From: Andrew Sciarabba
To: David Alan Weinstein
Cc: Ray Burger; David Herrick; Donald Harner
Subject: RE: varna
Date: Wednesday, June 01, 2016 6:11:29 PM

David,

Thanks for writing about the apparent discrepancies between the 2003 IAWWTP Agreement and our 2010 Study.

I can see where the interest lies, for planning purposes, to have a set number of available "units" based on available water or sewer capacity.

First I want to answer your question on the sewer usage per EDU. The 325 GPD/unit was the hypothetical conversion of the time and we noted in our 2010 report that it was considered conservative. "Units" vary from single family, to multi-unit, to commercial, to institutional and they all have different water use demands. Recent water use data suggests 200 to 250 GPD for a single family dwelling is a better range yet still conservative. As an example in the Yellow Barn Water District the Town recently took over they historically used 210 gallons per day/unit. So for last week's calculation we chose to use the more recent, yet conservative number of 250.

As for plant capacity, In our 2010 study we calculated the excess sewer capacity based on maximum month water meter records at the time (we assume metered water=sewage usage). We came up with 63,000 gallons per day for Dryden. From Appendix II of the IAWWTP agreement it appears they used approximate plant usage based on billings for 5 years to get an estimated peak flow. They came up with 110,000 gpd for Dryden. Each document used different data sets and made its own assumptions.

To my knowledge the agreement has not been updated since 2003 and, it being the only legal agreement between the Town and the plant, we chose last week to use their excess capacity number. You are correct that if we use our 2010 excess capacity number of 63,000 gpd and the 250 gpd/unit we would have only 250 available units.

I wish I could give you a hard number from which you could make your planning decisions but there are many variables that impact arriving at such a number.

I think a range of unit availability may be the better way to look at this. If we use the more conservative excess capacity number from our 2010 report of 63,000 gpd and divide that by the more recent usage range of 200 to 250 gpd/unit then there will be capacity of 252 to 315 units.

It may be prudent to meet with representatives of the plant to have them revisit their numbers to see what capacity they feel is available.

Andy

Andrew J. Sciarabba, P.E.
Principal

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From: David Alan Weinstein [mailto:daw5@cornell.edu]
Sent: Friday, May 27, 2016 2:23 PM
To: Andrew Sciarabba <ajs@tgmillerpc.com>
Subject: varna

Dear Mr. Sciarabba,

I am a member of the Dryden Planning Board, and I am greatly confused by the email you sent to Ray Burger yesterday in which you stated,

"We just got a copy of the IAWWTP agreement (attached) which shows that in 2003 the Town had an excess capacity of 110,000 gpd at the plant. Using the high end of the Tompkins County average daily water usage of 250 gpd/unit would result in **an excess capacity at the plant of 440 units**."

This comment is in sharp contradiction to the report "Countywide Inter-Municipal Water and Sewer Feasibility Study for Tompkins County, T.G. Miller, P.C. March 31, 2010 Final" authored by your company, the definitive analysis on which many planning decisions are being based in this county, including Dryden's. I am not sure why you would change assumptions, and use data of 2003, considerably older than what was used in the "Countywide" study (December 2009). The 2009 Study used the max month flow to determine excess capacity whereas the 2003 Agreement used an estimated peak flow based on the average of peak month flows for the last 5 years. We don't have current plant data. I also do not understand why a value of 325 gpd/unit was appropriate for the Countywide study, but you switched to 250 gpd/unit for your note to Ray Burger, a value 25% lower, that results in increasing the capacity for the Varna vicinity districts from 200 units (Page 35, table 7, column 5) to 440. 2010 Study noted 325 was conservative. More recent data suggests water usage is down as noted and may be even lower.

This table says the excess GPD capacity as of December 2009 was one half of what you indicated in your note. Shouldn't you recalculate with this more up-to-date number?

Are you suggesting that the Countywide study used inappropriate assumptions, and therefore is not reliable for any planning purposes?

By saying " capacity at the plant" did you intend to say that there are an additional 240 units available at the Sewage Treatment Plant beyond Varna's currently contractually available 200

units of capacity (2%), which would be available for purchase it we wanted to spend the money?

If Varna has only 200 units available without buying extra, and District #1 has a substantial number of hookups, how many of these 200 are realistically available for Varna (districts 2, 4, and 5)?

I hope that you can clarify this discrepancy as soon as possible, because the hookup capacity (not the pumping station capacity) is potentially shaping significant decisions we are contemplating with regard to where we should optimally allocate our limited sewage treatment resources.

Thank you for your time and attention,

David Weinstein