff will incorporate additional questions to collect a more comprehensive

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set of data related to California's wastewater treatment facilities. In addition, if it's determined to be a feasible approach, staff will distribute the survey and collect responses using the State Water Board's on-line Financial Assistance Application Submittal Tool (FAAST).

If participation drops as a result of the more extensive set of survey questions, the Water Boards may pursue mandating participation in future surveys by including a requirement for survey response in WDR Orders and NPDES Permits.

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3 PERFORMANCE EVALUATION AND ASSESSMENT

The following table summarizes the Water Boards' overall goals and short-term objectives in addressing small and/or disadvantaged community wastewater issues. Most of the short-term objectives, which State Water Board staff intend to accomplish within the timeframes shown below, are focused on evaluating the feasibility of different program improvements and initiating implementation of program improvements. As a result, tracking and assessing specific quantities indicative of progress toward the overall goals is not yet appropriate. The strategy will be updated by the end of 2009, and appropriate performance measures will be incorporated at that time. Contingent upon additional funding, the goals, objectives, and performance measures relating to the implementation of technical and/or compliance assistance efforts, as described in Section 2.1.5, may also be developed.

Overall Goal	Short-term Objectives	Timeframe
Make the SRF Program more appealing/affordable to small and/or disadvantaged communities	Refine procedures to process and disburse small and/or disadvantaged community payments within 30 days of submittal of a complete payment request	End of 2008
	Evaluate, and if feasible, propose policy changes to offer debt refinancing for small and/or disadvantaged communities	End of 2008
	Begin offering extended term financing to small and/or disadvantaged communities	Early 2009
	Evaluate the administrative and legal changes necessary to offer planning and design loans through the SRF Program	Concurrent with the development of SRF Program Regulations (see below)
	Develop SRF Program Regulations that will allow the Water Boards to provide loans at a reduced rate, or possibly with no interest rate, to small and/or disadvantaged communities	End of 2009
Determine how to evaluate/define "affordability"	Determine the appropriate approach to determine eligibility for the Water Boards' financial assistance programs and incorporate into the SRF Program Regulations	Concurrent with the development of SRF Program Regulations (see above)

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Overall Goal	Short-term Objectives	Timeframe
Improve the SCWG Program to make sure that any future funding is utilized as effectively as possible	Upon allocation of future funding for the SCWG Program, amend the Guidelines	Within 9 months of a new funding allocation
Identifying, quantifying, and prioritizing technical assistance needs	Develop a list of the small and/or disadvantaged communities in need of assistance, quantify their needs, identify immediate priorities, and determine how best to address them with available resources	End of 2008
Pursue new and supplemental sources of funding for small and/or disadvantaged communities, for technical assistance in particular	Prepare a summary report: (1) discussing the feasibility of identified new and supplemental funding sources; and (2) describing any funding case studies regarding how alternative funding mechanisms have been utilized by small and/or disadvantaged communities	Late 2009
Encourage counties to help support small and/or disadvantaged community wastewater systems	Evaluate incentive programs for counties or other large agencies that support small and/or disadvantaged community wastewater projects	Concurrent with the development of SRF Program Regulations (see above)
	Develop a template MOU or JPA to share small and/or disadvantaged community wastewater responsibilities with a larger entity and make it available to interested parties	Early 2009
Collect more information about municipal wastewater treatment plants, which can be used in evaluating compliance issues	Collect a more comprehensive set of data related to California's wastewater treatment facilities, using the annual <i>Wastewater User Charge Survey</i>	FY 2008-2009 Survey distributed Fall 2008; Report prepared by Summer 2009
Clarify requirements for proper O&M of municipal wastewater systems	Develop a statewide template for WDRs, with standard language requiring proper O&M	Late 2009

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4 CONCLUSION

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 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.

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 technical expertise to determine the best project alternative or to appropriately plan for long-term O&M needs. Therefore, more financial, technical, and regulatory assistance is needed to bring small and/or disadvantaged communities into compliance.

This *Small Community Wastewater Strategy* proposes solutions to help address small and/or disadvantaged community wastewater issues. Short-term objectives have been proposed, and longer-term overall goals are discussed. This is to be considered an evolving document that will be revised on an annual basis to include the results of any analyses or evaluations completed during the previous year, and to describe proposed improvements to the Water Boards' strategy for regulation, enforcement, and funding of small and/or disadvantaged community wastewater systems. The first update to this *Small Community Wastewater Strategy* is anticipated by the end of 2009.

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Appendix A. Key Terms and Definitions

Administrative Civil Liability (ACL)

ACL complaints are issued to dischargers in response to violations of waste discharge requirements, discharge prohibitions, enforcement orders, or other orders of the Water Boards.

Basin Plan

These State Water Board adopted documents provide the basis for protecting water quality in California. Each plan must contain water quality objectives, which in the judgment of the Regional Water Board will ensure the reasonable protection of beneficial uses and the prevention of nuisance.

California Integrated Water Quality System (CIWQS)

A computer system used by the State and Regional Water Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

California Toxics Rules (CTR)

A federal regulation setting water quality criteria for heavy metals and other toxic compounds for the protection of beneficial uses of surface waters in California.

Cleanup and Abatement Account (CAA)

Assessments collected through the Administrative Civil Liability process are paid to the State Water Board CAA. The State Water Board administers the CAA. CAA funds are used to address water quality cleanup and abatement activities throughout the State.

Competitive Project List (CPL)

Put together by the State Water Board to rank eligible projects for the Small Community Wastewater Grant Program. Class A projects address documented public health problems. Class B projects address documented pollution problems. Other projects are placed in Class C.

Disadvantaged Community

According to the eligibility criteria for the Small Community Wastewater Grant (SCWG) Program, a community is considered to be disadvantaged if the annual Median Household Income (based on 2000 United States Census data) of that community is 80 percent or less of the Statewide Median Household Income (MHI). Based on 2000 United States Census data, 80 percent of the Statewide MHI is \$37,994. If census data is not available for a community, the SCWG Program will accept alternative methods of defining the MHI, for example an income survey.

Environmental Justice

The pursuit of equal justice and equal protection under the law for all environmental statutes and regulations without discrimination based on race, ethnicity, and/or socio-economic status.

Joint Powers Authority (JPA)

Formed when it is to the advantage of two or more public entities with common powers to consolidate their forces to acquire or construct a joint-use facility. Their bonding authority and taxing ability is the same as their powers as separate units.

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Mandatory Minimum Penalties (MMPs)

Water Code Sections 13385(h) and (i), and 13385.1(a) require minimum penalties if discharges to waters of the U.S. violate certain types of permit limits. Generally, these include chronic (four within any 180-day period) effluent violations or single acute violations (an exceedence of 20-40 percent of the permitted limit). Additionally, monitoring reports that are more than 30 days late require a minimum penalty to be assessed.

Median Household Income (MHI)

Commonly used to provide data about geographic areas. It divides households into two equal segments, with the first half of households earning less than the MHI, and the other half earning more. The MHI is considered by many statisticians to be a better indicator than the average household income, as it is not dramatically affected by unusually high or low values.

Memorandum of Understanding (MOU)

An official agreement establishing the principles that will guide the implementation of programs or projects. The purpose of this document is to define the expectations, terms, and conditions of the working relationship between two parties. It is frequently the predecessor to a formal agreement.

National Pollutant Discharge Elimination System (NPDES)

A provision of the Clean Water Act which prohibits discharge of pollutants into waters of the United States unless a special permit is issued by the United States Environmental Protection Agency, the State Water Board, the Regional Water Board, or, where delegated, a tribal government on an Indian reservation.

Small Community

The Small Community Wastewater Grant Program defines a small community population as less than or equal to 20,000 persons with a financial hardship, based on Public Resources Code, Section 30925(a). In enforcing Mandatory Minimum Penalties, small communities are defined as those with populations less than or equal to 10,000 persons with a financial hardship, based on Water Code, Section 13385(k)(2).

Special District

A local governmental agency formed pursuant to general law of the state or special act of the Legislature, for the local performance of governmental or proprietary functions within limited boundaries.

Waste Discharge Requirements (WDR)

Issued by the Regional Water Board or State Water Board to regulate waste discharges to land or groundwater.

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Appendix B. References and Useful Website Links

Affordable Rate Design for Households

Affordable Rate Design for Households is a report prepared by the United States Environmental Protection Agency's Financial Advisory Board regarding how to design affordable household rates for water and wastewater services.

http://www.epa.gov/efinpage/Affordability_Rate_Design_report.pdf

California Financing Coordinating Committee (CFCC)

CFCC consists of state and federal agencies and departments that work together to offer coordinated and streamlined access to subsidized infrastructure financing for California communities.

<http://www.cfcc.ca.gov/>

California Rural Legal Assistance (CRLA)

CRLA is a non profit legal services program that strives for economic justice and human rights on behalf of the rural poor. They work to improve conditions for farm workers, new immigrants, welfare mothers, school children, the elderly, and disadvantaged communities with no-cost legal services and a variety of community education and outreach programs.

<http://www.crla.org/>

California Rural Water Association (CRWA)

CRWA is a nonprofit organization dedicated to enhancing the quality of life in small communities by providing training, technical assistance, and representation to public water and wastewater utilities.

<http://www.calruralwater.org>

Check Up Program for Small Systems

CUPSS is an asset management tool for small drinking water and wastewater utilities. It provides a simple approach based on the United States Environmental Protection Agency's Simple Tools for Effective performance (STEP) Guide series. It can be used to develop: a record of assets; a schedule of required tasks; and a tailored asset management plan.

<http://www.epa.gov/cupss/>

Clean Water Action (CWA)

CWA is a national organization working for environmental, health, ecosystem protection and community quality of life concerns. They organize grassroots groups and coalitions, as well as campaigns to solve environmental and community problems.

<http://www.cleanwateraction.org>

Community Water Center (CWC)

CWC seeks to ensure that all communities have access to safe, clean, and affordable water. Their mission is to create community-based water solutions through organizing, education, and advocacy in California's San Joaquin Valley.

<http://www.communitywatercenter.org/>

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California Wastewater Agency Survey

The *1991 California Wastewater Agency Survey* was prepared by the State Water Resources Control Board's Division of Clean Water Programs (which has been renamed the Division of Financial Assistance).

http://www.waterboards.ca.gov/general/publications/docs/ca_ww_agency_survey_91_18cwp.pdf

Environmental Justice for Coalition for Water (EJCW)

EJCW is a statewide network of more than sixty grassroots and intermediary organizations working to achieve water justice in California. EJCW works to build capacity in EJ communities so that together we can advocate for safe, affordable water resources for all beneficial uses supporting those communities, including drinking water, subsistence fishing, cultural uses, and recreation.

<http://www.ejcw.org/>

Financing Alternative Comparison Tool (FACT)

FACT is a United States Environmental Protection Agency financial analysis tool that helps identify the most cost effective method to fund wastewater or drinking water projects.

<http://www.epa.gov/owm/cwfinance/cwsrf/fact.htm>

Integrated Regional Water Management (IRWM) Grant Program

This program provides grants to projects that protect communities from drought, protect and improve water quality, and improve local water security by reducing dependence on imported water. The Proposition 50 IRWM Program is administered jointly between the State Water Board and the Department of Water Resources (DWR). The Proposition 84 IRWM Program will be administered by DWR. Each agency maintains a website regarding the program.

<http://www.waterboards.ca.gov/funding/irwmgp/index.html>

<http://www.grantsloans.water.ca.gov/grants/irwm/integregio.cfm>

Local Agency Formation Coalition (LAFCO)

LAFCO's mission is to encourage orderly formation of local agencies, to preserve agricultural lands, and discourage urban sprawl.

<http://www.calafco.org/member>

Regional Council of Rural Counties (RCRC)

RCRC is a non-profit corporation whose thirty-one member counties participate through their respective Boards of Supervisors. RCRC represents the elected general governments of over half of California's counties – local governments that have regulatory and public trust responsibilities over the lands, surface waters, groundwater resources, fish and wildlife, and overall environmental quality within their respective jurisdictions.

<http://www.rcrcnet.org/>

Rural Community Assistance Corporation (RCAC)

RCAC provides support to small municipal and nonprofit water systems through their Water and Waste Program. This program focuses on maintaining safe reliable drinking water, wastewater, and solid waste systems.

<http://www.rcac.org/doc.aspx?81>

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Self-Help Enterprises (SHE)

SHE's Community Development (CD) Program provides technical and organizing assistance to disadvantaged small communities in the San Joaquin Valley Counties to obtain clean drinking water and sanitary sewer services. The CD Program helps communities determine facility needs, prepare funding applications, and organize and work with community members to develop their water and sewer facilities.

http://www.selfhelpenterprises.org/programs/community_development.htm

Small Community Wastewater Grant (SCWG) Program

The SCWG Program provides assistance for the construction of publicly owned wastewater treatment and collection facilities. Communities must comply with population restrictions and annual Median Household Income provisions to qualify for funding. Bond funds for this program have been provided by various propositions including Propositions 13, 40, and 50. The SCWG Program's webpage includes links to the SCWG Program Guidelines and the Competitive Project List, as well as other items useful to both applicants and funded agencies.

<http://www.waterboards.ca.gov/cwphome/scwg/index.html>

Small Community Water Infrastructure Exchange (SCWIE)

SCWIE is a network of public and nonprofit environmental funding and technical assistance officials. Their website provides contact information for key small community contacts in each state.

<http://www.scwie.org/index.asp>

State Revolving Fund (SRF) Program

The program is funded by federal grants, State funds, and revenue bonds. The purpose of the SRF Program is to implement the Clean Water Act and various State laws by providing financial assistance for the construction of facilities or implementation of measures necessary to address water quality problems and to prevent pollution of the waters of the State. The SRF Program's webpage includes links to the SRF Program Policy and Priority List, as well as other items useful to applicants and funded agencies.

<http://www.waterboards.ca.gov/funding/srf.html>

Water & Wastewater Treatment Technologies Appropriate for Reuse (WASTTAR)

WASTTAR is a decision support system tool available for any community wishing to explore the feasibility of wastewater reuse and treatment solutions.

<http://firehole.humboldt.edu/wawttar/>

Water Boards' 2007 Draft Strategic Plan Update

The Water Boards' Strategic Plan outlines the vision, mission, values, operating principles, goals, objectives, and strategies of the State and Regional Water Boards. The *Draft Strategic Plan Update: 2008-2012* highlights new priorities that need to be addressed over the next five years.

<http://www.waterboards.ca.gov/strategicplan/2007update.html>

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Appendix C. List of Water Boards Wastewater Contacts

Regional Water Quality Control Board	Financial Assistance	Technical: Permits/Waste Discharge Requirements
1. North Coast	Kathleen Daly 707-576-2681 kdaly@waterboards.ca.gov	John Short 707-576-2065 jshort@waterboards.ca.gov
2. San Francisco Bay	Robert Schlipf 510-622-2478 RSchlipf@waterboards.ca.gov	Robert Schlipf 510-622-2478 RSchlipf@waterboards.ca.gov
3. Central Coast	Angela Schroeter 805- 542-4644 ASchroeter@waterboards.ca.gov	Burton Chadwick 542-4786 BChadwick@waterboards.ca.gov
4. Los Angeles	David Koo 213-576-6786 dkoo@waterboards.ca.gov	David Koo 213-576-6786 dkoo@waterboards.ca.gov
5. Central Valley	Pam Buford 559-445-5576 pbuford@waterboards.ca.gov	Doug Patteson 559-445-5156 dpatteson@waterboards.ca.gov
6. Lahontan	Cindy Rofer-Wise 530-542-5408 CWise@waterboards.ca.gov	Alan Miller 530-542-5430 AEMiller@waterboards.ca.gov
7. Colorado River Basin	Jose Figueroa 760-776-8967 Jfigueroa-acevedo@waterboards.ca.gov	Jon Carmona 760-340-4521 jcarmona@waterboards.ca.gov
8. Santa Ana	Mark Adelson 951-782-3234 madelson@waterboards.ca.gov	Jawed Shami 951-782-3288 jshami@waterboards.ca.gov
9. San Diego	David Gibson 858-467-4387 DGibson@waterboards.ca.gov	Bob Morris 858-467-2962 BMorris@waterboards.ca.gov

State Water Resources Control Board		
Operator Certification	Financial Assistance	Technical: Permits/Waste Discharge Requirements
Jim Willis 916-341-5654 JWillis@waterboards.ca.gov	Erin Ragazzi 916-341-5733 ENRagazzi@waterboards.ca.gov	Gordon Innes 916-341-5517 ginnes@waterboards.ca.gov Philip Isorena 916-341-5544 pisorena@waterboards.ca.gov

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Appendix D. Initial Findings of the Small Community Strategy Work Group

In the initial Small Community Strategy Work Group (SCSWG) meeting, attendees brainstormed issues thought to be contributing to small and/or disadvantaged community wastewater compliance violations, for example: regulations, land use and planning, affordability, governance structure, and operator retention. The results of the State Water Board's *1991 Wastewater Agency Survey*, which identified common operation and maintenance (O&M) problem areas that often lead to chronic violations in small and/or disadvantaged communities, were also reviewed. Some of the identified O&M problem areas include: physical deterioration of the facilities; design and/or capacity deficiencies; inadequate monitoring, quality control, process control, stand-by process equipment, and stand-by power; lack of appropriate emergency response equipment and procedures; and inadequate operator training and staffing.

Based on information from the California Integrated Water Quality System (CIWQS) database, a list of the wastewater treatment facilities estimated to be serving a population of less than 20,000, based on reported daily flow and an assumed average flow of 100 gallons per capita per day, was developed. Of the 1,291 small community facilities identified, a total of 653 are disadvantaged and/or are located within rural counties. In addition, 144 facilities discharge to surface water and are regulated under National Pollutant Discharge Elimination System (NPDES), and the remaining 1,147 facilities discharge to land and are regulated under Waste Discharge Requirements (WDRs).

Based on available CIWQS data, a list of the small community facilities with the most enforcement violations was compiled. The top 20 facilities per each Regional Water Quality Control Board (Regional Water Board) were included. Regional Water Boards staff selected facilities from this list and prepared a total of 74 small community case studies, summarizing information about: the facility; operating agency; operator staff; type of treatment and discharge; population and number of connections served; monthly sewer fees; and violation history.

In addition to these internal efforts, Water Boards staff involved with the SCSWG also met with community-based nonprofit organizations such as Self-Help Enterprises (SHE), Rural Community Assistance Corporation (RCAC), California Rural Water Association (CRWA), Environmental Justice Coalition for Water (EJWC), Clean Water Action (CWA), California Rural Legal Assistance (CRLA), and Community Water Center (CWC) to gain a better perspective of the current needs and issues of small and/or disadvantaged communities. These nonprofit organizations support small, rural, and disadvantaged communities with water and wastewater resource policy, planning, and management. Coordination with these nonprofits, and other outside entities that address small and/or disadvantaged community wastewater issues, is described in Appendix E.

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Using a combination of information from the Wastewater Agency Survey, available electronic data, information collected from the case studies, and feedback from community-based nonprofits, the SCSWG evaluated the apparent significance of the following factors identified as potentially contributing to small and/or disadvantaged community compliance violations:

- **Regulations:** Does data show an increase in violations due to California Toxics Rule (CTR) constituents?
Less than ten percent of the facilities described in the case studies suffered from CTR violations, and all of those facilities also suffered from other non-CTR violations.
- **Discharge Point:** Small and/or disadvantaged communities are often in more rural areas. Do they therefore discharge into more pristine areas that make for greater violations?
Based on information provided in the case studies this is a reasonable conclusion for those facilities that discharge to surface water. This is particularly true when communities discharge to smaller streams and water bodies. Less dilution occurs in these areas, and as a result, effluent limits are generally lower.
- **Enforcement:** Do small and/or disadvantaged communities have higher rates of water quality violations than larger communities?
Data from CIWQS suggests that small communities have high violation rates; however, given the way violations are currently tracked in CIWQS it is not possible to differentiate between water quality violations and other types of compliance violations that do not cause direct water quality impacts.
- **Operators:** Do small and/or disadvantaged communities have limited ability to attract and retain quality operators?
This was a general theme for many of the facilities described in the case studies. Many small and/or disadvantaged communities now rely on outside contractors for O&M.
- **Affordability:** Is it true that small and/or disadvantaged communities generally do not have the economies of scale necessary to build and maintain current wastewater technology?
Low density and/or isolated, small populations lead to higher wastewater costs. The cost per gallon is too high to be reasonable at a certain level of population and small and/or disadvantaged communities are often geographically spread out such that regionalization is too expensive or otherwise infeasible.

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- **Rural Development:** Recent population increases have occurred in rural areas. Are these rural areas ill equipped to handle growth pressures?
Approximately 20 percent of the facilities described in the case studies reported that population increases, and resultant capacity deficiencies, were attributing to the community's wastewater problems. Also contributing to the problem, in both rural and non-rural areas, are poor land use planning decisions. In some cases these communities were formed many years ago, before the development of general plans; however, some new subdivisions and developments are inappropriately sited, without adequate infrastructure or beneficial economics to sustain their wastewater infrastructure. There is some evidence that, when geographically feasible, regionalization can mitigate some of the problems related to economies of scale.

- **Rate Setting:** Do small and/or disadvantaged communities implement appropriate rate increases, when necessary to finance increasing O&M costs or compliance projects?
Based on information collected from the small community case studies, sewer rates as a percentage of MHI were calculated by Water Boards staff involved with the SCSWG. The average of these rates was less than one percent, significantly less than the generally accepted affordable rate of 1.5 to 2 percent of the MHI, indicating that some communities should be increasing rates to spend more on O&M and compliance projects to prevent violations.

- **Governance:** Does the data show that the governance structure affects compliance?
Small and/or disadvantaged communities with problems are often governed by smaller Special Districts (SDs) or private companies; however, based on available data, it can not be determined whether or not compliance issues are generally associated with one particular type of governance structure versus another.

- **Information and Expertise:** Many of these communities do not have in-house technical expertise to evaluate the technical work done by outside consultants. Does this problem lead to poor decision-making? Also, are small and/or disadvantaged communities unaware of available funding sources and less successful in preparing and submitting financial assistance applications?
Based on feedback from SHE and RCAC these are both common problems. Small and/or disadvantaged communities often do not have the resources or expertise to prepare applications to receive financial assistance. When projects do move forward, the technology choices may not be optimal because of the long-term O&M requirements and costs.

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The above issues will be further evaluated as the Water Boards implement this *Small Community Wastewater Strategy*. Any new information or insights about the issues contributing to small and/or disadvantaged community wastewater compliance violations may be incorporated during future updates to this document.

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Appendix E. Chronology of Coordination with Non-Profit Organizations

June 13, 2007- State Water Board staff participated in a conference call with representatives from Self-Help Enterprises (SHE) and Rural Community Assistance Corporation (RCAC). SHE is a nonprofit housing and community development organization that offers training, technical support, and administrative assistance with water and wastewater projects. RCAC is a nonprofit organization that targets rural communities. The purpose of the call was to learn more about the services these organizations are able to provide, to discuss the issues faced by small and/or disadvantaged communities, and to brainstorm about potential solutions to those issues.

September 13, 2007- State Water Board staff met with Regional Council of Rural Counties (RCRC) and various representatives from cities and counties that are concerned about wastewater affordability to discuss the problems they are facing and to get their input regarding what factors should be included in evaluating wastewater affordability.

October 11-12, 2007- State Water Board staff traveled to the San Joaquin Valley to meet with SHE and participate in a 2-day tour of small and/or disadvantaged communities in the area. SHE's Community Development Program focuses on aiding small and/or disadvantaged communities in the San Joaquin Valley with their water and wastewater issues. Water Boards staff and representatives from SHE visited multiple small and/or disadvantaged communities in Tulare and Kern Counties that have lacking or failing wastewater infrastructure.

November 14, 2007- State Water Board staff met with the Executive Director of California Rural Water Association (CRWA). CRWA is a nonprofit organization that provides training, technical assistance, and representation to public water and wastewater utilities. CRWA is able to provide on-site training for operators, managers, and board members. In addition, they can provide small and/or disadvantaged communities with technical oversight, including third-party review of project plans and specifications and other technical information.

November 16, 2007- State Water Board staff, the Executive Director, the Central Valley Regional Water Quality Control Board Chair, and the State Water Resources Control Board Chair traveled to Visalia to participate in an Environmental Water Justice Tour led by the Community Water Center (CWC). CWC is a nonprofit organization that works to ensure that all communities have access to safe, clean, and affordable water. The tour included visits to various communities in Tulare County, and was also attended by DPH staff.

November 26, 2007- State Water Board staff attended a meeting with the Environmental Justice Coalition for Water (EJCW), Clean Water Action (CWA), and California Rural Legal Assistance (CRLA) regarding small and/or disadvantaged community wastewater issues. Attendees discussed issues pertinent to small and/or disadvantaged community wastewater planning and management, such as: affordability, governance structure, rural development, operations and maintenance, and the need for technical assistance. Potential improvements to the Water Boards' existing grant and loan programs were also discussed.

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December 10, 2007- State Water Board staff attended a 'Wastewater Roundtable' Meeting held by Senator Sam Aanestad, who represents communities within the jurisdiction of the Central Valley and North Coast Regional Water Boards, to discuss current regulatory requirements and available wastewater project financing options.

January 23, 2008 – State Water Board staff met with staff from RCAC to discuss the wastewater issues faced by small, disadvantaged, and/or rural communities and potential solutions. RCAC also provided an overview of the technical assistance and other services they provide to small and/or disadvantaged communities through grants from the USEPA, USDA, DPH, and others.

March 18, 2008 – State Water Board staff attended a workshop regarding Board Member and Owner Roles and Responsibilities. The workshop was held by RCAC, and attendees included: representatives from public water systems (including board members), representatives from mutual water companies, and homeowners. The workshop outlined the technical, managerial, financial, administrative, and legal water system obligations of community service/public utility districts.

May 5, 2008 – State Water Board staff provided a pre-draft of the *Small Community Wastewater Strategy* to various environmental justice groups and community based nonprofits, including: California Rural Legal Assistance Foundation, California Rural Water Association, California State Association of Counties, Clean Water Action, Environmental Justice Coalition for Water, Regional Council of Rural Counties, Rural Community Assistance Corporation, and Self-Help Enterprises. These organizations reviewed the document, and the majority provided comments for the consideration of Water Board staff.

June 3-4, 2008 – State Water Board staff attended two workshops hosted by RCAC. The workshops covered: (1) Capital Improvement Planning and Asset Management; and (2) Budget and Rate Setting. Attendees included representatives from small, rural, and/or disadvantaged communities, as well as staff from the USEPA and DWR.