From:	Andrew Sciarabba
To:	Ray Burger
Cc:	Donald Harner; David Herrick
Subject:	RE: Dryden ArcView file
Date:	Thursday, May 26, 2016 3:59:01 PM
Attachments:	2003-12-31 JOINT SEWER AGREEMENT.PDF FLOWMGMT_IAWWTF_031315.pdf

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Ray,

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**.

Regarding available capacity ***in the Varna pump station*** we looked at the last 3 years of meter records including the Varna Pump Station hour meter readings (from the City of Ithaca) and individual water meter records (from Bolton Point).

Regarding available capacity ***in the collection system*** we reviewed the sewer as-builts.

Below is a brief analysis of the infrastructure capacities:

Varna Pump Station

- The last 3 years of hour meter readings for the Varna pump station were used to calculate the average day and peak month pumping.
- This resulted in an average day usage of approximately 177,000 gpd and a peak month of 355,000 gpd.
- The last 3 years of water meter records from Bolton point indicates an average day demand of 100,000 gpd.
- We suspect we have some inflow and infiltration (I&I) into the system as the hour meter average day of 177,000 gallons is 77,000 gallons higher than the water meter records. We will use the water meter average day number assuming the I&I problem can be fixed at some time.
- The Varna Pump Station has a pumping capacity of 535 gpm for one pump based on a June 1994 pump test.
- We would not want to run this pump 24 hours a day but 12 hours a day would be reasonable.
- Therefore the pump station capacity would be 535 gpm x 60 min/hr x 12 hrs = 385,200 gpd.
- The available capacity = 385,200 gpd – 100,000 gpd = 285,200 gpd.
- Historical average water use in Tompkins County = 250 gpd/unit.
- **Available capacity in number of units would be 285,200 gpd/250 gpd = 1140 units**. Again this assumes any I&I is taken care of.

Collection System

- The sections of sewer main with the lowest capacity in the system are short sections of 8" main on the south side of Rte 366 at 0.74% slope.
- Full pipe capacity of these sections are 660,000 gpd.
- **Available capacity in number of units would be 660,000 gpd/250 gpd = 2,640 units**. Again

this assumes any I&I is taken care of.

In summary the physical Varna systems (Pump Station and Collection Systems) have plenty of capacity with the limiting factor being the pump station at 1140 units. However, there are only 400 available units at the IAWWTP.

I hope this is helpful for future planning purposes.

Andy

Andrew J. Sciarabba, P.E.
Principal

T.G. MILLER, P.C. *Engineers and Surveyors*
203 N. Aurora Street, Ithaca, NY 14850
T: 607-272-6477 x235 | F: 607-273-6322 | C: 607-327-0578
ajs@tgmillerpc.com
www.tgmillerpc.com

From: Ray Burger [mailto:rburger@dryden.ny.us]
Sent: Wednesday, May 25, 2016 2:17 PM
To: Donald Harner <dmh@tgmillerpc.com>
Cc: Andrew Sciarabba <ajs@tgmillerpc.com>
Subject: RE: Dryden ArcView file

Dondi,

Thank you for the map. I assume that shapefiles of the data are still in the works, but not ready yet?

Andy,

There is a number being thrown around by some planning board members that there are only 200 more sewer hookups available for Varna, based on the agreement with the IAWWTF. Would you be able to send me any hard data such as:

1) a copy of the agreement

2) a capacity number for the system such as "the pump station or the force main is limited to x gpd and this represents x hookups"

The planning board meets tomorrow night so any partial feedback would be appreciated.

Ray

From: Donald Harner [mailto:dmh@tgmillerpc.com]
Sent: Tuesday, May 24, 2016 4:02 PM
To: Ray Burger
Cc: Andrew Sciarabba
Subject: RE: Dryden ArcView file

Ray,

Attached is a draft overlay of the water and sewer district for your reference using the original 2006 data. There are still some parcel that we will need to verify with the original district maps and any recent changes to the districts. Hopefully this helps to get the process going for you. The blue hatch shows the water district boundary and the green hatch shows the sewer district boundary. Let me know if you have any questions.

Thanks,

Dondi

Donald M. Harner, P.E., LEED A.P., CPESC
Project Engineer

T.G. MILLER, P.C. *Engineers and Surveyors*
203 N. Aurora Street, Ithaca, NY 14850
T: 607-272-6477 x233 | F: 607-273-6322 | C: 607-351-3508
dmh@tgmillerpc.com
www.tgmillerpc.com

From: Ray Burger [mailto:rburger@dryden.ny.us]
Sent: Tuesday, May 24, 2016 12:26 PM
To: Donald Harner
Subject: RE: Dryden ArcView file

This would be useful for the planning board meeting this Thursday if possible. Thanks.

Ray

Ray Burger, Director of Planning
Town of Dryden
93 E. Main Street, Dryden, NY 13053
607-844-8888 x213
http://dryden.ny.us/departments/planning-department

From: Donald Harner [mailto:dmh@tgmillerpc.com]
Sent: Thursday, May 12, 2016 11:13 AM
To: Ray Burger; Andrew Sciarabba
Subject: RE: Dryden ArcView file

Hello Ray,

I have been working with Bolton Point to verify boundary information based on the latest user list provided by the Town. We are close to finalizing the boundaries in GIS but would like to double check to make sure the revised mapping is correct. There have been some changes since the last mapping exercise that we will need to verify. I am not sure of your schedule, but we could get you a draft boundary map shape file later today or tomorrow. If it can wait till next week we can hopefully have the mapping verified and final boundary ready to go. Let us know what works best for you.

Thanks,

Dondi

Donald M. Harner, P.E., LEED A.P., CPESC
Project Engineer

T.G. MILLER, P.C. *Engineers and Surveyors*
203 N. Aurora Street, Ithaca, NY 14850
T: 607-272-6477 x233 | F: 607-273-6322 | C: 607-351-3508
dmh@tgmillerpc.com
www.tgmillerpc.com

From: Ray Burger [mailto:rburger@dryden.ny.us]
Sent: Monday, May 09, 2016 11:57 AM
To: Andrew Sciarabba
Cc: Donald Harner
Subject: RE: Dryden ArcView file

I have tried importing the adf files. I can see that the adf files contain line data (638 records) but it does not project properly so I can't align it to any other data.

You mentioned that Ben Cokeley? at Bolton Point may be able to help package this in a form that I am familiar with (like a shapefile). Or it could be as simple as adding a projection file. I just don't have enough knowledge on this matter.

Ray

Ray Burger, Director of Planning
Town of Dryden
93 E. Main Street, Dryden, NY 13053
607-844-8888 x213
http://dryden.ny.us/departments/planning-department

From: Andrew Sciarabba [mailto:ajs@tgmillerpc.com]
Sent: Thursday, May 05, 2016 2:56 PM
To: Ray Burger
Cc: Donald Harner
Subject: FW: Dryden ArcView file

Ray,

We can export ArcView files so please try to import this file. If you are successful we can send an updated file by Thursday of next week with the parcels served with both water and sewer.

Andy

Andrew J. Sciarabba, P.E.
Principal

T.G. MILLER, P.C. *Engineers and Surveyors*
203 N. Aurora Street, Ithaca, NY 14850
T: 607-272-6477 x235 | F: 607-273-6322 | C: 607-327-0578
ajs@tgmillerpc.com
www.tgmillerpc.com

From: Donald Harner
Sent: Thursday, May 05, 2016 12:18 PM
To: Andrew Sciarabba <ajs@tgmillerpc.com>
Subject: Dryden ArcView file

Looks like we can export ArcView files. Try sending this along for a trial. If he can import okay we can verify the boundary based on the latest information and resend.

Thanks,
Dondi

Donald M. Harner, P.E., LEED A.P., CPESC
Project Engineer

T.G. MILLER, P.C. *Engineers and Surveyors*
203 N. Aurora Street, Ithaca, NY 14850
T: 607-272-6477 x233 | F: 607-273-6322 | C: 607-351-3508
dmh@tgmillerpc.com
www.tgmillerpc.com