

Water Quality Issues In Disadvantaged Communities

Another regulatory perspective

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State Water Resources Control Board

- What Water Quality Issues?
 - Environmental Justice
 - Disadvantaged Communities (versus just small)
 - Compliance efforts/Compliance Costs
 - Compliance rates
- Enforcement response
- Water Boards Assistance (Financial, Training..)
- Policy and Policies

Environmental Justice

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.

ISSUES

- Small and/or disadvantaged communities are often located in sparsely-populated, rural areas and cannot provide the economies of scale necessary to build and maintain adequate water and wastewater systems
- 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, and often do not have the technical expertise to determine the best project alternative or to appropriately plan and manage long-term operations and maintenance (O&M) needs

Common Issues

1. Physical deterioration of POTW and Collection System
2. Design deficiencies= treatment method, capacity, infiltration/inflow, sludge disposal.. etc.
3. Process control problems
4. Emergency equipment, standby power
5. Inadequate worker training and safety
6. Inadequate maintenance management (spare parts, documentation, staffing. Budget..)

Common issues

- High operations and maintenance costs per single family dwelling.
- Use of traditional biological treatment systems that are intensive in energy and chemicals requiring a certain level of expertise to operate properly
- Remote communities with little or no access to a certified laboratory and certified wastewater treatment plant operators
- Higher non compliance rates
- Large number (~1,500 communities)

In summary:

Implementation of Water Quality Standards
in small communities result in

High operations and maintenance costs
per single family dwelling

= Disproportionate level of effort required
to small communities

Disadvantaged Communities (versus just small)

The State Water Board's Division of Financial Assistance defines a Small-Disadvantaged Community, as a public body with a population of 20,000 persons or less, and an annual median household income (MHI) of less than 80 percent of the current statewide MHI.

California Water Code section 13385(k)(2)

*“ A publicly owned treatment work (POTW) serving a population of 10,000 persons or fewer or a rural county, with a financial hardship as determined by the State Board after considering **such factors as** median income of the residents, rate of unemployment, or low population density in the service area of the POTW”*

Affordability

Combination of higher per capita costs of compliance 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

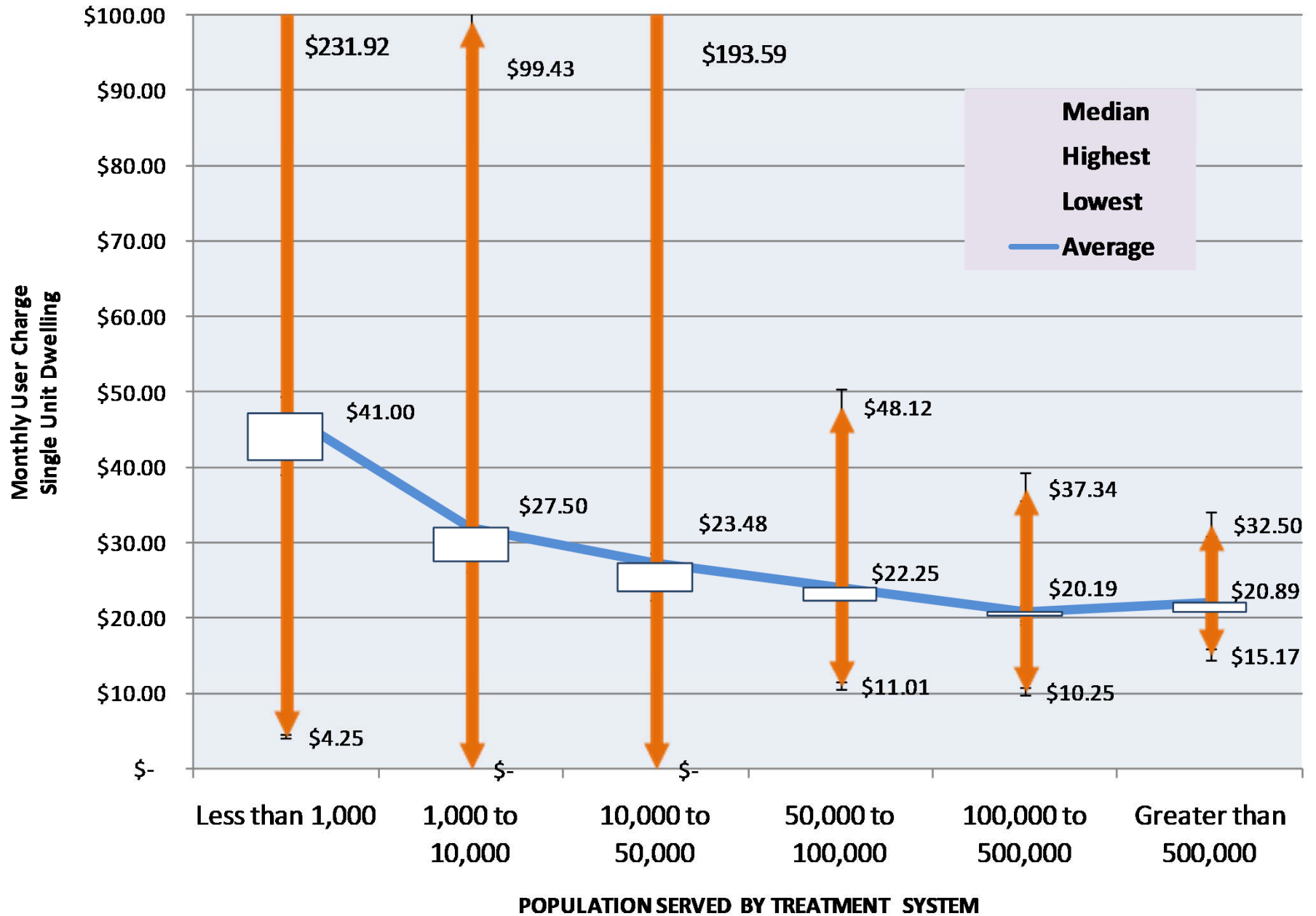
$$\textit{Household Cost Factor} = \frac{\textit{Average Sewer Bill per Household}}{\textit{Median Household Income}}$$

MONTHLY USER CHARGE SUMMARY SINGLE FAMILY DWELLING

FY 2007-08 Wastewater User Charge Survey Report

Population	Highest	Lowest	Average	Median	# Communities
Less than 1,000	\$ 231.92	\$ 4.25	\$ 47.07	\$ 41.00	209
1,000 to 10,000	\$ 99.43	\$ -	\$ 32.03	\$ 27.50	228
10,000 to 50,000	\$ 193.59	\$ -	\$ 27.14	\$ 23.48	167
50,000 to 100,000	\$ 48.12	\$ 11.01	\$ 23.92	\$ 22.25	67
100,000 to 500,000	\$ 37.34	\$ 10.25	\$ 20.72	\$ 20.19	40
Greater than 500,000	\$ 32.50	\$ 15.17	\$ 21.96	\$ 20.89	5
TOTAL CALIFORNIA	\$ 231.92	\$ -	\$ 33.82	\$ 26.83	716

MONTHLY USER CHARGE SUMMARY SINGLE FAMILY DWELLING (EDU)



Factors currently used at the State Water Board to determine financial hardship

	Factors	Criteria
Small or Rural	Population	<10,000 or <20,000 for financial assistance
	Rural county	A county classified by USDA with a rural-urban continuum code of 4 through 9
Financial Hardship	Median household income*	<80% of California MHI or \$37,994
	Unemployment rate*	>10% of population
	Poverty level**	>20% of population
Other Factors	Population density	
	Owner-occupied housing units	
	Median value of homes, etc..	
	Household Cost Factor	>1.5% (or >1% and >2%)

*Based on most recent US Census block group data or local survey (MHI in 2000 is \$47,493)

**Vary by family size and composition.

[US Census Fact Finder](#)

Policy and policies

- Financial assistance (loans, grants, low interest)
- Enforcement policy
- Technical assistance
- Inspections focus on compliance assistance
- Regional approaches to solving wastewater problems (share small and/or disadvantaged community wastewater responsibilities with a larger entity, leverage drinking water and wastewater resources, etc..)

California Water Plan: focus on equal access to planning processes, programs and funding ... benefit disadvantage communities proportionally

The Water Boards' [Small Community Wastewater Strategy](#) is referenced in [State Water Resources Control Board Resolution No. 2008-0048](#), which promotes strategies to assist small and/or disadvantaged communities with wastewater needs.

- Lack economies of scale
- Lack of monetary resources
- Difficult to access financing (in some cases no access to municipal bonds)
- Lack in-house expertise
- Understanding Waste Discharge Requirements (what do they need to comply)
- Preventing and correcting common violations (for example freeboard)

Financial Assistance

- Clean Water State Revolving Fund
 - Planning Loans
 - Extended Term Financing
 - Reduced Interest Rate
- American Recovery and Reinvesting Act of 2009
 - Provided ~\$87.6 million in principal forgiveness to 25 disadvantaged communities wastewater projects
- List of potentially eligible SDAC, estimated need >\$850 million

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