

# Creating a storm drainage utility

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ROSEVILLE RAISED \$519,000 in one year from storm sewer service charges. The city did not set up the utility as a way out of financial problems, but because it is the right way to approach storm drainage. The advantages of the utility are:

- /// **Fairness** - Charges are based on how much of the problem the property owner creates.
- /// **Dependability** - It produces consistent funding and is easily projectable.
- /// **Dedicated funds** - There is no competition for use of these funds from other city activities.
- /// **Unrestricted use** - Funds can be used for any type of administrative, planning, maintenance, reconstruction, new construction, or other use associated with storm drainage.
- /// **Legal defensibility** - More and more special assessment projects are being challenged in courts, as benefits are difficult to allocate for properties on high ground which drain their water downstream.
- /// **Tax levy reduction** - The tax levy can be lowered by no longer funding these activities from tax-supported general funds. Roseville cut more than \$200,000 from its tax levy as a result of forming a utility.
- /// **Simplicity and flexibility** - Securing city approval, developing a charge system, explaining to the public, and adding an extra line on utility bills are not too difficult, and the fee system is adaptable to local situations.

Before decisions can be made on utility rates, much information is needed. Most will not be too difficult to get, but it will take some time and work. Sources for such information include existing utility billings, financial records, capital improvement programs, budgets, time card accounting systems, zoning maps, and aerial maps. Absolutely exact information is not necessary; experience with the utility will enable refinement of fees, credits, etc. at a later date. Necessary information includes the following:

Does existing law allow for the establishment of a storm drainage utility?

Find out how much is being spent now and on what activities. Any proposed change requires an understanding of how things currently are done.

Determine how funds are being obtained and from whom. This is very important. Try to break the sources down into groups such as residential, commercial, industrial, churches, schools, vacant property, etc. This will come in handy when property owners ask how the change will affect them. It will also allow formulation of a rate structure fitting your views on who should pay for the utility.

How does the present utility billing system function? How would it potentially be affected by adding this new utility?

What planning and administrative costs are anticipated? If master plans or updating of comprehensive plans are needed, this should be known. For Roseville, the new state law required major planning efforts - a short-term, but noticeable burden on the city budget.

Establish the maintenance and operational needs of the system, even if they are not already being done.

Estimate what system replacements, enlargements, and new facilities are needed, both now and in the future.

Estimate both the number of parcels of each type of zoning and the total number of acres of each type of zone in the community. This information preferably would include data as to what percentage of each type of zone is vacant.

Calculate typical parcel size and percentage impervious of the various types of zoning. You should be able to do this with a few sample calculations from aerial photos. This vitally important information is the focal point for charging various property users.

Estimate the general type of soil and typical slope or grade of the normal parcel. Typical rainfall data is also necessary.

Determine the type and magnitude of privately constructed and, maintained ponds, holding basins, skimming facilities, and other such improvements on private property. If a credit system is considered, its effect will have to be somehow quantified. Actual calculations or field investigations are not recommended, however; doing so would be too costly and time consuming at this stage of the process.

Decide what groups should pay for the facilities. This subjective decision is where the utility will most likely succeed or fail. If the utility is perceived as reasonably charging the right types of land, it will probably succeed. If the fee system is viewed as unfair, resulting in charges of the wrong size or to the wrong type of land users, then it will probably fail.

If elections are near or council members are feuding, it may not be right time to propose a new program. On the other hand, if there are fiscal restraints, or it is budget time, or new ideas are being sought, then this may be time to move ahead.

Once it is time to move, the most difficult portion of the operation is next - deciding what the charge system will be. Each community will need a different method. Roseville took the following approach:

**Fee basis** - Experience had indicated the main basis for a storm drainage fee would be the zoning of the land and the acreage of the particular parcel. It was concluded that development of single-family, residential land would be essentially similar regardless of parcel size, so a single rate was used for all such parcels. This simplified billing and calculations, and followed the approach of the existing sewer utility.

**Exclusions and charges** - Since the system was to reflect increases in stormwater flow caused by development, vacant property was not charged. This simplified the collection system, as sewer and water bills are sent to developed parcels, not vacant ones. Another exception was made for public road rights-of-way. Most of these are owned by the city itself, and to pay those fees would have simply meant raising property taxes, as well as collecting from state highway and county governments - a move viewed as politically sensitive.

**Runoff evaluation technique** The SCSS system was chosen. It was felt to be fair, nationally accepted, and flexible enough to establish a fee system in keeping with Roseville's needs.

**Rainfall and program level** - City staff wanted a rainfall that would enable a system with minimal charge effects on single-family, residential property owners. But enough fees were needed to offset costs of maintenance, planning, replacements, and enlargement of the system. A two-inch total rainfall amount with antecedent moisture condition II was selected, using Soil Conservation Service Technical Release no. 55.

**Credit system** - Since the city was essentially developed and most of the collection system already existed, it was decided that up to 50% of the fee could be reduced by property owners providing water quality benefits and up to 25% by their reducing flow rate. Wet ponds were determined to be the best way to improve water quality and Brune's trap efficiency curve was used as the basis for determining that aspect. The 25% credit for slowing down water was broken into two potential steps - 10% would be granted if the peak outflow rate was cut to a five-year rainfall event for predevelopment conditions and another 15% if that could be done for a 100-year event. Charge reductions could also be granted if a property owner could show the actual development on the parcel was much less than standards set up for the normal parcel of that particular land use zone.

**Fees** - Using the SCS two-inch rainfall and assuming the average lot was one-third of an acre in size, a ratio of charges was developed for each land use zone. Where similar ratios existed for various types of land use, these were combined into one classification for determining the actual fee. Fees range from \$3.25 per acre for cemeteries and golf courses to \$65 per acre for commercial, industrial, and warehouse owners. Other classifications are: parks with parking facilities; single family and duplex residences; public and private schools and community centers; multiple family residences, churches, and government buildings; and improved vacant. The system does not assume identical percentages of imperviousness on each land use zone. This was done to ensure that commercial and industrial land owners paid the majority of the fees. It was felt that large, highly developed parcels containing extensive amounts of asphalt and root area were contributing the major water problems both in terms of flow rate and water quality. The rate structure reflects this determination, while assuring adequate funds for present and future needs.

**Salesmanship** - To convince the decision makers, a table was prepared comparing the impact of the new fee with that of a tax approach to funding. This showed that residential costs to fund proposed activities would be almost double if tax levies were used, while commercial and industrial zonings would pay little more than half. Along with the fact that almost 9% in new funds would be gained from previously tax-free entities such as schools, churches, and parks, this won over the city council. As for the public, news stories and mailings ensured they understood what was happening.

They evidently approved, for since the system's implementation in April 1984 there have been very few complaints and few credits requested or given. Out of more than 9,000 accounts, only 31 people have asked for credits, with 13 found to be proper. This has resulted in \$37,000 worth of credits being given, reducing potential income about 6.7%. Most of the income has come, as expected, from commercial and industrial property owners.

Once the utility is established, there are many uses for the funds. Any plan would be expected to include typical uses such as administration, planning, and routine maintenance of pipes, pumps, ponds, ditches, vehicles, etc. However, many cities have gone beyond such uses, including such activities as street sweeping, leaf and grass collection, chemically purifying lakes, weed cutting of lakes, erosion protection, educating citizens on fertilizer's effects, and other less obvious activities. Many programs also include the reconstruction costs of old, deteriorated pipes or ditches, replacing or enlarging undersized systems, and expanding siltation ponds. Also desirable is the construction of new facilities to improve treatment of runoff, reduce flooding or erosion, or serve areas that do not have a storm drainage system.

Roseville incorporated all of the above into its system, except that the city proposes to special assess 25% of the costs of stormwater collection systems in as yet unserved areas. Even in these areas, however, ponds, large trunk sewers, major ditch construction, stormwater pumps, and similar facilities are being funded by the utility.

After experiencing the utility in action, it seems clear that this approach is fair, simple, provides dependable and flexible funds, relieves the general fund, and can be tailored to fit any community situation. It worked for us, and it can work for you.