

Stormwater program funding in California

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Public works directors throughout the country are seeing their stormwater discharge permits renewed on a five-year cycle. Recently, directors throughout California are experiencing sticker shock when reviewing the latest renewals, as these permits are coming with increasingly restrictive pollutant discharge limits. For many, the new limits are impossibly low under the old ways of doing business. For most, the cost of compliance is raising budgets beyond the reach of existing funding sources.

This article describes how our California community is addressing these increased funding needs by raising stormwater fees. Our story is divided into three parts: a brief evaluation of the tough California laws regarding stormwater fee-based funding; a description of how we at the Vallejo Sanitation & Flood Control District will implement the new fees; and a summary of issues to address when developing your own stormwater fees.

Part I. Stormwater fee implementation under California laws

If the sunny beaches and gentle Mediterranean weather of California seem attractive, then be aware that in California there is also a climate of very tough regulatory constraints and requirements. The recent changes in our state government have yet to terminate any regulations, and in fact may pump up the obstacles to utility funding. The biggest obstacle of all is getting voter approval for increasing certain utility service fees. Yes, here in California the voters get to approve stormwater rates!

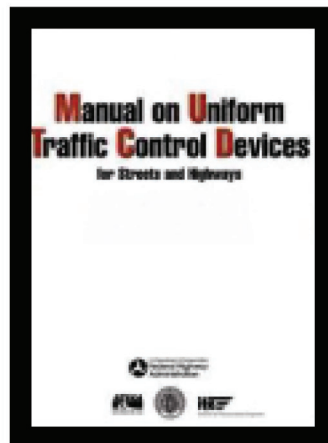
Proposition 218, implemented by the California voters in 1997, amended Article XIII of our state's constitution. Its impact on taxes, assessments and user charges extends to two stormwater fee issues: the aforementioned voter approval requirement, and the necessity that the fees be fair and equitable. Under Proposition 218, fee approval is based on one vote per property owner, regardless of acreage or use.

The necessity that the increased stormwater fees be fair and equitable has enhanced public scrutiny of the nature of the charges. In recent years the extent of pollution in the runoff and the environmental degradation to the San Francisco Bay receiving waters has become clearer. With this knowledge the regional offices of the State Water Resources Control Board have placed an increasing emphasis on pollution prevention, control and remediation. Thus, the higher stormwater program costs are, in many cases, not for the traditional channeling and discharge of runoff, but for the prevention, isolation and remediation of the pollutants in the runoff.

Voter approval of fees: empowerment and a challenge. The recall in California demonstrated the sensitivity of voters statewide to tax increases, regardless of budget shortfalls. The value of voter approval is that it empowers citizens to decide how their money should be used for the public good. The challenge is that it requires that voters be persuaded of the importance of a service through public outreach. The persuasion must be in easily understood terms that create a compelling case for voter approval. Moreover, although public funds cannot be used for ballot promotions, utilities can and should work to inform their customers about utility services, including new stormwater programs.

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Part II. What can compel a vote for raising fees?

The Vallejo Sanitation & Flood Control District, conceived in 1952, provides a unique combination of services. In addition to operating a sanitary sewerage system, we also provide citywide flood control for the protection of waterways and property, both public and private, from flooding and from stormwater pollution. The District's current stormwater rates are on a flat-rate basis, with a basic monthly fee of \$1.97 for every sewer service account. Flat rates are used for a number of reasons, especially simplicity. When first implemented, it wasn't important that some accounts were single-family parcels and others megamalls, or that parking lots without utilities weren't charged. The flat fee was uniformly low, and the revenues sufficient to channel and discharge most runoff.

The funding shortfall. Unfortunately, since those simpler times the operating costs of Vallejo's program have risen more than 200 percent, and are now at \$2.3 million per year. In addition, we will be spending another \$2 million per year for development-funded capital improvements. Lake Dalwigk is an example of the type of facilities already available within the City, as shown in Illustration 1.



Illustration 1 – Lake Dalwigk Detention Basin

To date, the rate-based revenue shortfall has been made up through interest earnings from capital reserve funds. However, based on our recent stormwater master plan update, we are now planning to construct storm drainage facilities that will substantially diminish the interest earnings from the fund. Also, with the increased remediation of pollutant loads, our

operation, maintenance and repair budget has increased. Unfortunately, the net impact is very significant; the costs of permit compliance have risen while our interest earnings have declined, placing the District fund accounts in a financial corner. The Vallejo management concluded that the stormwater fee structure was inappropriate, and that additional fee-based funding was needed.

Justifying the value of a stormwater program. The local perception among our residents may be that the benefit from the stormwater program, if any, does not warrant new user charges. In part, this may be due to the lack of an aggressive outreach to inform the public of the value of our stormwater program for safe creeks, clean shorelines, and a healthy community. With a vote required to approve new stormwater charges, a robust public outreach and information effort is needed, based on a compelling case for the program as the central theme. The compelling case must create a perceived value for each ratepayer that is greater than the fees being requested in the ballot. In Vallejo, the compelling case may focus on making the fees fair and equitable, especially to the community homeowners.

Customers discharge runoff in varying combinations of pollutant and runoff

stormwater loading into the system than a single-family dwelling. Yet, under the current billing both these ratepayers have the same flat rate of \$1.97 per month. The effect of the current rates is that single-family customers (as a group) subsidize the costs of most commercial and industrial parcels. Restructuring the rate by incorporating both impermeability and pollutant loading coefficients is seen as the route to a fair and equitable bill.

Even while we incorporate multiple loading coefficients, part of a successful rate update strategy is to use the "KISS" approach (Keep it simple, stupid!) with the new fees. Regardless of the detail and accuracy of our calculations, our customers will not vote for something that is not understandable. For this reason, the District will consolidate the final rates into a simple but equitable fee structure as a final product. In the same spirit, our outreach campaign will invite support for clean, safe creeks in the neighborhood, and natural flood protection for the community, instead of asking support for the District's costs pursuant to the NPDES permit as enforced under state regulation 40 CFR 122.26(a).

Implementation difficulties. The fee update implementation difficulties facing us are twofold. The first is to create a compelling vision of the benefits of flood control for the protection of property from water damage, and protection of our waterways from pollutants. This is a major hurdle, because flood control services have had little or no public visibility. It is possible that a historical perspective of the local conditions before start of construction of our flood control facilities can help to demonstrate the value of this utility.

The second difficulty facing us is to present a compelling case such that customer stakeholders agree with the need to restructure rates. The District began its stakeholder buy-in process through making its case to the Citizens Advisory Committee (CAC). The CAC is an eleven-member panel of residents within the District, established by our Board of Trustees. The purpose of the CAC is to provide input to District initiatives, and to make recommendations to the board. The CAC has been an invaluable source of citizen input that represents a cross-section of Vallejo residents.

The CAC has recently participated in the stormwater master plan update and rate equity study. Pending board direction

under the advice of the CAC, we may perform additional community outreach with our compelling case using newsletters and meetings with various community organizations and groups, using high visibility CAC members and District trustees to champion the effort.

If the District can persuade its customers of the benefits a well-managed stormwater program brings, and a majority of customers buy in to the value of this service, then we will have met our burden in obtaining the voter approval needed for implementing the new stormwater rates.

A winning ticket. Our rate equity study has found that even while increasing total revenues by 29 percent, equitable rate restructuring could result in a 10 percent reduction to the typical single-family dwelling bill. This fortuitous conclusion is due to the large increase in bills to commercial, industrial and institutional customers as a result of their paying a fair share based upon their updated loads to the system. This finding is a direct result of including both impermeable and pollutant coefficients in the analysis. More than 70 percent of the stormwater customers reside in single-family dwellings, and 90 percent of all parcels in residential areas. As such, persuading a majority of the voters to approve the fee update is simple, since these voters will see a minor decrease in bills. Of greater concern will be the non-residential discharges, who will typically see higher bills. We have identified the largest of these accounts, and will be offering audits of their stormwater discharges. Our plan is to verify fee equity for any unusual lots, to offer fee credits for on-site stormwater load remediation practices, and to provide billing dispute remediation procedures in conjunction with the rate restructuring.

Part III. The steps to developing stormwater fees

The technical process of calculating stormwater fees is summarized in this third part of our article. As with most utility rate studies, the process is framed within four basic steps shown in Illustration 2 above.

This four-step Rate Setting Process is explained below:

Assess Annual Revenue Requirements

– The financial backbone of every stormwater utility is a system of user fees and other funding sources sufficient to operate the utility on a sustainable basis. The



Illustration 2 – Rate Setting Process

fee-based portion of revenues equals the total expenses less non-operating revenues, transfers, and changes to reserve levels. The portion of those revenues to be funded with user fees is dependent on your community goals. *The right selection of funding sources will help secure community backing, while the wrong one will assure community resistance and underfunding of this service.*

Conduct Cost of Service Analysis – Unlike your water, gas and electricity utilities, stormwater services cannot be metered. Nevertheless, if fees are used you are obligated to demonstrate that fees vary in proportion to the services received. As such, there needs to be a measurement of service benefits to customers to create a nexus with the cost of service-based fees. This measurement is based on an estimate of stormwater runoff and pollutants from each property. *Pragmatic use of the cost of service analysis may result in a simplified set of charges. For example, all single-family lots may have the same rate if there are only minor variations within this class, but the analysis is needed to show that the fee schedule is reasonable.*

Develop Fee Structure – Fee structures vary significantly from state to state. Nationwide, a survey of 200 utilities indicates that roughly half are based on impervious area; one-quarter are based on a combination of impervious and gross area, and lesser numbers on intensity of development and other factors. Historically, it has been more than adequate to base fees solely on estimates of runoff from different parcels, without regard to the pollutant loads. *However, pollutant abatement and remediation activities increasingly represent a majority of the stormwater costs. This means that a clear nexus is*

required between the pollutant-related costs, the benefits derived by their remediation and the stormwater fee structure.

Recommend Rates – The recommended fee structure must be based not only on equity, but also on acceptability. If the fees are too complex to be understood, then they are more likely to be rejected for suspicion of “smoke and mirrors.” A comparison of the recommended bills with other cities is recommended to increase the comfort of the elected officials in authorizing the charges. In fact, for very politically charged communities, comparable fees in nearby communities may be the main basis of approval. Appropriate fee exemptions, credits and dispute mechanisms typically provide a major boost to acceptability and a minor loss in revenue collections. Most importantly, *regardless of the total funding needed, the program’s fee-based revenues must be limited to the funding level that will receive approval.*

Stormwater facility funding resources.

It is beyond the scope of this article to provide the detailed calculations required to develop fee-based revenues. In 2003 APWA published a guide to stormwater utility funding. This book discusses the rationale behind the approach as well as planning utilities, legal considerations, and details for establishing rate structures and estimating user charges. It is titled *Financing Stormwater Facilities: A Utilities Approach*, and is available on the APWA website. Moreover, not described in this article or in the APWA guide is the development of pollutant coefficients for each land use type. For this approach, please contact one of the authors.

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