Town of Thompson's Station
Utility Board
Meeting Agenda
May 20, 2020 6:00 p.m.

Call Meeting To Order

1. Consideration Of The Minutes Of The February 26, 2020 Meeting.

Documents:

ITEM 1 UB MINUTES 02_26_2020.PDF

2. System Operator's Update:

3. I & I Update:

Matthew Johnson, Barge Design Solutions

4. Hill Property Construction Update:

Matthew Johnson, Barge Design Solutions

5. Wastewater Forecast:

Documents:

ITEM 5 -WASTEWATER - UTILITY BOARD FORECAST MAY 2020 (3).PDF

6. Approve Proposed Ordinance 2020-XXX Expiration Of Capacity:

Endorsement of an Ordinance 2020-XX: Wastewater Capacity Reservation System and an Ordinance of the Town of Thompson's Station, Tennessee to Amend Title 18 (Ordinance No. 10-XX Pursuant to Title 18, Chapter 1, regarding Reservation Policy Wastewater Capacity)

Documents:

ITEM 6 - PROPOSED ORDINANCE FOR RESERVATION OF CAPACITY FOR UTILITY BOARD REVIEW FOR MAY 20, 2020 OF 5.13.20.PDF

7. Announcements:

Adjourn

This meeting will be held at 6:00 p.m. remotely by electronic means due to the

Town of Thompson's Station
Utility Board
Meeting Minutes
February 26, 2020 6:00 p.m.

Call to Order:
The meeting of the Utility Board of the Town of Thompson's Station was called to order at 6:00 p.m. on February 26, 2020 at the Thompson's Station Community Center with the required quorum. Members and staff in attendance were: Chairman, Jeff Risden, Alderman, Brian Stover, Committee Members, Bruce DiFrancisco, Joe Whitson, Skip Beasley, Town Administrator, Ken McLawhon, Finance Director, Steve Banks, Town Recorder/Clerk, Regina Fowler and Town Attorney, Kirk Vandivort.

1. **Minutes:**

Consideration of the minutes as amended of the January 15, 2020 regular meeting were presented.

Alderman Stover made a motion to approve the January 15, 2020 regular meeting minutes as amended. The motion was seconded by Mr. Beasley and carried unanimously.

2. **System Operators Update:**

Town Administrator, Ken McLawhon updated the Board noting that there continues to be I & I issues.

3. **I & I Update:**

Matthew Johnson, Barge Design Solutions updated the UB on the I & I issue. Flows continue to run 400,000 to 420,000 gallons per day. Data will be analyzed to hopefully determine where flow is coming from. Extensive smoke testing should be conducted, and data will continually be analyzed.

4. **Hill Property Drip Field Construction Update:**

Matthew Johnson, Barge Design Solutions updated the UB on the progress of this project. 275,000 linear feet of tubing has been installed at this time. The rain has been a deterrent. Headers are being assembled at this time. Contractual completion dates are as follows; April 9th – Contractual Completion Date for Milestone 1
June 8th – Substantial Completion Date
July 20th – Final Completion Date

The above dates will change minus any inclement weather dates. The Board did ask if the contractor would work on Saturday and Sundays? Matthew Johnson stated they do work on Saturdays at this time however, that discussion can be initiated by Barge to confirm if that is a viable option.

5. **Endorsement of Barge Design Solutions Professional Service Agreement or the Regional Wastewater Treatment Plant, MBR (membrane bio-reactor) Design Project and Upgrades:** At this time the Town is pursuing the option for USDA funds to pay for said project. It would require the use of JCDC 500 industry form for services. Mr. DiFrancisco made a motion to accept the scope of work presented by Barge Design Solutions for it to move forward with the approval process. The motion was seconded

and carried unanimously.

6. **Endorsement of an Ordinance 2020-XX Wastewater Capacity Reservation System an Ordinance of the Town of Thompson's Station, Tennessee to Amend Title 18 (Ordinance No. 10-XX Pursuant to Title 18, Chapter 1, regarding Reservation Policy Wastewater Capacity):**

Jeff Risden made a motion to defer the Endorsement of an Ordinance 2020-XX Wastewater Capacity Reservation System an Ordinance of the Town of Thompson's Station, Tennessee to Amend Title 18 (Ordinance No. 10-XX Pursuant to Title 18, Chapter 1, regarding Reservation Policy Wastewater Capacity) until the March 18, 2020 meeting. The motion was seconded by Mr. DiFrancisco and carried unanimously.

Adjourn:
There being no further business, the meeting adjourned at 6:35 p.m.

An Open House immediately followed this meeting for the purpose of Wastewater.

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Jeff Risden, Chairman

BUILD NEW

1. Build New WW Facility. Finish Hill Property drip fields This would increase capacity for growth both residential and commercial
2. Assumes Wastewater Fees at current rate for Residential (capped @ $55/mth) and Commercial (No cap)
3. Assumes current fee schedule for wasterwater and developer/builder fees
4. Assumes Operating Expense increase of 3.5%/Yr - This based on cost of living increases

Residential unit Wastewater Fee average for April 2020 is $47.27
Commercial Fees are not increased from year to year
Building Permits issued is averaging 244 last 5 years. With new facility may increases building permits (all residential for forecasting purposes)
New Building permits are listed below

WW Residential Accounts as of 4/30/20 1712

New Building permits issued	150	150	150	150	150	150	150	150	150	150
Builder Efflulent Fee	$5,650.05	$5,650.05	$5,650.05	$5,650.05	$5,650.05	$5,650.05	$5,650.05	$5,650.05	$5,650.05	$5,650.05
Wastewater Fee proposed increase	3.00%	3.00%	3.00%	3.00%	0.00%	0.00%	0.00%	0.00%	3.00%	0.00%

Wastewater Fund		FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
Residential Accounts		1812	1962	2112	2262	2412	2562	2712	2862	3012	3162
Commercial Accounts		48	48	48	48	48	48	48	48	48	48
Residential Average Fee (April 2020 avg)	47.27	$ 48.69	$ 50.15	$ 51.65	$ 53.20	$ 53.20	$ 53.20	$ 53.20	$ 53.20	$ 54.80	$ 54.80
Residential Wastewater Fee		$ 1,030,693	$ 1,130,112	$ 1,216,512	$ 1,302,912	$ 1,389,312	$ 1,475,712	$ 1,562,112	$ 1,648,512	$ 1,734,912	$ 1,821,312
Commercial Fees		$ 257,673	$ 265,403	$ 273,365	$ 281,566	$ 281,566	$ 281,566	$ 281,566	$ 281,566	$ 290,013	$ 290,013
Other (Interest,Late Fees, Septage)		$ 39,950	$ 39,950	$ 39,950	$ 39,950	$ 39,950	$ 39,950	$ 39,950	$ 39,950	$ 39,950	$ 39,950
Special Rate (can separate or combine)											
New Building Effluent Fees (disposal of effluents)		$ 847,508	$ 847,508	$ 847,508	$ 847,508	$ 847,508	$ 847,508	$ 847,508	$ 847,508	$ 847,508	$ 847,508
TOTAL REVENUES		**$ 2,175,824**	**$ 2,282,973**	**$ 2,377,335**	**$ 2,471,936**	**$ 2,558,336**	**$ 2,644,736**	**$ 2,731,136**	**$ 2,817,536**	**$ 2,912,383**	**$ 2,998,783**
Operating Expenses		690,594	714,765	739,782	765,674	792,472	820,209	848,916	878,628	909,380	941,209
Add'l Maint. Expenses (due to new MBR)				135,000	135,000	135,000	135,000	135,000	135,000	135,000	135,000
Depreciation Expense		530,000	530,000	863,625	1,107,850	1,107,850	1,107,850	1,107,850	1,107,850	1,107,850	1,107,850
Debt Service (Interest)		6,700	4,000	1,250	-	-	-	-	-	-	-
New Debt Service - MBR (Interest)				316,944	312,110	307,161	302,094	296,908	291,598	286,162	280,596
New Debt Service- Alexander (Interest)					232,014	228,475	224,852	221,143	217,347	213,460	209,480
TOTAL OPERATING EXPENSES		**1,227,294**	**1,248,765**	**2,056,600**	**2,552,647**	**2,570,958**	**2,590,006**	**2,609,817**	**2,630,423**	**2,651,851**	**2,674,135**

5/20/2020

CHANGE IN NET POSITION	**948,530**	**1,034,208**	**320,735**	**(80,711)**	**(12,622)**	**54,730**	**121,319**	**187,113**	**260,531**	**324,648**
ADDS:										
Sources of Cash										
Change in Net Position	948,530	1,034,208	320,735	(80,711)	(12,622)	54,730	121,319	187,113	260,531	324,648
Loan Proceeds		13,345,000	9,769,000							
New Development Impact Fees (capital contributions)										
Depreciation Expense	530,000	530,000	863,625	1,107,850	1,107,850	1,107,850	1,107,850	1,107,850	1,107,850	1,107,850
LESS:										
Uses of Cash										
MBR Construction	2,000,000	11,345,000								
Alexander Drip Fields Construction			9,769,000							
Debt Service (Principle)	111,111	111,111	101,852							
New Debt Service - MBR (Principle)			203,541	208,375	213,324	218,390	223,577	228,887	234,323	239,888
New Debt Service- Alexander (Principle)				148,999	152,537	156,160	159,869	163,666	167,553	171,532
Net Cash Increase (Decrease)	**(632,582)**	**3,453,097**	**878,967**	**669,765**	**729,367**	**788,030**	**845,723**	**902,411**	**966,506**	**1,021,077**

			FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
	MBR												
Inerest Rate		2.375%											
Term		40											
Principle	$	13,345,000.00											
Annual Payment		$520,484											
Interest					$316,944	$312,110	$307,161	$302,094	$296,908	$291,598	$286,162	$280,596	$274,899
Principle					$203,541	$208,375	$213,324	$218,390	$223,577	$228,887	$234,323	$239,888	$245,585
	Alexander Drip Fields												
Inerest Rate		2.375%											
Term		40											
Principle	$	9,769,000.00											
Annual Payment		$381,013											
Interest						$232,014	$228,475	$224,852	$221,143	$217,347	$213,460	$209,480	$205,406
Principle						$148,999	$152,537	$156,160	$159,869	$163,666	$167,553	$171,532	$175,606
Current Cash													
Checking		200,533											
Savings		3,566,171											
Due from GF		88,000											
Rainey Day fund		(521,000)											
Current A/P		(411,725)											
W&O Balance		(1,373,088)											
Barge Design		(895,704)											
Blower		(12,734)											
Total Available Funds		**640,453**											
Total Connection		3818											

New Fees - effected July 1 2020

	Per EDU	Due upon;		Typically paid by:
WW Impact Fees	$ 9,757.08	Preliminary Plat		Developer
Effluent Disposal Fee	$ 5,650.05	Building Permit	Avg 200 permits each year	Builder
TOTAL FEES	**$ 15,407.13**			

Developments	**Taps**	***Developer***	***Builder***	
Littlebury	91	$ 887,894.28	$ 514,155	
Pleasant Creek	400			
Parson's Valley	351			
Holt Condo's	59			
Encompass (pd $1.116m)	318	$ 3,102,751.44	$ 1,796,716	
Less Encompass prepaid		$ (1,116,000.00)		
Avenue Downs	69	$ -	$ 389,853	Amber Development paid total $248,400 in Feb 2020
Whislestop (new fee)	300	$ 2,927,124.00		
(old fee)	43	$ 154,800.00	$ 242,952	
TriStar	4			
Thompsons Machinery	15	$ -		Paid in Nov 2019 $37,500
Roderick Place	270	$ 2,634,411.60	$ 1,525,514	
Tollgate Final Plat	146		$ 824,907	Final Phase to be completed - 200
Total Development Fees		**$ 8,590,981**	**$ 5,294,097**	

Notes 5/18/20

RE: Good Morning Vance,
Hamilton, Vance - RD, Nashville, TN <vance.hamilton@usda.gov>
Mon, Apr 20, 3:19 PM (2 days ago)
to Kenneth, Matthew.Johnson@bargedesign.com, Corey, Paula.Harris@bargedesign.com, Jonathan.Childs@bargedesign.com, me, Regina, Jim
Ken,

Our interest rate is now 2.375%. That rate could change July 1.

$21,000,000 @ 2.375% = $67,814/month x 12 months = $813,768 annual debt service.

If you took the loan the full 40 year term, you would pay $10,649,884 in interest.

If I can provide any additional information, please let me know.

Vance

Vance Hamilton
Area Specialist
Nashville Area Office, Rural Development
United States Department of Agriculture

No discharge, we land apply
Yes we have I&I but doesn't really affect operations

No Notice of Violations

Don't no number of manhole but we have inspections records when collection systems are installed

Never have had main break. Have had few overflows from manholes and had and air release valve fail one time that overflowed

On Mon, Apr 20, 2020, 10:29 AM Steve Banks <sbanks@thompsons-station.com> wrote:
Kenny,Could you answer a few of these questions? This is from a third party Tennessee American Water - who is also looking at this

Any excursions, discharge limit exceedances?
Any I&I issues/wet weather issues that affect operations?
Any 3rd party contracts for operations?
Any NOV's in the past 5 years?
How many manholes are there, are do you have inspections records for the past 5 years?
Sewer main breaks in the past 5 years?

Town of Thompson's Station
Wastewater Fund Accumulated Depreciation Rollforward
6/30/2019

FY 19 additions

M-1 p.2
PBC

Note: CA created the rollforward below using the PY AD Rollforward. CA noted no additions placed in service during FY19. See CIP additions that CA identified on p.3.

	Asset	Property Description	Date in Service	Book cost	Prior Depreciation	FY2019 Current Depreciation	FY2020 Current Depreciation	FY2020 Total Depreciation	FY2020 Net Book Value	FY2021 Current Depreciation	FY2021 Total Depreciation	FY2021 Net Book Value	Depreciation Method	Useful Life	
Buildings															
	3	Building- Regional Plant	1/1/2007	150,000	43,125	3,750	3,750	50,625	99,375	3,750	54,375	95,625	S/L	40	
	4	Building- Heritage Commons	1/1/2007	32,000	9,200	800	800	10,800	21,200	800	11,600	20,400	S/L	40	
	9	Fence	12/27/2006	6,628	6,628	-	-	6,628	0	-	6,628	0	S/L	10	
	14	Pump Station	1/1/2008	673,315	176,745	16,833	16,833	210,411	462,904	16,833	227,244	446,071	S/L	40	
	21	Computer Wiring- main treatment plant	6/30/2009	3,000	675	75	75	825	2,175	75	900	2,100	S/L	40	
	29	Regional plant upgrade & Expansion	6/30/2014	15,607	1,561	390	390	2,341	13,266	390	2,731	12,876	S/L	40	
				880,550 p.1	**237,934** p.1	**21,848** p.1	**21,848**	**281,630**	**598,921**	**21,848**	**303,478** p.1	**577,073**			
Equipment															
	5	Equipment- Regional Plant	1/1/2007	300,000	172,500	15,000	15,000	202,500	97,500	15,000	217,500	82,500	S/L	20	
	6	Equipment- Heritage Commons	1/1/2007	150,000	86,250	7,500	7,500	101,250	48,750	7,500	108,750	41,250	S/L	20	
	11	Best Buy PC/ Heritage Commons	11/9/2006	466	466	-	-	466	-	-	466	-	S/L	5	
	12	HP PC	9/10/2007	1,150	1,150	-	-	1,150	-	-	1,150	-	S/L	5	
	13	2008 F150 Truck- Ted Russell Ford	6/30/2008	15,313	15,313	-	-	15,313	-	-	15,313	-	S/L	5	
	18	Pump	3/1/2008	1,234	1,234	-	-	1,234	-	-	1,234	-	S/L	5	
	22	MCS 25 yd Compactor & delivery	5/15/2012	3,500	2,158	350	350	2,858	642	350	3,208	292	S/L	10	
	25	IDEXX equipment- lab	9/11/2012	4,616	2,692	462	462	3,616	1,000	462	4,077	538	S/L	10	
	26	Blower- rotating engineer	10/23/2012	9,914	8,026	1,416	472	9,914	0	-	9,914	0	S/L	7	
	27	Electric winch- USA Bluebook	5/20/2013	4,162	3,023	595	545	4,162	0	-	4,162	0	S/L	7	
	CA	Caterpillar Trackhoe 289D	5/26/2016	14,031.00	6,080	2,806	2,806	11,693	2,339	2,338	14,031	1	S/L	5	Trackhoe was purchased 75% by the GF and 25% by WF
	CA	Caterpillar Skidloader 305E2	5/26/2016	15,597.00	6,759	3,119	3,119	12,998	2,600	2,599	15,597	1	S/L	5	Skidloader was purchased 75% by the GF and 25% by WF
				519,982 p.1	**305,650** p.1	**31,248** p.1	**30,254**	**367,153**	**152,830**	**28,249**	**395,401** p.1	**124,581**			
Land															
	1	Land- Regional Plant	1/1/2007	900,000	-	-	-	-	900,000	-	-	900,000	N/A	N/A	
	2	Land- Heritage Commons	1/1/2007	1,537,000	-	-	-	-	1,537,000	-	-	1,537,000	N/A	N/A	
	15	Easements- Bryant & Vaulk	1/1/2008	75,000	-	-	-	-	75,000	-	-	75,000	N/A	N/A	
	CA	Land-Encompass	2/28/2018	480,000	-	-	-	-	480,000	-	-	480,000	N/A	N/A	
				2,992,000 p.1	-	-	-	-	**2,992,000**	-	-	**2,992,000**			
CIP															
		Hill Property Drip Fields - Construction		**2,926,500**				-	2,926,500	73,163	73,163	2,853,338	S/L	40	
	CA	Hill Property Drip Fields		228,377	-	-	-	-	228,377	5,709	5,709	222,668	S/L	40	
				3,154,877 p.1	- p.1	-	-	-	**3,154,877**	**78,872**	**78,872**	**3,076,005**			
Vehicles															
	CA	Tractor	6/30/2015	20,000	12,000	4,000	4,000	20,000	-	-	20,000	-	S/L	5	
	CA	Ford F-150 of Murfreesboro	8/25/2016	28,361	10,872	5,672	5,672	22,216	6,145	5,672	27,888	473	S/L	5	
					-	-									
				48,361 p.1	**22,872** p.1	**9,672** p.1	**9,672**	**42,216**	**6,145**	**5,672**	**47,888** p.1	**473**			
Infrastructure															
				- p.1	-	-	-	-	-	-	-	-			
System															
	7	Underground pipe & liner - regional	1/1/2007	5,835,000	1,677,563	145,875	145,875	1,969,313	3,865,688	145,875	2,115,188	3,719,813	S/L	40	
	8	Underground pipe & liner	1/1/2007	451,000	129,663	11,275	11,275	152,213	298,788	11,275	163,488	287,513	S/L	40	
	10	Underground pipe & liner - Hailey	1/1/2007	162,027	46,583	4,050.67	4,050.67	54,684	107,343	4,050.67	58,735	103,292	S/L	40	
	16	Sewer line - Crtiz Lane	6/30/2008	252,939	63,235	6,323	6,323	75,882	177,058	6,323	82,205	170,734	S/L	40	
	17	Donated Sewer Line - Hood Dev	6/30/2008	375,903	93,976	9,398	9,398	112,771	263,132	9,398	122,169	253,734	S/L	40	
	19	Wastewater lines	6/30/2009	272,697	61,357	6,817	6,817	74,992	197,706	6,817	81,809	190,888	S/L	40	
	20	Fence - mini pump station	9/23/2008	9,360	9,126	936	936	10,998	(1,638)	936	11,934	(2,574)	S/L	10	
	23	Cell #2 improvements	5/31/2013	1,182,066	150,221	29,551.65	29,552	209,324	972,742	29,552	238,876	943,190	S/L	40	
	24	Old Town Wastewater Lines	6/30/2013	171,380	21,423	4,285	4,285	29,992	141,389	4,285	34,276	137,104	S/L	40	
	28	Old Town Sewer Line expansion	6/30/2014	15,964	1,596	399	399	2,395	13,569	399	2,794	13,170	S/L	40	
	30	Flow meters & installation - Heritage	6/30/2014	3,102	310	78	78	465	2,636	78	543	2,559	S/L	40	
	31	Collection field lines - Canterbury	6/30/2014	140,000	14,000	3,500	3,500	21,000	119,000	3,500	24,500	115,500	S/L	40	
	32	Drip field infrastructure installation	6/30/2014	1,080,539	108,054	27,013	27,013	162,081	918,458	27,013	189,094	891,445	S/L	40	
	CA	Grinder, motor controller	6/30/2015	23,644	1,773	591.10	591.10	2,956	20,689	591.10	3,547	20,097	S/L	40	
	CA	Donated Pipe	12/15/2014	98,000	8,779	2,450.00	2,450.00	13,679	84,321	2,450.00	16,129	81,871	S/L	40	
	CA	Donated Pump Station and Pipe	12/15/2014	102,000	9,138	2,550.00	2,550.00	14,238	87,763	2,550.00	16,788	85,213	S/L	40	
	CA	Donated Pump Station and Pipe - Allenwood	6/14/2016	108,000	5,625	2,700.00	2,700.00	11,025	96,975	2,700.00	13,725	94,275	S/L	40	
	CA	Drip Field Project	9/29/2014	139,102	13,331	3,478	3,478	20,286	118,816	3,478	23,763	115,339	S/L	40	Reclassed from Infrastructure
	CA	Tollgate Subsurface Drip Field Installation	6/16/2017	448,876	12,157	11,222	11,222	34,601	414,275	11,222	45,823	403,053	S/L	40	
	CA	Fields of Canterbury - WW Facilites Phase 2 & 3	8/9/2016	450,000	21,563	11,250	11,250	44,063	405,938	11,250	55,313	394,688	S/L	40	
	CA	Fields of Canterbury - WW Facilites Phase 4,5, & 7	1/10/2017	725,000	27,188	18,125	18,125	63,438	661,563	18,125	81,563	643,438	S/L	40	
	CA	Bridgemore WW Facilities Pase 1 & 2	3/9/2017	1,325,000	44,167	33,125	33,125	110,417	1,214,583	33,125	143,542	1,181,458	S/L	40	
	CA	Allenwood WW Facilites	5/9/2017	250,000	7,292	6,250	6,250	19,792	230,208	6,250	26,042	223,958	S/L	40	
	CA	Mars State Industrial Access (SIA)	7/1/2017	41,604	1,040	1,040	1,040	3,120	38,484	1,040	4,160	37,444	S/L	40	
	CA	Fields of Canterbury - Phase 1, 6, & 9	6/30/2018	1,861,468	-	46,537	46,537	93,073	1,768,395	46,537	139,610	1,721,858	S/L	40	
				15,524,671 p.1	**2,529,156** p.1	**388,819** p.1	**388,819**	**3,306,794**	**12,217,877**	**388,819**	**3,695,612** p.1	**11,829,059**			
				23,120,442 p.1	**3,095,612** PY	**451,587** p.1	**450,593**	**3,997,792**	**19,122,650**	**523,460**	**4,521,251** p.1	**18,599,190** p.1			
					New System	425,000						16,575,000			
				(8,540,992)		(214,227)					(2,874,402)	(5,666,590)			
						662,360						29,507,601			

	Dr	Cr
New MBR	17000000	
Loan		17000000
Acc Depr NEW		425000

Tickmarks

Dep Exp NEW	425000	
w/o Old system B.V.		6095043
W/o Loss	6095043	

Neighborhood	Approval	Used/Committed	Remaining on line	Notes	April 2020 Connections	Remaining
Tollgate Village	943	832	Will use within two years most likely		546	397
Canterbury	1134	781	Five years	had an additional 25 permitted by BOMA in 2017	714	420
Bridgemore	477	477	Should be finishing up building in the next year or so		441	36
TS Schools	82	82	Complete		82	0
Mars	87	87	Complete		87	0
Roderick	370	0	Depends on plat approvals - nothing coming in yet as far as I know	gave 15 taps to Thompson Machinery	0	370
Thompson Machinery	15	15	No building permit yet, anticipating soon		0	15
WhistleStop	343	0	Depends on plat - probably 10 years		0	343
Allenwood	13	13	Complete		12	1
FUTURE PROJECTS						
Avenue Downs	69	0	Want 69 taps from BOMA with Critz Lane agreement		0	69
Station Hill	285	0	Depends on plat approvals		0	285
Parsons Valley	0	0	Want 351 taps from BOMA		0	0
	3818	**2287**			**1882**	**1936**

This was updated March 2019

ORDINANCE NO. 2020-XXX

AN ORDINANCE OF THE TOWN OF THOMPSON'S STATION, TENNESSEE PURSUANT TO TITLE 18, CHAPTER 1 REGARDING WASTEWATER CAPACITY RESERVATION

WHEREAS, the Utility Board and Town Staff for the Town of Thompson's Station is recommending pursuant to certain provisions under Title 18, Chapter 1, Subsection 18-114 of the Municipal Code for the Town of Thompson's Station to adopt policy and procedures for the purpose of reservation of sewer capacity for proposed developments; and

WHEREAS, the Board of Mayor and Aldermen, based on recommendations and considerations have for consideration, have determined that wastewater capacity reservation may be permitted, and

WHEREAS, the Board of Mayor and Alderman understand there exists growth in the population of the Town, and further, understand the occurrence of expansion of development to accommodate that growth in population, and further recognize a greater demand for wastewater treatment needs as a result of the growth and expansion; and

WHEREAS, the Board of Mayor and Alderman has determined adopting wastewater capacity reservation policy and procedure in order to ensure the public health and promote effective growth and proper development is in the best interest in the Town, and

WHEREAS, the Board of Mayor and Aldermen have reviewed the Town Code under Title 18, Chapter 1, Subsection 18-114, wherein the Town may adopt by ordinance a process for user charges under the waste water and sewer billing and collection procedures and resolutions to implement the same and determined, based upon the considerations of the recommendations of the Utility Board, Town Staff and Consultants, to adopt and implement the policy and procedures as follows, and

NOW, THEREFORE, BE IT ORDAINED by the Board of Mayor and Aldermen of the Town of Thompson's Station, Tennessee, as follows:

Section 1. That the Town of Thompson's Station's adopts as the policy and procedures for the reservation of waste water capacity pursuant to Title 18, Chapter 1, Section 18-114, and Title 18, Chapter 2, Section18-201 by adding to Title 18, Chapter 3 as follows:

18-301 **INTRODUCTION**

The Town of Thompson's Station (Town) is a rapidly growing community with developers requesting sewer service throughout the sewer system area. The Town implements the following process to review, track, and monitor proposed developments to ensure that the Town can provide sewer capacity from the connection point in the collection system through the treatment plant and effluent disposal without causing sewer overflows. This process has the following benefits:

1. Providing sufficient capacity for new development while maintaining existing service.

2. Preventing sewer overflows.
3. Protecting the Town by allocating sewer capacity to a specific development.
4. Identifying potential capacity deficiencies in the existing system.

This process describes the protocols, policies, and analytical methods for the continuous assessment and determination of capacities for the Town's collection system. The Wastewater Capacity Reservation System will follow the sequence presented below with more detail provided in subsequent sections.

Step 1 Complete a Capacity Request Application: The developer will complete an application to provide the Town with enough information to evaluate the project's potential impact on the sewer system.

Step 2 Capacity Request Review of Proposed Development: An engineer obtained by the Town will review the capacity of the collection, treatment, and disposal systems receiving the proposed flow increase to determine if adequate capacity is present in the existing system in accordance with the requirements outlined in this document.

Step 3 Capacity Request Results: The Town will issue a notification to the applicant in cases where adequate collection, treatment and disposal capacities can be determined and in cases where there are capacity deficits.

Step 4 Completing the Reservation Process: Developers who want to pursue a project will sign an agreement with the Town and submit a reservation deposit. This will ensure that the upcoming development's additional capacity load is included when reviewing future requests in that area.

18-302 WASTEWATER CAPACITY REQUEST APPLICATION

(1) The capacity of the wastewater system is determined by the existing pipes within the system, equipment size and storage capacity at lift stations, wastewater treatment permit limits, and availability of soils and drip infrastructure for the disposal of the treated wastewater. These variables will change based upon where the proposed development is located within the Town. A customer requesting a new connection to the Town's collection system or a significant increase in flow from an existing service connection must complete a Capacity Reservation Application (Appendix A) and submit the application to the Town. The application will assist to define the development so that a determination on whether capacity is available and should be completed to include agent information, property information, including the number of homes, buildings, and structures, and type of development.

(2) The Town sets a processing fee of $250.00 up to $800.00, with the minimum amount of $250.00 to be paid with the submission of the application. The Town may have up to (60) sixty days for a determination period of capacity availability. The processing fee is non-refundable, even if capacity is not available or the applicant decides not to develop the property. The remaining amount of the processing fee due shall be determined by the Town based on any necessary review for a determination of capacity availability and shall be paid prior to the release of any information as to a determination or capacity availability.

18-303 CAPACITY REVIEW OF PROPOSED DEVELOPMENT

(1) The following section describes the process by which the Town's engineer will review the collection, treatment, and disposal systems to confirm that each asset has the capacity to convey the proposed flow plus the existing flow from all new or existing service connections and authorized service connections (including those which have been approved for capacity but have not begun to discharge into the sanitary sewer system) without causing surcharge conditions.

Determine Discharge Location

(2) The discharge location (specific pipe segment, manhole, or pump station) into which the proposed flow increase will enter the Town's collection system will be determined using the information provided as a part of the Capacity Reservation Application and the latest version of the GIS mapping of the collection system as determined by the Town. As infrastructure is installed, the Town will update the wastewater system GIS data.

(3) In addition to the pipe segment or manhole where the proposed flow increase will connect to the collection system, all downstream pump stations and the treatment plant receiving the proposed flow increase will be identified.

(4) If there is a capacity deficit at the location proposed by the developer, the Town will review and, if available, provide alternative connection points that may decrease or eliminate the need for capacity improvements.

Calculate Flow Increase

(5) For each new or existing sanitary sewer service connection included on a Capacity Reservation Application the developer/applicant will provide a calculation of the flow increase and the Town or its designee will verify the calculation using the procedure described in Section 18-303 (7) or Section 18-303 (8).

(6) For redevelopment of property with an existing connection to the sewer system, the existing flow will be based upon the best available information as determined by the Town or estimated using the procedures described in Section 18-303 (7) or Section 18-303 (8). The existing flow will be documented as a credit towards the wastewater flow for the redeveloped property.

Single Family Residential

(7) For single-family homes, a standard 250 gallons per day (gpd) per household should be used for estimating the peak-hour flow increase to the collection system. The collection system consists of the pipes and pump stations and excludes the wastewater treatment plants (WWTPs) and disposal areas.

Other Properties

(8) For non-single-family residential properties, the unit sewer flows outlined for design by the Tennessee Department of Environment and Conservation (TDEC) Design Criteria for different usage types are in Appendix 2-A and shown in Appendix B. The applicable unit flows should be applied to the specific project variables (e.g., seats, bedrooms) to estimate the total sewer flow that will be added to the system from the proposed project.

18-304 Review System Capacity

(1) The Town has developed a hydraulic model as a tool for determining existing sewer capacity as assessed by the Town engineer. The capacity of the affected system will be checked for availability or deficiency after the location and estimated sewer flows are determined.

Collection System Capacity

(2) Determination of adequate collection capacity will confirm that each gravity sewer line between the requested tie-in location and the receiving WWTP has the capacity to transmit the proposed flow, the flow from all existing service connections, and the flow from authorized service connections, during the modeled peak 1-hour of the 2-year, 24-hour rain event, without causing surcharge conditions. Authorized service connections include entities with a reservation agreement or those entities who are within the allowed capacity review decision period. Existing 1-hour peak flow is defined as the greatest flow in a sewer averaged over a 60-minute period at a specific location expected to occur as a result of the representative 2-year, 24-hour storm (design) event.

(3) A surcharge condition is defined as the condition that occurs when the 1-hour peak flow from the design event exceeds the capacity of the collection system. A surge condition causes the water surface to reach within 36 inches of the manhole rim, while above the crown of the pipe, or greater than 24 inches above the crown of the pipe; however, if the Town has identified pipe segments or manholes designed to operate under a pressure condition, the capacity of these pipe segments or manholes shall be evaluated based on their respective design criteria.

(4) Determination of adequate transmission capacity will confirm that each pump station through which the requested additional flow would pass has the capacity to transmit the proposed peak 1-hour flow, the existing peak 1-hour flow from all existing service connections, and the flow from authorized service connections.

Treatment Plant Capacity

(5) Determination of adequate treatment capacity will confirm that the WWTP receiving flow from the proposed new connections, increased flows from an existing source, and authorized sewer service connections will be in compliance for quarterly reporting.

Disposal Capacity

(6) The disposal capacity is contingent on the availability of adequate soils as approved by the Tennessee Department of Environment and Conservation. Further, compliance by the Applicant/Developer, pursuant to the Amended LDO of November 2019, Section 5.2.8, Appendix A, as provided in the DEVELOPER AGREEMENT, as to the provision for the Applicant/Developer to provide sufficient soils necessary for the perspective project, along with any additional requirements, such as the payment of fees and/or compliance with the ordinances and/or codes of the Town or statutory requirements, which may be determinative.

Essential Services

(7) The Town may authorize a new sewer service connection or additional flow from an existing sewer service connection for essential services, even if it cannot determine that it has adequate capacity. Essential services are defined as healthcare facilities, public safety facilities, public schools, government facilities, and other facilities as approved by the Town. It also includes cases where a pollution or sanitary nuisance exists as a result of a discharge of untreated wastewater from an on-site septic tank.

18-305 Capacity Review Result

(1) If model results show available capacity, the results with instructions on how to reserve the available capacity can then be issued to the developer according to Town policy. If the model shows a deficit, the Town will issue a notice of insufficient capacity to the developer. The notice will include a description and map of where the capacity restrictions are located and what improvements will need to be made to reach adequate capacity.

(2) If service can be provided immediately or after working out an alternative option, then the developer must make a service reservation to proceed. The decision must be made within 60 days of the date of the letter from the Town to the developer stating that there is available capacity. If the developer decides to not move forward with the project, the capacity review ends. To build on that property in the future, the developer would need to start the process again by filling out a new application and paying another application fee.

18-306 Completing the Reservation Process

(1) Developers who decide to pursue the proposed project will sign an agreement and submit a reservation deposit, as determined by the Town which reserves that capacity for one year. This ensures that the Town will consider the upcoming development when reviewing current and future capacity in that area. This also ensures that a second requested development, even one built and in service sooner, does not reduce the Town's

ability to serve the first property during that time. The developer can request an extension based on the conditions outlined in the reservation agreement. The Town would need to develop the cost breakdown structure for the reservation deposit.

(2) As a part of the reservation agreement or separately, the Town has the option to enter into a participation agreement with the developer to increase capacity of the proposed improvements beyond the needs of the development. The Town would be responsible for paying for the increase in capacity over the needs for the development.

(3) After signing the capacity reservation agreement and submitting the required deposit, a developer has one year to submit formal plans and execute an extension agreement which will include construction milestones with the Town. The developer can request an extension to the construction milestones based on the conditions outlined in the extension agreement. A developer who does not complete all (or both) requirements or meet milestones would forfeit a percentage of the reservation deposit and the reserved capacity for that property. The remaining reservation deposit would be returned to the developer. To proceed with the project at a later time, the developer would be required to submit a new application and pay another review fee. If the capacity is still available or improvements are necessary to provide adequate capacity, the developer would also have to sign a new capacity reservation agreement and submit another deposit.

(4) The Town will annually refund a portion of the deposit based on the number of billable connections or amount of incremental daily flow added in the year, with each developer agreement will define which reimbursement method will be used, as determined by the Town. Developers who produce the number of connections outlined in the extension agreement will receive a full refund upon completion of the tie-in of those defined connections. Developers who do not, will forfeit a percentage of the remaining amount as outlined in the agreement.

Additional Collection System, WWTP, and Disposal System Improvements

(5) If improvements to the collection system, the WWTP or the Disposal System are required to provide adequate capacity to serve the proposed development, the Developer shall complete the improvements based on project location, site constraints, and project complexity. The Developer shall design, subject to Town approval, all necessary additional improvements needed to the collection system, waste water treatment plant, and/or disposal system for the project submitted at the time the developer agreement is consummated. Should the Developer fail, refuse or be unable to meet the requirements of the Town as to the improvements, the Town shall have a right to take over the waste water improvements, subject to the terms of the developer agreement.

(6) If the developer completes the work, then the developer will be responsible for covering the costs of a Town-appointed field representative, paying a fee for the Town's engineer

to review the plans, and acquiring all easements necessary to complete the work. Easements will be acquired using the Town's standard documents. After completing the improvements, the developer will deed over the completed improvements.

18-307 Existing Sewer Tap Reservation

(1) Developers who have an existing sewer tap agreement with the Town will have those agreements honored per the executed agreement. If requested by the Town, it will be the responsibility of the developer to provide the agreement and documentation of the existing sewer tap reservation. Based on the existing executed agreement, the Developer shall pay within (90) days of the expiration of the agreement to reserve capacity, the remaining fees, included but not limited to, disposal fee, etc. to ensure the Town continues to reserve capacity for the unused taps that were reserved in the agreement. The remaining fees shall be paid at the then existing, current rate. The Developer shall have the obligation of the timely payment of any remaining fees.

APPENDIX A

Wastewater Capacity Reservation Application Form

Wastewater Capacity Reservation Application Form

A Wastewater Capacity Reservation application must be submitted when a property owner proposes new development or re-development of property that may increase the demand on existing infrastructure. The guidelines for determining capacity and issuing points of connection are located within the Capacity Reservation System Technical Memorandum. Complete the following and return to Town Hall with proof of property ownership: recorded deed, recorded deed of trust, title report, or title insurance. Applicant shall also provide map locating proposed connection point.

Title Owner Information					
Name					
Company					
Address					
City		State		Zip Code	
Email				Phone Number	
Signature					

Applicant Information					
Name					
Company					
Address					
City		State		Zip Code	
Email				Phone Number	
Signature					

Parcel / Property Information					
Service Address					
City		State		Zip Code	
Property Tax Account Number (s)					
Building Project Number					
Tract Size (Acres or Sq. Ft.)					

Type of Development					
	New Construction		Replacement		Interior Only Remodel
	Additional Building		Exterior Addition		Other:
	Tenant Build-Out		Conversion		

OFFICE USE ONLY			
Project Number:		Date:	

Existing Development		
Vacant (only if undeveloped) *		
Facility/Building Type		
Existing Number of Occupants/ Employees		
Existing Facility Square Footage		
Existing Flow (GPD)		
Additional Property Information (# of bathrooms, # of washers, etc.)		

*If vacant skip to next section

Proposed Development		
Single Family Residence (# of units) *		
Proposed Facility/Building Type		
Proposed Number of Occupants/ Employees	Existing Flow (GPD)	
Proposed Facility/Building Square Footage		
Proposed Development Acreage		
Proposed Flow (GPD)		
Additional Property Information (# of bathrooms, # of washers, etc.)		

*Single family residences include apartment, condos, and townhomes.

APPENDIX B
TDEC Design Flows

APPENDIX 2-A

Design Basis for Wastewater Flow and Loadings

Table 2-A.1. Typical Wastewater Flow Rates from Commercial Sources
(Source: Crites and Tchobanoglous, 1998)

FACILITY	UNIT	Flow, gallons/unit/day	
		Range	Typical
Airport	Passenger	2 - 4	3
Apartment House	Person	40 - 80	50
Automobile Service Station	Vehicle served	8 - 15	12
	Employee	9 - 15	13
Bar	Customer	1 - 5	3
	Employee	10 - 16	13
Boarding House	Person	25 - 60	40
Department Store	Toilet Room	400 - 600	500
	Employee	8 - 15	10
Hotel	Guest	40 - 60	50
	Employee	8 - 13	10
Industrial Building (Sanitary waste only)	Employee	7 - 16	13
Laundry (self-service)	Machine	450 - 650	550
	Wash	45 - 55	50
Office	Employee	7 - 16	13
Public Lavatory	User	3 - 6	5
Restaurant (with toilet)	Meal	2 - 4	3
Conventional	Customer	8 - 10	9
Short order	Customer	3 - 8	6
Bar/cocktail lounge	Customer	2 - 4	3
Shopping Center	Employee	7 - 13	10
	Parking Space	1 - 3	2
Theater	Seat	2 - 4	3

Table 2-A.2. Typical Wastewater Flow Rates from Institutional Sources
(Source: Crites and Tchobanoglous, 1998)

FACILITY	UNIT	Flow, gallons/unit/day	
		Range	Typical
Assembly Hall	Seat	2 - 4	3
Hospital, Medical	Bed	125 -240	165
	Employee	5 - 15	10
Hospital, Mental	Bed	75 - 140	100
	Employee	5 - 15	10
Prison	Inmate	80 - 150	120
	Employee	5 - 15	10
Rest Home	Resident	50 - 120	90
	Employee	5 - 15	10
School, day-only:			
With cafeteria, gym, showers	Student	15 - 30	25
With cafeteria only	Student	10 - 20	15
Without cafeteria, gym, or showers	Student	5 - 17	11
School, boarding	Student	50 - 100	75

Table 2-A.3. Typical Wastewater Flow Rates from Commercial Sources
(Source: Crites and Tchobanoglous, 1998)

FACILITY	UNIT	Flow, gallons/unit/day	
		Range	Typical
Apartment, resort	Person	50 - 70	60
Bowling Alley	Alley	150 - 250	200
Cabin, resort	Person	8 - 50	40
Cafeteria	Customer	1 - 3	2
	Employee	8 - 12	10
Camps:			
Pioneer Type	Person	15 - 30	25
Children's, with central toilet/bath	Person	35 - 50	45
Day, with meals	Person	10 - 20	15
Day, without meals	Person	10 - 15	13
Luxury, private bath	Person	75 - 100	90
Trailer Camp	Person	75 - 125	125
Campground-developed	Person	20 - 40	30
Cocktail Lounge	Seat	12 - 25	20
Coffee Shop	Customer	4 - 8	6
	Employee	8 - 12	10
Country Club	Guests on-site	60 - 130	100
	Employee	10 -15	13
Dining Hall	Meal Served	4 - 10	7
Dormitory/bunkhouse	Person	20 - 50	40
Fairground	Visitor	1 - 2	2
Hotel, resort	Person	40 - 60	50
Picnic park, flush toilets	Visitor	5 - 10	8
Store, resort	Customer	1 - 4	3
	Employee	8 - 12	10
Swimming Pool	Customer	5 - 12	10
	Employee	8 - 12	10
Theater	Seat	2 - 4	3
Visitor Center	Visitor	4 - 8	5

Section 2. If any section or part of the Ordinance, including any amendments thereto, is determined to be invalid for any reason, such section or part shall be deemed to be a separate and independent provision. All other sections or parts shall remain in full force and effect. If any section or part of the Ordinance is invalid in one or more of its applications, that section or part shall remain in effect for all other valid applications.

Section 3. This ordinance shall take effect immediately upon the publication of its caption in a newspaper of general circulation after final reading by the Board of Mayor and Aldermen, the public welfare requiring it.

Duly approved and adopted by the Board of Mayor and Aldermen of the Town of Thompson's Station, Tennessee, on the _____ day of _____, 2020.

_____
Corey Napier, Mayor

ATTEST:

_____
Regina Fowler, Town Recorder

Passed First Reading: _____

Passed Second Reading: _____

Submitted to Public Hearing on the ____ day of _____, 2020, at 7:00 p.m., after being advertised in the *Williamson AM* Newspaper on the ____ day of _____, 2020.

APPROVED AS TO FORM AND LEGALITY:

_____
Town Attorney