

Stormwater Management Financing Case Study Olympia, Washington

Olympia, Washington

Olympia, Washington is located on the Puget Sound about an hour south of Seattle. Olympia is the capital city of Washington and the county seat of Thurston County. The climate is mild with rainy winters and dry summers. Olympia averages 51 inches of precipitation each year. The city has a permanent resident population of around 45,000 people and hosts 20,000 commuters during business hours.

Stormwater Management History

The Olympia community has always had a strong commitment to environmental protection. In the mid-1980s, residents were becoming increasingly concerned about the impacts of untreated stormwater runoff on the community's surface water quality. The community was witnessing the degradation of its streams and the Puget Sound and was aware of the habitat losses that were occurring as a result of increased pollution and development. The Puget Sound Water Quality Management Plan required local governments to address stormwater quality and Phase I of the NPDES stormwater permit system was on the horizon.

Utility Creation

Faced with flooding problems, environmental degradation, and more stringent state and federal regulations concerning stormwater runoff, Olympia created its first stormwater utility in 1986 and began charging its customers a flat rate for services that was based on runoff quantity. Residential customers were charged \$1.50 per month and non-residential customers were charged \$14.50 per month.

Utility Responsibilities

Olympia's stormwater utility is part of the Department of Public Works and is responsible for water quality programs, flood protection, habitat protection, street sweeping, and the construction, operation, and maintenance of the storm drain system.

Quality-Based Rate Structure

After the city began collecting stormwater fees in 1986, a consulting firm was hired to evaluate the city's stormwater program and options for a permanent rate structure. The consulting firm hired by the city of Olympia was given the task of designing a rate structure that would help improve local water quality and provide the city with sufficient funding to construct stormwater management facilities to keep the community in compliance with federal, state, and regional environmental regulations. The consultants investigated credit systems, what types of properties to include in the rate base, development fees, and what to use as the base unit for the stormwater

user charge system. Using the findings of the consulting firm, Olympia’s city council created its first water quality-based rate structure in 1990.

The 1990 rate structure had two property classes: residential and non-residential. Residential customers were charged a flat rate of \$4.50 for one 2,528 square foot equivalent residential unit (ERU). One ERU was defined as the average impervious area for a residential parcel in Olympia. Duplexes were charged \$9.00 per month and all non-residential customers were charged based on the number of ERUs on their parcels. The non-residential rate structure had three components: an administrative fee, a quantity component, and a quality component. The administrative fee was \$8.44 per month for all non-residential parcels. The runoff quantity component was calculated by multiplying the number of ERUs on the parcel by \$1.49. The runoff quality component was calculated by multiplying the number of ERUs on the parcel by \$4.13 (See Table 1).

Table 1: Olympia, Washington’s 1990 Rate Structure

Parcel Type	Monthly Stormwater Service Charge
Single-family Residential	\$4.50
Duplex	\$9.00
Non-residential	$\$8.44 + (\$1.49 \times \text{\# of ERUs}) + (\$4.13 \times \text{\# of ERUs})$

The rate structure also contained several types of surcharges and credits designed to encourage retrofitting and the installation of on-site stormwater control facilities. There was a surcharge of 50% on the runoff quantity component if the parcel had no on-site detention facilities. There was a credit of up to 50% on the runoff quantity component if the parcel had on-site runoff controls that exceeded the city’s current detention requirements. There was a credit of up to 75% available on the runoff quality component if the parcel owner installed and maintained approved treatment methods on site.

The 1990 rate structure was considered fair and equitable because charges were applied based on the impact a parcel had on the stormwater system. Unfortunately, the credits and surcharges did not provide parcel owners sufficient incentive to install on-site stormwater runoff controls and the rate structure was too difficult to be practical. The calculation of a parcel’s appropriate stormwater charge was very labor intensive and complicated and many utility customers had difficulty understanding their bills.

New Rate Structure

Olympia soon realized that a new rate structure was needed and just two years after the complicated rate structure was implemented, it was scrapped in favor of a simplified rate structure that rate-payers could understand. The new rate structure has a flat fee for residential parcels and a three-tiered rate structure for non-residential parcels. The flat fee for single-family residential parcels was increased from \$4.50 to \$6.00 per month. Duplex charges were increased from \$9.00 per month to \$12.00 per month.

Non-residential parcels were divided into three development categories: those built before 1980 (Category III), those built between 1980 and 1990 (Category II), and those built after 1990 (Category I). The administrative fee for non-residential parcels was increased from \$8.44 to

\$8.50 per parcel and all of the credits and surcharges from the previous rate structure were eliminated. Flat fees based on age of development replaced the runoff quantity and quality components of the previous rate structure. Non-residential parcels developed after 1990 were charged \$2.40 per month per ERU. Parcels developed between 1980 and 1990 were charged \$4.44 per month per ERU and parcels developed before 1980 were charged \$6.60 per month per ERU (See Table 2).

Table 2: Olympia Washington’s 1992 Rate Structure

Type of Parcel	Monthly Stormwater Service Charge
Old Single-family Residential	\$6.00
New Single-family Residential	\$5.00
Duplex	\$12.00
Pre- 1980 Non-residential	$\$8.50 + (\$6.60 \times \# \text{ of ERUs})$
1980- 1990 Non-residential	$\$8.50 + (\$4.44 \times \# \text{ of ERUs})$
Post 1990 Non-residential	$\$8.50 + (\$2.40 \times \# \text{ of ERUs})$

The City of Olympia is currently considering changing the residential rate from a flat fee to one that is more closely related to the actual amount of impervious area on the parcel. In recent years, Olympia’s stormwater utility staff has seen an increase in the amount of impervious area on residential parcels and a reduction in the amount of impervious area on commercial parcels. The staff feels that the reduction in the amount of impervious area on the commercial parcels is due to the stormwater service charge and would like to provide residential customers with an incentive to reduce the amount of impervious area on their parcels as well.

Credits and Exemptions

Undeveloped parcels are exempt from stormwater charges. State highway rights-of-way are charged 30% of applicable charges. All other roadway rights-of-way within the city limits are charged 30% of the applicable stormwater charges. Credits are available to owners of non-residential parcels that install approved stormwater systems to provide detention/retention or improve water quality beyond the city’s requirements. Non-residential parcel owners who meet these requirements by installing on-site controls receive a reduction in their stormwater service charges by being charged the rate for the next most recent development class. For example, an owner of a non-residential parcel that was developed before 1980 who installs onsite control systems that exceed the city’s requirements can have his or her monthly service charges reduced to the 1980-1990 development rate. Residential customers whose homes were built prior to 1990 who have installed onsite controls that meet or exceed the 1990 city standards can have their monthly service charge reduced from \$6.00 to \$5.00 if they sign a maintenance agreement with the city to maintain the equipment.

Stormwater Utility Budget

Olympia’s stormwater utility receives approximately \$2.5 million each year in revenue from its user charges. The utility’s largest expenses are related to operations and maintenance and planning and development. The utility spends \$1.6 million each year on planning and development activities and \$1.2 million on operations and maintenance activities.

Public Education

Olympia has several public works information lines posted on their Web site that direct residents to the appropriate offices to get their questions answered. The utility staff also prepares public education materials and publishes a newsletter, *Stream Team News* that reports on the activities of the Stream Team regional volunteer group. The Stream Team works to clean up local streams and conducts summer camps for children to teach them about the importance of water resources.