

Additional Hand Outs (3rd attachment)
Board of Finance Regular Meeting (Via ZOOM)
Tuesday, December 8, 2020

Exhibits to accompany motion "To recommend to the Town Meeting, to be adjourned...."

Exhibit A: List of assets

Exhibit B: Summary of debt

Exhibit C: Map of proposed sewer area in Pine Meadow

Table 5. New Hartford Potable Water Facilities Design Data

<u>Parameter</u>	<u>Design/Description</u>
<u>A. WATER SYSTEM AND ASSETS</u>	
<u>Estimated Customers</u>	
Estimated Pop. Served	1,400
Residential/Commercial Connections	569
Industrial Connections	None
Estimated per Capita Consumption	71 to 77 gpcd
<u>Historical Demand</u>	
Average Day Demand (Jan - Oct 2017)	107,632 gpd
Maximum Monthly Average Demand	131,356 gpd
Maximum Day Demand (2000 - 2004)	264,000 gpd
Unaccounted for Water (April - June 2016)	18.60%
<u>Safe Yield</u>	
Pine Meadows Well (Nov 2000)	265 gpm/381,600 gpd
Black Bridge Well	>200 gpm/288,000 gpd
Combined Safe Yield	465 gpm/669,600 gpd
State Diversion Permit Limit	315 gpm/454,000 gpd
<u>Water Treatment Plants, Storage and Distribution</u>	
Pine Meadows Well	Installed 1944/Upgraded 2000
Pump Capacity	200 gpm @ 348 feet TDH
Motor Size	30-HP
Treatment System	NaOH for pH Control; No Disinfection
Treatment System Capacity	>200 gpm gpm
Back-up Power	On-Site 45 kW Generator (Propane)
Black Bridge Well	Installed 1988/In Service 1996

Exhibit A
 General Description
 of ASSETS to
 BE SOLD

Pump Capacity 200 gpm @ 370 feet TDH
Motor Size 30-HP
Treatment System Filtronics Mn Removal; NaOH for pH Control, NaOCl Disinfection
Treatment System Capacity 150 gpm
Back-up Power On-Site 45 kW Generator (Propane)

Storage Tanks
Two Above Ground Tanks One @ 175,000-gal; One @ 490,000-gal

Booster Pumps
Small Station for Several Homes/Manually Operated Station at Black Bridge Well to Elevate Pine Meadows to High Pressure Zone if Black Bridge not Operated

Distribution Network
Length Approximately 61,000 Linear Feet of Main
Dimensions 2-inches to 12-inches in Diameter
Age 50 % Estimated Prior to 1895

MDC Emergency Inter-Connection
Description Interconnect to MDC Aqueduct - Abandoned No Longer in Service

*The Pine Meadow Well and Black Bridge Well will be sold as free standing parcels including real estate and personal property (easement retained over Pine Meadow well for hiking/biking). All pipes within the water system will be sold with access gained via easements. The water storage tanks to be sold to be sold are located on land owned by MDC used via lease. This lease will be assigned to Aquarion Water Company.

This description is included for information purposes and is not meant to represent a legal description of the entirety of the water system assets.

Table 6. New Hartford Wastewater Facilities Design Data

Parameter	Design Data/Description
<u>A. WASTEWATER SYSTEM AND ASSETS</u>	
<u>General Design Criteria</u>	
Average Design Flow/Peak Daily, gpd	400,000 to 1,100,000
Current Avg. Influent Flow Range, gpd	25,000 to 85,000
Current Average Influent Flow, gpd	43,300
Max. Pk Day Design Flow, gpd	576,000
Peak Hourly Design Flow, gpd	1,100,000
Design BOD5 Load/Avg Conc (lbs/d/mg/l)	1,000 lbs/d/300 mg/l
Actual BOD5 Load/Avg Conc (lbs/d/mg/l)	133 lbs/d/400 mg/l
Design TSS Load/Avg Conc (lbs/d/mg/l)	1,000 lbs/d/300 mg/l
Actual TSS Load/Avg Conc (lbs/d/mg/l)	133 lbs/d/400 mg/l
Design TKN Loading/Avg Conc (lbs/d/mg/l)	167 lbs/d/50 mg/l
Actual TKN Load/Avg Conc (lbs/d/mg/l)	17/lbs/d/50 mg/l
Current Estimated Population Served	864 PE
Residential/Commercial Connections	209 + 124 = 333
Industrial Connections	None
Estimated Equivalent Residential Units (ERUs)	333
Estimated Flow per EDU/Estimated Flow per PE	130 gpd/52 gpcd to 57 gpcd
I/I Contribution, gpd	Nominal
% System that is Combined	None
<u>Wastewater Treatment Plant</u>	
SPDES Permit Number	CT 0100331
Original Year Constructed	1965
Year of Updates	Complete Update in 2010
Current Treatment Summary	
Preliminary Treatment	Mechanical Screens, Aerated Grit Removal, Influent Pumping
Primary Treatment	None
Secondary Treatment	Three Sequencing Batch Reactors each 130,000-gallons in Capacity Manufactured by Fluidyne

Two EQ Tanks each 36,500-gallons in Capacity, 3 EQ Effluent Pumps @ 400-gpm and 2 Plant Water Pumps
Two Disc Filters by NOVA WT

Three Ultraviolet Disinfection Channels Equipped with Trojan UV System
Sigma Sampler and Ultrasonic Level Recorder

22,400-gallon Capacity Receiving Tank with No Mixers and One Pump

Two 20,000-gallon Capacity Tanks with Fixed Mixers
One Pump per Tank for Loading
Hauled to Naugatuck Environmental Services (Veolia) as a Liquid
Historically 4 Trucks/month @ 6,500-gal/truck; currently @ 1 truck/month

In-Vessel Biofilters for Headworks, Aerobic Sludge Processing and Septage Pretreatment

Cummins Generator 100% Plant Load (400 kW)
Two Submersible Pumps at EQ Tank
Process Control Laboratory and SCADA Setup

Existing: 3 (210 gpm @ Route 44/219 and two small package stations)

900
14,600
6,000
???
One at Route 219 Bridge
None Reported

No Recognized Charges
Two Contract Operators - Aquarion Water Company
Included Above
Included Above
Included Above

* The Waste Water Treatment Plant (two parcels) will be sold as free standing parcels with real estate and personal property. The smaller of the two (044-27-21f) will be sold subject to the town retaining an easement to construct a 2000 square foot wash bay facility. The wet well located at the intersection of Routes 44 & 219 will also be sold a free standing parcel of land with all personal property. All pipes sold will be accessed via easment. This includes two smaller pump stations located on Greenwoods Road and Prospect Street. This description is included for informational purposes and is not meant to represent a legal description of the entirety of the sewer system assets.

Post Secondary Equalization
Advanced Secondary Treatment
Disinfection
Treated Effluent Sampling and Flow Recording

Septage Receiving and Pretreatment

Sludge Management
Sludge Storage and Decanting
Sludge Pumping
Sludge Disposal
Sludge Quantity

Odor Control System

Ancillary Facilities
Emergency Standby Generator
Plant Water System
Control Building and Process Laboratory

Collection System Assets

Pump Stations
Collection Sewers
Force Mains, If
Gravity Sewers, If
Service Laterals, If
Manholes
Inverted Siphon/River Crossings
Combined Sewer Overflows

Staffing
Administrative/Superintendent
WWTP (Operations, Dewatering, Other)
Maintenance (Pump Stations/WWTP)
Support (Laboratory/Grounds, etc)
Collector Sewers (Highway Div PWD)

Exhibit B

Indebtedness Summary FY July 1, 2021-June 30, 2022

<u>Original Loan</u>	<u>Outstanding Balance*</u>	<u>Annual Payment</u>	<u>Payee</u>	<u>Exhibit</u>
\$96,300.00 (2026) Prospect St. Sewers	\$19,260.00	\$4,076.70	USDA	B1
\$591,360.00 (2040) Water Improvements	\$417,882.34	\$32,141.00	USDA	B2
\$165,730.00 (2042) Water Tanks	\$120,677.11	\$9,008.00	USDA	B3
\$3,594,000.00 (2040) WWTP	\$2,870,448.10	\$197,454.00	USDA	B4
\$130,000 (2024) Modified Town Loan	\$61,750.00	\$13,000.00	Town	B5
\$4,577,390.00	\$3,490,017.55	\$255,679.70		

*Numbers subject to change based on date of payment.

85/8635

93-03
Prospect St
SEWERS

B1

Prospect Sewer Grant

Estimated			96,300	@4.5%	30 years	
Town of						
New Hartford		Beginning	Principal	Interest	Total	
		Balance	Payment	Payment	Payment	
July 16, 1997		96,300.00	3,210.00	4,333.50	7,543.50	0.045
July 16, 1998		93,090.00	3,210.00	4,189.05	7,399.05	0.045
July 16, 1999		89,880.00	3,210.00	4,044.60	7,254.60	0.045
July 16, 2000		86,670.00	3,210.00	3,900.15	7,110.15	0.045
July 16, 2001		83,460.00	3,210.00	3,755.70	6,965.70	0.045
July 16, 2002		80,250.00	3,210.00	3,611.25	6,821.25	0.045
July 16, 2003		77,040.00	3,210.00	3,466.80	6,676.80	0.045
July 16, 2004		73,830.00	3,210.00	3,322.35	6,532.35	0.045
July 16, 2005		70,620.00	3,210.00	3,177.90	6,387.90	0.045
July 16, 2006		67,410.00	3,210.00	3,033.45	6,243.45	0.045
July 16, 2007		64,200.00	3,210.00	2,889.00	6,099.00	0.045
July 16, 2008		60,990.00	3,210.00	2,744.55	5,954.55	0.045
July 16, 2009		57,780.00	3,210.00	2,600.10	5,810.10	0.045
July 16, 2010		54,570.00	3,210.00	2,455.65	5,665.65	0.045
July 16, 2011		51,360.00	3,210.00	2,311.20	5,521.20	0.045
July 16, 2012		48,150.00	3,210.00	2,166.75	5,376.75	0.045
July 16, 2013		44,940.00	3,210.00	2,022.30	5,232.30	0.045
July 16, 2014		41,730.00	3,210.00	1,877.85	5,087.85	0.045
July 16, 2015		38,520.00	3,210.00	1,733.40	4,943.40	0.045
July 16, 2016		35,310.00	3,210.00	1,588.95	4,798.95	0.045
July 16, 2017		32,100.00	3,210.00	1,444.50	4,654.50	0.045
July 16, 2018		28,890.00	3,210.00	1,300.05	4,510.05	0.045
July 16, 2019		25,680.00	3,210.00	1,155.60	4,365.60	0.045
July 16, 2020		22,470.00	3,210.00	1,011.15	4,221.15	0.045
July 16, 2021		19,260.00	3,210.00	866.70	4,076.70	0.045
July 16, 2022		16,050.00	3,210.00	722.25	3,932.25	0.045
July 16, 2023		12,840.00	3,210.00	577.80	3,787.80	0.045
July 16, 2024		9,630.00	3,210.00	433.35	3,643.35	0.045
July 16, 2025		6,420.00	3,210.00	288.90	3,498.90	0.045
July 16, 2026		3,210.00	3,210.00	144.45	3,354.45	0.045
			96,300.00		163,469.25	
				67,169.25		
					163,469.25	

Town of New Hartford
DEBT SCHEDULE
Equally Amortized

91-05
WATER SYSTEM
IMPROVEMENTS

USDA - Water System
Emp Grant # 8532

B2

Town of		Beginning	Principal	Interest	Total	
New Hartford		Balance	Payment	Payment	Payment	
July 19,	2001	591,360.00	6,529.80	28,611.20	32,141.00	0.045
July 19,	2002	585,830.20	6,778.84	26,382.39	32,141.00	0.045
July 19,	2003	580,051.58	6,038.88	26,102.32	32,141.00	0.045
July 19,	2004	574,012.88	6,310.42	25,830.58	32,141.00	0.045
July 19,	2005	567,702.48	6,594.39	25,548.61	32,141.00	0.045
July 19,	2006	561,108.07	6,891.14	25,249.88	32,141.00	0.045
July 19,	2007	554,216.93	7,201.24	24,939.78	32,141.00	0.045
July 19,	2008	547,016.89	7,526.29	24,618.71	32,141.00	0.045
July 19,	2009	539,490.40	7,883.93	24,277.07	32,141.00	0.045
July 19,	2010	531,628.47	8,217.81	23,923.19	32,141.00	0.045
July 19,	2011	523,408.66	8,597.61	23,563.39	32,141.00	0.045
July 19,	2012	514,821.05	8,974.06	23,188.95	32,141.00	0.045
July 19,	2013	505,847.00	9,377.88	22,783.12	32,141.00	0.045
July 19,	2014	496,489.12	9,799.89	22,341.11	32,141.00	0.045
July 19,	2015	486,869.23	10,240.88	21,900.12	32,141.00	0.045
July 19,	2016	476,428.35	10,701.72	21,439.28	32,141.00	0.045
July 19,	2017	466,728.83	11,183.30	20,957.70	32,141.00	0.045
July 19,	2018	454,543.33	11,688.65	20,454.48	32,141.00	0.045
July 19,	2019	442,856.78	12,212.44	19,928.58	32,141.00	0.045
July 19,	2020	430,844.34	12,762.00	19,379.00	32,141.00	0.045
July 19,	2021	417,882.34	13,338.29	18,804.71	32,141.00	0.045
July 19,	2022	404,548.05	13,938.43	18,204.57	32,141.00	0.045
July 19,	2023	390,909.62	14,563.57	17,577.43	32,141.00	0.045
July 19,	2024	376,048.05	15,218.93	16,922.07	32,141.00	0.045
July 19,	2025	360,827.12	15,903.78	16,237.22	32,141.00	0.045
July 19,	2026	344,923.34	16,619.48	15,521.56	32,141.00	0.045
July 19,	2027	328,303.88	17,367.32	14,773.88	32,141.00	0.045
July 19,	2028	310,938.57	18,148.86	13,992.15	32,141.00	0.045
July 19,	2029	292,787.72	18,966.55	13,175.45	32,141.00	0.045
July 19,	2030	273,822.17	19,819.00	12,322.00	32,141.00	0.045
July 19,	2031	254,003.17	20,710.88	11,430.14	32,141.00	0.045
July 19,	2032	233,282.31	21,642.86	10,498.15	32,141.00	0.045
July 19,	2033	211,849.48	22,616.77	9,524.23	32,141.00	0.045
July 19,	2034	189,032.69	23,634.53	8,508.47	32,141.00	0.045
July 19,	2035	165,398.18	24,698.08	7,442.92	32,141.00	0.045
July 19,	2036	140,700.08	25,809.50	6,331.50	32,141.00	0.045
July 19,	2037	114,890.58	26,970.92	5,170.08	32,141.00	0.045
July 19,	2038	87,919.66	28,184.82	3,958.38	32,141.00	0.045
July 19,	2039	59,735.04	29,452.92	2,688.08	32,141.00	0.045
July 19,	2040	30,282.12	30,282.12	1,362.70	31,644.82	0.045
			591,360.00		1,285,143.82	
				693,783.82		
					1,285,143.82	

USDA Water Storage Tanks

USDA # 8535

Town of New Hartford
EQUALLY AMORTIZED

9-07
WATER TANK
B3

		165,730	@4.5000%	40 years	Factor =.05435	
Date	Year	Beginning Balance	Principal Payment	Interest Payment	Total Payment	
Jun 27, 2003	2003	165,730.00	1,550.16	7,457.85	9,008.00	0.045
Jun 27, 2004	2004	164,179.85	1,619.91	7,388.09	9,008.00	0.045
Jun 27, 2005	2005	162,559.94	1,692.80	7,315.20	9,008.00	0.045
Jun 27, 2006	2006	160,867.14	1,768.98	7,239.02	9,008.00	0.045
Jun 27, 2007	2007	159,098.16	1,848.58	7,159.42	9,008.00	0.045
Jun 27, 2008	2008	157,249.58	1,931.77	7,076.23	9,008.00	0.045
Jun 27, 2009	2009	155,317.81	2,018.70	6,989.30	9,008.00	0.045
Jun 27, 2010	2010	153,299.11	2,109.54	6,898.46	9,008.00	0.045
Jun 27, 2011	2011	151,189.57	2,204.47	6,803.53	9,008.00	0.045
Jun 27, 2012	2012	148,985.10	2,303.67	6,704.33	9,008.00	0.045
Jun 27, 2013	2013	146,681.43	2,407.34	6,600.66	9,008.00	0.045
Jun 27, 2014	2014	144,274.09	2,515.67	6,492.33	9,008.00	0.045
Jun 27, 2015	2015	141,758.42	2,628.87	6,379.13	9,008.00	0.045
Jun 27, 2016	2016	139,129.55	2,747.17	6,260.83	9,008.00	0.045
Jun 27, 2017	2017	136,382.38	2,870.79	6,137.21	9,008.00	0.045
Jun 27, 2018	2018	133,511.59	2,999.98	6,008.02	9,008.00	0.045
Jun 27, 2019	2019	130,511.61	3,134.98	5,873.02	9,008.00	0.045
Jun 27, 2020	2020	127,376.63	3,278.05	5,731.95	9,008.00	0.045
Jun 27, 2021	2021	124,100.58	3,423.47	5,584.53	9,008.00	0.045
Jun 27, 2022	2022	120,677.11	3,577.53	5,430.47	9,008.00	0.045
Jun 27, 2023	2023	117,099.58	3,738.52	5,269.48	9,008.00	0.045
Jun 27, 2024	2024	113,361.06	3,906.75	5,101.25	9,008.00	0.045
Jun 27, 2025	2025	109,454.31	4,082.56	4,925.44	9,008.00	0.045
Jun 27, 2026	2026	105,371.75	4,268.27	4,741.73	9,008.00	0.045
Jun 27, 2027	2027	101,105.48	4,458.25	4,549.75	9,008.00	0.045
Jun 27, 2028	2028	96,647.23	4,658.87	4,349.13	9,008.00	0.045
Jun 27, 2029	2029	91,988.38	4,868.52	4,139.48	9,008.00	0.045
Jun 27, 2030	2030	87,119.84	5,087.61	3,920.39	9,008.00	0.045
Jun 27, 2031	2031	82,032.23	5,316.55	3,691.45	9,008.00	0.045
Jun 27, 2032	2032	76,715.68	5,555.79	3,452.21	9,008.00	0.045
Jun 27, 2033	2033	71,159.89	5,805.80	3,202.20	9,008.00	0.045
Jun 27, 2034	2034	65,354.09	6,067.07	2,940.93	9,008.00	0.045
Jun 27, 2035	2035	59,287.02	6,340.08	2,667.92	9,008.00	0.045
Jun 27, 2036	2036	52,946.94	6,625.39	2,382.61	9,008.00	0.045
Jun 27, 2037	2037	46,321.55	6,923.53	2,084.47	9,008.00	0.045
Jun 27, 2038	2038	39,398.02	7,235.09	1,772.91	9,008.00	0.045
Jun 27, 2039	2039	32,162.93	7,560.67	1,447.33	9,008.00	0.045
Jun 27, 2040	2040	24,602.28	7,900.90	1,107.10	9,008.00	0.045
Jun 27, 2041	2041	16,701.36	8,256.44	751.56	9,008.00	0.045
Jun 27, 2042	2042	8,444.92	8,444.92	380.02	8,824.94	0.045
			165,730.00		360,136.94	
				194,406.94		
					360,136.94	

USDA
Debt Service Schedule

B4

Estimated		3,594,000	@3.25%	28 years		
T. New Hartford	Beginning	Principal	Interest	Total		
	Balance	Payment	Payment	Payment		
SDF 14	2013	3,594,000.00	80,649.00	116,805.00	197,454.00	0.0325
	2014	3,513,351.00	83,270.09	114,183.91	197,454.00	0.0325
	2015	3,430,080.91	85,976.37	111,477.63	197,454.00	0.0325
	2016	3,344,104.54	88,770.60	108,683.40	197,454.00	0.0325
	2017	3,255,333.94	91,655.65	105,798.35	197,454.00	0.0325
	2018	3,163,678.29	94,634.46	102,819.54	197,454.00	0.0325
	2019	3,069,043.83	97,710.08	99,743.92	197,454.00	0.0325
	2020	2,971,333.75	100,885.65	96,568.35	197,454.00	0.0325
	2021	2,870,448.10	104,164.44	93,289.56	197,454.00	0.0325
	2022	2,766,283.66	107,549.78	89,904.22	197,454.00	0.0325
	2023	2,658,733.88	111,045.15	86,408.85	197,454.00	0.0325
	2024	2,547,688.73	114,654.12	82,799.88	197,454.00	0.0325
	2025	2,433,034.61	118,380.38	79,073.62	197,454.00	0.0325
	2026	2,314,654.23	122,227.74	75,226.26	197,454.00	0.0325
	2027	2,192,426.49	126,200.14	71,253.86	197,454.00	0.0325
	2028	2,066,226.35	130,301.64	67,152.36	197,454.00	0.0325
	2029	1,935,924.71	134,536.45	62,917.55	197,454.00	0.0325
	2030	1,801,388.26	138,908.88	58,545.12	197,454.00	0.0325
	2031	1,662,479.38	143,423.42	54,030.58	197,454.00	0.0325
	2032	1,519,055.96	148,084.68	49,369.32	197,454.00	0.0325
	2033	1,370,971.28	152,897.43	44,556.67	197,454.00	0.0325
	2034	1,218,073.85	157,866.60	39,587.40	197,454.00	0.0325
	2035	1,060,207.25	162,997.26	34,456.74	197,454.00	0.0325
	2036	897,209.99	168,294.68	29,159.32	197,454.00	0.0325
	2037	728,915.31	173,764.25	23,689.75	197,454.00	0.0325
	2038	555,151.06	179,411.59	18,042.41	197,454.00	0.0325
	2039	375,739.47	185,242.47	12,211.53	197,454.00	0.0325
	2040	190,497.00	190,497.00	6,191.15	196,688.15	0.0325
			3,594,000.00		5,527,946.15	
				1,933,946.15		
					5,527,946.15	

SP...
SP...

USDA - WWTP Debt Service Proposal

B5

Modified Town Loan
(\$130,000 due 3/31/2014)
(\$13,000 annual payments
is proposed)

Proposed Quarterly payments
and due dates.

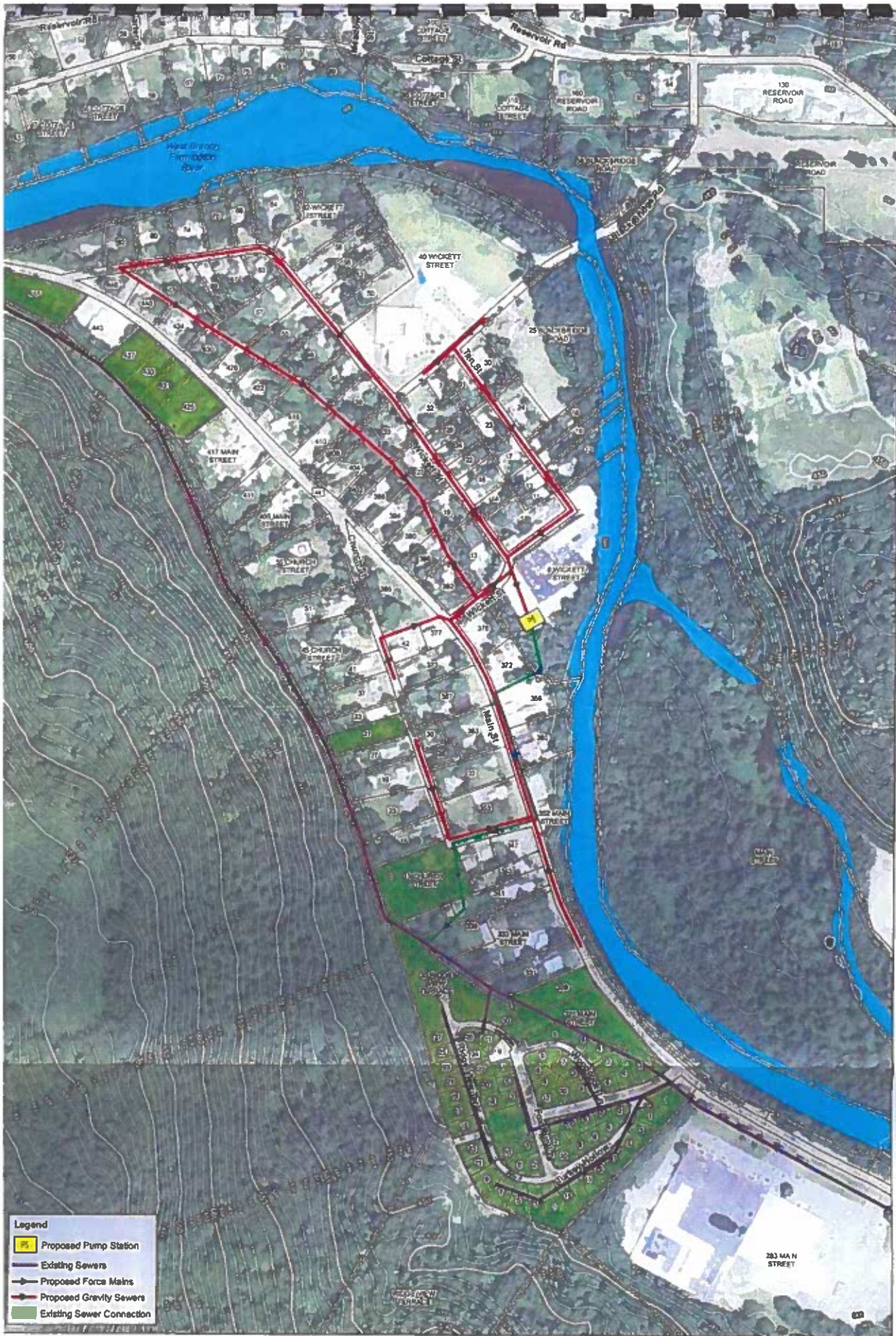
<u>Year</u>	<u>Annual</u>	<u>Quarterly</u>
2014	\$9,750	= \$3,250/per quarter due on 5/1,8/1,11/1
2015	\$13,000	= \$3,250/per quarter due on 2/1,5/1,8/1,11/1
2016	\$13,000	= \$3,250/per quarter due on 2/1,5/1,8/1,11/1
2017	\$13,000	= \$3,250/per quarter due on 2/1,5/1,8/1,11/1
2018	\$13,000	= \$3,250/per quarter due on 2/1,5/1,8/1,11/1
2019	\$13,000	= \$3,250/per quarter due on 2/1,5/1,8/1,11/1
2020	\$13,000	= \$3,250/per quarter due on 2/1,5/1,8/1,11/1
2021	\$13,000	= \$3,250/per quarter due on 2/1,5/1,8/1,11/1
2022	\$13,000	= \$3,250/per quarter due on 2/1,5/1,8/1,11/1
2023	\$13,000	= \$3,250/per quarter due on 2/1,5/1,8/1,11/1
2024	\$3,250	= \$3,250/per quarter due on 2/1
	\$130,000	

Quarterly payments due 1 month after WPCA billing cycle begins (as seen above) that provides for cash flow to increase from receivables.

Total Paid \$68,250

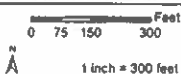
\$130,000
-\$ 68,250

\$ 61,750 Outstanding Balance as of 12/12/19



Legend

- Proposed Pump Station
- Existing Sewers
- Proposed Force Mains
- Proposed Gravity Sewers
- Existing Sewer Connection



New Hartford, CT
Pine Meadow Residential Area
Option P-2 Gravity Sewers with Pump Station, Portion in Easement