## AGENDA  March 20, 2019 | 2:00PM TO 5:00 PM

### ADVISORY COMMITTEE (AC) #9

**LAKE WHATCOM STORMWATER UTILITY**

Bloedel Donovan Park Beach Pavilion, 2214 Electric Ave., Bellingham, WA

<table>
<thead>
<tr>
<th>Item #</th>
<th>Estimated Time</th>
<th>Agenda Item</th>
<th>Lead</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2:00</td>
<td>Call to Order/Roll Call</td>
<td>Nat</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Approve Agenda</td>
<td>Nat</td>
<td>Agenda</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Approve meeting notes from February 20</td>
<td>Nat</td>
<td>Meeting Notes</td>
</tr>
<tr>
<td>4</td>
<td>2:05</td>
<td>Staff Report/Response to Comments Received</td>
<td>Gary</td>
<td>TMDL Requirements; Sudden Valley sample results; Draft parcel type map; New comments received; Updated comment/question table with response</td>
</tr>
<tr>
<td>5</td>
<td>2:15</td>
<td>Lake Whatcom Stormwater Utility Service Area Fee Proposal: Combined Gross Acres &amp; Impervious Surface</td>
<td>Nancy</td>
<td>Slides/Handout</td>
</tr>
<tr>
<td>6</td>
<td>2:30</td>
<td>Final Rate Design Discussion &amp; Advisory Committee Recommendation</td>
<td>John</td>
<td>PowerPoint</td>
</tr>
<tr>
<td>7</td>
<td>3:30</td>
<td>Break (if necessary)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>3:45</td>
<td>IP#5 - Implementation Policies</td>
<td>John</td>
<td>Issue Paper #5 – Implementation Policies; PowerPoint</td>
</tr>
<tr>
<td>9</td>
<td>4:20</td>
<td>Public Comment Period</td>
<td>Nat</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>4:40</td>
<td>Meeting Summary: a. Decisions Made b. Action Items</td>
<td>Tage</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>4:50</td>
<td>Next Steps</td>
<td>Gary</td>
<td>-</td>
</tr>
<tr>
<td>12</td>
<td>5:00</td>
<td>Adjourn</td>
<td>Nat</td>
<td>-</td>
</tr>
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</table>
Advisory Committee Meeting #8
Lake Whatcom Stormwater Utility
February 20, 2019 | 5:00 PM to 7:30 PM
Bloedel Donovan Park Beach Pavilion: 2214 Electric Ave., Bellingham, WA

Decisions

- February 20 Agenda – Approved
- November 14 and January 8 Meeting Notes – Approved
- March 20 Meeting Time Changed: Now 2:30 PM to 5 PM – Approved (one committee member unable to attend regular time)

Homework / Action Items

Committee Members

- Consider options regarding CFC Implementation and Parcel Fee Component (summarized on page 37 in PowerPoint).
- Be prepared to discuss and cast committee recommendation vote at March 20 meeting.

FCS GROUP

- Deliver draft “Issue Paper #5 – Implementation Policies” before next committee meeting.
- Update rate results with new measuring data before next meeting.

County Staff & FCS GROUP

- Review sampling methodology and the resulting SVCA parcel representation.

Agenda Topics Covered

- Call to Order/Roll Call
- Approve Agenda
- Approve meeting notes from November 14 and January 8
- Staff Report/Response to Comments Received
- Funding Study Remaining Steps
- Proposed Rate Design
- Next Steps / Future Meetings
- Public Comment Period
- Meeting Summary: Decisions Made; Action Items; Agenda for Next Meeting
- Adjourn
Question on TMDL requirement: Advisory Committee email correspondence February 20 – 27, 2019

From: Nancy Alyanak
Sent: Wednesday, February 20, 2019 10:47 PM
To: Gary Stoyka; Ingrid Enschede
Subject: Question on TMDL requirement

Gary,

Page 14 of the slides, bullet point 2 is "Charging undeveloped parcels deviates from the main goal of offsetting costs of phosphorus reduction from developed lands required under the TMDL". Is this a quote from an Ecology document?

When I read the TMDL v. 2 November 2014 I find a choice of phosphorus reduction targets. "Developed acre targets" is one of the choices, not the only choice or a required choice. Any phosphorus reduction target that addresses the dissolved oxygen impairments is an implementation choice.

Where in the TMDL are you finding the developed lands requirement?

Regards,

Nancy Alyanak

On February 26, 2019 at 3:32 PM Gary Stoyka wrote:

Hi Nancy,

The text on page 14 of the slide show is not a quote from the TMDL. It is language I wrote to summarize the concern.

The explanation of the effective developed acres and phosphorus reduction goals is presented in pages 28-33 in the TMDL. The TMDL gives the City and County the option of tracking progress in reaching our phosphorus reduction goals either by the number of developed acres we are treating/retrofitting to act like a forested area or by the amount of phosphorus that these actions are reducing. The map below shows the areas regulated under the TMDL. The green areas are those zoned commercial forest and have been designated as phosphorus “load allocation” (LA). The load allocation is the amount of phosphorus that is allowed to enter the lake. The County is not required to reduce phosphorus generated in these areas. The TMDL allows phosphorus from these areas to enter the lake. The other areas (red, orange, and yellow) are designated as “waste load allocations” (WLA). Phosphorus from these areas is regulated under the TMDL. The red is the area regulated within the City of Bellingham. The orange is the area that is within the county’s NPDES permit area. The yellow area is the area in the county that is outside of our NPDES permit area. Ecology determined that the TMDL requirement would be met if the County treated/retrofitted 87% of the orange areas, and provided the same level of control in the yellow areas. However, some of the orange areas drain directly into creeks or the lake and do not enter our stormwater system. These areas are excluded from our permit area if we map them and provide the same level of control that we have for areas inside our permit area. Consequently, Whatcom County needs to reduce excess phosphorus in both orange and yellow
areas, but not the green areas. Since the proposed new fees are proposed to go toward addressing phosphorus from developed (i.e., primarily impervious, and other non-forested) areas within the yellow and orange areas, a fee structure that charges by impervious surface area, rather than charging undeveloped forested areas, would be more aligned with how the fees will be spent. Does that make sense?

I am responding to everyone on the advisory committee since others may have the same question. We can discuss further at our next meeting.

Respectfully,

Gary

[note: access the TMDL documents at http://whatcomcounty.us/2923/Background-Information]
Gary, thank you for the clarification.

In addition, I believe that the green areas owned by the County are subject to: monitoring; inspection; capital projects to remedy permit violation deficiencies and maintenance as necessary per Section S.C.5.f of the NPDES Phase II Permit for Western Washington. The monitoring, projects & maintenance will be paid for out of the revenue stream from the general budget for Parks and possibly Public Works.

Nat:

The green areas on the map are not part of the NPDES permit area; consequently, those areas are not subject to the conditions of the permit. There are no plans to do capital stormwater projects or NPDES monitoring or inspection in those areas. The Parks Dept. does have responsibility to manage stormwater in these areas per the requirements of the county’s stormwater regulations and applicable forest practices regulations, but that is separate from the NPDES/TMDL regulations and is, as you suggest below, paid directly by the parks department budget. We can discuss this issue further at our next meeting to avoid conducting committee business via email. For those that are interested, a map of the NDPES area and the permit is available at: http://whatcomcounty.us/981/National-Pollutant-Discharge-Elimination.

Respectfully,

Gary
Hi Gary,

Thank you for the TMDL/NDPES discussion. Here are a few things to consider:

In the TMDL, "developed acres" is used as a "surrogate measure". A surrogate measure is an "environmental indicator that can be used to develop a quantified TMDL, using numeric analytical techniques where they are available..."(v.1 p23). "The surrogate is provided as a more direct measure of the changes that need to be made to reduce pollution."(v.2 p5). In other words, the surrogate measure is a calculation, visualization and communication technique, not an exclusive requirement. Actions anywhere in the watershed that reduce phosphorus entering the lake can count towards meeting the TMDL. Those actions do not have to involve impervious surface properties exclusively.

At the time TMDL was developed, watershed phosphorus transport by stormwater was not as well understood as it is today. Post TMDL studies have determined sediment carried by stormwater runoff rather than impervious surface is the main source of phosphorus load in Lake Whatcom. Theses written by Dr. Robin Matthews' WWU graduate students have been especially informative. "Soils as a Source of Bioavailable Phosphorus in the Lake Whatcom Watershed" (2011) is a prime example.

However interesting the TMDL and NDPES permit details are, they do not limit this committee's choices. The committee is charged with recommending a rate structure for the Lake Whatcom Stormwater Utility Service Area created under RCW 36.89.080. Mr. Chris Quinn, county attorney, explained the Service Area rate structure requirements in the 1/8/2019 meeting: "that to be legally defensible, properties charged a stormwater utility fee must meet the following criteria: (a) create a burden/contribute to the runoff problem, or (b) receive a specific service from the fees collected." (1/8/2019 meeting notes)

Any watershed property that allows stormwater to exit boundaries creates a burden and contributes to runoff problems associated with phosphorus. Every property in the watershed meets that criteria. That runoff flows down hill onto neighboring properties and ultimately into the lake.

Every property is eligible to participate in the fee structure with one exception. The legislature required timber harvest properties be exempt. The legislature created RCW 36.89.080. Only the legislature can add required exemptions.

The county council can grant exemptions from a list in RCW 36.89.080. The committee can recommend exemptions from that list to county council. Except for timber harvest properties, there are no required fee exemptions. It is up to county council to choose which properties will be fee exempt and which properties will carry their neighbor's fee burden.

Regards, Nancy Alyanak
Lake Whatcom Stormwater Utility Single Family Residential Impervious Area Sample Analysis: Small Parcels (<2 acres)

At the February 20, 2019 Advisory Committee meeting, committee members asked staff to check if the randomly selected single-family residential (SFR) parcels on parcels less than two acres included a representative sample from Sudden Valley. The concern was that Sudden Valley homes may be underrepresented in the impervious area sample if they were thrown out due to tree cover and that would result in a significant number of homeowners filing a request for the small footprint rate.

See table below for a summary and analysis of SFR samples:

<table>
<thead>
<tr>
<th>Total SFR parcels in the Lake Whatcom Service Area</th>
<th>5,066</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFR parcels &lt;2 acres</td>
<td>4,619</td>
</tr>
<tr>
<td>SFR parcels &gt;2 acres</td>
<td>447</td>
</tr>
<tr>
<td>Total SFR parcels in Sudden Valley</td>
<td>2,344</td>
</tr>
<tr>
<td>SFR parcels in Sudden Valley &lt;2 acres</td>
<td>2,343</td>
</tr>
<tr>
<td>SFR parcels in Sudden Valley &gt;2 acres</td>
<td>1</td>
</tr>
<tr>
<td>% SFR parcels &lt;2 acres in Sudden Valley</td>
<td>51%</td>
</tr>
<tr>
<td>SFR &lt;2 acres sample size</td>
<td>152</td>
</tr>
<tr>
<td>SFR &lt;2 acres sample parcels measured in Sudden Valley</td>
<td>57</td>
</tr>
<tr>
<td>% SFR &lt;2 acre sample taken in Sudden Valley</td>
<td>38%</td>
</tr>
<tr>
<td>Total impervious area Sudden Valley &lt;2 acre samples</td>
<td>198,201 ft²</td>
</tr>
<tr>
<td>Average impervious area Sudden Valley &lt;2 acre samples</td>
<td>3,477</td>
</tr>
</tbody>
</table>

A sample of 152 homes is the number needed for a 90% confidence interval. The sample used to establish the average impervious area footprint for SFRs on parcels less than two acres includes 38% Sudden Valley residences, which is enough to be representative for the funding study and rate development process.
# Lake Whatcom Stormwater Utility Funding Study

## Public Questions and Comments Received February 12 – March 12, 2019

<table>
<thead>
<tr>
<th>Date Received</th>
<th>Date Received</th>
<th>Question/Comment</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/20/2019</td>
<td>Verbal</td>
<td>Question received from Peter Dobey: When will the TMDL be addressed?</td>
<td>Answered at the meeting. The county's existing stormwater management program addresses phosphorus reduction and TMDL water quality objectives. The TMDL was approved by the Environmental Protection Agency (EPA) in April 2016, and actions developed to address the TMDL (i.e., the TMDL Implementation Plan) will be incorporated into the 2019-2024 NPDES Phase II Stormwater Permit effective August 1, 2019. The Lake Whatcom Stormwater Utility was established by Whatcom County Council to provide additional funding needed to meet TMDL requirements. Improving Lake Whatcom water quality is a long-term effort. Programs to reduce phosphorus runoff into the lake have in place for over a decade, and the county and city have 50 years to meet the TMDL water quality objectives.</td>
</tr>
</tbody>
</table>
Lake Whatcom Stormwater Utility Service Area

Three Maps Illustrating a Gross Acreage Fee and an Impervious Surface Fee

Stormwater production area

Triangle pattern shows the portion of the Service Area where stormwater runoff and phosphorus load are produced. Steep slopes produce more stormwater runoff and phosphorus per acre than gradual slopes.

Gross acreage fee area

Triangle pattern shows the portion of the Service Area where a gross acreage stormwater runoff fee can legally be collected. The unmarked portions are timber harvest acreage. State law made timber harvest acreage exempt from Service Area fees.

Impervious surface fee area (most of it)

The solid red shows the portion of the Service Area that will pay 88% of an impervious surface stormwater runoff fee. That portion is mostly single family homes on less than half-acre lots.
Lake Whatcom Stormwater Utility Service Area Fees

Why a combination impervious area and gross area fee?
National Association of Flood and Stormwater Management Agencies (NAFSMA) recommends a combination fee especially if extensive rural areas were included in the utility service area.* The Area is extensively rural & undeveloped.

Why charge undeveloped acreage?
Runoff from undeveloped acreage contributes stormwater & phosphorus to the lake. The gross area/impervious area rate methodology allows charging undeveloped properties for their contribution to the problem.

Legal advantages for a gross area fee component:
County Attorney explained he is comfortable with a parcel charge based on parcel size because of the connection between size of parcel and amount of runoff contributing to the problem.**

No legal or historical documentation exists suggesting a TMDL or NPDES can impose limits on where Service Area fees can be collected. Phosphorus reduction is required by the TMDL. How to pay for that is left up to local government.

State law made timber harvest acreage, now 31% of the Service Area, fee exempt. TMDL/ NPDES maps are based on 2002/2003 data, when timber harvest acreage covered 58% of the Service Area. Use old maps & data with caution.

Practical considerations:
Little administrative burden -- gross parcel size is already tracked in the county assessor database.

All property produces stormwater runoff that ultimately ends up in the lake, so no need for gross acre fee exemptions.

Resulting residential fees are more in line with BBWARM residential fees.

The fee base is larger in a combination fee. Because the Financial Reserve is funded entirely by Service Area fees, current cost sharing with the county is probably temporary. When county funding ends, Service Area fees will triple.

DRAFT

N. Alyanak 3/12/2019

* Guidance for Municipal Stormwater Funding, 2006
** Special Advisory Committee Meeting notes for January 8, 2019
Lake Whatcom Stormwater Utility Service Area Fee Proposal
Combined Gross Acres and Impervious Surface

Combined Annual Residential Fees

<table>
<thead>
<tr>
<th>Type of fee payer</th>
<th># parcels</th>
<th>acres/parcel</th>
<th>Acreage fee</th>
<th>ESU/parcel</th>
<th>Imp Surf fee/parcel</th>
<th>total fee/parcel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family Residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small Footprint</td>
<td>400</td>
<td>0.25</td>
<td>$2.28</td>
<td>0.75</td>
<td>$83.66</td>
<td>$85.94</td>
</tr>
<tr>
<td>Medium footprint</td>
<td>4031</td>
<td>0.50</td>
<td>$4.56</td>
<td>1.00</td>
<td>$111.55</td>
<td>$116.11</td>
</tr>
<tr>
<td>Large footprint</td>
<td>426</td>
<td>5.50</td>
<td>$50.11</td>
<td>1.50</td>
<td>$167.32</td>
<td>$217.43</td>
</tr>
<tr>
<td>Non-single family residential</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>average building complex</td>
<td>69</td>
<td>1.50</td>
<td>$13.67</td>
<td>9.86</td>
<td>$1,099.33</td>
<td>$1,113.00</td>
</tr>
</tbody>
</table>

Combined Annual Developed and Undeveloped Acreage Fees

<table>
<thead>
<tr>
<th>Type of fee payer</th>
<th># Acres</th>
<th>Fee</th>
<th># ESUs</th>
<th>Fee</th>
<th>both components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undeveloped acreage</td>
<td>16,002</td>
<td>$145,778.22</td>
<td>0</td>
<td>0</td>
<td>$145,778.22</td>
</tr>
<tr>
<td>Developed acreage</td>
<td>4,562</td>
<td>$41,559.82</td>
<td>5650</td>
<td>$630,254.14</td>
<td>$671,813.96</td>
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<tr>
<td>Both fee components</td>
<td>20,564</td>
<td>$187,338.04</td>
<td>5650</td>
<td>$630,254.14</td>
<td>$817,592.18</td>
</tr>
</tbody>
</table>

Note: 1 ESU = $111.55; 1 acre = $9.11

DRAFT

N. Alyanak 3/12/2019

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