

STORMWATER RATE CREDITS & ADJUSTMENTS

ISSUE & BACKGROUND

In December 2017, the Whatcom County Council established the Lake Whatcom Stormwater Utility to provide a mechanism to fund efforts to clean up and protect Lake Whatcom (Ordinance 2017-076; under the authorization provided in RCW 36.89). While the potential rate structures for this utility are covered in a different issue paper, this paper discusses when it may be reasonable (or required) to provide rate credits or adjustments for stormwater customers who mitigate their stormwater impacts – and the rational basis for such credits.

However, it is important to weigh the cost to administer *and* maintain such a rate credit system and consider whether those costs are disproportionate to the amount of credits offered.

RATE CREDIT METHODOLOGY

Consider an Equitable Credit Approach

When considering how to charge or credit different types of customers, it is important to remember that a stormwater rate is a fee for service, not a tax. As such, the level of a customer's charge must somewhat relate to that customer's proportionate share of the utility's costs. Overly "generous" credit policies which provide credits that are not cost-based have the potential to move a utility away from the rational linkage between service delivered and the fee amount, so the utility should bear in mind the equity and legal defensibility of any proposed credits.

Determine Which Costs are Fixed; Unaffected by Customer Actions

A stormwater utility's service to its customers and the community can be analyzed in two functional categories: controlling and reducing stormwater runoff (i.e., water quantity), and controlling and managing pollutants (i.e., water quality). The broader questions to address in establishing credits are (1) whether a rate payer helps the utility reduce its costs, or to avoid additional costs, by providing certain mitigation measures in these two functional areas, and (2) if yes, how much of a cost savings is provided.

Comparatively, properties with on-site mitigation have a reduced effect on the public system compared to similar properties lacking this mitigation. Therefore, it might be argued that to the extent that such facilities reduce costs to the County utility, they may warrant a rate credit.

In contrast, granting rate credits for on-site activities that do not reduce utility costs simply reduces the amount of resources available for basic services to the remainder of the customer base. In fact, it could be argued that the cost of meeting current County standards and constructing on-site mitigation should be considered a cost of living in the watershed, with no offsetting credits or assistance, since on-site mitigation only partially neutralizes the impact of developing the property in the first place.

Performance against Current Standards

Rate credits may be structured to reward customers who provide mitigation that meets or exceeds current development standards, while offering lesser or no credits for mitigation that does not meet or exceed current development standards.

Currently, the Lake Whatcom watershed regulations in Whatcom County Code 20.51 Lake Whatcom Watershed Overlay District requires developments to meet “no additional phosphorus loading beyond a forested condition” on each site that meets the thresholds of the code. These regulations were drafted to bring development regulations in line with the Lake Whatcom Total Maximum Daily Load (TMDL) requirements. A rate credit may be developed to apply to customers meeting or exceeding the most current regulations. Considerations should address the costs associated with the tracking and enforcement of these requirements.

At this time, the Whatcom County Code requires all developments to sign a Declaration of Covenant and Grant of Easement allowing access to the properties that have developed to these standards to ensure they are maintained in perpetuity. However, the County enforcement of these standards is mostly limited to complaint-driven inquiries rather than an established inspection schedule. No County resources are currently dedicated to routine inspection of these facilities.

Consider Credits for Single Family Parcels in the Watershed

Stormwater utilities often exclude single family customers from a credit program (if credits are offered at all) due to the administrative burden needed to maintain such a system. However, given the unique characteristics of the Lake Whatcom watershed, this topic may warrant a second look in this particular case. The developed parcels in the service area are almost entirely residential.

Additionally, as a result of the Lake Whatcom Homeowner Incentive Program (HIP) and requirements on new construction through the Lake Whatcom Watershed Overlay District (WCC 20.51), the Lake Whatcom watershed contains a number of single family parcels that have water quality-related infrastructure on-site. Documentation related to HIP notes which parcels have water-quality related facilities on-site, however, documentation of stormwater facilities installed with new construction is not easily queried. A credit program for properties with on-site stormwater facilities would need to be maintained on a year-to-year basis to capture new HIP participants, new construction, and to ensure existing facilities are being properly maintained.

POTENTIAL RATE CREDIT PROGRAMS

A review of potential credit approaches reveals a number of alternatives used across the industry. Many residential subdivisions and commercial developments provide onsite mitigation as a condition of development, often requiring maintenance of those facilities as well. There are two key questions to consider when considering the implementation of a rate credit program:

- As discussed in the previous sections, “Should credits be given for meeting current development requirements?” Or, “Should rate credits only be given for exceeding current development requirements?”
- As discussed in this section, “What activities could warrant a rate credit?”

Required Minimum Credit for Commercial Rainwater Systems

The only stormwater rate credit provided for in Washington State statute (RCW 36.89.080) is “a minimum of ten percent for any new or remodeled commercial building that utilizes a permissive rainwater harvesting system.” Rate credits for other on-site mitigation are not required but are discussed in the following sections.

Dedicated Open Space (WCC 20.51.300-330)

New developments may incorporate design techniques that concentrate residences or other buildings in a compact area of the development site (lot clustering) and provide open space and natural areas elsewhere, protected by an easement. Such techniques can reduce runoff and mitigate stormwater quality issues. The creation of new building lots within the Lake Whatcom Watershed Overlay District are subject to design standards related to open space and or lot clustering.

Open space developments have many benefits in comparison to the conventional subdivisions that they replace: they can reduce impervious surface area, stormwater pollutants, construction costs, grading, and the loss of natural areas. In addition to the minimization of impervious surface area, the preserved natural areas and tree canopy can significantly mitigate the stormwater runoff created by the buildings on-site.

Therefore, although affected by the slope characteristics of the property, the preserved portion of the site acts to reduce the effective impervious area of the development and provides a meaningful benefit to the public system when runoff is adequately dispersed.

***Whatcom County Code References:** The particular requirements within Whatcom County are stated in County Code sections including: 20.51.300 Open space; 20.51.310 Cluster subdivisions; 20.51.320 Cluster design standards; and 20.51.330 Open space reserve area.*

Permanent Stormwater Management Systems (WCC 20.51.420)

Unless a parcel is deemed exempt (per adopted exemptions in the County Code), new development proposed to occur within the Lake Whatcom Watershed Overlay District shall utilize one of three approved development options to achieve the adopted phosphorus loading criteria derived from the Lake Whatcom TMDL. These options include *Full Infiltration and Downspout Full Infiltration, Full Dispersion, or an Engineered Design*. These three development options help manage and treat stormwater runoff in order to achieve phosphorus loading criteria for the Lake Whatcom TMDL, and establish more stringent standards on clearing activities and reduce the resulting phosphorus loading into Lake Whatcom.

Full Infiltration and Downspout Full Infiltration

Per the Stormwater Management Manual for Western Washington, *Full Infiltration* systems include infiltration facilities such as an open basin (pond), trench, or buried perforated pipe used for distributing stormwater runoff into underlying soil. *Downspout Full Infiltration* systems are trench or drywell designs intended only for use in infiltrating runoff from roof downspout drains. They are not designed to directly infiltrate runoff from pollutant-generating impervious surfaces. These tools help mimic pre-disturbance hydrologic processes of infiltration, filtration, and storage.

Full Dispersion

According to the Stormwater Management Manual for Western Washington, “dispersion of concentrated flows from driveways or other pavement through a vegetated pervious area attenuates peak flows by slowing entry of the runoff into the conveyance system, allowing for some infiltration, and providing some water quality benefits.” Full dispersion requires the site to preserve 65% of the site in forested or native vegetation, as well as not to have more than 10% of the site impervious surface. For projects that utilize full dispersion, WCC 20.51 requires the dispersion area to be held in a Protected Native Growth Area (PNGA) covenant, keeping that area protected and preserved as a stormwater management BMP.

Tree Canopy Retention (WCC 20.51.430 – 440).

Based on the County Code, tree canopy retention shall be required for all development applications and building permits within the Lake Whatcom watershed, unless otherwise exempted by County Code. Exemptions can be related to actions to remedy an immediate threat to person or property, or limited pruning and or maintenance of trees, to note two examples.

***Whatcom County Code References:** The particular requirements within Whatcom County are stated in County Code sections including: 20.51.430 Tree removal not associated with development activity and 20.51.440 Tree retention associated with development activity.*

Low-Impact Development (throughout WCC 20.51)

Low-impact development (LID) techniques, such as rain gardens, vegetated roofs, permeable pavements, etc., are widely used to manage stormwater on-site by using existing site characteristics, natural features, and stormwater controls that closely resemble and mimic natural hydrology.

The development regulations of WCC 20.51 may incorporate LID techniques in an applicant’s proposal, but LID is not required for each project. The maximum allowable phosphorus loading limit in WCC 20.51 is a requirement regardless if an LID technique is utilized or not, and that phosphorus loading limit may be met through approved BMPs that can either use existing conditions of the site, or an engineered design that utilizes no natural features. Some approved LID techniques do not provide adequate phosphorus control. Therefore, careful consideration on a rate credit for implementing LID techniques should only occur after evaluating what is required by the current regulations, and how would “additional” LID techniques be measured and tracked for their phosphorus limiting capabilities.

Lake Whatcom Homeowner Incentive Program & Phosphorus Treatment Facilities

Related to the LID section above, but specific to the Lake Whatcom watershed, the voluntary Lake Whatcom Homeowner Incentive Program (HIP) connects landowners with the technical and financial assistance needed to improve water quality in the lake.

The program facilitates the design, permitting, and construction of phosphorus-reducing Best Management Practices (BMPs). These projects are retrofits of existing developed areas and consist of native landscaping or underground stormwater filter or infiltration systems. To date, 14 HIP projects

have been installed in the new Lake Whatcom Stormwater Utility Service Area improving a total area of nearly 59,000 square feet.

CONCLUSION

Rate Credits

Many of the stormwater utility’s costs are essentially “fixed” and do not decrease no matter what services customers provide on-site. As a first step, we recommend using an analytical approach to determine the portion of program costs which can be reduced by the onsite activities of the customer base. Once an allocation of program revenue requirements between fixed, or “base,” program costs, and variable, or “use,” program costs has been made, these component shares of the stormwater utility charge can be determined. The utility will then be able to determine a theoretical maximum credit to be provided for qualifying on-site mitigation.

The above recommendations ensure that properties eligible for rate credits would be reducing the average cost of utility operations, as well as possibly allowing the County to delay or reduce capital projects. As a result, the utility would be able to reduce its costs by implementing the recommended credit policies. Therefore, it may be equitable to consider allowing rate credits for parcels that have phosphorus-reducing or other on-site facilities that still meet and or exceed current County standards.

While it is uncommon for a utility to offer rate credits to single family parcels, due to the administrative burden, it may be worth considering in this particular case. The Lake Whatcom Stormwater Utility Service Area is comprised of mostly single family parcels, some of which already have phosphorus treatment facilities on-site. It may be equitable to offer these parcels a rate credit.

The following table summarizes the key policy items that the committee may want to consider.

Table 1. General Rate Credit Policy Items for Discussion

Policy Items for Discussion		
1	Should the service area offer rate credits?	Should rate credits be offered at all? (Other than the State mandated credit for Commercial Rainwater Systems).
2	Should credits be offered to single family parcels?	In our experience, rate credits are rarely offered to single family parcels due to the administrative burden. However, the Lake Whatcom Stormwater Utility Service Area is somewhat unique. Consequently, rate credits may be worth considering.
3	How much should the rate credit(s) be?	Maximum credit (typically expressed as a percentage) should be based on an analytical basis, but be simple enough that it is feasible to implement.

Policy Items for Discussion		
4	What level of achievement qualifies for a rate credit?	Are credits offered for meeting regulations? Or only offered for parcels that exceed regulations?

The following table summarizes the activities within the service area that the committee could recommend be eligible for rate credits, should they be offered at all.

Table 2. Activities That Could Qualify for a Rate Credit

#	Program	Description of Code Language	Development Requirement?	Participation Data Available?
1	Rainwater Harvesting	RCW 36.89.080: A minimum of ten percent for any new or remodeled commercial building that utilizes a permissive rainwater harvesting system.	Required by State Law	Check with County
2	Open Space	WCC 20.51.300 Open space: The creation of new building lots within the Lake Whatcom Watershed Overlay District shall be subject to open space requirements.	Required by County Code	No inventory of participation is currently maintained.
3	Permanent Stormwater Management Systems	WCC 20.51.420: Unless otherwise exempt, all projects, work, or activities, including subdivisions, binding site plans, and nonexempt new short subdivision parcels, proposed to occur within the Lake Whatcom Watershed Overlay District shall incorporate presumptive BMPs and/or demonstrative BMPs.	Required by County Code	No inventory of participation is currently maintained.
4	Tree Canopy Retention	WCC 20.51.440: Tree canopy retention shall be required for all development applications and building permits within the Lake Whatcom watershed, unless the activity is exempted.	Required by County Code	No inventory of participation is currently maintained.
5	Low Impact Development (LID)	Low Impact Development has already been incorporated into Whatcom County Code 20.51 as a requirement of the Western Washington	May be Required by County Code	No inventory of participation is currently

#	Program	Description of Code Language	Development Requirement?	Participation Data Available?
		Phase II Municipal Stormwater Permit.		maintained.

6	Homeowner Incentive Program & Phosphorus Treatment	The program facilitates and helps fund the upfront costs related to the design, permitting, and construction of phosphorus-reducing Best Management Practices.	Voluntary Participation	Inventory of participation is currently maintained.
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Rate Penalties

The County could impose a rate penalty on development that does not provide qualifying on-site detention. Such penalties have been used in other agencies to address private stormwater facilities that are not being properly maintained to County standards. In those locations, it has been concluded that simply offering a rate credit is not effective at encouraging a majority of customers to comply with utility design and maintenance standards.

A basic rationale for a rate penalty may be that when a parcel or development does not provide on-site mitigation or does not maintain its on-site infrastructure to a minimum standard, it can create additional inspection, maintenance, or capital costs that must be borne by the County.

If no action is taken to correct deficient infrastructure, that could create a higher risk of local flooding or water contamination events which can also create additional costs. To recover these additional costs from those non-compliant customers, the County may want to explore developing a rationale to administer cost-based rate penalties to be applied after a material period of noncompliance.

Senior / Low Income Rate Discounts / Exemptions

While the focus of this issue paper has been on rate adjustments for on-site mitigation, many utilities offer rate discounts or exemptions for qualifying low-income, senior citizens. As stated previously, a stormwater rate is a fee for service, not a tax. The amount charged, or not charged, to a customer should relate to the cost of providing service to that customer. Credits that do not have a cost basis are therefore not recommended. That said, the County provides a rate exemption for customers of the Birch Bay Watershed and Aquatic Resources Management District who qualify under RCW 84.36.381 as low-income, senior citizen, or disabled persons. The District is a County entity that shares many of the characteristics of the proposed Lake Whatcom Stormwater Utility. It is proposed that the County adopt a similar policy for the Utility.