

From: <Karen.Guz@saws.org>
To: <montgomerygene@gmail.com>
Date: 1/29/2008 2:10 PM
Subject: RE: GPCD Input

CC: <Vanessa.Escobar@twdb.state.tx.us>, <comer.tuck@twdb.state.tx.us>, <Elli...
Thanks Gene for the example. All of this will help to clarify things like why we would want various calculations.

In your example you are right that the total gpcd would go up a lot with the addition of a new manufacturing facility. We faced that here when Toyota came to our area to build cars. It was a great thing for the city, but also potentially a big water draw. We were looking at our overall water supply planning to make sure that in our total supply effort we had enough water to support our existing municipal customers AND a new big industrial customer like Toyota.

The total gpcd is something I think of as a planning tool to look at the amount of water a community needs to function in all ways. Because all water would be in the calculation, it would not be appropriate for tracking success at say reductions in single family water usage. But if the total gpcd is not tracked, it would be easy to get too rosy of a picture of the water needs for our cities. The industrial, power uses and recreational uses like golf are part of the total economy of any area where they are located. If they are to thrive and continue to get the water needed for their operations then it has to be in the total planning for that area.

I would say we make sure nobody takes a hit on gaining industry or even changing production values by concurrently reporting out the separate classes of gpcd. That way a city could show tremendous progress in residential or commercial gpcd even as their industrial usage might increase. Showing the total as well would alert all that even with conservation success, there are sometimes factors that will cause an overall increase in water need.

The above has been our thinking in the San Antonio area. It will be an important first step in this workgroup to define what exactly we all want in the end.

I will try to outline those questions we need to answer so people could have advanced notice of discussions in the next meeting and think about their positions. Some of the questions seem to be: 1) What total or global gpcd might be calculated and how would this data be used? 2) If other gpcd calculations are done such as "municipal" what would that mean? 3) Is it desirable (if data allows) to also calculate single family residential, apartment, commercial or other subcategories? 4) Is it agreed that it is a desirable goal to work toward a service provider gpcd calculations as well as the current city calculation TWDB does? Programs are generally planned and funded at the service provider level, so the ability to track at that level has advantages.

I am hoping the above questions will help clarify the task for gpcd so that then we can move on to the technical issues. But, we have a lot of discussion before consensus on the above don't we? I expect to learn a lot from the discussions.

Karen L. Guz

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From: Gene Montgomery [mailto:montgomerygene@gmail.com]
Sent: Tuesday, January 29, 2008 12:53 PM
To: Karen Guz
Cc: Vanessa.Escobar@twdb.state.tx.us; comer.tuck@twdb.state.tx.us; Elliott Fry; Dana Nichols
Subject: Re: GPCD Input

Karen, I certainly did not mean to imply with my note that any water use should not be identified and ignored. My suggestion was simply that the metrics for measuring success for improvements in water management and conservation needs to fit the type of use so that the metrics will be meaningful in setting targets and goals and measuring success. I think some water use is clearly population dependent and for those uses GPCD is a good metric. However, some water use is not population related and for those uses some more relevant metrics need to be identified and applied. For most industrial and agricultural uses, I think some production related index is the right answer.

I have tried to come up with an example that I think illustrates my thoughts re the use of GPCD on a gross application that does not tell the true story. The city in my attached example has, I think, had some great success in their conservation program but the gross GPCD would lead one to believe just the opposite. I think we need to come up with the correct metrics to allow a water supply utility to evaluate their own success and also some way to normalize the data so they can benchmark their results against others.

Hope this helps clarify my comments. As you indicate, we need to break down industrial and agricultural use and clarify the metrics associated with various types of use. See you tomorrow.

On Jan 28, 2008 2:13 PM, <Karen.Guz@saws.org> wrote:

Gene,

Thanks very much for sending your input. Vanessa is posting input such as this on the web site tracking our efforts.

On a note for debating these issues, you and I agree on some of this. I agree that we will need additional metrics for industrial water usage. That is a very different animal to track for success in conservation and

units per production of some kind will be needed for each major industry. Expecting simply a total reduction for industrial to show conservation progress won't work.

However, I also strongly believe that we will miss out on important information if there is not a total gpcd calculation for each community. The gpcd gives a total picture of the water need per capita for a given community which includes their industrial output. It will certainly be therefore higher in communities that have refineries, chip manufacturing or other water intensive uses. But that water is necessary to the community thriving and should be reflected in what it takes to keep them going. In order to then make it clear where the water is being used, we should have break-downs that report the specific measures like residential home use or commercial business usage. This way we can respond to inappropriate finger pointing over the totals if a community can show they are making progress. And communities that don't have industrial water usage, but have high residential usage will be held to a standard for changing residential consumption.

Industrial usage can also be broken out and then further clarified with other metrics. But the idea of not showing it as part of the total water picture concerns me. Taking it out also does not acknowledge that industrial water usage totals can and do change with conservation initiatives. For example if Toyota Texas in San Antonio had not invested in substantial water process improvements in order to use recycled effluent in production, the San Antonio gpcd would be one higher than it currently is. The same would be true if the Microsoft facility being opened were not using that effluent for their cooling. Our power production is another major water consumer in San Antonio. Some of the cooling water comes from treated effluent, but we also sell a substantial amount of water for power production. That is currently in our gpcd as water needed to keep our community going. To ignore it would be to create an illusion that we could sustain on less. We can't and therefore need to show it in our total.

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From: Gene Montgomery [mailto:montgomerygene@gmail.com]
Sent: Monday, January 28, 2008 1:48 PM
To: Karen Guz
Cc: Vanessa Escobar; comer.tuck@twdb.state.tx.us
Subject: GPCD Input

Karen, I have tried to summarize the primary metrics that I believe

apply to each major category of water use (municipal, industrial, and agricultural) in the attached Excel spreadsheet. In our last WG2 conference call I think the discussion at times indicated that some industrial and agricultural use of water might be affecting a utilities' water metrics. As you pointed out, a manufacturing facility such as Frito-Lay needs to have some method of measuring and comparing their water use but it certainly doesn't make sense to do it based on any population based metric. It seems to me we don't want to define GPCD such that this metric will be applied to the entire water volume delivered by a utility. Instead, the volume of water needs to be separated into the main water use categories and then again into some sub-categories but the municipal GPCD should not include water use by non-municipal groups where the water use is not population dependent but instead better measured by some production related index. Anyway, this is my idea on how we should address this issue. I look forward to helping put something together that helps give some better guidance on this.

I am sure you have probably already found a lot of info on the TWDB website but I am attaching some FAQs I found on their site which I found helpful and also Appendix A from some TWDB forms that contains some definitions. I don't know if these are the official definitions but they seem to be good but probably don't go far enough to address some specific issues.

See you Wednesday.

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Gene Montgomery

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Gene Montgomery