

## Dawn Bartel

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**From:** Brian Helminger <brian.helminger@hvmsd.org>  
**Sent:** Thursday, February 8, 2018 1:38 PM  
**To:** 'Dawn Bartel'  
**Subject:** FW: HOV meter failure billing options

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**From:** Chad Giackino [mailto:chad.giackino@hvmsd.org]  
**Sent:** Tuesday, January 16, 2018 6:39 AM  
**To:** 'David Casper' <djc3xx@gmail.com>  
**Cc:** Brian Helminger <brian.helminger@hvmsd.org>; Bruce Siebers <bsieb17204@aol.com>; Dawn Bartel <dawn.bartel@hvmsd.org>; John Sundelius <sundelius@kaukauna-wi.org>; Kevin Coffey <kcoffey238@gmail.com>; Pat Hennessey <pathennessey@yahoo.com>  
**Subject:** RE: HOV meter failure billing options

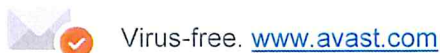
1. Take the average flow for the last 3 months and use that as a daily average and adjust the flows accordingly, it is most likely closer to the flows you are seeing today.

**From:** David Casper [mailto:djc3xx@gmail.com]  
**Sent:** Monday, January 15, 2018 4:35 PM  
**To:** Brian Helminger  
**Cc:** bruce siebers; John Sundelius; Kevin Coffey; Pat Hennessey; Chad Giackino; Kevin Skogman; Dawn Bartel  
**Subject:** Re: HOV meter failure billing options

Another option might be to use the average of the days of the quarter in which the failure occurs, using the quarters for the previous 3 years. This method, to an extent, takes out seasonality and water use patterns, and also buffers year to year changes.

Example: Failure occurs on December 10. Average the days in the last quarter of the year Oct. Nov. Dec. for the last 3 years apply that flow to Dec.10 to Dec. 31

Dave



On Mon, Jan 15, 2018 at 2:48 PM, Brian Helminger <brian.helminger@hvmsd.org> wrote:

I've jotted down a few ideas for dealing those instances where a meter station meter dies or fails to give data. We do have years and years' worth of data that can be easily retrieved and used.

The following are options for calculation of member community billings when a meter is taken out of service or malfunctions.

1. As with budgeting and other utility calculations – use a 3 year average for the dates in question – calculated from the previous three years results - for use for the current month billing from time of “known” meter failure.
2. Use the current year's average. Calculate the flow average from the previous 365 days and insert the average for each date in the current month from the time of “known” meter failure.
3. Use the current months average. Uses the most recent current months data to generate a bill. Good method unless the meter fails on the 3<sup>rd</sup> of the month and you have only a few data points to use.
4. Use a 5 year average for the dates in question. Gather previous 5 years data and throw out the high and low values and calculate a 3 year average number for billing use. This method would “correct” for extreme wet weather years or bone dry years by tossing the high and the low.
5. Other ideas?

Comments welcome as it would be nice to narrow this down to a top 2 prior to the next Commission meeting.

**Brian Helminger**

**District Director**

**Heart of the Valley**

**Metropolitan Sewerage District**