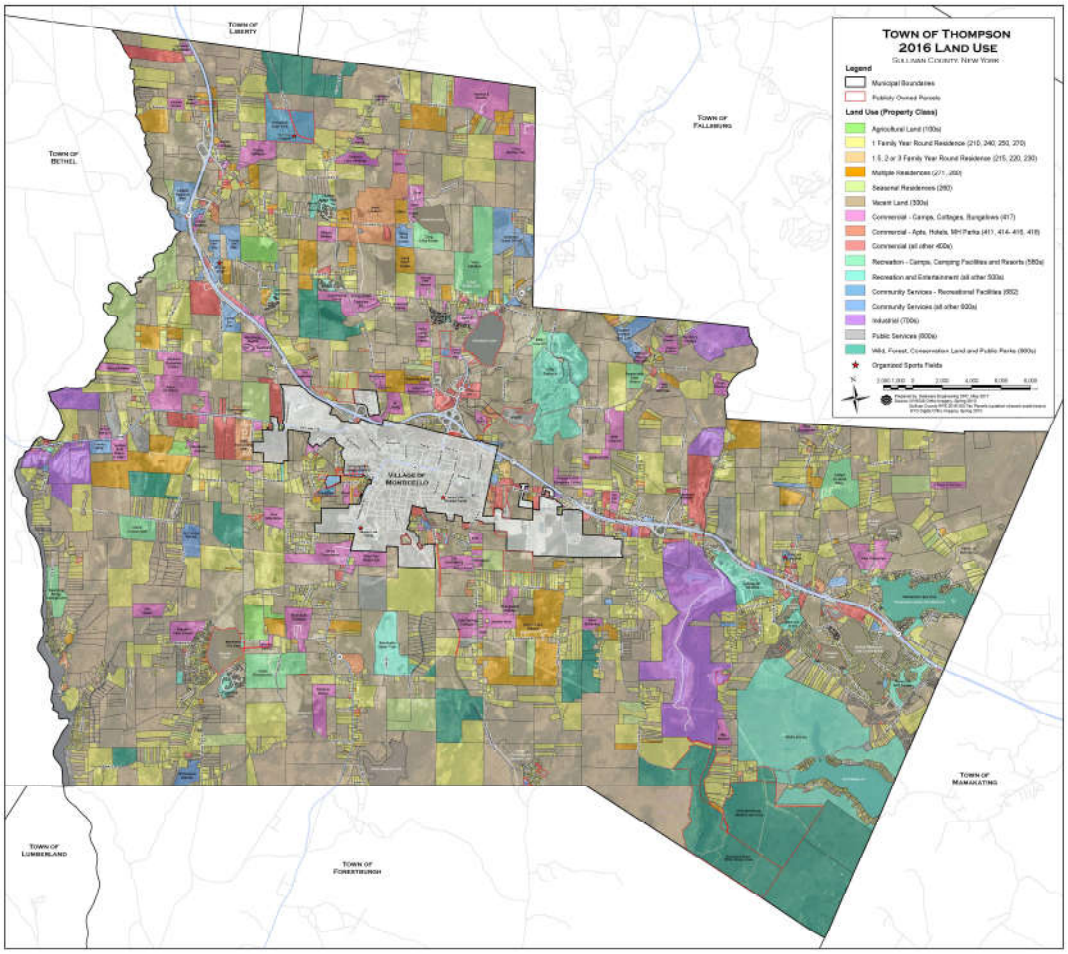
Town of Thompson
Sullivan County, New York

Infrastructure Master Plan



Prepared for:

Town of Thompson
Michael Messenger
Superintendent Water and Sewer Department
4052 Route 42
Monticello, NY 12701

Prepared by:

Delaware Engineering, P.C.
28 Madison Avenue Extension
Albany, New York 12203

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1.0 EXECUTIVE SUMMARY

The Town of Thompson has a growth pattern typical of the southern Catskills which features hamlets and villages with a mix of seasonal and year-round residential and commercial/retail development along connecting highway corridors; former resorts also dot the landscape of the Town. As a result of the pattern of development, the Town's water and sewer infrastructure is disparate and challenging to manage from both an administrative as well as capital, operations and maintenance perspective. Numerous special improvement districts (water and sewer) have been created over the years. At the time of creation, each of these districts had a purpose; however, over time, the function and finances of the districts has changed.

The Town has expressed an interest in exploring if the water and sewer rates should be restructured and/or if district consolidation should be considered to result in a fair, equitable and fiscally sustainable distribution of costs among the user base. In reviewing this opportunity, it was determined that pending capital improvements and the financing of these improvements which would be largely through the issuance of debt will have a substantial impact on rates and this is an important factor in considering rate restructuring and/or district consolidation.

Review of the Town's Capital Improvements Project Financial Projections worksheet revealed that the step-by-step approach to capital improvements does not take advantage of the exceptional financing opportunities that are available to the Town and as a result, may burden rate payers with costs that are greater than those that could be achieved through a more comprehensive approach. However, the Town's objective is to provide the community with the most value in terms of capital investment, user cost impact and infrastructure longevity.

To that end, this Infrastructure Master Plan has been prepared. The Master Plan incorporates a technical analysis, review of fiscal conditions, conceptual project development and preliminary cost estimating, prioritization of projects, review of districts and rate structures, and results in a set of recommendations that the Town may wish to adopt as a matter of public policy to guide decisions regarding infrastructure spending.

Conducting the Master Plan involved review of existing conditions through review of documentation and site visits. This review of existing conditions was facilitated by the excellent work of the Town's staff; however, it was hampered by a lack of historical records and reports and/or the disparate locations of such documentation. As a result, the recommendations of the Master Plan include confirming existing conditions as a first step in the planning of capital improvements.

Major recommendations include:

Consolidation of Dillon, Harris and Cold Spring sewer districts sending wastewater to Monticello wastewater treatment plant (WWTP).

Consolidation of Adelaar, Anawana, Harris Woods into the Kiamesha Sewer Districts as these districts already send wastewater to the Kiamesha WWTP. Standardization of sewer rents according to an updated Code points table would allow equitable distribution of costs.

Repairs and upgrades at other Town-owned WWTP and sewer districts to meet permits, reduce I&I, etc.

Review and update the current Sewer Rent Code (Harris Sewer District description still states that Community General Hospital of Sullivan County is the only user, with plans for Harris SD to be pumped to the joint Village Town WWTP).

- There is inconsistency in the method of assessment of sewer rates for the various medical facilities in the Town within the various sewer districts. Medical facilities are not included as a land use in Table 194-46. Current assessment is apparently based on number of bathrooms and/or property assessed value, but in no standardized manner which leads to inequitable distribution of sewer charges.

- Consider making billing in all sewer districts equivalent, based on land use (as in existing Table 194-46) or based on water usage as in the Rock Hill SD.

2.0 TOWN OF THOMPSON SEWER AND WATER INFRASTRUCTURE OVERVIEW

With respect to sewer infrastructure, the Town of Thompson owns and operates nine sewer districts (SD) in which wastewater is collected via Town-owned sewer lines including gravity and force mains with pump stations, and delivered to one of five Town-owned WWTPs. In addition, the Town owns and operates an additional two sewer districts wherein Town collection system infrastructure directs sewage to the Village of Monticello sewer system for treatment and discharge. The focus of this Master Plan is the five sewer districts in which the Town owns and operates both the collection and treatment systems.

Water infrastructure is in the Town of Thompson is provided in six water districts, with four supplied by wells, treatment, storage and distribution owned and operated by the Town, one supplied with water from the Village of Monticello and one provided with water from a private water system. The focus of the Master Plan is the four supplied with water owned and operated by the Town and the one supplied by the private water system.

The system evaluations presented within this report have been conducted at a very high level. As a result, the recommended upgrades and associated cost estimates provide a measure of the magnitude of the recommended projects and to provide the overall priorities for the system. It is recommended that more detailed engineering work be conducted prior to determining the final upgrade scopes and prior to obtaining project financing. The estimates are based on 2019 project costs.

3.0 TOWN SANITARY SEWER SYSTEM EVALUATION

The Town of Thompson owns, operates and maintains multiple sanitary sewer districts. Five of the districts are served via wastewater collection systems that convey sanitary sewage to Town-owned wastewater treatment plants (WWTP) while the remaining districts consist of Town-owned collection system discharging to WWTP facilities owned by others.

The sewer districts are as follows:

Table 3.0 Sewer Districts

District	WWTP Served By / Owner	Permitted Capacity of WWTP
Adelaar Resort Sewer District	Kiamesha WWTP / Town of Thompson	2,000,000 gpd
Anawana Sewer District	Kiamesha WWTP / Town of Thompson	2,000,000 gpd
Cold Spring Sewer District	Village of Monticello	NA
Dillon Farms Sewer District	Dillon Farms WWTP / Town of Thompson	1,600 gpd
Emerald Green / Lake Louise Marie Sewer District	Emerald Green WWTP / Town of Thompson	410,000 gpd
Harris Sewer District	Village of Monticello via Benmosche Pump Station	NA
Harris Woods Sewer District	Kiamesha WWTP / Town of Thompson	2,000,000 gpd
Kiamesha Lake Sewer District	Kiamesha WWTP / Town of Thompson	2,000,000 gpd
Melody Lake Sewer District	Melody Lake WWTP / Town of Thompson	38,000 gpd
Rock Hill Business Sewer District	Emerald Green WWTP / Town of Thompson	410,000 gpd
Sackett Lake Sewer District	Sackett Lake WWTP / Town of Thompson	500,000 gpd

3.1 Dillon Farms Sewer Districts

3.1.1 Dillon Farms Collection and Wastewater Treatment System Overview and Treatment Requirements

The Dillon Farms Sewer District is the smallest sewer district in the Town, with the district including approximately 11 residential parcels. The WWTP consists of a 1,500-gallon septic tank followed by a pump station which directs the flow to a 2,100 ft^2 single pass buried sand filter. The sand filter effluent is disinfected via a chlorination process prior to discharging to the environment. The facility was originally constructed in the 1960s, with the filter being rebuilt in the late 1990s. Historically all users within the district had a septic tank located on their parcel, with effluent from the septic tanks being conveyed to the WWTP via a district owned gravity sewer collection system. In 2013, the septic tanks were reported to have been removed and the raw wastewater was discharged directly to the sand filter. In 2015, the 1,500-gallon septic tank and a pump station where installed prior to sand filter. The WWTP has a permitted flow of 1,600 gpd and discharges to an unnamed tributary to Kinne Brook via SPDES # NY-0214507.

The SPDES permit limits for this facility are as follows:

Table 3.1.1 Dillon Farms WWTP SPDES Permit Limits – WWTP Discharge

Parameter	Limit
Flow (monthly average)	1,600 gpd
BOD_5 (7-day average)	45 mg/l, 0.6 lbs/day
BOD_5 (monthly average)	30 mg/l, 0.4 lbs/day & 85% removal
Solids, Suspended (7-day average)	45 mg/l, 0.6 lbs/day
Solids, Suspended (monthly average)	30 mg/l, 0.4 lbs/day & 85% removal
Solids, Settleable (daily maximum)	0.3 ml/l
pH (range)	6.5-8.5

Temperature	Monitor
Coliform, Fecal (30-day geometric mean), in effect from May 1 – October 31	200 / 100 ml
Coliform, Fecal (7-day geometric mean), in effect from May 1 – October 31	400 / 100 ml
Coliform, Fecal, November 1 – April 30	No limit or monitoring required
Chlorine, Total Residual (daily maximum)	2.0 mg/l

3.1.2 Dillon Farms Sewer District Capacity and Operations Review

The Dillon Farms WWTP is currently permitted for a MMDF of 1,600 gpd. See Appendix B for permit. The facility treats in excess of this amount the majority of time. Table 2.2 lists the existing influent hydraulic loading characteristics.

Table 3.1.2a Existing Dillon Farms WWTP Hydraulic Loading

Year	*ADF (gpd)	** MMDF (gpd)
2016	2,600	NA
2017	3,600	***6,500
Average	3,100	NA
Maximum	NA	6,500

** ADF = Average flow over a calendar year*

*** MMDF = Maximum monthly daily flow (maximum 30-day average flow). The SPDES permit flow limit is based on the MMDF.*

****Occurred March 2017*

As noted, the flows to the Dillon Farms WWTP exceed the permitted flow of the facility on a regular basis. While a portion of this flow can be attributed to I&I, the facility is undersized for modern design standards. Following current design standards for a new facility, the design flow rate for the system would be as follows:

Table 3.1.2b Design Flow

Description	Number of Units	Typical Per-Unit Hydraulic Loading Rate (gpd)	Total Design Flow (gpd)
3 Bedroom Home	11	390	4,290
Total Hydraulic Demand			**4,290**

Water and Sanitary Sewer Design Flow based on New York State Design Standards for Intermediate Sized Wastewater Systems – Hydraulic loading rates based on pre 1994 plumbing fixtures.

While recognizing that the design standards are conservative, flows to the Dillon Farms WWTP in excess of the permitted 1,600 gpd will likely continue to occur even with all the I&I removed from the system.

In addition to flows in excess of the permitted capacity, the actual flow to the facility also exceeds the design capacity of the facility. Regulatory standards require a septic tank to be 1.5 times the average flow of the system. The facility has a 1,500-gallon septic whereas a 2,400-gallon tank is required for the permitted flow of 1,600 gpd. With an actual average flow rate of 3,100 gpd over the last two years, the septic tank is required to be 4,650 gallons. Regulatory standards also limit the hydraulic loading rate for a single pass buried sand filter which is utilized year-round to 1 gpd/ft^2. The 2,100 ft^2 filter is being hydraulically overloaded under the current average flow conditions.

3.1.3 Dillon Farms Sewer District Compliance History

The facility has a history of effluent violations for both BOD and TSS. The filter is surcharged, with standing water visible on the surface of the filter. This is likely caused by solids building up in the filter during the period which the system had no septic tanks along with solids blowing out of the septic tank due to the tank being undersized for the current flows. The hydraulic overloading of the filters likely exacerbates the

surcharging. NYSDEC's issued a Notice of Violation based on their August 9, 2018 inspection. The facility is currently not subject to an Order on Consent.

3.1.4 Dillon Farms Sewer District Recommended Improvements

The Dillon Farms WWTP requires immediate improvements for the facility to be able to achieve the treatment levels required by the SPDES permit. The existing filter is in disrepair. The addition of a second septic tank and replacement of the filter media is recommended to address the immediate needs of the systems. Recognizing that the existing filter and septic tank are undersized for the current flows, a long-term solution must be considered with measures to reduce I&I in the system vital to sustained sewer service.

If the discharge requirements for the facility were to remain as currently imposed, the facility could be upgraded to a BioClere type package system for ~ $300,000, along with the additional septic tank and replacement filter media at ~$150,000. The cost of these repairs and upgrades could increase the user rent per household to $1500. The cost exceeds the benefit to the small number of households on this system. However, this option could be viable if grant funded were obtained to reduce the capital cost.

However, given the age of the facility and its discharge permit, the likelihood of a change in the discharge requirements is high. Outreach to the NYSDEC regarding the possible changes to the Dillon Farms SPDES permit confirmed that new, very stringent standards will be imposed upon this facility. Achieving the likely permit requirements (Intermittent Stream Effluent Limits or ISEL) would result in capital and operating cost so high that it is not reasonable to expend any effort evaluating the option of upgrading the Dillon Farms WWTP.

Therefore, there is no option but to abandon the Dillon Farms WWTP and consolidate this sewer district with the Harris and Cold Springs sewer districts with conveyance to the Monticello WWTP for treatment. The cost to abandon the WWTP and install a pump station and force main system to direct the flow to the Village of Monticello could be approximately $900,000. Given the very small flow associated with Dillon Farms, it is assumed that there would be no fees charged by the Village of Monticello for this connection and that the consolidated district would be treated from a Village charges perspective the same as the existing Harris and Cold Springs districts.

The consolidation of these systems would result in the sharing of annual operation and maintenance costs as well as capital costs across a larger number of users. The annual cost to the average single-family household in the Dillon Farms system would decrease by approximately $408, while Cold Spring customers rents would decrease by $30 and Harris System users would increase by $42 (if keeping the Catskill Regional Medical Center flat rate as current). See Appendix D for rate models.

3.2 Emerald Green – Lake Louise Marie Sewer Districts

3.2.1 Emerald Green – Lake Louise Marie Collection and Wastewater Treatment System Overview and Treatment Requirements

The Emerald Green – Lake Louise Sewer District serves the areas surrounding Lake Louis Marie, Treasure Lake and Davies Lake. Wastewater is collected via approximately 13 miles of district owned sewer collection system piping and ten (10) sanitary sewer pumps stations. This system collects and conveys the sanitary sewage to the Emerald Green WWTP. The Emerald Green WWTP was originally constructed in the 1960s, with upgrades completed in the 1970s and the 1990s. The facility has a permitted flow of 410,000 gpd and treatment is currently achieved via an activated sludge process. See Appendix B for permits. The facility's Preliminary Design Report, prepared by MH&E, provides the facility design maximum day flow of 750,000 gpd and the peak hourly flow

design of 1,435,000 gpd. The Emerald Green WWTP treatment process consists of mechanical bar screen, flow equalization, two (2) sequencing batch reactors (SBRs) followed by post-equalization, effluent filters, chlorination and dechlorination. The Emerald Green WWTP discharges to an unnamed tributary to McKee Brook via SPDES # NY-0035645.

Table 3.2.1 Emerald Green WWTP SPDES Permit Limits – WWTP Discharge

Parameter	Limit
Flow (30-day arithmetic mean)	410,000 gpd
CBOD (daily maximum)	5.0 mg/l, 17.1 lbs/day
Total Suspended Solids (daily maximum)	10 mg/l, 34.2 lbs/day removal
Dissolved Oxygen (daily minimum)	7.0 mg/l
Ammonia (30-day average average)	1.1 mg/l (as NH_3)
Total Phosphorous (30-day average average)	0.5 mg/l
Solids, Settleable (daily maximum)	0.1 ml/l
pH (range)	6.5-8.5
Temperature	70^{o}F
Coliform, Fecal (30-day geometric mean), in effect from May 15 – October 15	200 / 100 ml
Coliform, Fecal (7-day geometric mean), in effect from May 15 – October 15	400 / 100 ml
Coliform, Fecal, October 16 – May 14	No limit or monitoring required
Chlorine, Total Residual (daily maximum)	0.1 mg/l

3.2.2 Emerald Green Sewer District Capacity and Operations Review

The Emerald Green WWTP is currently permitted for a MMDF of 0.410 mgd. Table 3.4 lists the existing influent hydraulic loading characteristics.

Table 3.2.2 Existing Emerald Green WWTP Hydraulic Loading

Year	*ADF (mgd)	** MMDF (mgd)	Max Day (mgd)
2016	0.19	NA	NA
2017	0.26	***0.35	0.771
Average	0.23	NA	NA
Maximum	NA	0.35	0.771

** ADF = Average flow over a calendar year*

*** MMDF = Maximum monthly daily flow (maximum 30-day average flow). The SPDES permit flow limit is based on the MMDF.*

****Occurred April 2017*

As noted, the average flows to the Emerald Green WWTP are within the facility's design and permitted flow. The maximum day flow generally matched the design capacity of the facility. The high maximum day flows relative to the average flows is indicative of I&I flows that occur during wet weather events. Based on this review, the Emerald Green WWTP is adequately sized to effectively treat the current wastewater generated within the system, with capacity available for future growth provided that I&I removal work is continued within the system. While the overall size of the facility is sufficient for the current flows, the facility lacks the automation required to effectively treat the high wet weather flows. During wet weather events, the facility staff is required to override the automated systems and operate the facility in a manual fashion.

The facility's headworks do not meet the minimum regulatory standards, with regulatory standards for influent screening prior to a SBR requiring a maximum screen size of ¼". Larger screen sizes and grinders allow floatables into the SBR process which concentrate on the surface of the SBR tanks. Additionally, the facility lacks provisions for grit removal. The flow equalization and the SBRs are sufficiently sized for the required treatment. The effluent filters, while sufficiently sized for the facility's design flows, are in a deteriorated state. The sludge handling process is limited, with the sludge

generated within the SBR and filter processes held in an aerated sludge holding tank. The sludge is transferred off-site for dewatering and final disposal.

The Emerald Green WWTP operating staff reports that the on-site electrical system is in poor condition, with a portion of the buried electrical system failed. Temporary power is run above ground. Portions of the original concrete are in a deteriorated state and valves and control equipment associated with the SBR are approaching the end of their useful life. Some of the site piping / manholes are in very poor condition.

3.2.3 Emerald Green WWTP Compliance History

The facility has had violations in the last two years. The violations were predominately for TSS exceedance resulting from high flows during wet weather events, pH violations which are addressed via adjustments to the sodium bi-carbonate feed system and temperature violations. The TSS violations are likely caused by the poor condition of the effluent filters combined with the control configuration of the post-equalization pumps. Temperatures in excess of the permitted 70^{o}F will occur in municipal WWTPs during the summer months, with periods where the influent temperatures will exceed 70^{o}F. Mechanical chillers or other means of cooling the effluent are required to ensure year-round compliance with the 70^{o}F temperature limit; however, the installation of chillers is not preferred due to energy consumption that generally results in an increase in greenhouse gasses discharged to the atmosphere. As a result, consultation with the NYSDEC is recommended to determine if the specific receiving water at the point of discharge truly requires cooling to 70 ^{o}F to protect cold water fisheries or if monitoring is an appropriate approach. In many cases, the ambient temperature of the receiving water is higher than 70 ^{o}F and higher than the WWTP effluent temperature.

3.2.4 Emerald Green – Lake Louise Marie Collection Recommended Improvements

The Emerald Green WWTP requires upgrades to bring the facility into compliance with the current SPDES permit and to extend the life of the facility. It is recommended that a new headworks building be constructed, with a ¼" mechanical influent screen and grit removal provided. New effluent filters and upgraded digesters should also be considered. General upgrades are also required, with mechanical, controls, electrical, structural concrete and site piping repairs required. Measures to reduce I&I in the system should also be considered. The budgetary prices to implement the recommended upgrades is ~ $7,300,000. Rate for single-family households could increase by $354 per year, if no grant funding or low-cost financing is procured. See Appendix D for rate models.

Consideration should be given to the Town's overall sludge management system, with the potential for a new digester and sludge press being considered at the Kiamesha facility. Sludge dewatering at the Emerald Green WWTP is not recommended as the facility has only secondary sludge. Secondary sludge alone does not dewater well. Instead, it is recommended that the various sludge types generated within the Town be consolidated and dewatered at the Kiamesha WWTP. It is estimated that this cost would result in an increase of approximately $36 for the average single family home.

3.3 Kiamesha Lake Sewer District

3.3.1 Kiamesha Lake Sewer District Collection and Wastewater Treatment System Overview and Treatment Requirements

The Kiamesha Sewer District serves the area surrounding and to the east of Kiamesha Lake. Wastewater is collected via approximately 7 miles of district owned sewer collection system piping and three (3) sanitary sewer pumps stations. This system collects and conveys the sanitary sewage to the Kiamesha WWTP. The Kiamesha WWTP was originally constructed in the 1950s as a trickling filter. The facility was upgraded to

the current oxidation ditch (activated sludge) in 1986, with additional upgrades occurring in 1992 and 2018. The facility has a permitted flow of 2,000,000 gpd. The Kiamesha WWTP treatment process consists of mechanical bar screen, grit removal, three (3) oxidation ditches, two (2) secondary clarifiers, followed by effluent filters and disinfection. Sludge management at the Kiamesha WWTP is completed via aerobic digestion and a plate and frame sludge press. The Kiamesha WWTP discharges to Kiamesha Creek via SPDES # NY-0030724. See Appendix B for permit.

The SPDES permit limits for this facility are as follows:

Table 3.3.1 Kiamesha Lake WWTP SPDES Permit Limits – WWTP Discharge

Parameter	Limit
Flow (12 Month Rolling Average)	2,000,000 gpd
UOD (June 1 - October 31) (Daily Maximum)	15.3 mg/l, 260 lbs/day
UOD (November 1 - May 31) (Daily Maximum)	32 mg/l, 530 lbs/day
Total Suspended Solids (daily maximum)	10 mg/l, 170 lbs/day
Dissolved Oxygen (daily minimum)	7.0 mg/l
Ammonia (June 1 - October 31) (Monthly Average)	1.4 mg/l (as N)
Ammonia (November 1 - May 31) (Monthly Average)	2.1 mg/l (as N)
Solids, Settleable (daily maximum)	0.1 ml/l
pH (range)	6.0-9.0
Temperature	Monitor
Coliform, Fecal (30-day geometric mean), in effect from May 1 – October 31	200 / 100 ml
Coliform, Fecal (7-day geometric mean), in effect from May 1 – October 31	400 / 100 ml
Chlorine, Total Residual (daily maximum)	20 ug/l, 0.33 lbs/day

3.3.2 Kiamesha Sewer District Capacity and Operations Review

The Kiamesha WWTP is currently permitted for an ADF of 2.0 mgd. Table 2.6 lists the existing influent hydraulic loading characteristics.

Table 3.3.2 Existing Kiamesha WWTP Hydraulic Loading

Year	*ADF (mgd)	MMDF (mgd)	Max Day (mgd)
2016	0.44	NA	NA
2017	0.46	***0.63	1.71
Average	0.45	NA	NA
Maximum	NA	0.63	1.71

** ADF = Average flow over a calendar year*

*** MMDF = Maximum monthly daily flow (maximum 30-day average flow). The SPDES permit flow limit is based on the MMDF.*

****Occurred April 2017*

As noted, the average flows to the Kiamesha WWTP are within the facility's design and permitted flow. The average influent BOD for 2017 was 126 mg/l. The facility's average to peak flow ratio along with the relatively low influent BOD suggests that there is moderate I&I entering the collection system.

The Kiamesha WWTP is adequately sized to effectively treat the current wastewater generated within the system, with capacity available for future growth provided that I&I removal work is continued within the system.

3.3.3 Kiamesha WWTP Compliance History

The facility has experienced some violations in the last two years. The violations included TSS violations due to shock loading after an industrial discharge to the system along with a UOD and TSS violation. The facility also had violations associated with lack

of record keeping. The Town has prepared a Significant Sewer User Management Plan to prevent future violations resulting from industrial discharges. The UOD and TSS violations were addressed via process control changes and the record keeping issues have been addressed via staff training.

3.3.4 Kiamesha WWTP Recommended Improvements

The Kiamesha WWTP is generally in good condition, with recent upgrades to the facility's headworks, secondary clarifiers and filtration process. The treatment capacity of the oxidation ditches is also sufficient for the current flows. The existing secondary process is dated and inefficient and the system lacks modern automation and controls. Upgrades to the blowers / aeration processes, combined with modern controls throughout the facility can result in significant efficiency increases and associated energy and labor savings.

Other upgrades to increase the life and enhance the efficiency of the facility are also recommended. These include general electrical system upgrades, upgrades to modernize the SCADA system, overall energy efficiency upgrades and miscellaneous architectural and mechanical upgrades and a new maintenance building. The budgetary prices to implement these recommended upgrades to the WWTP ~ $10,343,000. The cost to the average single-family home user would increase by approximately $209 per year among all districts that direct wastewater to the WWTP, if no grant funding or low-cost financing is procured.

The facility's sludge press is undersized for the sludge generation within the Town. Consideration should be given to the Town's overall sludge management system, with the potential for a new digester and sludge press being considered. It is recommended that a septage receiving station be considered in conjunction with the solids processing upgrades. Measures to reduce I&I in the system should also be considered. Note that

the cost for upgrades to the sludge processing (sludge press) is ~ $2,600,000. This would benefit all the of the districts within the Town and is not included in the $10,343,000 upgrade budget. It is estimated that this cost would result in an increase of approximately $36.00 for the average single-family home annual debt rate.

3.4 Melody Lake Sewer District

3.4.1 Melody Lake Sewer District Collection and Wastewater Treatment System Overview and Treatment Requirements

The Melody Lake Sewer District serves the area which was originally developed as the Melody Lake Acres. The district includes 61 residential parcels, with an additional 22 undeveloped residential parcels located within the district. The collection system and WWTP were originally constructed in the mid-1970s, with upgrades to the facility completed in 2016. The facility has a permitted flow of 38,000 gpd and treatment is currently achieved via an activated sludge process. The facility's Engineering Report prepared by MH&E and dated March 2015 provides for the facility's design average flow of 38,000 gpd and the peak hourly flow design of 150,000 gpd. The Melody Lake WWTP treatment process consists of manual bar screen, two (2) aeration basins, two (2) secondary clarifiers followed by chlorination and de-chlorination. The Melody Lake WWTP discharges to Turner Brook via SPDES # NY-0030708. See Appendix B for permit. The SPDES permit limits for this facility are as follows:

Table 3.4.1 Melody Lake WWTP SPDES Permit Limits – WWTP Discharge

Parameter	Limit
Flow (Monthly Average)	38,000 gpd
BOD_5 (Monthly Average)	30 mg/l, 9.5 lbs/day
BOD_5 (7-day Average)	45 mg/l, 14.3 lbs/day
Total Suspended Solids (Monthly Average)	30 mg/l, 9.5 lbs/day
Total Suspended Solids (7-day Average)	45 mg/l, 14.3 lbs/day

Solids, Total Dissolved (Daily Maximum)	1,000 mg/l
Solids, Settleable (daily maximum)	0.3 ml/l
pH (range)	6.0-9.0
Nitrogen, Ammonia, as N (Monthly Average) in effect from May 1 – October 31	11.2 mg/l
Nitrogen, Nitrate, as N (Daily Maximum) in effect from May 1 – October 31	Monitor
Phosphorous, Total, as P (Daily Maximum) in effect from May 1 – October 31	Monitor
Coliform, Fecal (30-day geometric mean), in effect from May 1 – October 31	200 / 100 ml
Coliform, Fecal (7-day geometric mean), in effect from May 1 – October 31	400 / 100 ml
Coliform, Fecal, Nov. 1 – April 30	No limit or monitoring required
Chlorine, Total Residual (daily maximum)	0.1 mg/l

3.4.2 Melody Lake Sewer District Capacity and Operations Review

The Melody Lake WWTP is currently permitted for a MMDF of 38,000 gpd. Table 2.8 lists the existing influent hydraulic loading characteristics.

Table 3.4.2 Existing Melody Lake WWTP Hydraulic Loading

Year	*ADF (gpd)	** MMDF (gpd)
2016	5,000	12,000
2017	8,000	***15,000
Average	7,000	NA
Maximum	NA	15,000

** ADF = Average flow over a calendar year*

*** MMDF = Maximum monthly daily flow (maximum 30-day average flow). The SPDES permit flow limit is based on the MMDF.*

****Occurred January 2017*

As noted, the average flows to the Melody Lake WWTP are well within the facility's design and permitted flow. The Melody Lake WWTP is adequately sized to effectively treat the current wastewater generated within the system, with capacity available for future growth. The facility is approximately 2 years old and in good working condition. The secondary clarifiers do not meet regulatory standards as the clarifier floors lack the sufficient slope or the mechanical means to effectively transfer sludge. The sludge accumulates within the clarifier where the excessive retention time results in floating sludge on the surface of the clarifier.

3.4.3 Melody Lake WWTP Compliance History

The facility has had violations in the last two years. The violations were predominately for TSS exceedance resulting from solids washouts due to rising sludge in the clarifiers and high effluent chlorine residuals due to improper dosing of the de-chlorination (sodium bi-sulfite).

3.4.4 Melody Lake Collection Recommended Improvements

The Melody Lake WWTP is new and limited upgrades are required to bring the facility into compliance with the current SPDES permit and to extend the life of the facility. It is recommended that the secondary clarifiers be modified with hoppers or mechanical upgrades to ensure that the sludge is effectively removed from the clarifiers. The budgetary prices to implement the recommended upgrades is ~ $100,000. Current sewer rates for the average single-family home would increase by approximately $86 per year. See Appendix D for rate models.

3.5 Sackett Lake Sewer District

3.5.1 Sackett Lake Sewer District Collection and Wastewater Treatment System Overview and Treatment Requirements

The Sackett Lake Sewer District serves the areas adjacent to Birchwood Pond, Forest Pond and Sackett Lake. Wastewater is collected via a district owned sewer collection system. This system collects and conveys the sanitary sewage to the Sackett Lake WWTP. The Sackett Lake WWTP has a permitted flow of 500,000 gpd and treatment is currently achieved via a fixed film process. See Appendix B for permit. The Sackett Lake WWTP treatment process consists of manual bar screen, primary clarification, trickling filters, secondary clarification followed by chlorination and post-aeration. The Sackett Lake WWTP discharges to the Sackett Lake Outlet via SPDES # NY-0030716 as follows:

Table 3.9 Sackett Lake WWTP SPDES Permit Limits – WWTP Discharge

Parameter	Limit
Flow (Monthly Average)	0.50 mgd
$CBOD_5$ (Daily Maximum)	10 mg/l, 42 lbs/day
Total Suspended Solids (Daily Maximum)	10 mg/l, 42 lbs/day
Solids, Settleable (daily maximum)	0.1 ml/l
pH (range)	6.5-8.5
Temperature (Daily Maximum)	Monitor
Dissolved Oxygen (Daily Minimum)	7.0 mg/l
Phosphorous, Total, as P (Daily Maximum) in effect from May 1 – October 31	Monitor
Coliform, Fecal (30 day geometric mean), in effect from May 15 – October 15	200 / 100 ml
Coliform, Fecal (7 day geometric mean), in effect from May 15 – October 15	400 / 100 ml
Coliform, Fecal, October 16 – May 14	No limit or monitoring required
Chlorine, Total Residual (Daily Maximum)	2.0 mg/l

3.5.2 Sackett Lake Sewer District Capacity and Operations Review

The Sackett Lake WWTP is currently permitted for a MMDF of 0.50 mgd. Table 2.10 lists the existing influent hydraulic loading characteristics.

Table 3.10 Existing Sackett Lake WWTP Hydraulic Loading

Year	*ADF (mgd)	** MMDF (mgd)
2016	0.126	0.185
2017	0.165	***0.238
Average	0.146	NA
Maximum	NA	0.238

** ADF = Average flow over a calendar year*

*** MMDF = Maximum monthly daily flow (maximum 30 day average flow). The SPDES permit flow limit is based on the MMDF.*

****Occurred April 2017*

As noted, the average flows to the Sackett Lake WWTP are well within the facility's design and permitted flow. The Sackett Lake WWTP is adequately sized to effectively treat the current wastewater generated within the system, with capacity available for future growth.

3.5.3 Sackett Lake WWTP Compliance History

The facility has had violations in the last two years. The violations were predominately for not meeting the percent removal requirements for TSS and BOD. These exceedances are the result of very low influent loadings, rather than treatment deficiencies within the WWTP process. The facility has had violations for pH and DO exceedances which were addressed via process control changes.

3.5.4 Sackett Lake Collection Recommended Improvements

The influent loading for the Sackett Lake WWTP is very low, with an average 2017 influent BOD of 25 mg/l and a low influent BOD of 5.5 mg/l. This is very dilute and indicative of extreme I&I within the collection system. To achieve an 85% removal with an influent BOD of 5.5 mg/l, requires an effluent BOD of < 1 mg/l. There are no cost-effective treatment technologies available which are capable of reaching BOD levels of < 1 mg/l. Instead, it is recommended that substantial I&I removal work be undertaken within the collection system, with no upgrades occurring at the WWTP itself until the I&I issues are addressed. The cost of improvements to the collection system to reduce I&I is estimated at $750,000. This cost would result in a $60 per year increase in debt to the average single-family home user. See Appendix D for rate models.

3.6 Town Wide Sanitary Sewer Needs

3.6.1 Town Wide Solids Handling Processing and Septage Processing / Treatment

The Town currently transfers the sludge generated at all wastewater treatment facilities to the Kiamesha WWTP for dewatering and final disposal. The Town transfers the sludge in an aging 1,500-gallon tanker truck. The Kiamesha sludge press is undersized for the current demands, with the press operated seven days / week. This leaves no available capacity for future growth. It is recommended that upgrades to the Kiamesha WWTP sludge processing be undertaken, with the upgrades considering the sludge management needs of all the Town's facilities. An aerobic digestor process is recommended. With an upgraded sludge management system, the Kiamesha WWTP will have sufficient capacity to accept and treat septage. This can be a revenue generator for the Town and it is recommended that a septage receiving station be considered as part of the Kiamesha WWTP upgrades at a cost of approximately $900,000. Additionally, it is recommended that the tanker truck be replaced with a modern, larger

tanker (approximately $80,000). The sludge digester preliminary project budget is ~ $4,419,750. Across all sewer districts, this facility improvement would be an increase of approximately $37 per year to the average single-family home.

4.0 TOWN OF THOMPSON POTABLE WATER SYSTEM EVALUATION

Water infrastructure in the Town of Thompson is provided in six water districts, with four supplied by wells, treatment, storage and distribution owned and operated by the Town. The Water District that serves the Resorts World Casino is supplied by the Village of Monticello. The Route 42 Water District which encompasses the main commercial hub of the Town just north of the Village of Monticello is supplied by the private Kiamesha Artesian Spring Water Company. The focus of the Master Plan is the four supplied with water owned and operated by the Town and the one supplied by the private water system.

4.1 Town of Thompson Water Infrastructure and Districts

Facility	Water Provided By / Owner	Capacity
Adelaar Resort Water District	Village of Monticello	NA
Cold Spring Water District	Town of Thompson	2 Wells, 2 Booster Pumps, 3,600 LF of Main
Dillon Farms Water District	Town of Thompson	1 Well, 1,200 LF of Main
Route 42 Water District	Kiamesha Artesian Spring Water Company	109,000 gpd Per NYSDEC for Filtration Plant Well
Melody Lake Water District	Town of Thompson	2 Wells, 1 Booster Pump, 4,000 LF of Main
Lucky Lake Water District	Town of Thompson	1 Well, 2,600 LF of Main

4.2 Town-owned Well Systems

The Town of Thompson owns and operates four water districts that are comprised of wells, treatment, storage and distribution. Interviews and basic operational data provided by Town staff indicates that these systems are compliant with regulatory standards and best practices; therefore, extensive review of these systems was not conducted.

4.3 Route 42 Water District/Kiamesha Artesian Spring Water Company

4.3.1 Route 42 Water District

The Route 42 Water District includes 9,600 LF of water main, providing service to a main commercial and residential area of the Town along Route 42 from south of Lake View Drive to the north encompassing Kenny and Krier lanes, lands on both sides of Concord Road to the southern end of Kiamesha Lake and continuing to include Thompson Square and the lands in the Town to the interchange with Route 17. Catskill Regional Medical Center is located within this district as are existing and proposed multi-family housing areas. The current population served by the Route 42 Water District is estimated to be 200.

4.3.2 Kiamesha Artesian Spring Water Company, Inc. (KASWC)

The Kiamesha Artesian Spring Water Company, Inc. (KASWC) is a privately-owned company that produces and supplies potable water to an estimated 450+ residential and commercial users (including the approximately 200 located in the Town's Route 42 Water District) along Route 42 and west of the Kiamesha Lake as well as to the commercial properties north of the Village of Monticello in the Town of Thompson. Water is drawn almost exclusively from a well at the filter plant at the north end of the lake. A second well is located on Frasier Road. The wells are permitted to take 0.109 and 0.096 MGD, respectively. KASWC is permitted to draw 0.274 MGD of water from Kiamesha Lake; however, water from the lake requires filtration. Regardless of source, the water is disinfected using liquid chlorine and pumped

into the distribution system. Water Storage is provided by two steel tanks with a combined capacity of 1.4 million gallons (MG).

Water withdrawals are regulated by the NY State Department of Environmental Conservation (DEC) and the Delaware River Basin Commission (DRBC). Operation of the treatment plant, distribution system and wells are regulated by the Department of Health (DOH) as Public Water Supply No. NY5203344. The rates that are charged by the water company are regulated by the New York State Department of Public Service (DPS). For the purposes of this Master Plan, data obtained from DRBC files, discussion with DOH, and physical observations of the facilities and recent statements of the owner/operators are the basis for the analysis and recommendations.

4.3.2.1 Source of Water Supply

The KASWC is currently permitted to supply water from three sources: a well located at the water filtration plant site, a surface water intake with a filtration system, and a permitted, though undeveloped off-site well.

The well at the filtration plant is reported to have been developed prior to 1900. The well supplies good quality water that requires only disinfection prior to pumping into the distribution system. The well is routinely pumped at 0.13-MGD continuously throughout the summer months and the DRBC permit provides for an average of 0.13 MGD on a 30-day basis. However, the NYSDEC issued 1990 WSA #8468 authorized taking only 0.109 MGD; so reported water usage in the summer typically exceeds the NYSDEC permitted use by 20%. The well is reported as 80-ft deep according to the NYSDEC, but the DRBC records state that it is 110-ft deep. There is no data on the construction of the well or depth of casing to confirm the depth or manner of construction. The water drawn from the well meets routine water quality standards in accordance with NYSDOH regulations. However, the physical features of the well head are not ideal and the well includes a surface outlet in a heated

enclosure that also houses the meter. This water source is presently the primary if not exclusive source for the KASWC.

A second permitted source of water is Kiamesha Lake, the raw water from which must be filtered prior to distribution in conformance with the Enhanced Surface Water Treatment Rule II. The current DEC WSA No. 8684 (1990) authorizes surface water usage of 195-GPM from the lake (which over the course of a year would result in the withdrawal of 100-MG). DRBC Docket D90-68, also entered in 1990, permits a taking of 21-MG per 30-day period which amounts to 252-MG per year. Of these conflicting authorizations, it would appear that the older NYSDEC 100-MG per year (274,000-GPD) limit would take precedence.

The treatment plant was built in 1962 and modified over the years. The plant remains little changed from 1999 following DOH directed improvements. Filtration was to be provided by pressure sand filters with polishing by diatomaceous earth (DE) filters to meet a filtered water standard of 1-NTU. Subsequent DOH inspections from 2003 to 2009 each refer less to filters and imply their use is largely phased out. In 2012 the Operator (Allan Schachnovsky) confirmed that the DE filters were no longer in service. The apparent method of filtration for Kiamesha Lake water (as reported by the Operator in 2012) was the single-stage sand filter; however, it is noted that this treatment method does not meet the standards applied by the NYSDOH. As a result, use of the filtration equipment has been discontinued and the plant is reportedly inoperable at this time. Therefore, the Kiamesha Lake source is unavailable to meet system demands.

The final source of water for the KASWC is the Fraser Road Well #1 which was permitted in 1990 for 0.096 MGD by DEC and DRBC. The well was drilled, tested and permits issued, but no further work has been completed to develop the well or connect it to the system. In order to utilize this water source, a pump and sealed pitless unit would need to be installed, a disinfection system constructed, and a connector line extended to the water mains.

4.3.2.2 Distribution System

The KASWC supplies water to an estimated 450+ residential and commercial users. The service area extends south to the Monticello Mall, north the Anawana Lake, west to Fraser Lake and east to beyond Joyland Road. Over the years a number of extensions have been approved to provide water as needed to a variety of users. The operator's report submitted to the DOH states that the system has approximately 5-miles of water main for which the KASWC provides maintenance; however, based on reported extent of the service area, the water mains owned by the KASWC may be much more extensive.

Due to the age of the original KASWC system, much of the water main is a flush-joint bolted cast iron pipe. The operator reports that there are few water main breaks or leaks. However, it is likely that the mains do leak and occasional breaks are reported which require boil water orders due to low water pressure and/or conduct of repairs. Given the age of many of the mains, the amount of water lost and the frequency of breaks is expected to increase over time.

All water services in the District are reported by the Operators to be metered and billing is based on meter readings. Water storage tanks are located at approximately 1580-ft elevation and provide a pressure of 70 to 80 psi at the water plant. An audit of the water system to assess leakage and losses is not possible since for much of the year the tank is pumped to overflow.

4.3.2.3 Water Storage

The storage tanks are located north of CR 109 across from the old Concord Hotel site on land reportedly owned by KASWC and accessed through easements from others. The original tank reportedly is 440,000 gallons in capacity and dates back to the 1940's. The newer tank was erected approximately 1989 and is 1,000,000 gallons in capacity. This tank was originally

an oil storage tank that was converted for water storage. There is no design information on either tank.

Both tanks were painted in approximately 1989. The 440,000-gallon tank roof has buckled across its entire width, a condition that reportedly occurred within the past two years due to wet heavy snow and rain. The partially collapsed roof renders this tank unreliable and undesirable for service.

4.3.3 Summary and Recommendations

While the primary KASWC well is a reliable source of supply, it is the only viable source of supply for this water system which presents a vulnerability in the water system that serves a primary commercial and multifamily area of the Town. The physical infrastructure of the water system including the filtration plant facilities, storage tanks and distribution system are in varying states of disrepair and physical observation reveals a substantial lack of required maintenance over a long period of time. Necessary investments in this private water system have not occurred beyond emergency repairs necessary to continue operations. The level of service is lacking as demonstrated through numerous failed attempts by several proposed development projects to secure service.

The recommended improvements to the existing system include at a minimum in priority order:

1. Conversion of Fraser Road Well # 1 into a production well complete with well-head protection, a pitless pump unit, meter, disinfection system and connection into the existing water main system to provide a redundant and reliable additional source of water to address demands in excess of the permitted capacity of the treatment plant site well and to provide water supply for future users. A budget cost for this priority is: $ 500,000 - $650,000.

2. Modernization of the well head and pump system for the treatment plant site well to include well head protection and a modern sealed pitless unit. A budget cost for this priority is: $50,000.

3. Repairs to the 440,000-gallon tank and re-coating of both tanks (which is likely to require lead abatement) or replacement of these tanks with one or more tanks of modern construction (either glass lined steel or concrete) to provide reliability and longevity. A budget cost for this priority is: $ 1,000,000.

4. Evaluation of the accuracy of master meters at the wells as well as customer metering as a means to ensure proper billing and system revenue as well as determine the quantity of lost water due to aging mains. With a second source on line and repaired water tanks, it will be possible to conduct a water audit to determine lost water quantity and address it as outlined in priority 5 herein. Repair or replace meters as necessary. A budget cost for this priority is: $195,000 ($15,000 water audit; $180.000 (450 meters x $400 per meter) for meter replacement.

5. A systematic replacement of the flush-joint bolted cast iron mains to address water loss and improve reliability with respect to the transmission of water. A budget cost for this priority is $200,000 per year each year.

6. Abandonment of the surface water treatment system. Consideration could be given to maintaining the surface water withdrawal permit and planning for future construction of a filtration plant to meet Surface Water Treatment Rules; however, the capital and operating costs of such a system will be significantly greater than those of operating the two wells and disinfections systems, so this may not be a viable alternative. A budget cost for this priority is $50,000 (to abandon the system).

The total cost for all priorities is $1,950,000 for capital expenses and $200,000 a year for on-going water line replacements.

Given the history of disinvestment in this system and the vulnerabilities which are significant as well as the importance of potable water to the economic and social vitality of the Town, every effort should be made to work with and encourage the owner of the system to conduct the recommended improvements in the very near term.

Failing immediate action by the owner, the recommendation is that the Town takes steps to acquire the water system through a willing buyer-willing seller arrangement or eminent domain proceeding, if necessary. The acquisition of the water system by the Town would require an appraisal of the physical infrastructure including depreciation, appraisal of real property, and cash assets and liabilities of the water system to establish a reasonable price.

5.0 PRIORITY LIST OF SEWER SYSTEM IMPROVEMENTS AND RECOMMENDED BUDGETS

IMPROVEMENT	BUDGET	POTENTIAL FUNDING SOURCE	PRIORITY
Dillon Farms Sewer District			
Additional Septic Tank and Replacement of Filter Media	$150,000	SAM	Immediate
I&I Removal	$	Sewer Rents	On-Going
Abandon and connect to Village	$900,000	WQIP/WIIA	Short-term
Emerald Green-Lake Louise Marie Sewer District			
New Headworks with Mechanical Screen, Grit Removal, Effluent Filters, Digesters & General Repairs	$7,300,000	WQIP/WIIA	Short-Term
I&I Removal	$	Sewer Rents	On-Going
Kiamesha Lake Sewer District			
Upgrades to Blowers/Aeration, Control Systems, General Upgrades, Energy Efficiency	$10,343,052	WIIA/WQIP	Mid-term
I&I Removal	$	Sewer Rents	On-Going
Melody Lake Sewer District			
Modify Secondary Clarifiers to Ensure Sludge Removal	$100,000	SAM/WIIA/Rents	Immediate
Sackett Lake Sewer District			
I&I Removal to Reduce Dilution of Influent to Allow Percent Removal Compliance	$750,000	WIIA/WQIP	Short-term
Town-Wide Sanitary Sewer Needs – Infrastructure at Kiamesha Lake WWTP			
Digestor	$4,419,750	WIIA	Mid-term
Dewatering Press	$900,000	WIIA	Mid-term
New Tanker Truck	$80,000	SAM	Mid-term
Septage Receiving Station – Revenue Generation	$500,980	WIIA	Mid-term
Total of All	**$25,443,782**		
Immediate	**$250,000**	2019	
Short-term	**$8,950,000**	Within three years	
Mid-term	**$16,243,782**	Within five years	

6.0 OPPORTUNITIES AND CONSTRAINTS

Opportunities and constraints in the Town of Thompson with respect to potable water include:

Water System	Opportunity	Constraint
Town-Owned Well Systems	Local Control; Regulatory Compliant; Minimal Capital Needs; Minimal Operations and Maintenance Costs	Disparate Systems with Small Customer Bases to Fund Costs of Capital, Operations and Maintenance Costs
Village of Monticello	Recent Investment in Infrastructure; Reasonable Costs to Users	Requires Intermunicipal Cooperation for Access
Kiamesha Artesian Spring Water Company	Serves Area with Major Potential for Commercial and Multi-family Housing Development	Disinvestment by Private Owner; Lack of Redundant Raw Water Supply; Cannot Meet Future Demands

Opportunities and constraints in the Town of Thompson with respect to wastewater collection and treatment include:

Sewer Systems	Opportunity	Constraint
Town-Owned Systems	Local Control; Robust Housekeeping and Recent Maintenance; Excess Capacity all Systems but One if I&I is Controlled	Disparate Systems with Small Customer Bases to Fund Costs of Capital, Operations and Maintenance Costs; Regulatory Compliance Issues; I & I; Aging Infrastructure
Village of Monticello	Recent Investment in Infrastructure; Reasonable Costs to Users	Requires Intermunicipal Cooperation for Access

The excess capacity that is available in the wastewater treatment systems in the Town, with the exception of Dillon Farms, is a significant asset and benefit to the Town as shown in the following Table 6.1. However, the excess capacity is only valuable if the facilities are permit compliant and I&I is reduced.

Table 6.1 Town-Owned WWTP Hydraulic Capacities

WWTP	SPDES Permit	Current MMDF	Limitations
Kiamesha Lake	2,000,000 GPD	630,000 GPD	I&I, efficiency, solids processing and controls
Dillon Farms	1,600 GPD	6,500 GPD	Undersized WWTP
Emerald Green	410,000 GPD	350,000 GPD	I&I, headworks and controls
Melody Lake	38,000 GPD	15,000 GPD	Clarifiers
Sackett Lake	500,000 GPD	238,000 GPD	I&I

MMDF = Maximum Monthly Daily Flow (30-day average flow) for SPDES Compliance

7.0 FINANCIAL ANALYSIS

Given that the economic opportunity area for water service is the Route 42 Water District and this area of the Town is provided water by a private water company, the focus of the financial analysis and rate modeling is the Town-owned and operated sewer systems.

7.1 Methodology

To accomplish the Financial Analysis, a review of the detailed operating budget for the sewer systems as well as debt schedules for existing obligations was conducted. Among the objectives of the Financial Analysis is a Rate Study to support the equitable distribution of costs. See Appendix C for a summary of the rent method analysis.

The information from the Infrastructure Master Plan with respect to capital plans for the sewer system improvements including annual repair and maintenance were considered with respect to potential future debt obligations.

Additionally, the analysis identified likely sources of financing for the various improvements as well as opportunities to consolidate districts.

Once this information was gathered and analyzed, it was modeled to evaluate the current fiscal situation as well as potential rate scenarios. A rate model using an Excel spreadsheet was created. It re-creates present day fiscal conditions including current revenues and expenses and then is constructed to evaluate a number of future scenarios involving rate structures. For each scenario, the impact on rate payers was evaluated based on the current rate structure as well as modification of the rate structure. The rate modeling is presented in Appendix D.

7.2 Summary Results

Thompson Town Code Part II, Chapter 194, establishes sewer rent rates for each district. Many of the district's rents are calculated based on points for land use types in the Schedule of Points at 194-46. The 2018 budgets for sewer district capital and maintenance costs were compared to revenue generated according to property and point information for 2018. The 2018 calculated revenue for several sewer districts fairly closely matched to the amount budgeted, however several did not, indicating that another method was being utilized for billing in that district. In some cases, the Code states that calculation of rents will be based on "existing available data" but it appears that the Schedule of Points at Table 194-46 was utilized.

Direct comparisons between sewer districts are not straight forward as there are a variety of billing methods employed. Information, such as number of apartments, lots, washrooms, acres or assessed value used was not available for understanding or re-assigning points to commercial, medical and some residential properties.

It should be noted that the Town Code was written at various points in time and defines the state of infrastructure during those timeframes. Therefore, it is not entirely reflective of actual conditions at the present. The Code was last updated in 1993, while the Table was last updated in 2003. The Harris system rents procedure lists the medical facility as the only user, which is no longer the case. The Adelaar system is not included in the Code, but currently has several developments recently come online and several more to come.

The Dillon Farms Sewer District is a small collection and treatment system of single-family residences. Billing formula is based on Table 194-96. See Appendix C for analysis summary. For this district the billing method is straight forward; however, it is recommended that this small district's WWTP be abandoned and the district consolidated with the Cold Springs and Harris Sewer Districts for treatment at the Monticello WWTP. The consolidation of these

systems would mean that the annual operation and maintenance costs and capital costs would be shared over a larger number of users. Modelling estimations show that the annual cost to Dillon Farms single-family users would decrease by approximately $408, while those of Cold Springs SFH users would decrease by approximately $30 and Harris SFH users would increase by $41 (not including the Catskill Regional Medical facility flat rate as this facility has no points assigned). See Appendix D for rate models.

The Emerald Green-Lake Louise Marie Sewer District is composed primarily of single-family residences with some multi-family residences, vacant land, a few commercial enterprises and recreational facilities as well as a few education and health care and community services facilities. Billing is based on Table 194-96 and the budgeted costs are met by this formula. The WWTP requires upgrades for compliance with regulations. The typical single-family residence would see an increase of $354, if no grant funding or low interest loans are secured. See Appendix D for rate models.

The Rock Hill Sewer District consists of a few single and multiple family residences, vacant residential parcels, several small commercial enterprises, a dentist, a junkyard, a supermarket and a motel. This Sewer District flows to Emerald Green WWTP. Sewer rents charged to Rock Hill are based on water usage, with a minimum rate charged for 90,000 gallons annually for residential and small commercial users, and 180,000 gallons annually for other commercial users. See Appendix A for Sewer Rents code.

The Kiamesha Lake Sewer District is composed largely of single-family residential (both occupied and vacant) properties, multi-family properties, apartments, cottages, bowling and outdoor swimming facilities, schools and community services (water and wastewater treatment). Sewer rents are to be based on “existing available data” according to the Sewer Code, however modelling suggests that the actual method is based on use of the points in Table 194-46 (Kiamesha 7.5 points). Three other sewer districts send wastewater to the Kiamesha WWTP for treatment. Proposed upgrades to the Kiamesha WWTP in order to

meet updated SPDES permit discharge limits for fecal coliform and total chlorine residual, and to ensure the plant's long-term viability could cost $11 million. The Town is submitting a grant proposal to lower these costs. Sharing the remaining upgrade costs among the user sewer districts in an equitable manner is recommended. Modelling of the potential rate changes highlighted some difficulties in that several of the sewer districts that send wastewater to Kiamesha WWTP are billed by different methods.

Other improvements to Kiamesha WWTP, including sludge management would benefit all Town of Thompson sewer districts, while septage receiving capabilities is a service that serves a community need while being a revenue source for the WWTP. These costs would be shared among all sewer districts with revenue intended to off-set some, most or all of that cost on an annual basis. There is a robust local septic hauling industry in search of permitted facilities for disposal of septage and a local facility stands to benefit substantially from this need. The Town is submitting grant requests for financial assistance for a full WWTP upgrade including improvements to sludge handling that will benefit all sewer districts. See Appendix D for rate models.

The Sackett Lake Sewer District is primarily single-family residential with several multi-family residences, vacant land, a few commercial properties consisting of a bar, bungalows and distribution facility, swimming areas and a health spa, and community services. In the Town Code, Sewer rents are to be based on "existing available data"; however, modelling suggests that the actual method is primarily based on use of the points system in Table 194-46. Upgrades to lessen inflow and infiltration to improve wastewater treatment would result in an approximately $60 increase in the rate to the typical single-family residence.

The Melody Lake Sewer District is primarily single family residential with vacant parcels as well. Town Code says billing will be based on a formula of a rate for house and lot. According to modelling it appears that this formula is the point system at Table 194-46. The modelled annual revenue closely matched the amount budgeted. With recommended WWTP

improvements the annual capital rate for a single-family residence would increase by $86. See Appendix D for rate models.

Table 194-96 appears to be an equitable method for cost distribution; however, it is lacking in points definitions for medical facilities. Therefore, there is presently no one equitable method by which sewer costs can be assigned to these facilities. As the Town includes several large medical facilities it would be advantageous to update the Code and Table to include a consistent method by which these facilities are charged, perhaps by points for the base building plus number of washrooms or by metered water usage data.

Table: Sewer District analysis summary

Sewer District Name	**SD No.**	**Match between budget and calculation (2018 data)**	**Notes**
Sackett Lake	SD070	Within $6,000 total	Code states based on existing data but appears to be based on Table
Kiamesha Lake	SD071	Within $2,000 total	Code states based on existing data but appears to be based on Table
Melody Lake	SD072	Within $1,500 total	Code states based on existing data but appears to be based on Table
Harris	SD073	Within $500 O&M only	Appears to be based on Table, with Medical Center at a flat rate (no points).
Dillon Farm	SD074	Matched	Table 194-46

Anawana Lake	SD075	Within $4,500 O&M only	Table 194-46
Cold Spring	SD076	Within $1,500 O&M only	Table 194-46
Emerald Green Lake Louise Maria	SD077	Within $1,500	Table 194-46
Rock Hill	SD078	Not budgeted by points	Charged by water usage per residential and commercial
Harris Woods	SD079	Matched	Not included in Code, apparently based on Table
Adelaar Lake	SD080	Matched	Not included in Code; Town gives developer the budget, costs according to water usage.

Notes: Table is Schedule of Points 194-46

7.3 Capital Financing Opportunities and Strategies

Given the regulatory status, capital improvement needs identified, demographic profile and economic opportunities in the Town of Thompson, the Town is well positioned to take advance of a variety of state and federal low-cost financing and grant programs. Key to maximizing these opportunities is understanding the full scope of all improvements and matching the financing that will result in the lowest user cost to each project.

Each grant program is operated by an agency under a program specific timeline for announcements of availability of funds, application due dates, award notices and execution of agreements for assistance which allows the grantee to obtain funds from

the grantor. To assist in understanding the opportunities available to the Town, a brief description of the programs and timeframes for each aspect of relevant is presented in this section.

- ***State Revolving Loan Fund (Loan and Grant Program)***

The Drinking Water and Clean Water State Revolving Loan Funds (DWSRF and CWSRF) programs fund the vast majority of municipal water and sewer infrastructure in the State for which outside sources of funds are sought. The programs function on a Federal Fiscal Year (FFY) calendar, with an Intended Use Plan (IUP) published effective on October 1 of each year listing projects for which funds may be encumbered during the following fiscal year. In order to receive program funds, a project must be listed on the Annual List which requires submission of a listing form, a Preliminary Engineering Report (PER), and a Smart Growth Assessment generally in late August.

Once a project is listed on the Annual List and a community determines it will proceed with the project, an application for financing is submitted by late June of the following year.

The application for financing must include an application form, documentation that the State Environmental Quality Review Act (SEQRA) has been conducted, the State Historic Preservation Office has been consulted, and any special districts have been created among other requirements. If a Special District is required to be formed, documentation that the district has been formed, including review by the Office of the State Comptroller if necessary, is required. And, a bond resolution with referendum period concluded is also required.

If a complete application is submitted by late June, financing can usually be closed before the end of the same year. Short term financing is available to support project

development and construction costs at no cost or very low interest rate for two to three years after which long term financing is established with interest rates ranging from zero percent interest through market rate financing. To the extent that the community qualifies for a grant (based on environmental/public health need and ability to pay), the community borrows less over the long term, reducing annual debt service and impacts to the customer rates.

The SRF program accommodates adjustments to project cost and scope through submission of engineering amendments and budget updates. If project costs change beyond anticipated contingency, it may be necessary for the community to issue short term borrowing; however, all eligible, approved project costs are rolled into long term financing and any additional short-term borrowing is defeased.

Generally, the SRF process requires approximately 18 months from initiation any given spring (preparation of an engineering report and associated documents) through to the late end of the following year. Because the program has hard deadlines, there is no opportunity to speed the application process.

- ***State Water Infrastructure Improvement Program (Grant)***

  The NYS Legislature initially committed $400 million in grant funds in the State Budget towards the Water Infrastructure Improvement Program over three fiscal years spanning 2015, 2016 and 2017. In 2017, the Legislature expanded the program through the Water Infrastructure Improvement Act (WIIA) and Intermunicipal Grant (IMG) programs to $2.5 billion over a five-year period for a variety of programs focused on water quality. The WIIA program works in concert with the SRF programs discussed herein with application materials for projects intending to make use of SRF funds for the balance of project costs mirroring the SRF

financing requirements. However, communities may also submit applications for grant without SRF financing if other sources of funds will be used to

For funding rounds to date, up to 60% or $3 million of eligible drinking water project costs and up to 25% or $5 million of eligible wastewater project costs have been awarded to recipients. While public health, environmental impact and consumers ability to pay for improvements are considered, this grant program is unique in that it may be awarded to projects that do not achieve a high ranking based on IUP scoring criteria but that are vital to the long term sustainability of public infrastructure.

- ***US Department of Agriculture Rural Development (Loan and Grant Program)***

The USDA accepts pre-applications for loan and grant packages to support community infrastructure on a rolling, invitation basis. Submission of a pre-application incorporates an application form, engineering report, environmental review and other fiscal and legal documentation. Upon receipt of a completed pre-application, the USDA will invite submission of a full application. Once a complete application is submitted and accepted, closing on financing occurs within several month time.

The overall process to obtain USDA RD funding is a multi-step process without hard timeframes, so it can be difficult to predict the timeframe for agency reviews. The agency's workload fluctuates but staffing does not and staffing is geographically assigned, so if there are many projects being submitted in the same geographic area, it can take time for the agency to review all materials.

The USDA RD program does not accommodate project cost and budget costs per se. Minor modifications within the overall scope and contingency are acceptable, but significant changes in scope or budget are generally not accommodated by the RD

program. Therefore, appropriate and detailed project planning is key to a successful USDA RD project.

- ***Consolidated Funding Applications: DOS Local Waterfront Revitalization, OCR Community Development Block Grants, DEC Water Quality Improvement Program, DEC Green Infrastructure Grant Program, OPRHP Parks Grant Program, ESD Infrastructure Investment, New York State Energy Research and Development (NYSERDA)***

The Consolidated Funding Application (CFA) process was borne from the State combining the grant activities of over ten state agencies administering nearly 30 grant programs into a single, annual action, directed by regional councils and under the review and approval of the agencies and the Governor's Office. This process has operated for a number of years, aggregating between $800 million and nearly $1 billion dollars annually in state aid through various programs.

The application schedule involves a call for applications in the early summer each year, with applications due towards the end of summer. Grant awards have been announced in December, with State Assistance Agreements executed in the spring or summer of the following year and funds available thereafter in the same year. The overall schedule from application to funding is about a year, driven by the state's process.

7.4 Recommendations

It is recommended that the Dillon, Harris and Cold Spring sewer district are consolidated as each flows to the Monticello WWTP.

It is also recommended that the Adelaar, Anawana, Harris Woods and Kiamesha sewer districts be consolidated into one large district as each flows to the Kiamesha WWTP.

It may be prudent to consolidate the Emerald Green-Lake Louise Marie Sewer District with the Rock Hill Sewer District, using base average flow rates as in Rock Hill SD or points as in Emerald Green SD as a common method of assessment.

It is recommended that the Sewer Rent Code be updated to reflect current sewer district status when consolidations have been made. A summary of rates budgeted to points assessed for 2018 compared to calculated sums actual points shows the very disparate methods utilized to bill the different sewer districts.

- Town Code Table 194-46 currently does not include medical facilities points. Because of differences in facility sizes and uses, the simplest method of charging for sewer may be by metered water usage.

- The Code does not include Adelaar; points system currently used for Adelaar apparently charges one point for all users except the medical facility, as if they were all vacant properties; however, several developments have started-up recently and need to be included in the accounting. According to the Town, the annual budget is given to the developer who divides the budget amongst the users by water meter use. In order to ensure an equitable distribution of costs among all users, the Adelaar development area should carry points or water usage data in an equivalent manner to the other sewer districts so that the annual budget is equitable among the users and the portion of costs associated with Adelaar can be sent to the developer for division among users.

- In the Harris Sewer District, the Discovery Center is charged by points at two locations; however, there are many buildings so it is difficult to ensure equity among the users. Catskill Regional Medical Center pays an annual flat rate; however, it is not known how or if this cost is associated with the actual demands of the facility. It is

recommended that the assessment of sewer costs is tied to demand or land use across the board.

- Within the Kiamesha Sewer District, the currently code for single family homes (RPS land use 210) is assessed at 7.5 points while in other sewer districts, the single-family homes are assessed at 10 points. If land use points are to be used to assess costs, it would be prudent to standardize the assessment of points to avoid confusion and create a more transparent, equitable system of charges.

It would be ideal to work towards a rate structure across the sewer districts where a one or perhaps two common methods of assessment are utilized. In recognition of the fact that some areas are metered so demand can be used for charges and others are not so land use may be more suitable, efforts should be made towards standardization, including the methods used to assess capital costs against benefitted vacant parcels.

APPENDIX A

Town of Thompson Code, Part II, Chapter 194 Sewer, Part 2 Sewer Rents

Part 2
Sewer Rents

ARTICLE VIII
Harris Sewer District

§ 194-35. Imposition of rents.

Pursuant to the authority of Article 14-F of the General Municipal Law, known as the "Sewer Rent Law of the State of New York," and any and all amendments thereto, there are hereby established and imposed sewer rents as a means of producing revenue for the Harris Sewer District in the Town of Thompson.

§ 194-36. Definitions and word usage.

A. Definitions. As used in this article, the following terms shall have the meanings indicated:

HARRIS SEWER DISTRICT — As presently constituted, has within its bounds the premises and buildings or structures of the Community General Hospital of Sullivan County, the present only user of the Harris Sewer District System, and a number of other parcels of vacant or unimproved land.

SEWER DISTRICT — Harris Sewer District, Town of Thompson, as heretofore established by the Town Board of said Town.

SEWER RENT FUND — The fund established by the Supervisor upon authorization of the Town Board of the Town of Thompson, into which fund shall be deposited the sewer rents established, imposed and collected in accordance with the provisions of this article.[1]

SEWER SYSTEM — Includes the collection and disposal system recently constructed by and for the Harris Sewer District, consisting of a gravity interceptor, two wastewater pumping stations and a force main interceptor sewer system, through and by which wastewater from the Harris Sewer District will flow to the Village of Monticello sewer system at Jefferson Street for treatment at the existing Village Sewage Treatment Plant until completion and operation of a joint Town of Thompson - Village of Monticello wastewater regional treatment facility, when the wastewater from the Harris Sewer District will be treated at the latter facility.

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1. Editor's Note: The definition of "Sewer Superintendent," of the 1981 Code, which immediately followed this definition, was repealed 10-21-2003 by L.L. No. 7-2003.

B. Terms generally. The terms "sewer rents," "sewer system," "part," "sewage," "industrial waste" and "other wastes" shall be as defined in § 451 of the General Municipal Law.

§ 194-37. Disposition of Sewer Rent Fund.

A. Revenue derived from sewer rents, including penalties and interest, shall be credited to a special fund, to be known as the "Sewer Rent Fund." Moneys in such fund shall be used in the following order:
   (1) For the payment of the costs of operation, maintenance and repairs of the sewer system, or such part or parts thereof for which sewer rents have been established and imposed.
   (2) For the payment of the interest on and amortization of, or payment of, indebtedness which has been or shall be incurred for the construction of the sewer system or such part or parts thereof for which sewer rents have been established and imposed (other than indebtedness, and the interest thereon, which is to be paid in the first instance from assessments upon benefited real property).
   (3) For the construction of sewage treatment and disposal works with necessary appurtenances, including pumping stations, or for the extension, enlargement or replacement of, or additions to, such sewer systems, or part or parts thereof.

B. Such revenues from sewer rents shall not be used to finance the cost of any extension of any part of a sewer system (other than any sewage treatment and disposal works with necessary appurtenances, including pumping stations) to serve unsewered areas if such part has been constructed wholly or partly at the expense of real property especially benefited or for the payment of the interest on and the amortization of, or payment of, indebtedness which is to be paid in the first instance from assessments upon benefited real property.

C. It is understood that the costs of operation and maintenance as provided in Subsection A(1) hereinabove shall include the payments required to be made by the Town of Thompson acting for the Harris Sewer District in its contract, dated January 20, 1976, entered into with the Village of Monticello for the treatment of the Harris Sewer District wastewater at the existing treatment plant until completion of the joint Town-village treatment facility as hereinabove set forth and that, after the completion of said joint plant and the treatment of the Harris wastewater, the district Sewer Rent Fund revenues shall also be used to pay toward the operation, maintenance and repair of said Town-village treatment facility and toward any portion of the debt service on the indebtedness incurred for the construction of the joint plant as

shall be provided in the applicable intermunicipal agreement entered into between the Town of Thompson and the Village of Monticello.

§ 194-38. Computation of sewer rentals. [Amended 11-16-1993 by L.L. No. 12-1993]

The Town Board, prior to December 31 of each year, shall cause to be prepared a statement setting forth as sewer rentals the estimated amounts as required for the ensuing fiscal year for the purposes constituting the Sewer Rent Fund and which shall be used for the purposes and in the order provided in § 453 of the General Municipal Law. The same shall be based upon a formula using the master sewer readings for the district. The payment of the amount set forth in the annual statement (not later than March 1) each year shall be made within 30 days of the date of the mailing of the statement to the property owner without discount or penalty. A penalty of 5% of the amount of the sewer rent statement shall be added thereto after the thirty-day period if unpaid, and 1/2 of 1% for each additional month or portion thereof that the sewer rent remains unpaid.

§ 194-39. Review and revision of costs and charges.

A. The Town shall annually review the total cost of operation and maintenance of the treatment works and revise the charges in order to accomplish the following:
   (1) Generate sufficient revenue to pay the total operation and maintenance costs necessary to the proper operation and maintenance (including replacement) of the treatment works; and
   (2) Apply excess revenues collected to the cost of operation and maintenance for the next year and adjust the rate accordingly.
B. The annual bill shall give a breakdown of the rate and portion of the charges attributable to wastewater treatment services.
C. The user charge system shall take precedence over any terms or conditions of agreements or contracts between the Town and users (including industrial users, special districts, other municipalities or federal agencies or installations) which are inconsistent with the requirements of Section 204(b)(1)(A) of the Act[2] and these regulations.

§ 194-40. Rents to constitute lien.

Sewer rents shall constitute a lien upon the real property served by the sewer system or such part or parts thereof for which sewer

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2. Editor's Note: See 33 U.S.C. § 1284(b)(1)(A).

rents are hereby established and imposed. The lien shall be prior and superior to every other lien or claim, except the lien of an existing tax assessment or other lawful charge imposed by or for the State of New York or political subdivision or district thereof.

§ 194-41. Cooperation of owners of real property.

The Sewer and Water Superintendent may require every owner and/or occupant of real property within the Sewer District to furnish him with such information as may be necessary and reasonable in order to carry out the provisions of this article. It shall be permissible for the Sewer and Water Superintendent or other properly authorized person employed by the Sewer District to enter upon real property at reasonable times for the purpose of obtaining such information as may be necessary to carry out the provisions of this article.

§ 194-42. Collection authority.

The Town Board of the Town of Thompson shall have the authority to collect sewer rents as provided in Subdivisions 3 and 4 of § 452 of the General Municipal Law.

ARTICLE IX

Dillon Farms Sewer District, Kiamesha Lake Sewer District, Melody Lake Sewer District and Sackett Lake Sewer District

[Added 12-15-1981 by L.L. No. 9-1981]

§ 194-43. Imposition of rents.

Pursuant to the authority of Article 14-F of the General Municipal Law of the State of New York, titled "Sewer Rent Law," and any and all amendments thereto, there are hereby established and imposed sewer rents as a means of producing revenue for the Dillon Farms Sewer District, Kiamesha Lake Sewer District, Melody Lake Sewer District and Sackett Lake Sewer District in the Town of Thompson and any sewer district created after the enactment of this article by said Town of Thompson in accordance with the statutes in such case made and provided.

§ 194-44. Definitions; interpretation.

A. Definitions. As used in this article, the following terms shall have the meanings indicated:

PART — As used in relation to the term "sewer system," all lateral sewers or all branch sewers or all interceptor sewers or all trunk sewers and any sewage treatment and disposal works and private on-site wastewater disposal systems, each part with necessary appurtenances, including sewage pumping stations.

SEWER DISTRICT — Dillon Farms Sewer District, Kiamesha Lake Sewer District, Melody Lake Sewer District and Sackett Lake Sewer District of the Town of Thompson, as heretofore established by the Town Board of the Town of Thompson, or any sewer district created hereafter by said Town Board of the Town of Thompson in accordance with the statutes applicable thereto.

SEWER RENT FUND — The fund established by the Supervisor upon authorization of the Town Board of the Town of Thompson, into which fund shall be deposited the sewer rents established, imposed and collected in accordance with the provisions of this article.[3]

SEWER SYSTEM — All sewer pipes and other appurtenances which are used or useful in whole or in part in connection with the collection, treatment or disposal of sewage, industrial waste and other wastes and which are owned, operated or maintained by the Town of Thompson acting for and on behalf of its sewer districts as defined herein, including sewage pumping stations

and sewage treatment and disposal works and private on-site wastewater disposal systems, if any.

B. In the event of any conflict between the definitions contained herein and the definitions contained in § 451 of the General Municipal Law with respect to the imposition of sewer rents, the definitions provided for in said § 451 of the General Municipal Law shall control.

§ 194-45. Sewer rents.

The Town Board of the Town of Thompson shall, from time to time as hereinafter provided, adopt by resolution a scale of annual charges which shall establish and impose in the various sewer districts of the Town the charges for the use of the sewer system or any part or parts thereof. Such charges to be established and imposed by the Town shall be based on either:

A. The consumption of water on the premises connected with and served by the sewer system or such part or parts thereof;
B. The number and kind of plumbing fixtures on the premises connected with and served by the sewer system or such part or parts thereof;
C. The number of persons served on the premises connected with and served by the sewer system or such part or parts thereof;
D. The volume and character of sewage, industrial waste and other waste discharged into the sewer system or such part or parts thereof; or
E. Upon any other equitable basis determined by the Town Board, including but not limited to any combination of the foregoing.

§ 194-46. Schedule of points. [Added 12-1-1992 by L.L. No. 6-1992]

A. The Town Board of the Town of Thompson hereby determines that the schedule of rates for capital improvements and operation and maintenance expenses for properties included in each of the sewer districts and extension thereof of the Town of Thompson be computed as follows:

Item	Sections	Rent Points	Debt Points
A	Single-family dwellings	10	10
AA	Single-family dwellings, Kiamesha Sewer District	7.50	7.50

3. **Editor's Note: The definition of "Sewer Superintendent," of the 1981 Code, which immediately followed this definition, was repealed 10-21-2003 by L.L. No. 7-2003.**

Item	Sections	Rent Points	Debt Points
B	Two-family dwellings	20	20
C	Apartment		
	One-bedroom	7	7
	Two-bedroom	8	8
	Three-bedroom	10	10
CC	Single-room occupancy	4	4
D	Mobile homes, first unit or trailer	10	10
E	Motels		
	First unit and office	10	10
	Additional units		
	Sleeping units, each	6	
	Efficiency units	5	7
F	Hotels		
	First unit, office, kitchen, dining room	10	10
	Additional units		
	Sleeping units	4	6
	Efficiency units	5	7
G	Units (unheated and/or bungalow)		
	All districts, except Kiamesha	5	10
	Sewer units, Kiamesha Sewer	7.50	7.50
	With day camps and/or school facilities	15	15
H	Commercial office and small store buildings		
	Primary building	20	20

Item	Sections		Rent Points	Debt Points
		Plus additional points for each 35,000 of assessed valuation or portion thereof in excess of 200,000 assessed valuation	10	10
		Plus additional points each washroom	13	13
I	Commercial residential (office in house)		20	20
J	Laundromats, restaurants and grocery stores			
		Primary building	20	20
		Additional points for each 12,000 cubic feet of water consumed, predicated on prior year's peak recorded water consumption **[Amended 11-16-1993 by L.L. No. 12-1993]**	10	10
K	Subdivided lots:			
		Each buildable lot	0	3
		Each commercial lot	0	3.50
		Each water front lot	0	4
		Acreage	0	5
L	Improved recreational facilities, including community centers, clubhouses, pool facilities, day camps		20	20
	Additional points: day camps, each 100 attending		20	20
M	Recreational acreage, including but not limited to golf courses, parks, per acre, without facilities		0	5
N	Institutions			

Item	Sections		Rent Points	Debt Points
		Schools, each 100 pupils	20	20
		Churches, each 100 members	10	10
		Membership, each 100 members	10	10
O	Special classifications: parcels or units which are included in the district and cannot be feasibly served at this time by the sewer or water shall be given special consideration by the Town Board for minimal points, as follows		00	0.001
P	Commercial gas stations		30	30
Q	Resort hotels (per room)		9	9
R	Outside users shall be assigned points on the same basis and using the same formula used for all parcels within the district, except if such outside user is a municipal government, in which case the Town and such municipal government may by contract agree on the charge to be imposed for use of such sewer system, which such contract may include the successor to such municipal government. **[Added 11-16-1993 by L.L. No. 12-1993; amended 11-7-2000 by L.L. No. 3-2000]**			

B. Sewer district rents. The current sewer rents established by the Town Board are on file in the office of the Town Clerk. **[Added 12-1-1992 by L.L. No. 7-1992; amended 12-21-1993 by L.L. No. 13-1993; 11-22-1994 by L.L. No. 8-1994; 12-19-1995 by L.L. No. 5-1995; 12-17-1996 by L.L. No. 10-1996; 12-2-1997 by L.L. No. 10-1997;**

11-20-2001 by L.L. No. 13-2001; 12-3-2002 by L.L. No. 7-2002; 10-21-2003 by L.L. No. 7-2003]

§ 194-47. Computation of sewer rentals. [Amended 12-1-1992 by L.L. No. 6-1992; 11-16-1993 by L.L. No. 12-1993]

The Town Board shall, prior to December 31 of each year, cause to be prepared a statement setting forth as sewer rentals the estimated amounts for the ensuing year in accordance with the provisions of General Municipal Law Article 14-F, § 194-38 of this Part 2 and Subsections A, B and C of this section, the same to be based on existing available data. The estimated annual charge for the ensuing year shall be based upon operating data from the previous year, unless another formula for the computation of said rate is provided for in Subsections A, B and C hereof. The estimated annual charge for a given year shall be adjusted to an actual charge by the Town Board during the following year when the actual operating data is available for that year. Unless otherwise provided for herein, the payment of the amount set forth in the annual statement for each year shall be made within 30 days of the date of the mailing of the statement to the property owner without discount or penalty. A penalty of 5% of the amount of the sewer rent statement shall be added thereto after the thirty-day period, if unpaid, and 1/2 of 1% for each additional month that the sewer rent remains unpaid.

A. Computation of sewer rents in the Dillon Farms Sewer District, Anawana Sewer District, Cold Spring Sewer District and Emerald Green - Lake Louise Marie Sewer District. The Town Board, prior to December 31 of each year, shall cause to be prepared a statement setting forth as sewer rentals for the purpose of financing the estimated amounts as required for the ensuing fiscal year as determined by the points set forth in § 194-46 and which shall be used for the purposes constituting the Sewer Rent Fund and which shall be used for the purposes and in the order provided in § 453 of the General Municipal Law. The payment of the amount set forth in the annual statement (not later than March 1) of each year shall be made within 30 days of the date of the mailing of the statement to the property owner without discount or penalty. A penalty of 5% of the amount of the sewer rent statement shall be added thereto after the thirty-day period, if unpaid, and 1/2 of 1% for each additional month or portion thereof that the sewer rent remains unpaid.
B. Computation of sewer rents in the Kiamesha Lake Sewer District and the Sackett Lake Sewer District. The Town Board, prior to December 31 of each year, shall cause to be prepared a statement setting forth as sewer rentals the estimated amounts as required

for the ensuing fiscal year for the purposes constituting the Sewer Rent Fund and which shall be used for the purposes and in the order provided in § 453 of the General Municipal Law, Article 14-F, the same to be based on existing available data. The Town Board shall levy the amounts as so adopted against the real property liable at the same time and in the same manner as Town taxes, and such amounts shall be set forth in the annual tax rolls.

C. Computation of sewer rents in the Melody Lake Sewer District. The Town Board, prior to December 31 of each year, shall cause to be prepared a statement setting forth as sewer rentals the estimated amounts as required for the ensuing fiscal year for the purposes constituting the Sewer Rent Fund and which shall be used for the purposes and in the order provided in § 453 of the General Municipal Law. The same shall be based upon a formula of a rate of house and lot. The Town Board shall levy the amounts as so adopted against the real property liable at the same time and in the same manner as Town taxes, and such amounts shall be set forth in the annual tax rolls.

D. Computation of sewer rents in the Rock Hill Sewer District. The Town Board, prior to December 31 of each year, shall cause to be prepared a statement setting forth as sewer rentals the estimated amounts as required for the ensuing fiscal year for the purposes constituting the Sewer Rent Fund and which shall be used for the purposes and in the order provided in § 453 of the General Municipal Law. **[Added 1-20-2004 by L.L. No. 1-2004]**

(1) Included costs; cost allocation. The sewer rents for the Rock Hill Sewer District shall be based on the capital cost of the Emerald Green - Lake Louise Marie Sewer District sewer plant, excluding the Emerald Green - Lake Louise Marie Sewer District collection system and the capital costs of the Rock Hill Sewer District, if any; and on the operation and maintenance cost allocated to Emerald Green - Lake Louise Marie Sewer District sewer plant, excluding the Emerald Green - Lake Louise Marie Sewer District collection system and the operation and maintenance cost of the Rock Hill Sewer District. The allocation of such capital cost and operation and maintenance charges shall be based on a reasonable determination of the Town Board. **[Amended at time of adoption of Code (see Ch. 1, General Provisions, Art. I)]**

(2) Minimum charges. Rock Hill Sewer District residential properties, and commercial properties having a building square foot area of less than 2,500 square feet, shall pay a minimum charge for 90,000 gallons annually. All other commercial properties shall have a minimum charge for

180,000 gallons annually. The Sewer and Water Superintendent may require the installation of a meter where the Sewer and Water Superintendent believes that the usage of a particular unmetered property exceeds such annual minimum for such property for a test to determine actual usage, and thereafter shall require the installation of such meter on a permanent basis, if after such test usage exceeds or is reasonably expected to exceed such minimum amount on a continuing basis.

(3) Connections. Residential properties located within the Rock Hill Sewer District which are serviced by lawfully operating private sewer systems shall not be required to connect to the Rock Hill Sewer District system. All properties which require sewer service after the formation of the Rock Hill Sewer District and properties which are not required to connect to the Rock Hill Sewer District system that would require a building permit to restore an existing private sewer system to lawful operating condition shall be required to connect to the Rock Hill Sewer District system. All commercial properties shall be required to connect to the Rock Hill Sewer District system.

(4) Meters. The property owner shall provide a water meter acceptable to the Rock Hill Sewer District for the purpose of measuring water usage for sewer district charges. The Town Board by resolution may determine the percentage of actual usage of water for applicable sewer district charges based on total water usage compared to treated usage. Meters installed for a test shall be a charge to the district.

(5) Costs. The costs and flows of the Rock Hill Sewer District shall be determined by the flows for the most recent complete calendar year of service prior to imposition of such charge. If any agreement governs the application of a charge, such agreement shall apply.

(6) All other applicable provisions of this chapter shall apply.

§ 194-48. Review and revision of costs and charges; effect on existing agreements.

A. The Town shall annually review the total cost of operation and maintenance of the treatment works and revise the charges in order to accomplish the following:

(1) Generate sufficient revenue to pay the total operation and maintenance costs necessary to the proper operation and maintenance, including replacement, of the treatment works; and

(2) Apply excess revenues collected to the cost of operation and maintenance for the next year and adjust the rate accordingly.

B. The annual bill shall give a breakdown of the rate and portion of the charges attributable to wastewater treatment services.

C. The system and scale of charges established by the Town Board hereunder shall take precedence over any agreements or contracts and the terms and conditions thereof now in existence between the Town and users (including industrial users, special districts, other municipalities or federal agencies or installations) which are inconsistent with the provisions of this article.

§ 194-49. Disposition of revenue.

A. Revenue derived from sewer rents, including penalties and interest, shall be credited to a special fund, to be known as the "Sewer Rent Fund," for and in the name of each of the Town's sewer districts. Moneys in such fund shall be used in the following order:

(1) For the payment of the costs of operation, maintenance and repairs of the sewer system, or such part or parts thereof for which sewer rents have been established and imposed.

(2) For the payment of the interest on and amortization of, or payment of, indebtedness which has been or shall be incurred for the construction of the sewer system or such part or parts thereof for which sewer rents have been established and imposed (other than indebtedness, and the interest thereon, which is to be paid in the first instance from assessments upon benefited real property).

(3) For the construction of sewage treatment and disposal works with necessary appurtenances, including pumping stations, or for the extension, enlargement or replacement of, or additions to, such sewer systems, or part or parts thereof.

B. Such revenues from sewer rents shall not be used to finance the cost of any extension of any part of a sewer system (other than any sewage treatment and disposal works with necessary appurtenances, including pumping stations) to serve unsewered areas if such part has been constructed wholly or partly at the expense of real property especially benefited or for the payment of the interest on and the amortization of, or payment of, indebtedness which is to be paid in the first instance from assessments upon benefited real property.

§ 194-50. Rents to constitute lien.

Sewer rents shall constitute a lien upon the real property served by the sewer system or such part or parts thereof for which sewer

rents are hereby established and imposed. The lien shall be prior and superior to every other lien or claim, except the lien of an existing tax assessment or other lawful charge imposed by or for the State of New York or political subdivision or district thereof.

§ 194-51. Cooperation of owners of real property.

The Sewer and Water Superintendent may require every owner and/or occupant of real property within the sewer district to furnish him with such information as may be necessary and reasonable in order to carry out the provisions of this article. It shall be permissible for the Sewer and Water Superintendent or other properly authorized person employed by the sewer district to enter upon real property at reasonable times for the purpose of obtaining such information as may be necessary to carry out the provisions of this article.

§ 194-52. Collection authority.

The Town Board of the Town of Thompson shall have the authority to collect sewer rents as provided in Subdivisions 3 and 4 of § 452 of the General Municipal Law.

APPENDIX B

New York State SPDES Permits

Dillon Farms WWTP

Emerald Green WWTP

Kiamesha Lake WWTP

Melody Lake WWTP

Sackett Lake WWTP

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

State Pollutant Discharge Elimination System (SPDES)
DISCHARGE PERMIT

Industrial Code:	4952	SPDES Number:	NY0214507
Discharge Class (CL):	07	DEC Number:	3-4846-00121/00001
Toxic Class (TX):	N	Effective Date (EDP):	1/1/2014
Major Drainage Basin:	14	Expiration Date (ExDP):	12/31/2018
Sub Drainage Basin:		Modification Dates: (EDPM)	
Water Index Number:	D-10-20-3		
Compact Area:			

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. ' 1251 et.seq.)(hereinafter referred to as "the Act").

PERMITTEE NAME AND ADDRESS

Name:	**Town of Thompson**	Attention:	**Anthony Cellini, Supervisor**		
Street:	**Town Hall – 4052-Route 42**				
City:	**Monticello**	State:	**NY**	Zip Code:	**12701**

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

Name:	Dillon Farms WWTP										
Location (C,T,V):	**Thompson**							County:	**Sullivan**		
Facility Address:	Hanover Drive										
City:	**Monticello**						State:	**NY**	Zip Code:	12701	
From Outfall No.:	**001**	at Latitude:	**41**	°	**39**	'	**17**	"	& Longitude:	**74** °	42 ' 37 "

into receiving waters known as: **Unnamed trib. to Kinne Brook** Class: **B**

and (list other Outfalls, Receiving Waters & Water Classifications)

in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1and 750-2.

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS

Mailing Name:	**C/O Town Hall**				
Street:	**4052 Route 42**				
City:	**Monticello**	State:	**NY**	Zip Code:	**12701**
Responsible Official or Agent:	**William Culligan, Superintendent**			Phone:	**(845) 794-5280**

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

DISTRIBUTION:

M. George – DOW (R3)
S. Karimipour, Region Water Engineer
CO BWP - Permit Coordinator (3505)
NYSDOH - Monticello
NYSEFC
EPA Region II – M. Josilo
DRBC

Permit Administrator: Scott Ballard	
Address: 21 South Putt Corners Rd. New Paltz, NY 12250	
Signature:	Date: 12 '9 '13

PERMIT LIMITS, LEVELS AND MONITORING DEFINITIONS

OUTFALL	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
	This cell describes the type of wastewater authorized for discharge. Examples include process or sanitary wastewater, storm water, non-contact cooling water.	This cell lists classified waters of the state to which the listed outfall discharges.	The date this page starts in effect. (e.g. EDP or EDPM)	The date this page is no longer in effect. (e.g. ExDP)

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQ.	SAMPLE TYPE
e.g. pH, TRC, Temperature, D.O.	The minimum level that must be maintained at all instants in time.	The maximum level that may not be exceeded at any instant in time.	SU, °F, mg/l, etc.	See below	See below

PARAMETER	EFFLUENT LIMIT or CALCULATED LEVEL	COMPLIANCE LEVEL/ ML	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE
	Limit types are defined below in Note 1. The effluent limit is developed based on the more stringent of technology-based limits, required under the Clean Water Act, or New York State water quality standards. The limit has been derived based on existing assumptions and rules. These assumptions include receiving water hardness, pH and temperature; rates of this and other discharges to the receiving stream; etc. If assumptions or rules change the limit may, after due process and modification of this permit, change.	For the purposes of compliance assessment, the permittee shall use the approved EPA analytical method with the lowest possible detection limit as promulgated under 40CFR Part 136 for the determination of the concentrations of parameters present in the sample unless otherwise specified. If a sample result is below the detection limit of the most sensitive method, compliance with the permit limit for that parameter was achieved. Monitoring results that are lower than this level must be reported, but shall not be used to determine compliance with the calculated limit. This PQL can be neither lowered nor raised without a modification of this permit.	Action Levels are monitoring requirements, as defined below in Note 2, which trigger additional monitoring and permit review when exceeded.	This can include units of flow, pH, mass, temperature, or concentration . Examples include µg/l, lbs/d, etc.	Examples include Daily, 3/week, weekly, 2/month, monthly, quarterly, 2/yr and yearly. All monitoring periods (quarterly, semiannual, annual, etc) are based upon the calendar year unless otherwise specified in this Permit.	Examples include grab, 24 hour composite and 3 grab samples collected over a 6 hour period.

Notes:

1. EFFLUENT LIMIT TYPES:
   a. DAILY DISCHARGE: The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average measurement of the pollutant over the day.
   b. DAILY MAX.: The highest allowable daily discharge. DAILY MIN.: The lowest allowable daily discharge.
   c. MONTHLY AVG: The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
   d. 7 DAY ARITHMETIC MEAN (7 day average): The highest allowable average of daily discharges over a calendar week.
   e. 30 DAY GEOMETRIC MEAN: The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of: the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
   f. 7 DAY GEOMETRIC MEAN: The highest allowable geometric mean of daily discharges over a calendar week.
   g. RANGE: The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.

2. ACTION LEVELS: Routine Action Level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted. If the additional monitoring requirement is triggered as noted below, the permittee shall undertake a short-term, high-intensity monitoring program for the parameter(s). Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive operating and discharging days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the additional monitoring requirement was triggered. Results may be appended to the DMR or transmitted under separate cover to the same address. If levels higher than the Action Levels are confirmed, the permit may be reopened by the Department for consideration of revised Action Levels or effluent limits. The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY:	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All year unless otherwise noted	**Unnamed trib. to Kinne Brook**	1/1/2014	12/31/2018

PARAMETER	EFFLUENT LIMIT					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location Inf.	Location Eff.	
Flow	Monthly Average	1600	gpd		mgd	Continuous	Recorder	X		(4)
BOD_5	Monthly Average	30	mg/l	0.4	lbs/d	1 / Month	Grab	X	X	(1)(2)(3)
BOD_5	7-Day Average	45	mg/l	0.6	lbs/d	1 / Month	Grab		X	
Solids, Suspended	Monthly Average	30	mg/l	0.4	lbs/d	1 / Month	Grab	X	X	(1)(2)(3)
Solids, Suspended	7-Day Average	45	mg/l	0.6	lbs/d	1 / Month	Grab		X	
Solids, Settleable	Daily Maximum	0.3	ml/l			1 / Week	Grab		X	
pH	Range	6.5 – 8.5	SU			1 / Week	Grab		X	
Temperature	Daily Maximum	Monitor	Deg F			1 / Week	Grab		X	
Effluent Disinfection required		[ ] All Year		[x] Seasonal from _May 1___ to October 31___						
Coliform, Fecal	30-Day Geometric Mean	200	No./ 100 ml				Grab		X	
Coliform, Fecal	7 Day Geometric Mean	400	No./ 100 ml				Grab		X	
Chlorine, Total Residual	Daily Maximum	2.0	mg/l				Grab		X	

FOOTNOTES:

(1) and effluent shall not exceed __15__ % and __15__ % of influent concentration values for BOD_5 & TSS respectively.

(2) For purposes of calculating percent removals, an influent concentration of 200 mg/l may be assumed for BOD and Total Suspended Solids.

(3) Influent sampling shall be conducted at the discharge from the pump station.

(4) An interim limit of monitor only is in effect until completion of the Schedule of Compliance located on Page 7 of 10 of the SPDES permit.

Mercury Minimization Program for Low Priority POTWs

The permittee shall inspect each tributary dental facility at least once every five years to verify compliance with the wastewater treatment operation, maintenance, and notification elements of 6NYCRR Part 374.4. Inspection and/or outreach to other industrial/commercial sectors which may contribute mercury is also recommended. All new or increased tributary discharges, including hauled wastes, which are from sources that are industrial in nature must be evaluated for mercury content and if levels exceed 500 ng/L then authorization must be obtained from the Department prior to acceptance. Equipment and materials which may contain mercury shall also be evaluated by the permittee and replaced with mercury-free alternatives where environmentally preferable. A file shall be maintained containing the notices submitted by dental offices and all other pertinent information. This file shall be available for review by DEC representatives and copies shall be provided upon request. A permit modification may be necessary to include more stringent requirements for POTWs which do not maintain low mercury effluent levels. Note – the mercury-related requirements in this permit conform to the mercury Multiple Discharge Variance specified in NYSDEC policy *DOW 1.3.10*.

DISCHARGE NOTIFICATION REQUIREMENTS

(a) Except as provided in (c) and (g) of these Discharge Notification Act requirements, the permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit. Such signs shall be installed before initiation of any discharge.

(b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.

(c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.

(d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

The signs shall have **minimum** dimensions of eighteen inches by twenty four inches (18" x 24") and shall have white letters on a green background and contain the following information:

N.Y.S. PERMITTED DISCHARGE POINT

SPDES PERMIT No.: NY_____

OUTFALL No. :____

For information about this permitted discharge contact:

Permittee Name: _____

Permittee Contact: _____

Permittee Phone: ( ) - ### - ####

OR:

NYSDEC Division of Water Regional Office Address :

NYSDEC Division of Water Regional Phone: ( ) - ### -####

(e) For each discharge required to have a sign in accordance with a), the permittee shall, concurrent with the installation of the sign, provide a repository of copies of the Discharge Monitoring Reports (DMRs), as required by the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of this permit. This repository shall be open to the public, at a minimum, during normal daytime business hours. The repository may be at the business office repository of the permittee or at an off-premises location of its choice (such location shall be the village, town, city or county clerk's office, the local library or other location as approved by the Department). In accordance with the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of your permit, each DMR shall be maintained on record for a period of five years

(f) The permittee shall periodically inspect the outfall identification sign(s) in order to ensure they are maintained, are still visible, and contain information that is current and factually correct. Signs that are damaged or incorrect shall be replaced within 3 months of inspection.

DISCHARGE NOTIFICATION REQUIREMENTS (continued)

(g) All requirements of the Discharge Notification Act, including public repository requirements, are waived for any outfall meeting any of the following circumstances, provided Department notification is made in accordance with (h) below:

(i) such sign would be inconsistent with any other state or federal statute;

(ii) the Discharge Notification Requirements contained herein would require that such sign could only be located in an area that is damaged by ice or flooding due to a one-year storm or storms of less severity;

(iii) instances in which the outfall to the receiving water is located on private or government property which is restricted to the public through fencing, patrolling, or other control mechanisms. Property which is posted only, without additional control mechanisms, does not qualify for this provision;

(iv) instances where the outfall pipe or channel discharges to another outfall pipe or channel, before discharge to a receiving water; or

(v) instances in which the discharge from the outfall is located in the receiving water, two-hundred or more feet from the shoreline of the receiving water.

(h) If the permittee believes that any outfall which discharges wastewater from the permitted facility meets any of the waiver criteria listed in (g) above, notification (form enclosed) must be made to the Department's Bureau of Water Permits, Central Office, of such fact, and, provided there is no objection by the Department, a sign and DMR repository for the involved outfall(s) are not required. This notification must include the facility's name, address, telephone number, contact, permit number, outfall number(s), and reason why such outfall(s) is waived from the requirements of discharge notification. The Department may evaluate the applicability of a waiver at any time, and take appropriate measures to assure that the ECL and associated regulations are complied with.

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall(s)	Parameter(s) Affected	Interim Effluent Limit(s)	Compliance Action	Due Date
001	Flow	Monitor Only	Complete T.V. inspection of the collection system.	Within 30 days of EDPM
			Perform physical inspection of all manholes and septic tanks to by Town Sewer Department. Perform smoke testing of the collection system.	Within 60 days of EDPM
			Submit Engineering Report, to NYSDEC for approval, with summary of findings from the T.V. inspection work, smoke testing, and physical inspections with recommendations for corrective actions.	Within 90 days of EDPM
			Submit Plans and Specifications, to NYSDEC for approval, for construction of all recommended corrective actions.	Within 90 days after NYSDEC approval of Engineering Report
			Complete construction of all corrective actions identified in approved Engineering Report, Plans and Specifications.	Within 180 days after NYSDEC approval of plans and specifications

The above compliance actions are one time requirements. The permittee shall comply with the above compliance actions to the Department's satisfaction once. When this permit is administratively renewed by NYSDEC letter entitled "SPDES NOTICE/RENEWAL APPLICATION/PERMIT," the permittee is not required to repeat the submission(s) noted above. The above due dates are independent from the effective date of the permit stated in the "SPDES NOTICE/RENEWAL APPLICATION/PERMIT" letter.

b) For any action where the compliance date is greater than 9 months past the previous compliance due date, the permittee shall submit interim progress reports to the Department every nine (9) months until the due date for these compliance items are met.

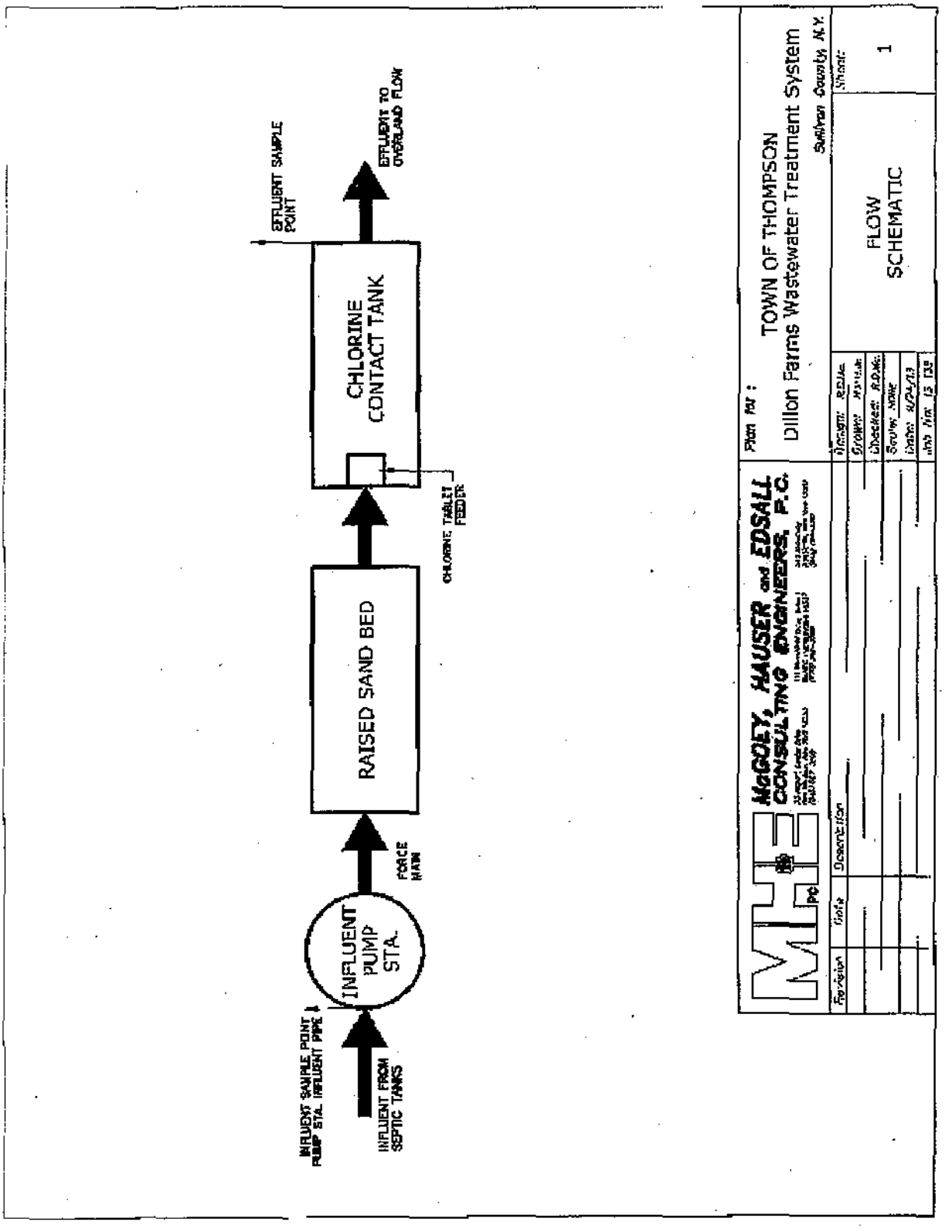
c) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:

1. A short description of the non-compliance;
2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
3. A description or any factors which tend to explain or mitigate the non-compliance; and
4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.

d) The permittee shall submit copies of any document required by the above schedule of compliance to the NYSDEC Regional Water Engineer at the location listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS and to the Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505, unless otherwise specified in this permit or in writing by the Department.

MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) specified below:



GENERAL REQUIREMENTS

A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through H as follows:.

B. General Conditions

1.	Duty to comply	6NYCRR Part 750-2.1(e) & 2.4
2.	Duty to reapply	6NYCRR Part 750-1.16(a)
3.	Need to halt or reduce activity not a defense	6NYCRR Part 750-2.1(g)
4.	Duty to mitigate	6NYCRR Part 750-2.7(f)
5.	Permit actions	6NYCRR Part 750-1.1(c), 1.18, 1.20 & 2.1(h)
6.	Property rights	6NYCRR Part 750-2.2(b)
7.	Duty to provide information	6NYCRR Part 750-2.1(i)
8.	Inspection and entry	6NYCRR Part 750-2.1(a) & 2.3

C. Operation and Maintenance

1.	Proper Operation & Maintenance	6NYCRR Part 750-2.8
2.	Bypass	6NYCRR Part 750-1.2(a)(17), 2.8(b) & 2.7
3.	Upset	6NYCRR Part 750-1.2(a)(94) & 2.8(c)

D. Monitoring and Records

1.	Monitoring and records	6NYCRR Part 750-2.5(a)(2), 2.5(c)(1), 2.5(c)(2), 2.5(d) & 2.5(a)(6)
2.	Signatory requirements	6NYCRR Part 750-1.8 & 2.5(b)

E. Reporting Requirements

1.	Reporting requirements	6NYCRR Part 750-2.5, 2.6, 2.7 & 1.17
2.	Anticipated noncompliance	6NYCRR Part 750-2.7(a)
3.	Transfers	6NYCRR Part 750-1.17
4.	Monitoring reports	6NYCRR Part 750-2.5(e)
5.	Compliance schedules	6NYCRR Part 750-1.14(d)
6.	24-hour reporting	6NYCRR Part 750-2.7(c) & (d)
7.	Other noncompliance	6NYCRR Part 750-2.7(e)
8.	Other information	6NYCRR Part 750-2.1(f)
9.	Additional conditions applicable to a POTW	6NYCRR Part 750-2.9
10.	Special reporting requirements for discharges that are not POTWs	6NYCRR Part 750-2.6

F. Planned Changes

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

   a. The alteration or addition to the permitted facility may meet of the criteria for determining whether facility is a new source in 40 CFR §122.29(b); or
   b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, or to notification requirements under 40 CFR §122.42(a)(1); or
   c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

   In addition to the Department, the permittee shall submit a copy of this notice to the United States Environmental Protection Agency at the following address: U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866.

GENERAL REQUIREMENTS continued

G. Notification Requirement for POTWs

1. All POTWs shall provide adequate notice to the Department and the USEPA of the following:
   a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; or
   b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
   c. For the purposes of this paragraph, adequate notice shall include information on:
      i. the quality and quantity of effluent introduced into the POTW, and
      ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

POTWs shall submit a copy of this notice to the United States Environmental Protection Agency, at the following address: U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866.

H. Sludge Management

The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

A. The monitoring information required by this permit shall be summarized, signed and retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent. **Also, monitoring information required by this permit shall be summarized and reported by submitting;**

[x] (if box is checked) completed and signed Discharge Monitoring Report (DMR) forms for each 1 month reporting period to the locations specified below. Blank forms are available at the Department's Albany office listed below. The first reporting period begins on the effective date of this permit and the reports will be due no later than the 28th day of the month following the end of each reporting period.

[ ] (if box is checked) an annual report to the Regional Water Engineer at the address specified below. The annual report is due by February 1 each year and must summarize information for January to December of the previous year in a format acceptable to the Department.

[x] (if box is checked) a monthly "Wastewater Facility Operation Report..." (form 92-15-7) to the:
[x] Regional Water Engineer and/or [ ] County Health Department or Environmental Control Agency specified below

Send the **original** (top sheet) of each DMR page to:
Department of Environmental Conservation
Division of Water, Bureau of Water Compliance
625 Broadway, Albany, New York 12233-3506
Phone: (518) 402-8177

Send the **first copy** (second sheet) of each DMR page to:
Department of Environmental Conservation
Water Engineer
21 South Putt Corners Rd., New Paltz, NY 12561
Phone: (845) 256-3000

Send an **additional copy** of each DMR page to:

B. Monitoring and analysis shall be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

C. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.

D. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

E. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.

F. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

:w York State Department of Environmental Conservation
-ision of Environmental Permits, Region 3
South Putt Corners Road, New Paltz, NY 12561-1620
one: (845)256-3054• Fax: (845) 255-4659
bsite: www.dec.ny.gov

Joe Martens
Commissioner

IMPORTANT NOTICE TO ALL PERMITTEES

The permit you requested is enclosed. Please read it carefully and note the conditions that are included in it. The permit is valid for only that activity expressly authorized therein; work beyond the scope of the permit may be considered a violation of law and be subject to appropriate enforcement action. Granting of this permit does not relieve the permittee of the responsibility of obtaining any other permission, consent or approval from any other federal, state or local government which may be required.

Please note the expiration date of the permit. Application for permit renewal should be made well in advance of the expiration date (minimum of 30 days) and submitted to the Regional Permit Administrator at the above address. For SPDES, Solid Waste and Hazardous Waste Permits, renewals must be made at least 180 days prior to the expiration date.

☐ Applicable only if checked. Please note all work authorized under this permit is prohibited during trout spawning season commencing October 1 and ending April 30.

The DEC permit number & program ID number noted on page 1 under "Permit Authorization" of the permit are important and should be retained for your records. These numbers should be referenced on all correspondence related to the permit, and on any future applications for permits associated with this facility/project area.

If a permit notice sign is enclosed, you must post it at the work site with appropriate weather protection, as well as a copy of the permit per General Condition 1.

If the permit is associated with a project that will entail construction of new water pollution control facilities or modifications to existing facilities, plan approval for the system design will be required from the appropriate Department's regional Division of Water or delegated local Health Department, as specified in the State Pollutant Discharge Elimination System (SPDES) permit.

If you have any questions on the extent of work authorized or your obligations under the permit, please contact the staff person indicated below or the Division of Environmental Permits at the above address.

Joseph A Murray

Division of Environmental Permits, Region 3
Telephone (845)256- 3040

☐ Applicable only if checked for **STORMWATER SPDES INFORMATION**: We have determined that your project qualifies for coverage under the General Stormwater SPDES Permit. You must now file a Notice of Intent to obtain coverage under the General Permit. This form can be downloaded at: http://www.dec.ny.gov/chemical/43133.html

☐ Applicable only if checked for **MS4 Areas**: This site is within a MS4 area (Municipal Separate Storm Sewer System), therefore the SWPPP must be reviewed and accepted by the municipality. The MS-4 Acceptance Form must be submitted in addition to the Notice of Intent.

Send the completed form(s) to: NYS DEC, Stormwater Permitting, Division of Water, 625 Broadway, Albany, NY 12233-3505

In addition, DEC requests that you provide one electronic copy of the approved SWPPP directly to Natalie Brown, NYS DEC, 100 Hillside Avenue, Suite 1W, White Plains, NY 10603-2860

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits
625 Broadway, 4th Floor, Albany, New York 12233-1750
P: (518) 402-9167 I F: (518) 402-9168 I deppermitting@dec.ny.gov
www.dec.ny.gov

August 13, 2019

Town of Thompson
Attn: Town Supervisor
4052 State Route 42
Monticello, NY 12701

Re: Emerald Green – Lake Louise Marie S&W District
DEC ID 3-4846-00196/00001 SPDES NY0035645

Dear Permittee:

Enclosed is a final renewed and modified State Pollutant Discharge Elimination System (SPDES) permit for the above referenced facility. This permit has been renewed and modified under the Environmental Benefit Permit Strategy. No comments were received on this renewal and modification.

Please be advised, the Uniform Procedures Regulations (6NYCRR Part 621) provide that an applicant may request a public hearing if a permit contains conditions which are unacceptable to them. Any such request must be made in writing within 30 calendar days of the date of permit issuance and must be addressed to the Permit Administrator at the letterhead address. A copy should also be sent to the Chief Administrative Law Judge at NYSDEC, 625 Broadway, 1st Floor, Albany, NY 12233-1550.

Should you have questions on the administration of this modification, please feel free to contact me at the address or phone number listed above. Should you have technical questions on permit content, please contact Adedayo Adewole, Permit Writer, at (914) 803-8132, or Lorraine Holdridge, Regional Water Engineer, at (914) 428-2505.

Sincerely,

Teresa Diehsner
Environmental Program Specialist I
Division of Environmental Permits

Enclosures

c: J. Petronella, RPA
L. Holdridge, RWE
A. Adewole, Permit Writer
C. Jamison, CO-BWP Permit Coordinator
USEPA Reg 2
NYSEFC
NYSDOH District Office

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

Industrial Code:	4952	SPDES Number:	NY0035645
Discharge Class (CL):	07	DEC Number:	3-4846-00196/00001
Toxic Class (TX):	N	Effective Date (EDP):	09/01/2019
Major Drainage Basin:	14	Expiration Date (ExDP):	08/31/2024
Sub Drainage Basin:	02	Modification Dates: (EDPM)	
Water Index Number:	D-1-35		
Compact Area:	DRBC		

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et.seq.)(hereinafter referred to as "the Act").

PERMITTEE NAME AND ADDRESS					
Name:	**Town of Thompson**	Attention:			
Street:	**4052 State Route 42**				
City:	**Monticello**	State:	**NY**	Zip Code:	**12701**
Email:		Phone:			

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS																	
Name:	**Emerald Green-Lake Louise Marie S&W District**																
Location (C, T, V):	**(T) Thompson**									County:	**Sullivan**						
Facility Address:	**4052 State Route 42**																
City:	**Monticello**				State:				**NY**	Zip Code:	**12701**						
Facility Location:		Latitude:	**41**	°	**35**	‘	**16**	“ N	& Longitude:	**74**	°	**35**	‘	**16**	“ W		
From Outfall No.:	**001**	at Latitude:	**41**	°	**37**	‘	**08**	“ N	& Longitude:	**74**	°	**35**	‘	**20**	“ W		
into receiving waters known as:	**McKee Brook**								Class:	**B (T)**							

and the outfalls listed on page 3 of this permit in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1 and 750-2.

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above. The permittee shall not discharge after the expiration date unless this permit has been renewed or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

DISTRIBUTION:
CO BWP - Permit Coordinator
RWE
RPA
EPA Region II
NYSEFC
NYSDOH District Office

Deputy Chief Permit Administrator:	Scott E. Sheeley	
Address:	Division of Environmental Permits 625 Broadway, 4th Floor Albany, NY 12233-1750	
Signature:	Scott E. Sheeley	Date: AUG. 14, 2019

PERMIT LIMITS, LEVELS AND MONITORING DEFINITIONS

OUTFALL	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
	This cell describes the type of wastewater authorized for discharge. Examples include process or sanitary wastewater, storm water, non-contact cooling water.	This cell lists classified waters of the state to which the listed outfall discharges.	The date this page starts in effect. (e.g. EDP or EDPM)	The date this page is no longer in effect. (e.g. ExDP)

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQ.	SAMPLE TYPE
e.g. pH, TRC, Temperature, D.O.	The minimum level that must be maintained at all instants in time.	The maximum level that may not be exceeded at any instant in time.	SU, °F, mg/l, etc.	See below	See below

PARAMETER	EFFLUENT LIMIT or CALCULATED LEVEL	COMPLIANCE LEVEL / MINIMUM LEVEL (ML)	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE
	Limit types are defined below in Note 1. The effluent limit is developed based on the more stringent of technology-based limits, required under the Clean Water Act, or New York State water quality standards. The limit has been derived based on existing assumptions and rules. These assumptions include receiving water hardness, pH and temperature; rates of this and other discharges to the receiving stream; etc. If assumptions or rules change the limit may, after due process and modification of this permit, change.	For the purposes of compliance assessment, the permittee shall use the approved EPA analytical method with the lowest possible detection limit as promulgated under 40CFR Part 136 for the determination of the concentrations of parameters present in the sample unless otherwise specified. If a sample result is below the detection limit of the most sensitive method, compliance with the permit limit for that parameter was achieved. Monitoring results that are lower than this level must be reported, but shall not be used to determine compliance with the calculated limit. This Minimum Level (ML) can be neither lowered nor raised without a modification of this permit.	Action Levels are monitoring requirements, as defined below in Note 2, which trigger additional monitoring and permit review when exceeded.	This can include units of flow, pH, mass, temperature, or concentration. Examples include µg/l, lbs/d, etc.	Examples include Daily, 3/week, weekly, 2/month, monthly, quarterly, 2/yr and yearly. All monitoring periods (quarterly, semiannual, annual, etc.) are based upon the calendar year unless otherwise specified in this Permit.	Examples include grab, 24 hour composite and 3 grab samples collected over a 6 hour period.

Notes:

1. EFFLUENT LIMIT TYPES:
   a. DAILY DISCHARGE: The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average measurement of the pollutant over the day.
   b. DAILY MAX: The highest allowable daily discharge.
   c. DAILY MIN: The lowest allowable daily discharge.
   d. MONTHLY AVG: The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
   e. 7 DAY ARITHMETIC MEAN (7 day average): The highest allowable average of daily discharges over a calendar week.
   f. 30 DAY GEOMETRIC MEAN: The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of: the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
   g. 7 DAY GEOMETRIC MEAN: The highest allowable geometric mean of daily discharges over a calendar week.
   h. 12 MONTH ROLLING AVERAGE: The current monthly value of a parameter, plus the sum of the monthly values over the previous 11 months for that parameter, divided by 12.
   i. RANGE: The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.

2. ACTION LEVELS: Routine Action Level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted. If the additional monitoring requirement is triggered as noted below, the permittee shall undertake a short-term, high-intensity monitoring program for the parameter(s). Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive operating and discharging days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the additional monitoring requirement was triggered. Results may be appended to the DMR or transmitted under separate cover to the same address. If levels higher than the Action Levels are confirmed, the permit may be reopened by the Department for consideration of revised Action Levels or effluent limits. The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY:	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All Year unless otherwise noted	McKee Brook	09/01/2019	08/31/2024

PARAMETER	EFFLUENT LIMIT					MONITORING REQUIREMENTS				FN
								Location		
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	
Flow	Monthly Average	410,000	GPD			Continuous	Recorder	X		
$CBOD_5$	Monthly Average	5	mg/l	17.10	lbs/d	2/Month	6-hr. Comp.	X	X	(1)
Solids, Suspended	Monthly Average	10	mg/l	34.20	lbs/d	2/Month	6-hr. Comp.	X	X	(1)
Solids, Settleable	Daily Maximum	0.1	ml/l			Daily	Grab	X	X	
pH	Range	6.5 – 8.5	SU			Daily	Grab	X	X	
Nitrogen, TKN (as N)	Monitor		mg/l			Daily	6-hr. Comp.	X	X	
Nitrogen, Ammonia (as NH3) (June 1 to October 31)	Monthly Average	1.1	mg/l			Daily	6-hr. Comp.	X	X	
Nitrogen, Ammonia (as NH3 (November 1 to May 31)	Monthly Average	2.2	mg/l			Daily	6-hr. Comp.	X	X	
Phosphorus, Total (as P)	Monthly Average	0.5	mg/l			Daily	6-hr. Comp.	X	X	
Dissolved Oxygen	Daily Minimum	7.0	mg/l			Daily	Grab	X	X	
Effluent Disinfection required		[ ] All Year		[X] Seasonal from **May 1** to **Oct 31**						
Coliform, Fecal	30-Day Geometric Mean	200	No./ 100 ml				Grab		X	
Coliform, Fecal	7 Day Geometric Mean	400	No./ 100 ml				Grab		X	
Chlorine, Total Residual	Daily Maximum	0.03	mg/l				Grab		X	(2, 3)

PARAMETER	EFFLUENT LIMIT or CALCULATED LEVEL		COMPLIANCE LEVEL/ ML	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg	Daily Max						
Temperature				70	°F	1/day	Grab	(4)

Footnotes listed on page 4 of this permit.

FOOTNOTES:

(1) and effluent shall not exceed 15 % and 15 % of influent concentration values for BOD5 & TSS respectively.

(2) if chlorine is used for disinfection.

(3) an interim limit of 2.0 mg/l for Total Residual Chlorine shall be in effect as interim limits until the construction of facilities to achieve compliance with the final effluent limit of 0.03 mg/l.

(4) Temperature Action Level

Sampling Requirements – If the discharge temperature exceeds the Action Level of 70 degrees Fahrenheit the permittee shall, within one week, undertake the following one day monitoring program:

Monitoring Program – Temperature shall be measured at the following three locations, on the same day once in the morning and once in the afternoon:

1. effluent as close as practical to the outfall without influence from the receiving water,
2. receiving water downstream, about 200 feet downstream of the outfall,
3. receiving water 0 to 10 feet upstream of the outfall

The receiving water sampling locations shall be documented by the permittee and used for all subsequent monitoring, depicted on the Monitoring Locations page, locations 2 and 3 above, shall be used for monitoring unless a different location is approved by the Department. Temperature monitoring (i.e., collection and analysis of one round of influent, effluent, upstream, and downstream samples) shall be completed within one hour.

The permittee is exempt from this temperature monitoring program whenever conditions at or near the in-stream monitoring locations are unsafe due to weather.

Reporting - Results shall be appended to the corresponding Discharge Monitoring Report (DMR) and emailed in spreadsheet format to spdes.temperaturedata@dec.ny.gov.

TEMPERATURE MANAGEMENT FOR POTWs[1] DISCHARGES TO TROUT WATERS

The permittee is required to develop, maintain, and implement a temperature management plan. The purpose of this plan is to minimize the thermal impacts to the receiving water. The goal of the temperature management plan will be to reduce effluent temperature below the 70 degrees Fahrenheit Action Level. The permittee shall submit a plan which incorporates the following items:

1. **Thermal Track Down** – Permittee must conduct a thermal assessment of the current collection and treatment system. This is to include influent and effluent temperature monitoring data from the treatment system and each unit within the system. Any process or input source that adds heat to the system must be identified.

2. **Passive Cooling Measures** – Permittee shall assess passive cooling measures (e.g. shading of tankage) which may be implemented to reduce effluent temperature to the maximum extent practical. Such measures can be operational or physical modifications which the permittee believes will prove effective.

3. **Implementation** – The temperature management plan shall contain action items to address the assessments noted in 1 and 2 above as well as a schedule for implementation and shall be submitted to the Department for approval. The temperature management plan and schedule will become an enforceable part of the permit upon approval by the Department.

4. **Compliance Deadlines** – The permittee shall submit the temperature management plan **by 03/01/2020** to the Regional office listed on the Recording, Reporting and Additional Monitoring page of this permit and to the Bureau of Water Permits, 625 Broadway, Albany, NY 12233-3505, and in electronic format to spdes.temperaturedata@dec.ny.gov.

Mercury Minimization Program for Low Priority POTWs

The permittee shall inspect each tributary dental facility at least once every five years to verify compliance with the wastewater treatment operation, maintenance, and notification elements of 6NYCRR Part 374.4. In lieu of an inspection, the permittee can accept a certification from the dental facility owner that the treatment system was properly installed and the facility complies with the wastewater treatment operation, maintenance, and notification elements of 6NYCRR Part 374.4. Prior to acceptance of new or increased tributary discharges that are industrial in nature, including hauled wastes, sample data shall be provided to the permittee for mercury content. Discharges which may exceed 500 ng/L, must receive approval from the Department prior to acceptance. A file shall be maintained containing inspection results, certifications, and other information submitted by dental offices and all other potential dischargers of mercury. This file shall be available for review by NYSDEC representatives and copies shall be provided upon request.

Note: the mercury-related requirements in this permit conform to the mercury Multiple Discharge Variance specified in NYSDEC policy *DOW 1.3.10*.

DISCHARGE NOTIFICATION REQUIREMENTS

(a) Except as provided in (c) and (g) of these Discharge Notification Act requirements, the permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit. Such signs shall be installed before initiation of any discharge.

(b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.

(c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.

(d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

The signs shall have **minimum** dimensions of eighteen inches by twenty four inches (18" x 24") and shall have white letters on a green background and contain the following information:

N.Y.S. PERMITTED DISCHARGE POINT

SPDES PERMIT No.: NY_____

OUTFALL No. :____

For information about this permitted discharge contact:

Permittee Name: _____

Permittee Contact: _____

Permittee Phone: ( ) - ### - ####

OR:

NYSDEC Division of Water Regional Office Address:

NYSDEC Division of Water Regional Phone: ( ) - ### -####

(e) For each discharge required to have a sign in accordance with a), the permittee shall, concurrent with the installation of the sign, provide a repository of copies of the Discharge Monitoring Reports (DMRs), as required by the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of this permit. This repository shall be open to the public, at a minimum, during normal daytime business hours. The repository may be at the business office repository of the permittee or at an off-premises location of its choice (such location shall be the village, town, city or county clerk's office, the local library or other location as approved by the Department). In accordance with the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of your permit, each DMR shall be maintained on record for a period of five years

(f) The permittee shall periodically inspect the outfall identification sign(s) in order to ensure they are maintained, are still visible, and contain information that is current and factually correct. Signs that are damaged or incorrect shall be replaced within 3 months of inspection.

DISCHARGE NOTIFICATION REQUIREMENTS (continued)

(g) All requirements of the Discharge Notification Act, including public repository requirements, are waived for any outfall meeting any of the following circumstances, provided Department notification is made in accordance with (h) below:

(i) such sign would be inconsistent with any other state or federal statute;

(ii) the Discharge Notification Requirements contained herein would require that such sign could only be located in an area that is damaged by ice or flooding due to a one-year storm or storms of less severity;

(iii) instances in which the outfall to the receiving water is located on private or government property which is restricted to the public through fencing, patrolling, or other control mechanisms. Property which is posted only, without additional control mechanisms, does not qualify for this provision;

(iv) instances where the outfall pipe or channel discharges to another outfall pipe or channel, before discharge to a receiving water; or

(v) instances in which the discharge from the outfall is located in the receiving water, two-hundred or more feet from the shoreline of the receiving water.

(h) If the permittee believes that any outfall which discharges wastewater from the permitted facility meets any of the waiver criteria listed in (g) above, notification (form enclosed) must be made to the Department's Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505, of such fact, and, provided there is no objection by the Department, a sign and DMR repository for the involved outfall(s) are not required. This notification must include the facility's name, address, telephone number, contact, permit number, outfall number(s), and reason why such outfall(s) is waived from the requirements of discharge notification. The Department may evaluate the applicability of a waiver at any time, and take appropriate measures to assure that the ECL and associated regulations are complied with.

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall(s)	Compliance Action	Due Date
001	The permittee shall submit an approvable engineering report, prepared by a Professional Engineer licensed to practice engineering in New York State, detailing the disinfection designs that will be used to comply with the final effluent limitations for Total Residual Chlorine.	03/01/2020
	The permittee shall submit approvable Engineering Plans, Specifications, and Construction Schedule for the implementation of effluent disinfection.	DEC Approval of Engineering Report + 6 months.
	The permittee shall begin construction of the treatment facilities in accordance with the Department approved schedule.	May 1, 2021
	The permittee shall complete construction and commence operation of the system and comply with the final effluent limitations for Total Residual Chlorine.	May 1, 2022

Parameter(s)Affected	Interim Effluent Limit(s)	Final Effluent Limit(s)	Effective Date of final effluent limit(s)
Total Residual Chlorine	2.0 mg/l ~~01 mg/l~~	0.03 mg/l	May 1, 2022

The above compliance actions are one time requirements. The permittee shall comply with the above compliance actions to the Department's satisfaction once. When this permit is administratively renewed by NYSDEC letter entitled "SPDES NOTICE/RENEWAL APPLICATION/PERMIT," the permittee is not required to repeat the submission(s) noted above. The above due dates are independent from the effective date of the permit stated in the "SPDES NOTICE/RENEWAL APPLICATION/PERMIT" letter.

b) For any action where the compliance date is greater than 9 months past the previous compliance due date, the permittee shall submit interim progress reports to the Department every nine (9) months until the due date for these compliance items are met.

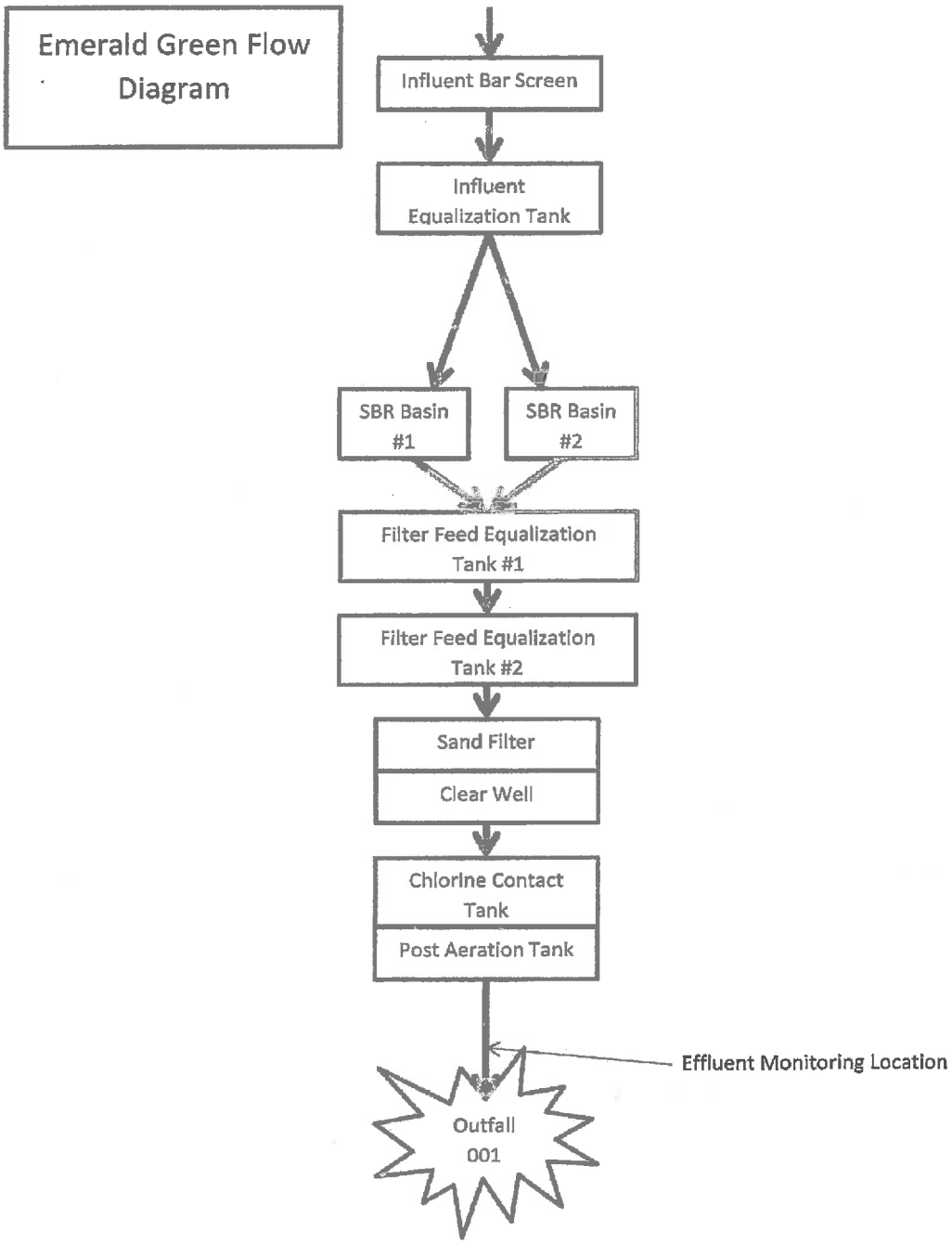
c) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:

1. A short description of the non-compliance;
2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
3. A description or any factors which tend to explain or mitigate the non-compliance; and
4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.

d) The permittee shall submit copies of any document required by the above schedule of compliance to the NYSDEC Regional Water Engineer at 100 Hillside Avenue, Suite 1W, White Plains, New York 10603-2860, and to the Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505, unless otherwise specified in this permit or in writing by the Department.

MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the locations(s) specified below:



GENERAL REQUIREMENTS

A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through J as follows:

B. General Conditions

1.	Duty to comply	6 NYCRR 750-2.1(e) & 2.4
2.	Duty to reapply	6 NYCRR 750-1.16(a)
3.	Need to halt or reduce activity not a defense	6 NYCRR 750-2.1(g)
4.	Duty to mitigate	6 NYCRR 750-2.7(f)
5.	Permit actions	6 NYCRR 750-1.1(c), 1.18, 1.20 & 2.1(h)
6.	Property rights	6 NYCRR 750-2.2(b)
7.	Duty to provide information	6 NYCRR 750-2.1(i)
8.	Inspection and entry	6 NYCRR 750-2.1(a) & 2.3

C. Operation and Maintenance

1.	Proper Operation & Maintenance	6 NYCRR 750-2.8
2.	Bypass	6 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7
3.	Upset	6 NYCRR 750-1.2(a)(94) & 2.8(c)

D. Monitoring and Records

1.	Monitoring and records	6 NYCRR 750-2.5(a)(2), 2.5(a)(6), 2.5(c)(1), 2.5(c)(2), & 2.5(d)
2.	Signatory requirements	6 NYCRR 750-1.8 & 2.5(b)

E. Reporting Requirements

1.	Reporting requirements for POTWs	6 NYCRR 750-2.5, 2.7 & 1.17
2.	Anticipated noncompliance	6 NYCRR 750-2.7(a)
3.	Transfers	6 NYCRR 750-1.17
4.	Monitoring reports	6 NYCRR 750-2.5(e)
5.	Compliance schedules	6 NYCRR 750-1.14(d)
6.	24-hour reporting	6 NYCRR 750-2.7(c) & (d)
7.	Other noncompliance	6 NYCRR 750-2.7(e)
8.	Other information	6 NYCRR 750-2.1(f)
9.	Additional conditions applicable to a POTW	6 NYCRR 750-2.9

F. Planned Changes

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

   a. The alteration or addition to the permitted facility may meet of the criteria for determining whether facility is a new source in 40 CFR §122.29(b); or
   b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, or to notification requirements under 40 CFR §122.42(a)(1); or
   c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

In addition to the Department, the permittee shall submit a copy of this notice to the United States Environmental Protection Agency at the following address: U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866.

GENERAL REQUIREMENTS continued

G. Notification Requirement for POTWs

1. All POTWs shall provide adequate notice to the Department and the USEPA of the following:
   a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; or
   b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
   c. For the purposes of this paragraph, adequate notice shall include information on:
      i. the quality and quantity of effluent introduced into the POTW, and
      ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

POTWs shall submit a copy of this notice to the United States Environmental Protection Agency, at the following address: U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866Sludge Management
The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.

H. Sludge Management
The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.

I. SPDES Permit Program Fee
The permittee shall pay to the Department an annual SPDES permit program fee within 30 days of the date of the first invoice, unless otherwise directed by the Department, and shall comply with all applicable requirements of ECL 72-0602 and 6 NYCRR Parts 480, 481 and 485. Note that if there is inconsistency between the fees specified in ECL 72-0602 and 6 NYCRR Part 485, the ECL 72-0602 fees govern.

J. Water Treatment Chemicals (WTCs)
New or increased use and discharge of a WTC requires prior Department review and authorization. At a minimum, the permittee must notify the Department in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The Department will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed outside of the formal permit administrative process. The majority of WTC authorizations do not require SPDES permit modification. In any event, use and discharge of a WTC shall not proceed without prior authorization from the Department. Examples of WTCs include biocides, coagulants, conditioners, corrosion inhibitors, defoamers, deposit control agents, flocculants, scale inhibitors, sequestrants, and settling aids.

1. WTC use shall not exceed the rate explicitly authorized by this permit or otherwise authorized in writing by the Department.
2. The permittee shall maintain a logbook of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used.
3. The permittee shall submit a completed WTC Annual Report Form each year that they use and discharge WTCs. This form shall be attached to either the December DMR or the annual monitoring report required below.

The *WTC Notification Form and WTC Annual Report Form* are available from the Department's website at:
http://www.dec.ny.gov/permits/93245.html

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

A. A. The monitoring information required by this permit shall be retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent.

B. The monitoring information required by this permit shall be summarized and reported by submitting:

Discharge Monitoring Reports (DMRs): Completed DMR forms shall be submitted for each 1 month reporting period in accordance with the DMR Manual available on Department's website.

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by NYSDEC. Instructions on the use of NetDMR are available in the DMR Manual. Attach the monthly "Wastewater Facility Operation Report" (form 92-15-7) and any required DMR attachments electronically to the DMR.

To submit via hard copy: **Hard copy paper DMRs will only be accepted by the Department if a waiver from the electronic submittal requirements has been granted by DEC to the facility**. Attach a hard copy of the monthly "Wastewater Facility Operation Report" (form 92-15-7) to the DMR. The Facility Operation report and DMRs shall be sent to:

Department of Environmental Conservation
Division of Water, Bureau of Water Compliance
625 Broadway, Albany, New York 12233-3506
Phone: (518) 402-8177

The first monitoring period begins on the effective date of this permit, and, unless otherwise required, the reports are due no later than the 28th day of the month following the end of each monitoring period.

C. Bypass and Sewage Pollutant Right to Know Reporting: In accordance with the Sewage Pollutant Right to Know Act (ECL § 17-0826-a), Publicly Owned Treatment Works (POTWs) are required to notify DEC and Department of Health within two hours of discovery of an untreated or partially treated sewage discharge and to notify the public and adjoining municipalities within four hours of discovery. Information regarding reporting and other requirements of this program may be found on the Department's website. In addition, POTWs are required to provide a five-day incident report and supplemental information to the DEC in accordance with Part 750-2.7(d) by utilizing the Department's Non-Compliance Report Form unless waived by DEC on a case-by-case basis.

D. Monitoring and analysis shall be conducted using sufficiently sensitive test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

E. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.

F. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

G. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.

H. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

Permittee: Town of Thompson
Facility: Emerald Green-Lake Louise Marie S&W District
SPDES Number: NY0035645
Full Technical Review

Date: June 25, 2019
Permit Writer: Adedayo Adewole
Discharge Class: 07 Municipal
NPDES Class: USEPA Non-Major

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

SPDES Permit Fact Sheet
Town of Thompson
Emerald Green-Lake Louise Marie S&W District
NY0035645

Contents

Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) EBPS permit modification has been drafted for the Emerald Green-Lake Louise Marie S&W District. As a result of the EBPS full technical review, a new five-year term is proposed. The following is a summary of the changes. The details of these changes are specified below and in the permit:

- New daily maximum effluent limitation for Total Residual Chlorine (TRC) of 0.03 mg/l;
- Mercury minimization program for low priority publicly owned treatment works
- The receiving waterbody, McKee Brook is a class B(T), a trout stream; hence, a temperature management plan has been incorporated into the permit.
- A schedule of compliance to meet TRC limit of 0.03 mg/l has been included in the permit.

This factsheet summarizes the information used to determine the effluent limitations and other conditions contained in the permit. General background information about the regulatory bases for the effluent limitations and other conditions contained in this permit are in the Appendix linked throughout this factsheet.

Administrative History

The current SPDES permit was originally issued effective 11/1/1993, modified on 11/7/2002, and subsequently administratively renewed effective 11/1/2008, 11/1/2013, and 11/1/2018.

11/1/2018	Current SPDES permit became effective with a five-year term. Permit has an expiration date of 10/31/2023. This permit, along with all subsequent modifications, if any as listed below, has formed the basis of this permit modification.
11/7/2002	Permit was modified to include a schedule of compliance for the construction of any sewer extensions or service lines outside of the sewer district boundaries.
5/9/2018	Department issued a Request for Information (RFI) to modify and renew the SPDES permit due to the facility's EBPS score[1]. At the time of the RFI, the facility had an EBPS score of 75.
8/10/2018	The Town of Thompson submitted a timely and sufficient NY-2A permit application.

Facility Information

This is a municipal facility that receives flow from domestic users. Wastewater consists of sanitary wastewater. The sewage collection system consists of separate sewers. The treatment plant was constructed in 1993 to provide secondary treatment for a design flow of 0.41 MGD.

The current treatment plant consists of:

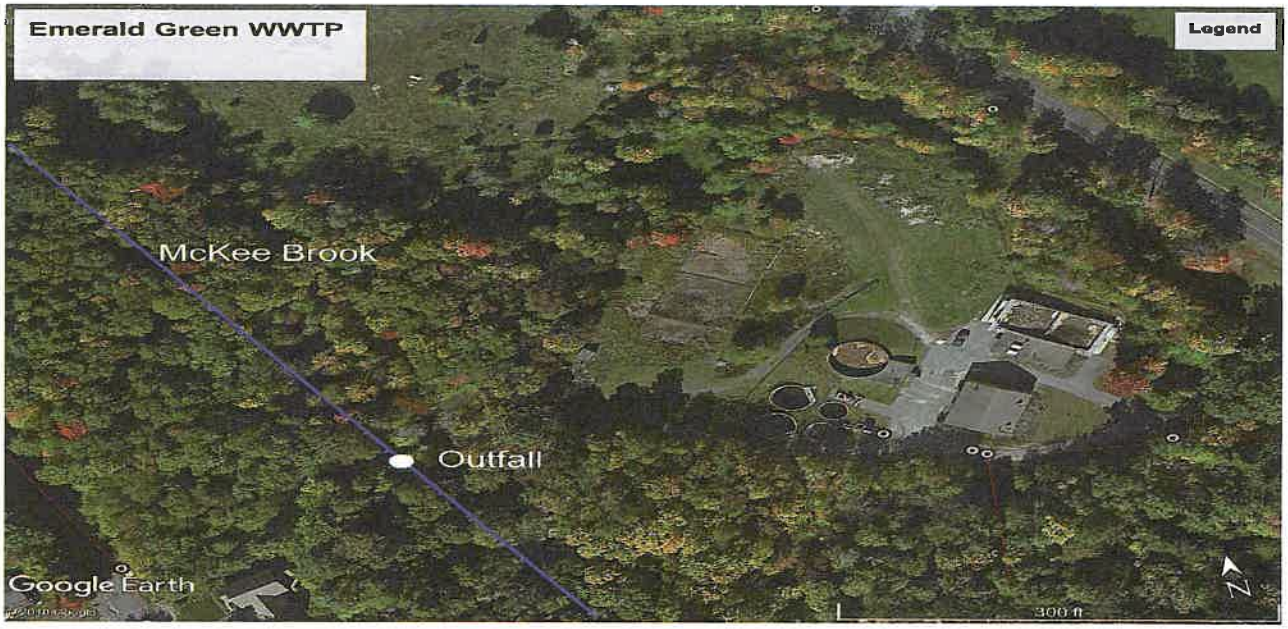
- Preliminary Treatment: Screening, Equalization.

[1] Pursuant to 6 NYCRR 750-1.18 and NYS Environmental Benefit Permit Strategy (EBPS)

- Secondary Treatment: Activated Sludge – Sequential Batch Reactor
- Tertiary Treatment: Filter Feed Equalization and Sand Filtration
- Disinfection: Chlorination
- Post Aeration

Sludge is stored and hauled for processing at Kiamesha Lake WWTP.

Site Overview



Enforcement History

A review of the facility's enforcement history from July 2012 to November 2013 indicates effluent limits in the SPDES permit were violated a total of twenty-eight (28) times during SPDES. The following violations of the SPDES effluent parameters were addressed under Order on Consent R3-20140407-55; R3-20140501-73; R3-20140327-48; R3-20150409-39; and R3-20150409-40.

Outfall	Parameter	Limitation Type	Frequency of Violation
001	Phosphorus	30 Day Avg	9
	Temperature	Daily Max	4
	Total Suspended Solids (TSS)	Daily Max	5
	% Removal (TSS)	Monthly Avg Min	4
	Carbonaceous Biochemical Oxygen Demand (CBOD)	Daily Max	3
	% Removal (CBOD)	Monthly Avg Min	1
	Fecal Coliform	GEO	2

The Order on Consent or NOV required the following compliance actions:

- A process control optimization report and schedule of compliance for proposed actions to eliminate the effluent violations. The process control optimization report to correct the SPDES permit effluent violations was approved by Department on June 21, 2016.

Environmental regulatory compliance and enforcement information for this facility can be found on the Enforcement and Compliance History Online at https://echo.epa.gov.

Existing Effluent Quality

The Pollutant Summary Table presents the existing effluent quality and permit limitations for discharges from the facility. Concentration and mass data are presented, based on Discharge Monitoring Reports submitted by the permittee for the period 7/1/2015 to 7/1/2018.

Receiving Water Information

The facility discharges via the following outfall:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	4952	Treated Sanitary Sewage	McKee Brook

The location of the outfall(s), and the name, classification, and index numbers of the receiving waters are indicated in the Outfall and Receiving Water Summary Table at the end of this fact sheet. Appendix Link

Impaired Waterbody Information

This waterbody is not listed on the 2016 New York State Section 303(d) List of Impaired/TMDL Waters, and therefore, there are no applicable wasteload allocations (WLAs) for this discharge.

Mixing Zone and Critical Receiving Water Data

The 7Q10 low-flow condition of the Mine Brook was found to be intermittent or <0.1 CFS. The use of intermittent stream effluent limits (ISEL) is appropriate based on the historical water quality review of this facility. Consistent with TOGS 1.3.1, the water quality standards will be applied as end-of-pipe limitations with no mixing or dilution.

Critical receiving water data are listed in the Pollutant Summary Table at the end of this fact sheet.
Appendix Link

Permit Requirements

The technology based effluent limitations (TBELs), water quality-based effluent limitations (WQBELs), existing effluent quality and a discussion of the selected effluent limitation for each pollutant present in the discharge are provided in the Pollutant Summary Table.

Whole Effluent Toxicity (WET) Testing

None of the seven criteria that are indicative of potential toxicity and listed in the Appendix to this factsheet, are applicable to this facility. Therefore, WET testing is not included in the permit.

Anti-backsliding

The limitations contained in the permit are at least as stringent as the previous permit limits and there are no instances of backsliding. Appendix Link

Antidegradation

The permit contains effluent limitations which ensure that the designated best use of the receiving waters will be maintained. Please see the Environmental Notice Bulletin for information on the State Environmental Quality Review (SEQR)[2] determination. Appendix Link

Mercury

Mercury was detected in the effluent of Outfall 001 at a level of 7.2 ng/L, which exceeds the water quality standard of 0.7 ng/L. Based on the type of discharge at this facility mercury is believed to be present in this discharge solely due to ambient background sources. Considering the very low levels detected in this effluent, their likely source, the facility flow <1 MGD, and the ubiquitous nature of mercury contamination, it is currently impractical for the discharger to achieve the calculated WQBEL. The Mercury Minimization Program for Low Priority POTWs language was added to the permit. The Minimization Program may also include other efforts to minimize the potential for a discharge of mercury including but not limited to:

1. Inspection and/or outreach to other industrial/commercial sectors to reduce or eliminate the potential to discharge mercury to the collection system.
2. Not accepting hauled waste that is industrial in nature unless sample data is provided to the permittee showing that mercury is non-detect using the most sensitive analytical method.
3. Review of equipment and materials used at the POTW which may contain mercury and consider replacement with mercury-free alternatives.
4. Other mercury management strategies provided on the Department's mercury webpage.

A permit modification may be necessary to include more stringent requirements for POTWs which do not maintain low mercury effluent levels.

Temperature Action Level

Following Departmental guidance for municipal discharges to streams classified as trout or trout spawning an action level is required. While the discharge temperature is not expected to contravene the standard in 6 NYCRR Part 704, the 70°F action level will provide data to assess the actual effect of the discharge. Data collected by this monitoring program (see permit for details) may be used at a later date to determine the applicability of additional limitations or modifications in accordance with 6 NYCRR Part 704.4.

Please note temperature exceedances within the same calendar week only require 1 temperature monitoring program the following week. For example, the following monitoring results would only result in the need for 1 monitoring program to be completed within the following calendar week.

Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Temperature	70°F	74°F	72°F	69°F	71°F	70°F	70°F

Qualitative streamflow measurements must simply indicate during the monitoring program that streamflow is either absent or present.

Schedule of Compliance

A Schedule of Compliance is being included in the permit[3] based on a reasonable finding of the following:

- Water quality standards will be met by the end of the Compliance Schedule;
- The permittee cannot immediately comply with the WQBEL;
- Inclusion of a Compliance Schedule is appropriate and compliance with the final WQBEL is required as soon as possible based on the reason provided.

[2] As prescribed by 6 NYCRR Part 617
[3] Pursuant to 6 NYCRR 750-1.14

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Items in the Schedule of Compliance:

- Engineering design, approval, and construction milestones for disinfection upgrade.
  - A major modification to the treatment facility, operations or measures is needed and will take a significant amount of time to properly plan, design, fund, and construct.

OUTFALL AND RECEIVING WATER SUMMARY TABLE

Outfall	Latitude	Longitude	Receiving Water Name	Water Class	Water Index No. / Priority Waterbody Listing (PWL) No.	Major / Sub Basin	Hardness (mg/l)	1Q10 (MGD)	7Q10 (MGD)	30Q10 (MGD)	Critical Effluent Flow (MGD)	Dilution Ratio		
												A(A)	A(C)	HEW
001	41° 37' 08" N	74° 35' 20" W	McKee Brook	B(T)	D-1-35	14-02		ISEL	ISEL	ISEL	0.39	-	-	-

POLLUTANT SUMMARY TABLE

Outfall 001

Outfall #	001	**Description of Wastewater:** Domestic Sanitary Wastewater														
		Type of Treatment: Bar Screen, Equalization Tank, SBR Basins, Filter Feed EQ Tanks, Sand Filter, Chlorine Contact Tank, Post Aeration Tank														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd Conc.	Projected Instream Conc.	WQ Std or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
General Notes: Existing discharge data from 07/01/15 to 07/31/18 was obtained from Discharge Monitoring Reports provided by the permittee. Ambient background data was estimated. If seasonal limits apply, Summer is defined as June 1st through October 31st and Winter is defined as November 1st through May 31st.																
Flow Rate	MGD	Monthly Avg	0.41	0.24	36/0	0.41	Design Flow				-		-	-	TBEL
		Daily Max	-	0.36	36/0									-	
	Consistent with TOGS 1.3.3, a Monthly Average flow limitation of 0.41 MGD is specified, which is equal to the average daily design capacity of the treatment plant.														
pH	SU	Minimum	6.5	5.4	36/0	6.0	TOGS 1.3.3			6.5	Range	6.5	703.3	-	TBEL
		Maximum	8.5	8.9	36/0	9.0	TOGS 1.3.3			8.5	Range	8.5	703.3	-	
	Given that adequate dilution is not available, an effluent limitation equal to the WQS is appropriate.														
Temperature	°C	Monthly Avg	-	61.5	36/0		TOGS 1.3.3				Narrative		704.2	-	Action Level
		Daily Max	70	77	36/0									-	

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Outfall #	001	**Description of Wastewater:** Domestic Sanitary Wastewater **Type of Treatment:** Bar Screen, Equalization Tank, SBR Basins, Filter Feed EQ Tanks, Sand Filter, Chlorine Contact Tank, Post Aeration Tank													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd Conc.	Projected Instream Conc.	WQ Std or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
	An action level monitoring requirement is appropriate to collect and monitor ambient stream temperature measurements for further evaluation.														
Settleable Solids	mL/L	Monthly Avg	-	0.5	36/0		TOGS 1.3.3				Narrative		703.2	-	TBEL
		Daily Max	0.1	5.0	36/0									-	
	Given that adequate dilution is not available an effluent limitation equal to 0.1 mg/l daily max is appropriate and consistent with TOGS 1.3.1 for discharges to intermittent streams.														
Dissolved Oxygen (DO)	mg/l	Daily Min	7.0	11.9	36	7.0	TOGS 1.3.3				Narrative		703.3	-	TBEL
	The RSAT model showed that DO standards are maintained and consequently WQBELs for DO, BOD/CBOD, and TKN are unnecessary and the TBELs are protective of water quality.														
5-day Oxygen (BOD_5)	mg/l	Monthly Avg	5.0	18.2	24/12	30	TOGS 1.3.3				Narrative		703.3	-	TBEL
	lbs/d	Monthly Avg	17.1	26.9	35/1										
	% Rem	Minimum	95	103	36/0										
	Given that adequate dilution is not available an effluent limitation equal to 5 mg/l daily max is appropriate and consistent with TOGS 1.3.1 for discharges to intermittent streams.														
Total Solids (TSS)	mg/l	Monthly Avg	10.0	18.8	25/11	30	TOGS 1.3.3				Narrative		703.2	-	TBEL
	lbs/d	Monthly Avg	34.2	38.3	33/3										
	% Rem	Minimum	95	106	36/0										
	Given that adequate dilution is not available an effluent limitation equal to 10 mg/l daily max is appropriate and consistent with TOGS 1.3.1 for discharges to intermittent streams.														
Total	mg/l	Monthly Avg	0.5	0.35	35/1		TOGS 1.3.3						703.2	-	TBEL
	lb/yr	Annual Load													
	Given that adequate dilution is not available an effluent limitation equal to 0.5 mg/l monthly average is appropriate and consistent with TOGS 1.3.1 for discharges to intermittent streams.														
Total Residual Chlorine	mg/l	Daily Max	0.1	0.8	8/0	2.0	TOGS 1.3.3	0.005				-	-	0.03	WQBEL

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Outfall #	001	**Description of Wastewater:** Domestic Sanitary Wastewater **Type of Treatment:** Bar Screen, Equalization Tank, SBR Basins, Filter Feed EQ Tanks, Sand Filter, Chlorine Contact Tank, Post Aeration Tank													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
	Due to the low dilution, the calculated WQBEL is less than the TBEL and less than the minimum level of detection. Therefore, an effluent limitation equal to the minimum level of detection of 0.030 mg/l is appropriate.														
Nitrogen, Ammonia (as N)	mg/l	Monthly Avg	1.1	1.2	10/5		TOGS 1.3.3						-	-	TBEL
	Reporting for Ammonia has been changed from (as NH3) to (as N) for simpler data reporting, as this is consistent with the laboratory reporting units. Values can be converted using the equation: Ammonia (as N) = Ammonia (as NH3) x 0.8224.														
Nitrogen, Ammonia (as N)	mg/l	Monthly Avg	2.2	3.0	8/13		TOGS 1.3.3						-	-	TBEL
	Reporting for Ammonia has been changed from (as NH3) to (as N) for simpler data reporting, as this is consistent with the laboratory reporting units. Values can be converted using the equation: Ammonia (as N) = Ammonia (as NH3) x 0.8224.														
Nitrogen, TKN (as N)	mg/l	Monthly Avg	-	5.0	23/13		TOGS 1.3.3						-	-	Monitor
	Monitor only.														
Coliform, Fecal	#/100 ml	30d Geo Mean	200	26	8/10	200	TOGS 1.3.3			200	H(WS)	200	703.4	-	TBEL
		7d Geo Mean	400	26	8/10	400	TOGS 1.3.3							-	
	Consistent with TOGS 1.3.3 effluent disinfection is required seasonally from May 1st – October 31st, due to the class B receiving waterbody. Fecal coliform limits equal to the TBEL are specified.														
Mercury	ng/l	Daily Max					TOGS 1.3.10		-	0.7			-		Monitor
	Mercury was detected in the effluent at a level of 7.2 ng/l and exceeds the water quality standard of 0.7 ng/l. However, the permitted flow is < 1 MGD. Consistent with TOGS 1.3.10 and NYS multiple discharge variance (MDV), mercury is believed to be present in the effluent solely due to background sources and no effluent limits or monitoring requirements have been included.														
Additional Pollutants Detected															
Nitrate/Nitrite as N (mg/l)	mg/l	Daily Max	-	5.27	1		-					No Reasonable Potential	-		-
Nitrite as N (mg/l)	mg/l	Daily Max	-	<0.01	1		-					No Reasonable Potential	-		-

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Outfall #	001	**Description of Wastewater:** Domestic Sanitary Wastewater													
		Type of Treatment: Bar Screen, Equalization Tank, SBR Basins, Filter Feed EQ Tanks, Sand Filter, Chlorine Contact Tank, Post Aeration Tank													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
TDS (mg/l)	mg/l	Monthly Avg	-	433	1		-					No Reasonable Potential	-		-
		Daily Max													

Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤ 3 nondetects)
Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with > 3 nondetects)

Appendix: Regulatory and Technical Basis of Permit Authorizations

The information presented in the Appendix is meant to supplement the factsheet for multiple types of permits and may not be applicable to this specific permit.

Regulatory References

The requirements included in SPDES permits are based on both federal and state laws, regulations, policies, and guidance.

- Clean Water Act (CWA) 33 section USC 1251 to 1387
- Environmental Conservation Law (ECL) Articles 17 and 70
- Federal Regulations
  - 40 CFR, Chapter I, subchapters D, N, and O
- State environmental regulations
  - 6 NYCRR Part 621
  - 6 NYCRR Part 750
  - 6 NYCRR Parts 700 - 704 – Best use and other requirements applicable to water classes
  - 6 NYCRR Parts 800 – 941 - Classification of individual surface waters
- NYSDEC water program policy, often referred to as Technical and Operational Guidance Series memos (TOGS)
- USEPA Office of Water Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E

The following is a quick guide to the references used within the factsheet:

SPDES Permit Requirements	Regulatory Reference
Anti-backsliding	6 NYCRR 750-1.10(c)
Best Management Practices (BMPS) for CSOs	6 NYCRR 750-2.8(a)(2)
Environmental Benefits Permit Strategy (EBPS)	6 NYCRR 750-1.18, NYS ECL 17-0817(4), TOGS 1.2.2 (revised January 25,2012)
Exceptions for Type I SSO Outfalls (bypass)	6 NYCRR 750-2.8(b)(2), 40 CFR 122.41
Mercury Multiple Discharge Variance	Division of Water Program Policy 1.3.10 (TOGS 1.3.10)
Mixing Zone and Critical Water Information	TOGS 1.3.1 & Amendments
PCB Minimization Program	40 CFR Part 132 Appendix F Procedure 8, 6 NYCRR 750-1.13(a) and 750-1.14(f), and TOGS 1.2.1
Pollutant Minimization Program (PMP)	6 NYCRR 750-1.13(a), 750-1.14(f), TOGS 1.2.1
Schedules of Compliance	6 NYCRR 750-1.14
Sewage Pollution Right to Know (SPRTK)	NYS ECL 17-0826-a, 6 NYCRR 750-2.7
State Administrative Procedure Act (SAPA)	State Administrative Procedure Act Section 401(2), 6 NYCRR 621.11(l)
State Environmental Quality Review (SEQR)	6 NYCRR Part 617
USEPA Effluent Limitation Guidelines (ELGs)	40 CFR Parts 405-471
USEPA National CSO Policy	33 USC Section 1342(q)
Whole Effluent Toxicity (WET) Testing	TOGS 1.3.2
General Provisions of a SPDES Permit Department Request for Additional Information	NYCRR 750-2.1(i)

The provisions of the permit are based largely upon 40 CFR 122 subpart C and 6 NYCRR Part 750 and include monitoring, recording, reporting, and compliance requirements, as well as general conditions applicable to all SPDES permits.

Outfall and Receiving Water Information

Impaired Waters

The NYS 303(d) List of Impaired/TMDL Waters (http://www.dec.ny.gov/chemical/31290.html) identifies waters where specific designated uses are not fully supported and for which the state must consider the development of a TMDL or other strategy to reduce the input of the specific pollutant(s) that restrict waterbody uses, in order to restore and protect such uses. SPDES permits must include effluent limitations necessary to implement a WLA of an EPA-approved TMDL (6 NYCRR 750-1.11(a)(5)(ii)), if applicable. In accordance with 6 NYCRR 750-1.13(a), permittees discharging to waters which are on the list but do not yet have a TMDL developed may be required to perform additional monitoring for the parameters causing the impairment. Accurate monitoring data is needed for the development of the TMDL, and to allow the Department to accurately determine the existing capabilities of the wastewater treatment plant to assure that wasteload allocations (WLAs) are allocated equitably.

Existing Effluent Quality

During development of the permit, a statistical evaluation of existing effluent quality is performed to calculate the 95th (monthly average) and 99th (daily maximum) percentiles of the existing effluent quality. That evaluation is completed in accordance with TOGS 1.2.1 and the USEPA Office of Water Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E. When there are three or fewer non-detects, a lognormal distribution of the data is assumed, and lognormal calculations are used to determine the monthly average and daily maximum concentrations of the existing effluent. When there are greater than three non-detects, a delta-lognormal distribution is assumed, and delta-lognormal calculations are used to determine the monthly average and daily maximum pollutant concentrations. Statistical calculations are not performed for parameters where there are less than ten data points. If additional data is needed, a monitoring requirement may be specified either through routine monitoring or a short-term high intensity monitoring program. The Pollutant Summary Table identifies the number of sample data points available.

Permit Requirements

Basis for Effluent Limitations

Sections 101, 301, 304, 308, 401, 402, and 405 of the CWA and Titles 5, 7, and 8 of Article 17 ECL, as well as their implementing federal and state regulations, and related guidance, provide the basis for the effluent limitations and other conditions in the permit.

When conducting a full technical review of an existing permit, the previous permit limitations form the basis for the next permit. Existing effluent quality is evaluated against the existing permit limitations to determine if these should be continued, revised, or deleted. Generally, existing limitations are continued unless there are changed conditions at the facility, the facility demonstrates an ability to meet more stringent limitations, and/or in response to updated regulatory requirements. Pollutant monitoring data is also reviewed to determine the presence of additional contaminants that should be included in the permit based on a reasonable potential analysis to cause or contribute to a water quality standards violation.

Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(*l*) and 6 NYCRR 750-1.10(c) and (d). These requirements are summarized in TOGS 1.2.1. Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a case-by-case basis in this factsheet.

Antidegradation Policy

New York State implements the antidegradation portion of the CWA based upon two documents: (1) Organization and Delegation Memorandum #85-40, "Water Quality Antidegradation Policy" (September 9, 1985);

and, (2) TOGS 1.3.9, "Implementation of the NYSDEC Antidegradation Policy – Great Lakes Basin (Supplement to Antidegradation Policy dated September 9, 1985) (undated)." The permit for the facility contains effluent limitations which ensure that the existing best usage of the receiving waters will be maintained. To further support the antidegradation policy, SPDES applications have been reviewed in accordance with the State Environmental Quality Review Act (SEQR) as prescribed by 6 NYCRR Part 617.

Effluent Limitations

In developing a permit, the Department determines the technology-based effluent limitations (TBELs) and then evaluates the water quality expected to result from technology controls to determine if any exceedances of water quality criteria in the receiving water might result. If there is a reasonable potential for exceedances of water quality criteria to occur, water quality-based effluent limitations (WQBELs) are developed. A WQBEL is designed to ensure that the water quality standards of receiving waters are met. In general, the CWA requires that the effluent limitations for a particular pollutant are the more stringent of either the TBEL or WQBEL.

Technology-based Effluent Limitations (TBELs)

CWA sections 301(b)(1)(B) and 304(d)(1), 40 CFR 133.102, ECL section 17-0509, and 6 NYCRR 750-1.11 require technology-based controls, known as secondary treatment. These and other requirements are summarized in TOGS 1.3.3. Equivalent secondary treatment, as defined in 40 CFR 133.105, allow for effluent limitations of the more stringent of the consistently achievable concentrations or monthly/weekly averages of 45/65 mg/l, and the minimum monthly average of at least 65% removal. Consistently achievable concentrations are defined in 40 CFR 133.101(f) as the 95th percentile value for the 30-day (monthly) average effluent quality achieved by the facility in a period of two years. The achievable 7-day (weekly) average value is equal to 1.5 times the 30-day average value calculated above. Equivalent secondary treatment applies to those facilities where the principal treatment process is either a trickling filter or a waste stabilization pond; the treatment works provides significant biological treatment of municipal wastewater; and, the effluent concentrations consistently achievable through proper operation and maintenance of the facility cannot meet traditional secondary treatment requirements.

Other Technology Based Effluent Limitations:
There are no federal technology-based standards for toxic pollutants from POTWs. For each toxic parameter present in the discharge a Reasonable Potential Analysis is conducted. This may be a statistical analysis of existing data in accordance with TOGS 1.2.1, or an assessment of the technology employed at the facility and selection of the appropriate limitation from TOGS 1.2.1 Attachment C. Where the TBEL is more stringent than the WQBEL, the TBEL is applied as an action level in accordance with TOGS 1.3.3.

Water Quality-Based Effluent Limitations (WQBELs)

In addition to the TBELs, permits must include additional or more stringent effluent limitations and conditions, including those necessary to protect water quality. CWA sections 101 and 301(b)(1)(C), 40 CFR 122.44(d)(1), and 6 NYCRR Parts 700-704 and 750-1.11 require that permits include limitations for all pollutants or parameters which are or may be discharged at a level which may cause or contribute to an exceedance of any State water quality standard adopted pursuant to NYS ECL 17-0301. The limitations must be stringent enough to ensure that water quality standards are met and must be consistent with any applicable WLA which may be in effect through a TMDL for the receiving water. These and other requirements are summarized in TOGS 1.1.1, 1.3.1, 1.3.2, 1.3.5 and 1.3.6.

Mixing Zone Analyses

Mixing zone analyses are conducted in accordance with the following documents:

"EPA Technical Support Document for Water Quality-Based Toxics Control," (March 1991); EPA Region VIII's "Mixing Zones and Dilution Policy", (December 1994); NYSDEC TOGS 1.3.1, "Total Maximum Daily Loads and Water Quality-Based Effluent Limitations" (July 1996).

Critical Flows

In accordance with TOGS 1.2.1 and 1.3.1, water quality-based effluent limitations are developed using dilution ratios that relate the critical low flow condition of the receiving waterbody to the critical effluent flow. The critical low flow condition used in the dilution ratio will be different depending on whether the limitations are for aquatic or human health protection. For chronic aquatic protection, the critical low flow condition of the waterbody is typically represented by the 7Q10 flow and is calculated as the lowest average flow over a 7-day consecutive period within 10 years. For acute aquatic protection, the critical low flow condition is typically represented by the 1Q10 and is calculated as the lowest 1-day flow within 10 years. However, NYSDEC considers using 50% of the 7Q10 to be equivalent to the 1Q10 flow. For the protection of human health, the critical low flow condition is typically represented by the 30Q10 flow and is calculated as the lowest average flow over a 30-day consecutive period within 10 years. However, NYSDEC considers using 1.2 x 7Q10 to be equivalent to the 30Q10. The 7Q10 or 30Q10 flow is used with the critical effluent flow to calculate the dilution ratio. The critical effluent flow can be the maximum daily flow reported on the permit application, the maximum of the monthly average flows from discharge monitoring reports for the past three years, or the facility design flow.

Methodologies

The procedure for developing WQBELs includes the following steps:

1) identify the pollutants present in the discharge(s) based upon existing data, sampling data collected by the permittee as part of the permit application or a short-term high intensity monitoring program, or data gathered by the Department;

2) identify water quality criteria applicable to these pollutants:

3) determine if WQBELs are necessary (i.e. reasonable potential analysis); and,

4) calculate WQBELs (if necessary). Factors considered in calculating WQBELs include available dilution of effluent in the receiving water, receiving water chemistry, and other pollutant sources.

The Department uses the following modeling tools to estimate the expected concentrations of the pollutant in the receiving water and develop WQBELs. These tools were developed in part using the methodology referenced above. If the estimated concentration of the pollutant in the receiving water is expected to exceed the ambient water quality standard or guidance value, then there is a reasonable potential that the discharge may cause or contribute to an exceedance of any State water quality standard adopted pursuant to NYS ECL 17-0301. If a TMDL is in place, the facility's WLA for that pollutant is applied as the WQBEL.

- RSAT: The River Based Effluent Limitation Screening Analysis Tool (RSAT) was developed by the Department for determining WQBELs for point sources discharging to freshwater streams. The model considers both non-conservative oxygen demanding pollutants and conservative toxic pollutants;

- PonSAT: The Ponded Waterbody Based Effluent Limitation Screening Analysis Tool (PonSAT) was developed by the Department for determining WQBELs for point sources discharging to freshwater ponded waterbodies. The model considers both non-conservative oxygen demanding pollutants and conservative toxic pollutants;

- CORMIX: Cornell University along with USEPA developed this hydrodynamic mixing zone model and decision support system for pollutant discharges into oceans, rivers, lakes, and estuaries based upon facility specific discharge and receiving water data. The model considers both non-conservative oxygen demanding pollutants and conservative toxic pollutants.

Additional information regarding the use and inputs to RSAT and PonSAT may be found in the User's Manuals for RSAT and PonSAT.

Whole Effluent Toxicity (WET) Testing:

WET tests use small vertebrate and invertebrate species to measure the aggregate toxicity of an effluent. There are two different durations of toxicity tests: acute and chronic. Acute toxicity tests measure survival over a 96-hour test exposure period. Chronic toxicity tests measure reductions in survival, growth, and reproduction over a 7-day exposure. TOGS 1.3.1 includes guidance for determining when aquatic toxicity testing should be included in SPDES permits. The authority to require toxicity testing is in Part 702.16(b) of Chapter X, Title 6 of the New York State Codes, Rules, and Regulations. TOGS 1.3.2 describes the procedures which should be followed when determining whether to include toxicity testing in a SPDES permit and how to implement a toxicity testing program. Per TOGS 1.3.2, WET testing may be required when any one of the following seven criteria are applicable:

1. There is the presence of substances in the effluent for which ambient water quality criteria do not exist.
2. There are uncertainties in the development of TMDLs, WLAs, and WQBELs, caused by inadequate ambient and/or discharge data, high natural background concentrations of pollutants, available treatment technology, and other such factors.
3. There is the presence of substances for which WQBELs are below analytical detectability.
4. There is the possibility of complex synergistic or additive effects of chemicals, typically when the number of metals or organic compounds discharged by the permittee equals or exceeds five.
5. There are observed detrimental effects on the receiving water biota.
6. Previous WET testing indicated a problem.
7. POTWs which exceed a discharge of 1 MGD. Facilities of less than 1 MGD may be required to test, e.g., POTWs < 1 MGD which are managing industrial pretreatment programs.

Minimum Level of Detection

Pursuant to 40 CFR 122.44(i)(1), SPDES permits must contain monitoring requirements using sufficiently sensitive test procedures approved under 40 CFR Part 136. A method is "sufficiently sensitive" when the method's minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant parameter; or the lowest ML of the analytical methods approved under 40 CFR Part 136. The ML represents the lowest level that can be measured within specified limitations of precision and accuracy during routine laboratory operations on most effluent matrices. When establishing effluent limitations for a specific parameter (based on technology or water quality requirements), it is possible that the calculated limitation will fall below the ML established by the approved analytical method(s). In these instances, the calculated limitation is included in the permit with a compliance level set equal to the ML of the most sensitive method.

Monitoring Requirements

CWA section 308, 40 CFR 122.44(i), and 6 NYCRR 750-1.13 require that monitoring be included in permits to determine compliance with effluent limitations. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required. The permittee is responsible for conducting the monitoring and reporting results on Discharge Monitoring Reports (DMRs). The permit contains the monitoring requirements for the facility. Monitoring frequency is based on the minimum sampling necessary to adequately monitor the facility's performance and characterize the nature of the discharge of the monitored flow or pollutant.

Variable effluent flows and pollutant levels may be required to be monitored at more frequent intervals than relatively constant effluent flow and pollutant levels (6 NYCRR 750-1.13). For industrial facilities, sampling frequency is based on guidance provided in TOGS 1.2.1. For municipal facilities, sampling frequency is based on guidance provided in TOGS 1.3.3.

Other Conditions

Mercury

The DOW Program Policy 1.3.10, Mercury SPDES permitting and Multiple Discharge Variance (MDV) (TOGS 1.3.10) was developed in accordance with 6 NYCRR 702.17(h) and approved by EPA in October 2015. The MDV is necessary because human caused conditions or sources of mercury prevent attainment of the water quality standard and cannot be remedied, i.e., mercury is ubiquitous in New York waters at levels above the water quality standard and compliance with WQBEL for mercury cannot be achieved with demonstrated treatment technologies. The MDV will result in reasonable progress toward achieving the WQBEL by including meaningful, yet achievable, requirements in SPDES permits.

During the period where the MDV is applicable, the increased risks to human health are mitigated by fish consumption advisories issued periodically by both the NYS Department of Health and the United States Food and Drug Administration. Therefore, NYSDEC has determined that the MDV is consistent with the protection of the public health, safety, and welfare.

All surface water SPDES permittees are eligible for authorization by the MDV provided they meet the requirements specified in TOGS 1.3.10.

Schedules of Compliance

Schedules of compliance are included in accordance with 40 CFR Part 132 Attachment F, Procedure 9, 40 CFR 122.47 and 6 NYCRR 750-1.14. Schedules of compliance are intended to, in the shortest reasonable time, achieve compliance with applicable effluent standards and limitations, water quality standards, and other applicable requirements. Where the time for compliance is more than nine months, the schedule of compliance must include interim requirements and dates for their achievement. If the time necessary to complete the interim milestones is more than nine months, and not readily divisible into stages for completion, progress reports must be required.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits
625 Broadway, 4th Floor, Albany, New York 12233-1750
P: (518) 402-9167 I F: (518) 402-9168 I deppermitting@dec.ny.gov
www.dec.ny.gov

November 27, 2017

Town of Thompson
Attn: William Culligan
4052 Route 42
Monticello, NY 12701

Re: Department Issued Modification – Disinfection Requirements
SPDES NY0030724 DEC ID 3-4846-00039/00003

Dear Permittee:

Enclosed is a final modified State Pollutant Discharge Elimination System (SPDES) permit for the above referenced facility that includes disinfection requirements in accordance with 6 NYCRR Part 703.4. This permit has been modified by the NYSDEC pursuant to 6 NYCRR Part 750-1.18.

This also acknowledges receipt of the November 16, 2017, letter from Matthew Sickler of MH&E, on behalf of the Town requesting the monitoring location changed to effluent as the flow meter exists at the facility effluent. The department has made this change and is reflected on page 3 of the permit.

Please be advised, the Uniform Procedures Regulations (6 NYCRR Part 621) provide that an applicant may request a public hearing if a permit contains conditions which are unacceptable to them. Any such request must be made in writing within 30 calendar days of the date of permit issuance and must be addressed to the Permit Administrator at the letterhead address. A copy should also be sent to the Chief Administrative Law Judge at NYSDEC, 625 Broadway, 1st Floor, Albany, NY 12233-1550.

Should you have questions on the administration of this modification, please feel free to contact me at the address or phone number listed above. Should you have technical questions on permit content, please contact the permit engineer, Demissie Woyecha, at (518) 402-8173, or the Regional Water Engineer, Shohreh Karimipour, at (914) 428-2505.

Sincerely,

Teresa Diehsner
Environmental Program Specialist I
Division of Environmental Permits

Enclosures:
-SDPES Permit
-Fact Sheet

cc: Regional Permit Administrator
Regional Water Engineer
C. Jamison, CO-BWP Permit Administrator
D. Woyecha, Permit Engineer
USEPA Region 2
NYSEFC
NYSDOH District Office
M. Sickler, MH&E Consulting Engineers

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

Industrial Code:	4952	SPDES Number:	NY 003 0724
Discharge Class (CL):	05	DEC Number:	3-4846-00039/00003
Toxic Class (TX):	T	Effective Date (EDP):	04/01/2015
Major Drainage Basin:	14	Expiration Date (ExDP):	03/31/2020
Sub Drainage Basin:	02	Modification Dates: (EDPM)	12/01/2017
Water Index Number:	D-1-38-3		
Compact Area:	DRBC		

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et.seq.)(hereinafter referred to as "the Act").

PERMITTEE NAME AND ADDRESS

Name:	**Town of Thompson**	Attention:	**William Culligan – Superintendent**		
Street:	**4052 Route 42**				
City:	**Monticello**	State:	**NY**	Zip Code:	**12701**

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

Name:	**Thompson (T) Kiamesha Lake Sewer District**												
Location (C,T,V):	**Thompson (T)**							County:	**Sullivan**				
Facility Address:	**4052 Route 42**												
City:	**Monticello**			State:				**NY**	Zip Code:	**12701**			
From Outfall No.:	001	at Latitude:		°		′		″	& Longitude:		°	′	″
into receiving waters known as:	**Kiamesha Creek**								Class:	C			

and (list other Outfalls, Receiving Waters & Water Classifications)

in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1and 750-2.

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS

Mailing Name:	**Kiamesha Lake STP**				
Street:	**4052 Route 42**				
City:	**Monticello**	State:	**NY**	Zip Code:	**12701**
Responsible Official or Agent:	**William Culligan**		Phone:	**(845) 794-5280**	

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

DISTRIBUTION:

CO BWP - Permit Coordinator
RWE
RPA
EPA Region II
NYSEFC
NYSDOH District Office

Chief Permit Administrator: John J. Ferguson

Address: Division of Environmental Permits
625 Broadway, 4th Floor
Albany, NY 12233-1750

Signature: [signature] Date: 11/27/17

PERMIT LIMITS, LEVELS AND MONITORING DEFINITIONS

OUTFALL	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
	This cell describes the type of wastewater authorized for discharge. Examples include process or sanitary wastewater, storm water, non-contact cooling water.	This cell lists classified waters of the state to which the listed outfall discharges.	The date this page starts in effect. (e.g. EDP or EDPM)	The date this page is no longer in effect. (e.g. ExDP)

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQ.	SAMPLE TYPE
e.g. pH, TRC, Temperature, D.O.	The minimum level that must be maintained at all instants in time.	The maximum level that may not be exceeded at any instant in time.	SU, °F, mg/l, etc.	See below	See below

PARAMETER	EFFLUENT LIMIT or CALCULATED LEVEL	COMPLIANCE LEVEL / MINIMUM LEVEL (ML)	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE
	Limit types are defined below in Note 1. The effluent limit is developed based on the more stringent of technology-based limits, required under the Clean Water Act, or New York State water quality standards. The limit has been derived based on existing assumptions and rules. These assumptions include receiving water hardness, pH and temperature; rates of this and other discharges to the receiving stream; etc. If assumptions or rules change the limit may, after due process and modification of this permit, change.	For the purposes of compliance assessment, the permittee shall use the approved EPA analytical method with the lowest possible detection limit as promulgated under 40CFR Part 136 for the determination of the concentrations of parameters present in the sample unless otherwise specified. If a sample result is below the detection limit of the most sensitive method, compliance with the permit limit for that parameter was achieved. Monitoring results that are lower than this level must be reported, but shall not be used to determine compliance with the calculated limit. This Minimum Level (ML) can be neither lowered nor raised without a modification of this permit.	Action Levels are monitoring requirements, as defined below in Note 2, which trigger additional monitoring and permit review when exceeded.	This can include units of flow, pH, mass, temperature, or concentration. Examples include µg/l, lbs/d, etc.	Examples include Daily, 3/week, weekly, 2/month, monthly, quarterly, 2/yr and yearly. All monitoring periods (quarterly, semiannual, annual, etc.) are based upon the calendar year unless otherwise specified in this Permit.	Examples include grab, 24 hour composite and 3 grab samples collected over a 6 hour period.

Notes:

1. EFFLUENT LIMIT TYPES:
   a. DAILY DISCHARGE: The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average measurement of the pollutant over the day.
   b. DAILY MAX: The highest allowable daily discharge.
   c. DAILY MIN: The lowest allowable daily discharge.
   d. MONTHLY AVG: The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
   e. 7 DAY ARITHMETIC MEAN (7 day average): The highest allowable average of daily discharges over a calendar week.
   f. 30 DAY GEOMETRIC MEAN: The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of: the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
   g. 7 DAY GEOMETRIC MEAN: The highest allowable geometric mean of daily discharges over a calendar week.
   h. 12 MONTH ROLLING AVERAGE: The current monthly value of a parameter, plus the sum of the monthly values over the previous 11 months for that parameter, divided by 12.
   i. RANGE: The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.

2. ACTION LEVELS: Routine Action Level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted. If the additional monitoring requirement is triggered as noted below, the permittee shall undertake a short-term, high-intensity monitoring program for the parameter(s). Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive operating and discharging days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the additional monitoring requirement was triggered. Results may be appended to the DMR or transmitted under separate cover to the same address. If levels higher than the Action Levels are confirmed, the permit may be reopened by the Department for consideration of revised Action Levels or effluent limits. The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	LIMITATIONS APPLY:	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All year otherwise stated	Kiamesha Creek	12/01/2017	3/31/2020

PARAMETER	EFFLUENT LIMIT					MONITORING REQUIREMENTS				FN
								Location		
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	
Flow	Monthly Average	Monitor	MGD		MGD	Continuous	Recorder		X	
Flow	12 Month Rolling Average	2.0	MGD		MGD	Continuous	Recorder		X	
$CBOD_5$	Daily Max	Monitor	mg/l	Monitor	lbs/d	1/Week	24-hr. Comp.		X	
UOD (June 1 – October 31)	Daily Max	15.3	mg/l	260	lbs/d		24-hr. Comp.		X	(1)
UOD (June 1 – October 31)	Daily Max	32	mg/l	530	lbs/d		24-hr. Comp.		X	(1)
Solids, Suspended	Daily Max	10	mg/l	170	lbs/d	1/Week	24-hr. Comp.		X	
Solids, Settleable	Daily Maximum	0.1	ml/l			2/Day	Grab		X	
pH	Range	6.0 – 9.0	SU			2/Day	Grab		X	
Nitrogen, Ammonia (as N) (Nov. 1 – May 31)	Monthly Average	1.4	mg/l			1/Week	24-hr. Comp.		X	
Nitrogen, Ammonia (as N) (Nov. 1 – May 31)	Monthly Average	2.1	mg/l			1/Week	24-hr. Comp.		X	
Nitrogen, TKN (as N)	Daily Max	Monitor	mg/l			1/Week	24-hr. Comp.		X	(2)
Dissolved Oxygen	Daily	7.0	mg/l			1/Week	Grab		X	
Mercury, Total	Daily Max	50	ng/l			Quarterly	Grab		X	
Temperature	Daily Maximum	Monitor	Deg F			2/Day	Grab		X	
Effluent Disinfection required	[X] Seasonal from **May 1** to **Oct 31**							(3, 5)		
Coliform, Fecal	30-Day Geometric Mean	200	No./ 100 ml			1/Week	Grab		X	(3)
Coliform, Fecal	7 Day Geometric Mean	400	No./ 100 ml			1/Week	Grab		X	(3)
Chlorine, Total Residual	Daily Maximum	20	ug/l	0.33	lbs/d	2/Day	Grab		X	(3,4)

FOOTNOTES:

(1) Ultimate Oxygen Demand shall be computed as follows: UOD = 1.5CBD5 + 4.5TKN
(2) The sample for TKN (Total Kjelkahl Nitrogen) shall be obtained concurrently with the sample for CBOD.
(3) Limits and monitoring requirements are not in effect until May 1, 2022. See the schedule of compliance on page 4.
(4) If Chlorine and chlorine containing compound is not used in the treatment process, then total residual chlorine monitoring is not required.
(5) Disinfection shall be practiced at all times if the effluent is land applied.

SCHEDULE OF COMPLIANCE

a. The permittee shall comply with the following schedule:

Outfall(s)	Parameter(s) Affected	Interim Effluent Limit(s)	Compliance Action	Due Date
001	Fecal Coliform Total Residual Chlorine	N/A	The permittee shall submit an approvable engineering report, prepared by a Professional Engineer licensed to practice engineering in New York State, detailing the disinfection designs that will be used to comply with the final effluent limitations for Fecal Coliform and Total Residual Chlorine.	May 1, 2019
			The permittee shall submit approvable Engineering Plans, Specifications, and Construction Schedule for the Implementation of effluent disinfection.	May 1, 2020
			The permittee shall begin construction of the treatment facilities in accordance with the Department approved schedule.	May 1, 2021
			The permittee shall complete construction and commence operation of the system, and comply with the final effluent limitations for Fecal Coliform and Total Residual Chlorine.	May 1, 2022

The above compliance actions are one time requirements. The permittee shall comply with the above compliance actions to the Department's satisfaction once. When this permit is administratively renewed by NYSDEC letter entitled "SPDES NOTICE/RENEWAL APPLICATION/PERMIT," the permittee is not required to repeat the submission(s) noted above. The above due dates are independent from the effective date of the permit stated in the "SPDES NOTICE/RENEWAL APPLICATION/PERMIT" letter.

b. For any action where the compliance date is greater than 9 months past the previous compliance due date, the permittee shall submit interim progress reports to the Department every nine (9) months until the due date for these compliance items are met.

c. The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:

MERCURY MINIMIZATION PROGRAM – High Priority POTWs

1. **General** - The permittee shall develop, implement, and maintain a Mercury Minimization Program (MMP). The MMP is required because the permit limit exceeds the statewide water quality based effluent limit (WQBEL) of 0.70 nanograms/liter (ng/L) for Total Mercury. The goal of the MMP will be to reduce mercury effluent levels in pursuit of the WQBEL. Note – The mercury-related requirements in this permit conform to the mercury Multiple Discharge Variance specified in NYSDEC policy *DOW 1.3.10.*

2. **MMP Elements** - The MMP shall be documented in narrative form and shall include any necessary drawings or maps. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. As a minimum, the MMP shall include an on-going program consisting of: periodic monitoring designed to quantify and, over time, track the reduction of mercury; an acceptable control strategy for reducing mercury discharges via cost-effective measures, which may include more stringent control of tributary waste streams; and submission of periodic status reports.

A. Monitoring - The permittee shall conduct periodic monitoring designed to quantify and, over time, track the reduction of mercury. All permit-related wastewater and stormwater mercury compliance point (outfall) monitoring shall be performed using EPA Method 1631. Use of EPA Method 1669 during sample collection is recommended. Unless otherwise specified, all samples shall be grabs. Monitoring at influent and other locations tributary to compliance points may be performed using either EPA Methods 1631 or 245.7. Monitoring of raw materials, equipment, treatment residuals, and other non-wastewater/non-stormwater substances may be performed using other methods as appropriate. Monitoring shall be coordinated so that the results can be effectively compared between internal locations and final outfalls. Minimum required monitoring is as follows:

i. Sewage Treatment Plant Influent & Effluent, and Type II SSO Outfalls - Samples at each of these locations shall be collected in accordance with the minimum frequency specified on the mercury permit limits page.

ii. Key Locations in the Collection System and Potential Significant Mercury Sources - The minimum monitoring frequency at these locations shall be semi-annual. Monitoring of properly treated dental facility discharges is not required.

iii. Hauled Wastes - Hauled wastes which may contain significant mercury levels shall be periodically tested prior to acceptance to ensure compliance with pretreatment/local limits requirements and/or determine mercury load.

iv. Additional monitoring shall be completed as may be required elsewhere in this permit or upon Department request.

B. Control Strategy - An acceptable control strategy is required for reducing mercury discharges via cost-effective measures, including but not limited to more stringent control of industrial users and hauled wastes. The control strategy will become enforceable under this permit and shall contain the following minimum elements:

i. Pretreatment/Local Limits - The permittee shall evaluate and revise current requirements in pursuit of the goal.

ii. Periodic Inspection - The permittee shall inspect users as necessary to support the MMP. Each dental facility shall be inspected at least once every five years to verify compliance with the wastewater treatment operation, maintenance, and notification elements of 6NYCRR Part 374.4. Other mercury sources shall also be inspected once every five years. Alternatively, the permittee may develop an outreach program which informs these users of their responsibilities once every five years and is supported by a subset of site inspections. Monitoring shall be performed as above.

iii. Systems with CSO & Type II SSO Outfalls - Priority shall be given to controlling mercury sources upstream of CSOs and Type II SSOs through mercury reduction activities and/or controlled-release discharge. Effective control is necessary to avoid the need for the Department to establish mercury permit limits at these outfalls.

iv. Equipment and Materials – Equipment and materials which may contain mercury shall be evaluated by the permittee and replaced with mercury-free alternatives where environmentally preferable.

v. Bulk Chemical Evaluation - For chemicals used at a rate which exceeds 1,000 gallons/year or 10,000 pounds/year, the permittee shall obtain a manufacturer's certificate of analysis and/or a notarized affidavit which describes the substances' mercury concentration and the detection limit achieved. The permittee shall only use bulk chemicals which contain <10 ppb mercury, if available.

C. Annual Status Report - An annual status report shall be submitted to the Regional Water Engineer and to the Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505, summarizing: (a) all MMP monitoring results for the previous year; (b) a list of known and potential mercury sources; (c) all action undertaken pursuant to the strategy during the previous year; (d) actions planned for the upcoming year; and, (e) progress toward the goal. The first annual status report is due one year after the permit is modified to include the MMP requirement and follow-up status reports are due annually thereafter. A file shall be maintained containing all MMP documentation, including the dental forms required by 6NYCRR Part 374.4, which shall be available for review by NYSDEC representatives. Copies shall be provided upon request.

3. **MMP Modification** - The MMP shall be modified whenever: (a)changes at the facility or within the collection system increase the potential for mercury discharges; (b) actual discharges exceed 50 ng/L; (c) a letter from the Department identifies inadequacies in the MMP; or, (d) pursuant to a permit modification.

DISCHARGE NOTIFICATION REQUIREMENTS

(a) Except as provided in (c) and (g) of these Discharge Notification Act requirements, the permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit. Such signs shall be installed before initiation of any discharge.

(b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.

(c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.

(d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

The signs shall have **minimum** dimensions of eighteen inches by twenty four inches (18" x 24") and shall have white letters on a green background and contain the following information:

N.Y.S. PERMITTED DISCHARGE POINT

SPDES PERMIT No.: NY_____

OUTFALL No. :____

For information about this permitted discharge contact:

Permittee Name: _____

Permittee Contact: _____

Permittee Phone: ( ) - ### - ####

OR:

NYSDEC Division of Water Regional Office Address:

NYSDEC Division of Water Regional Phone: ( ) - ### -####

(e) For each discharge required to have a sign in accordance with a), the permittee shall, concurrent with the installation of the sign, provide a repository of copies of the Discharge Monitoring Reports (DMRs), as required by the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of this permit. This repository shall be open to the public, at a minimum, during normal daytime business hours. The repository may be at the business office repository of the permittee or at an off-premises location of its choice (such location shall be the village, town, city or county clerk's office, the local library or other location as approved by the Department). In accordance with the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of your permit, each DMR shall be maintained on record for a period of five years

(f) The permittee shall periodically inspect the outfall identification sign(s) in order to ensure they are maintained, are still visible, and contain information that is current and factually correct. Signs that are damaged or incorrect shall be replaced within 3 months of inspection.

DISCHARGE NOTIFICATION REQUIREMENTS (continued)

(g) All requirements of the Discharge Notification Act, including public repository requirements, are waived for any outfall meeting any of the following circumstances, provided Department notification is made in accordance with (h) below:

(i) such sign would be inconsistent with any other state or federal statute;

(ii) the Discharge Notification Requirements contained herein would require that such sign could only be located in an area that is damaged by ice or flooding due to a one-year storm or storms of less severity;

(iii) instances in which the outfall to the receiving water is located on private or government property which is restricted to the public through fencing, patrolling, or other control mechanisms. Property which is posted only, without additional control mechanisms, does not qualify for this provision;

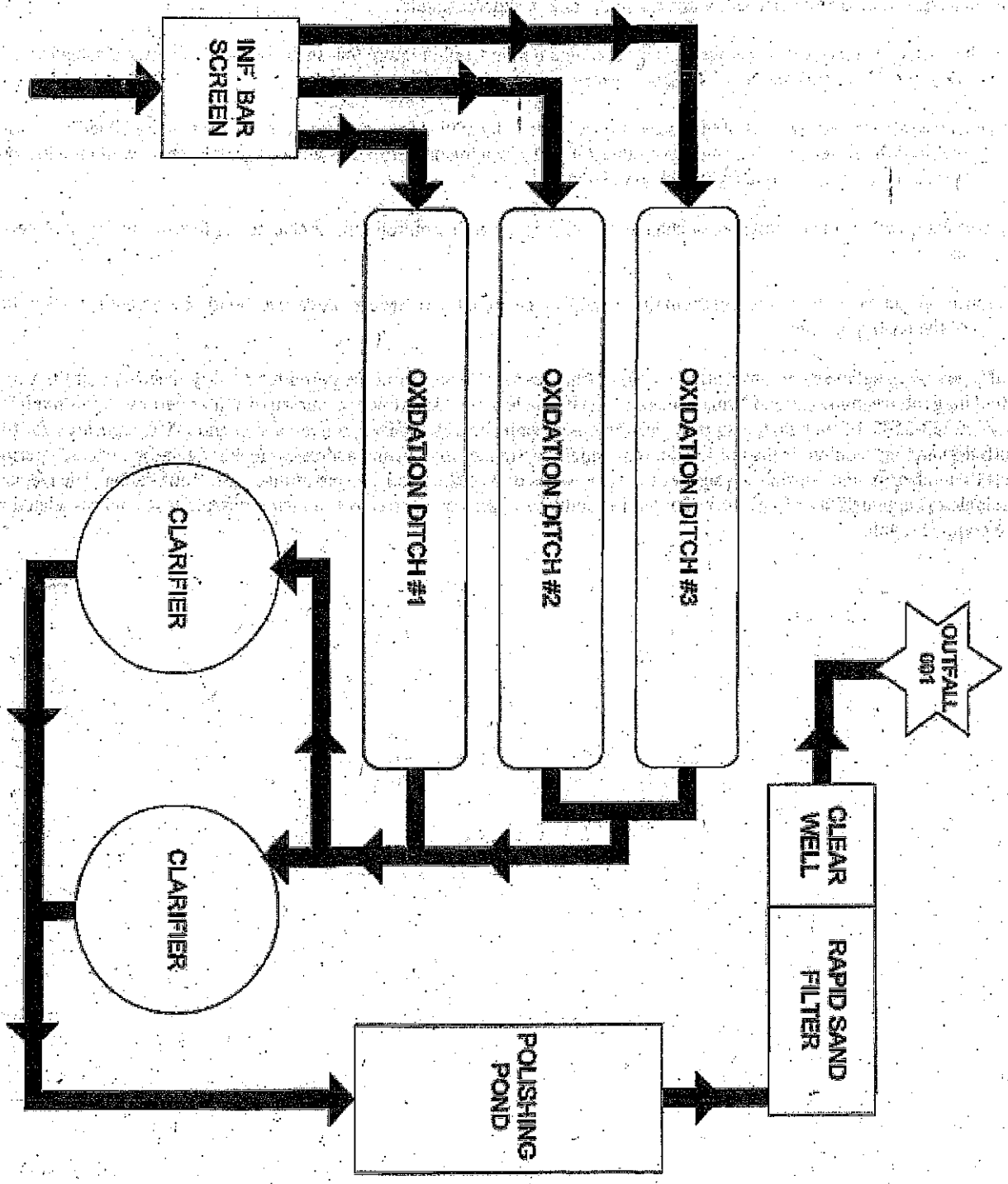
(iv) instances where the outfall pipe or channel discharges to another outfall pipe or channel, before discharge to a receiving water; or

(v) instances in which the discharge from the outfall is located in the receiving water, two-hundred or more feet from the shoreline of the receiving water.

(h) If the permittee believes that any outfall which discharges wastewater from the permitted facility meets any of the waiver criteria listed in (g) above, notification (form enclosed) must be made to the Department's Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505, of such fact, and, provided there is no objection by the Department, a sign and DMR repository for the involved outfall(s) are not required. This notification must include the facility's name, address, telephone number, contact, permit number, outfall number(s), and reason why such outfall(s) is waived from the requirements of discharge notification. The Department may evaluate the applicability of a waiver at any time, and take appropriate measures to assure that the ECL and associated regulations are complied with.

MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the locations(s) specified below:



GENERAL REQUIREMENTS

A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through I as follows:

B. General Conditions

1.	Duty to comply	6 NYCRR 750-2.1(e) & 2.4
2.	Duty to reapply	6 NYCRR 750-1.16(a)
3.	Need to halt or reduce activity not a defense	6 NYCRR 750-2.1(g)
4.	Duty to mitigate	6 NYCRR 750-2.7(f)
5.	Permit actions	6 NYCRR 750-1.1(c), 1.18, 1.20 & 2.1(h)
6.	Property rights	6 NYCRR 750-2.2(b)
7.	Duty to provide information	6 NYCRR 750-2.1(i)
8.	Inspection and entry	6 NYCRR 750-2.1(a) & 2.3

C. Operation and Maintenance

1.	Proper Operation & Maintenance	6 NYCRR 750-2.8
2.	Bypass	6 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7
3.	Upset	6 NYCRR 750-1.2(a)(94) & 2.8(c)

D. Monitoring and Records

1.	Monitoring and records	6 NYCRR 750-2.5(a)(2), 2.5(a)(6), 2.5(c)(1), 2.5(c)(2), & 2.5(d)
2.	Signatory requirements	6 NYCRR 750-1.8 & 2.5(b)

E. Reporting Requirements

1.	Reporting requirements for POTWs	6 NYCRR 750-2.5, 2.7 & 1.17
2.	Anticipated noncompliance	6 NYCRR 750-2.7(a)
3.	Transfers	6 NYCRR 750-1.17
4.	Monitoring reports	6 NYCRR 750-2.5(e)
5.	Compliance schedules	6 NYCRR 750-1.14(d)
6.	24-hour reporting	6 NYCRR 750-2.7(c) & (d)
7.	Other noncompliance	6 NYCRR 750-2.7(e)
8.	Other information	6 NYCRR 750-2.1(f)
9.	Additional conditions applicable to a POTW	6 NYCRR 750-2.9

F. Planned Changes

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

   a. The alteration or addition to the permitted facility may meet of the criteria for determining whether facility is a new source in 40 CFR §122.29(b); or

   b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, or to notification requirements under 40 CFR §122.42(a)(1); or

   c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

In addition to the Department, the permittee shall submit a copy of this notice to the United States Environmental Protection Agency at the following address: U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866.

GENERAL REQUIREMENTS continued

G. Notification Requirement for POTWs

1. All POTWs shall provide adequate notice to the Department and the USEPA of the following:
   a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; or
   b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
   c. For the purposes of this paragraph, adequate notice shall include information on:
      i. the quality and quantity of effluent introduced into the POTW, and
      ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

POTWs shall submit a copy of this notice to the United States Environmental Protection Agency, at the following address: U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866

H. Sludge Management

The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.

I. SPDES Permit Program Fee

The permittee shall pay to the Department an annual SPDES permit program fee within 30 days of the date of the first invoice, unless otherwise directed by the Department, and shall comply with all applicable requirements of ECL 72-0602 and 6 NYCRR Parts 480, 481 and 485. Note that if there is inconsistency between the fees specified in ECL 72-0602 and 6 NYCRR Part 485, the ECL 72-0602 fees govern.

J. Water Treatment Chemicals (WTCs)

New or increased use and discharge of a WTC requires prior Department review and authorization. At a minimum, the permittee must notify the Department in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The Department will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed outside of the formal permit administrative process. The majority of WTC authorizations do not require SPDES permit modification. In any event, use and discharge of a WTC shall not proceed without prior authorization from the Department. Examples of WTCs include biocides, coagulants, conditioners, corrosion inhibitors, defoamers, deposit control agents, flocculants, scale inhibitors, sequestrants, and settling aids.

1. WTC use shall not exceed the rate explicitly authorized by this permit or otherwise authorized in writing by the Department.
2. The permittee shall maintain a logbook of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used.
3. The permittee shall submit a completed WTC Annual Report Form each year that they use and discharge WTCs. This form shall be attached to either the December DMR or the annual monitoring report required below.

The *WTC Notification Form and WTC Annual Report Form* are available from the Department's website at: http://www.dec.ny.gov/permits/93245.html

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

A. The monitoring information required by this permit shall be summarized, signed and retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent. **Also, monitoring information required by this permit shall be summarized and reported by submitting;**

[X] (if box is checked) completed and signed Discharge Monitoring Report (DMR) forms for each __1__ month reporting period to the locations specified below. Blank forms are available at the Department's Albany office listed below. The first reporting period begins on the effective date of this permit and the reports will be due no later than the 28th day of the month following the end of each reporting period.

[ ] (if box is checked) an annual report to the Regional Water Engineer at the address specified below. The annual report is due by February 1 each year and must summarize information for January to December of the previous year in a format acceptable to the Department.

[X] (if box is checked) a monthly "Wastewater Facility Operation Report..." (form 92-15-7) to the:
[X] Regional Water Engineer and/or [ ] County Health Department or Environmental Control Agency specified below

Send the **original** (top sheet) of each DMR page to:
Department of Environmental Conservation
Division of Water, Bureau of Water Compliance
625 Broadway
Albany, New York 12233-3506

Phone: (518) 402-8177

Send the **first copy** (second sheet) of each DMR page to:
Department of Environmental Conservation
Regional Water Engineer, Region 3
100 Hillside Avenue, Suite 1W
White Plains, New York 10603-2860

Phone: (914) 428-2505

Send an **additional copy** of each DMR page to:

B. Monitoring and analysis shall be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

C. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.

D. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

E. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.

F. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

Municipal SPDES Permit Fact Sheet

I. SUMMARY OF PROPOSED PERMIT CHANGES

A State Pollutant Discharge Elimination System (SPDES) permit Department-initiated modification is proposed. Following is a summary of the proposed changes in the draft permit as compared to the currently effective permit, the details of these changes are specified below and in the draft permit:

- Added seasonal disinfection of the sewage treatment plant effluent to meet the requirements of 6 NYCRR Part 703.4.
    - Fecal Coliform: Monthly average of 200 #/100 mL and a 7 day average of 400 #/100 mL.
    - Total Residual Chlorine: Daily maximum of 20 µg/L and 0.33 lbs/day has been added.
- Nitrogen, Ammonia – The proposed permit incorporates Nitrogen, Ammonia (as N). The conversion to ammonia (as N) is obtained by multiplying Ammonia (as NH3) by the conversion factor of 0.8224.
- Added the schedule of compliance to have the permittee install disinfection treatment units to comply with the new seasonal disinfection limits.
- Added a total mercury limit of 50 ng/L and monitoring in g/day in accordance with TOGS 1.3.10.
- Added Mercury minimization program in accordance with TOGS 1.3.10.
- Added General Requirements: This section has been included in the proposed permit in accordance with the Federal and State permit agreement.
- Recording, Reporting and Additional Monitoring Requirements: This page has been updated in accordance with the NYSDEC updated information.

Please note that when the Department updates a permit this typically includes updated forms incorporating the latest general conditions.

II. BACKGROUND INFORMATION

As noted throughout this document, SPDES permits are based on both federal and state requirements including laws, regulations, policies, and guidance. These references can generally be found on the internet. Current locations include: Clean Water Act (CWA) *www.epa.gov/lawsregs/laws/index.html#env*; Environmental Conservation Law (ECL) www.dec.ny.gov/regulations/40195.html; federal regulations *www.gpo.gov/fdsys/browse/collectionCfr.action? collectionCode=CFR*; state environmental regulations *www.dec.ny.gov/regulations/regulations.html*; and, NYSDEC water policy, often referred to as Technical and Operational Guidance Series memos (TOGS), *www.dec.ny.gov/regulations/2654.html*.

A. Administrative History

The current SPDES permit for the facility became effective on 4/1/2015 and has an expiration date of 3/31/2020. The Department has initiated a non-EBPS modification to the permit for the following reason(s): require disinfection of the wastewater treatment plant effluent.

B. Outfall and Receiving Water Information

The facility discharges, or proposes to discharge, wastewater and/or stormwater to waters of the state via outfall 001: The 7Q10 flow which is 0.19 MGD was obtained from existing file. The 30Q10 flow was estimated by applying a multiplier of 1.2 to the 7Q10 flow. The dilution ratio is < 1:1.

III. PROPOSED PERMIT REQUIREMENTS

Sections 101, 301(b), 304, 308, 401, 402, and 405 of the CWA and Titles 5, 7, and 8 of Article 17 ECL provide the basis for the effluent limitations and other conditions in the draft permit. The NYSDEC evaluates discharges with respect to these sections of the CWA, ECL, and the relevant federal/state regulations, policy, and guidance to determine which conditions to include in the draft permit.

For existing permittees, the previous permit typically forms the basis for the next permit. Permit revisions are implemented where justified due to changed conditions at the facility and/or in response to updated regulatory requirements.

A. Effluent Limitations

If applicable, the existing permit limits are evaluated to determine if these should be continued, revised, or deleted. Generally, existing limits are continued unless there is justification to do otherwise. Other pollutant monitoring data are also reviewed to determine the presence of additional contaminants that should be included in the permit.

The permit writer determines the **technology-based effluent limits (TBELs)** that must be incorporated into the permit. A TBEL requires a minimum level of treatment for industrial point sources based on currently available treatment technologies and/or Best Management Practices (BMPs). The Department then evaluates the water quality expected to result from technology controls to determine if any exceedances of water quality criteria in the receiving water might result. If there is a reasonable potential for exceedances to occur, **water quality-based effluent limits (WQBELs)** must be included in the permit. A WQBEL is designed to ensure that the water quality standards of receiving waters are being met. In general, the CWA requires that the effluent limits for a particular pollutant are the more stringent of either the TBEL or WQBEL.

1. TBELs & Anti-Backsliding

CWA sections 301(b)(1)(B) and 304(d)(1), ECL section 17-0509, and 6 NYCRR Part 750-1.11 require technology-based controls, known as secondary treatment, on Publicly Owned Treatment Works (POTW) effluents. The applicable regulations are specified in 40 CFR Part 133.102 and 6 NYCRR Part 750-1.11. These and other requirements are summarized in TOGS 1.3.3.

Anti-backsliding requirements are specified in the CWA, sections 402(o) and 303(d)(4), ECL 17-0809 and regulations at 40 CFR 122.44(l) and 6 NYCRR Part 750-1.10. These requirements are summarized in TOGS 1.2.1. Generally, the regulations prohibit the relaxation of effluent limits in reissued permits unless one of the specified exceptions applies. In practice, limits in reissued permits will generally be no less stringent than previous permit limits to ensure compliance with anti-backsliding requirements. Otherwise, the specific exceptions that allow backsliding will be cited on a case-by-case basis.

Following is the TBEL & Anti-backsliding assessment for each pollutant present in the discharge(s).

Pollutant-Specific TBEL & Anti-Backsliding Analysis:
In addition to the concentration limits noted below, 40 CFR 122.45(f) requires that SPDES permits contain mass-based limits for most pollutants. Mass-based limits in lbs/day are derived by multiplying the design flow in MGD by the concentration limit in mg/L by a conversion factor of 8.34. Limits are typically expressed using two significant figures.

Pathogens – See WQBEL section.

Total Residual Chlorine (TRC) – See the WQBEL section.

2. WQBELs & Anti-Degradation:
In addition to the TBELs previously discussed, the NYSDEC evaluated the discharge to determine compliance with CWA sections 101 and 301(b)(1)(C), 40 CFR 122.44(d)(1), and 6 NYCRR Parts 700-704 and 750-1.11. These require that permits include limits for all pollutants or parameters which are or may be discharged at a level which will cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. The limits must be stringent enough to ensure that water quality standards are met and must be consistent with any available wasteload allocation (WLA). These and other requirements are summarized in TOGS 1.1.1, 1.3.1, 1.3.2, 1.3.5 and 1.3.6.

The procedure for developing WQBELs includes knowing the pollutants present in the discharge(s), identifying water quality criteria applicable to these pollutants, determining if WQBELs are necessary (reasonable potential), and calculating the WQBELs. Factors also considered in this analysis include available dilution of effluent in the receiving water, receiving water chemistry, and other pollutant sources. If the expected concentration of the pollutant of concern in the receiving water may exceed the ambient water quality standard or guidance value then there is reasonable potential that the discharge may cause or contribute to a violation of the water quality, and a WQBEL or WLA for the pollutant is required.

Antidegradation Policy: New York State implements the antidegradation portion of the CWA based upon two documents: (1) Organization and Delegation Memorandum #85-40, entitled "Water Quality Antidegradation Policy," signed by the Commissioner of NYSDEC, dated September 9, 1985; and, (2) TOGS 1.3.9, entitled "Implementation of the NYSDEC Antidegradation Policy – Great Lakes Basin (Supplement to Antidegradation Policy dated

September 9, 1985)." A SPDES permit cannot be issued that would result in the water quality criteria being violated. The permit for the facility contains effluent limits which ensure that the existing beneficial uses of the receiving waters will be maintained.

Following is the WQBEL analysis for each pollutant present in the discharge(s). Anti-degradation analysis which justifies applying water quality standards of a higher classification is noted below, if applicable. Refer to section II.B. above for information on discharge location, receiving water information (class, dilution, chemistry), and the existence of any TMDLs. A summary of this analysis is provided in the *Pollutant Summary Table* at the end of this fact sheet.

Pollutant-Specific WQBEL & Anti-Degradation Analysis:

Pathogens – In accordance with TOGS 1.3.3, effluent disinfection is required because the discharge is to a class C water body because it is necessary to protect public health. Fecal Coliform geometric mean limits of 200/100 ml monthly average and 400/100 ml weekly average are specified. Compliance with water quality standards for Total Coliform is indicated by the Fecal Coliform limits. Additional limits for Total Coliform are unnecessary, consistent with TOGS 1.3.3. Disinfection is required seasonally from May 1 to October 31 due to receiving water class.

Total Residual Chlorine (TRC) – A daily maximum TRC WQBEL of 5.5 ug/L was determined by multiplying the water quality standard of 5 ug/L by the chronic dilution ratio of 1.1. The dilution ratio was obtained as 7Q10 flow plus discharge flow divided by discharge flow (0.19 MGD + 2.0 MGD)/2.0 MGD. See also TOGS 1.3.1.E. Note that the analytical Minimum Level (ML) for the most sensitive method approved in 40 CFR 136 is 20 ug/L. Consequently, permit compliance determinations will be based on 20 ug/L.

Mercury – Mercury sampling of the effluent was not performed. However, mercury is believed to be present in this discharge at a level which marginally exceeds the water quality standard of 0.7 ng/L due solely to one or more of the following factors: presence in rainfall; water supply; and/or low level societal use of mercury. Considering the very low levels expected in this effluent, their likely source, and that the ubiquitous nature of mercury contamination currently makes it impractical for any dischargers to achieve the calculated water quality based effluent limit, it has been determined that meaningful reductions in mercury can be achieved by this permittee solely by implementation of a mercury minimization program. 50 ng/l mercury effluent limit has been included in the permit. This is in accordance with New York State's mercury multiple discharge variance (MDV) in TOGS 1.3.10. Refer to the MDV for further detail.

B. Monitoring & Reporting Requirements

CWA section 308, 40 CFR 122.44(i), and 6 NYCRR Part 750-1.13 require that monitoring be included in permits to determine compliance with effluent limitations. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required. The permittee is responsible for conducting the monitoring and for reporting results on DMRs. The permit contains the monitoring requirements for the facility. Monitoring frequency is based on the minimum sampling necessary to adequately monitor the facility's performance. For municipal facilities, sampling frequency is based on guidance provided in TOGS 1.3.3.

C. Other Conditions Specific To This Permit

Compliance Schedule(s): A schedule for installing disinfection treatment units has been added to the permit, which requires that the system be operational five (5) years after the modification issuance date. This includes submitting an approvable engineering report and an approvable engineering plans, specifications and construction schedule.

Discharge Notification Act: In accordance with Discharge Notification Act (ECL 17-0815-a), the permittee is required to post a sign at each point of wastewater discharge to surface waters. The permittee is also required to provide a public repository for DMRs as required by the SPDES permit. This requirement is being continued from the previous permit.

D. General Conditions Applicable To All Permits

The permit contains standard regulatory language that is required to be in all SPDES permits. These permit provisions, based largely upon 40 CFR 122 subpart C and 6 NYCRR Part 750, include requirements pertaining to monitoring, recording, reporting, and compliance responsibilities. These "general conditions" of permits are typically specified, summarized, or referenced on the first and last pages of the permit.

New York State Department of Environmental Conservation
Division of Environmental Permits, 4th Floor
625 Broadway, Albany, NY 12233-1750
Phone: (518) 402-9167 • **Fax:** (518) 402-9168
Website: www.dec.ny.gov

Alexander B. Grannis
Commissioner

January 29, 2010

Mr. Anthony P. Cinelli
Town Supervisor
Town of Thompson
4052 State Route 42
Monticello, NY 12701-3221

Re: Thompson Melody Lake Sewer District STP
DEC#: 3-4846-00090/00002 SPDES#: NY0030708

Dear Mr Cinelli:

Enclosed is a final modified State Pollutant Discharge Elimination System (SPDES) permit for the above referenced facility. This permit has been modified and renewed in accordance with the Environmental Benefit Permit Strategy. No comments were received on this modification.

Should you have questions on the administration of this modification, please feel free to contact me at the address or phone number listed above. Should you have technical questions on permit content, please contact the permit writer, Bruce Terbush, at (518) 402-8235, or the Regional Water Engineer, Tom Rudolph, at (914) 428-2505 ext. 350.

Sincerely,

Teresa Diehsner
Division of Environmental Permits

Enclosure

c: L. Kassin, Reg 3
T. Rudolph, RWE
B. Terbush, Permit Writer
CO-BWP Permit Coordinator
M. Josilo, EPA Reg II
N. Regels, NYSEFC
DRBC
NYSDOH County Office

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

State Pollutant Discharge Elimination System (SPDES)
DISCHARGE PERMIT

First3.09

Industrial Code:	NA	SPDES Number:	**NY0030708**
Discharge Class (CL):	07	DEC Number:	**3-4846-00090/00002**
Toxic Class (TX):	N	Effective Date (EDP):	**03/01/2010**
Major Drainage Basin:	14 (Delaware)	Expiration Date (ExDP):	**02/28/2015**
Sub Drainage Basin:	01 (Neversink)	Modification Dates:(EDPM)	
Water Index Number:	D-1-22		
Compact Area:	DRBC		

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et.seq.)(hereinafter referred to as "the Act").

PERMITTEE NAME AND ADDRESS

Name: Town of Thompson Attention: Town Supervisor
Street: Town Hall – 4052 State Route 42
City: Monticello State: NY Zip Code: 12701

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

Name: Thompson Melody Lake Sewer District Sewage Treatment Plant
Location (C,T,V): Town of Thompson County: Sullivan
Facility Address: Hemlock Drive
City: Monticello State: NY Zip Code: 12701
NYTM -E: NYTM - N:
From Outfall No.: 001 at Latitude: 41 ° 35 ' 40 " & Longitude: 74 ° 40 ' 12 "

into receiving waters known as: Turner Brook Class: B
and; (list other Outfalls, Receiving Waters & Water Classifications)

in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1.2(a) and 750-2.

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS

Mailing Name: Water and Sewer Department, Box 872, Town Hall
Street: Route 42
City: Monticello State: NY Zip Code: 12701
Responsible Official or Agent: William Culligan Phone: **(845) 794-5280**

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

DISTRIBUTION:

C.O. BWP – Permit Coordinator
RWE
RPA
EPA Region II - Michelle Josilo
NYSEFC
DRBC

Deputy Chief Permit Administrator: Stuart M. Fox

Address: Division of Environmental Permits
625 Broadway
Albany, NY 12233-1750

Signature: Stuart M. Fox Date: 1/29/2010

PERMIT LIMITS, LEVELS AND MONITORING DEFINITIONS

OUTFALL	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
	This cell describes the type of wastewater authorized for discharge. Examples include process or sanitary wastewater, storm water, non-contact cooling water.	This cell lists classified waters of the state to which the listed outfall discharges.	The date this page starts in effect. (e.g. EDP or EDPM)	The date this page is no longer in effect. (e.g. ExDP)

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQ.	SAMPLE TYPE
e.g. pH, TRC, Temperature, D.O.	The minimum level that must be maintained at all instants in time.	The maximum level that may not be exceeded at any instant in time.	SU, °F, mg/l, etc.		

PARA-METER	EFFLUENT LIMIT	PRACTICAL QUANTITATION LIMIT (PQL)	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE
	Limit types are defined below in Note 1. The effluent limit is developed based on the more stringent of technology-based standards, required under the Clean Water Act, or New York State water quality standards. The limit has been derived based on existing assumptions and rules. These assumptions include receiving water hardness, pH and temperature; rates of this and other discharges to the receiving stream; etc. If assumptions or rules change the limit may, after due process and modification of this permit, change.	For the purposes of compliance assessment, the analytical method specified in the permit shall be used to monitor the amount of the pollutant in the outfall to this level, provided that the laboratory analyst has complied with the specified quality assurance/quality control procedures in the relevant method. Monitoring results that are lower than this level must be reported, but shall not be used to determine compliance with the calculated limit. This PQL can be neither lowered nor raised without a modification of this permit.	Type I or Type II Action Levels are monitoring requirements, as defined below in Note 2, that trigger additional monitoring and permit review when exceeded.	This can include units of flow, pH, mass, Temperature, concentration. Examples include µg/l, lbs/d, etc.	Examples include Daily, 3/week, weekly, 2/month, monthly, quarterly, 2/yr and yearly.	Examples include grab, 24 hour composite and 3 grab samples collected over a 6 hour period.

Note 1: DAILY DISCHARGE: The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average measurement of the pollutant over the day. DAILY MAX: The highest allowable daily discharge. DAILY MIN: The lowest allowable daily discharge. MONTHLY AVG (daily avg): The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. RANGE: The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown. 7 DAY ARITHMETIC MEAN (7 day average): The highest allowable average of daily discharges over a calendar week. 12 MRA (twelve month rolling avg): The average of the most recent twelve month's monthly averages. 30 DAY GEOMETRIC MEAN (30 d geo mean): The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of : the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. 7 DAY GEOMETRIC MEAN (7 d geo mean): The highest allowable geometric mean of daily discharges over a calendar week.

Note 2: ACTION LEVELS: Routine Action Level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted. If the additional monitoring requirement is triggered as noted below, the permittee shall undertake a short-term, high-intensity monitoring program for the parameter(s). Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive operating and discharging days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the additional monitoring requirement was triggered. Results may be appended to the DMR or transmitted under separate cover to the same address. If levels higher than the Action Levels are confirmed, the permit may be reopened by the Department for consideration of revised Action Levels or effluent limits. The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards. TYPE I : The additional monitoring requirement is triggered upon receipt by the permittee of any monitoring results in excess of the stated Action Level. TYPE II: The additional monitoring requirement is triggered upon receipt by the permittee of any monitoring results that show the stated action level exceeded for four of six consecutive samples, or for two of six consecutive samples by 20 % or more, or for any one sample by 50 % or more.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	LIMITATIONS APPLY:	RECEIVING WATER	EFFECTIVE	EXPIRING
001	[ ] All Year [X] **Seasonal from May 1 to Oct. 31**	Turner Brook	03/01/2010	02/28/2015

PARAMETER	EFFLUENT LIMIT					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Influent	Effluent	
Flow	Monthly avg.	0.038	mgd			Continuous	Recorder	X		
BOD_5	Monthly avg.	30	mg/l	9.5	lbs/d	Monthly	Grab	X	X	(1)
BOD_5	7 day avg.	45	mg/l	14.3	lbs/d	Monthly	Grab		X	
Solids, Suspended	Monthly avg.	30	mg/l	9.5	lbs/d	Monthly	Grab	X	X	(1)
Solids, Suspended	7 day avg.	45	mg/l	14.3	lbs/d	Monthly	Grab		X	
Solids, Total Dissolved	Daily max.	1000	mg/l			Quarterly	Grab		X	(2)
Solids, Settleable	Daily max.	0.3	ml/l			Daily	Grab		X	
pH	Range	6.0 – 9.0	SU			Daily	Grab		X	
Nitrogen, Ammonia (as N)	Monthly avg.	11.2	mg/l			Monthly	Grab		X	(3)
Nitrogen, Nitrate (as N)	Daily max.	monitor	mg/l			Monthly	Grab		X	
Phosphorus, Total (as P)	Daily max.	monitor	mg/l			Monthly	Grab		X	
Effluent Disinfection required: [ ] All Year [X] **Seasonal from May 1 to Oct. 31**										
Coliform, Fecal	30 day geometric mean	200	No./ 100 ml			Monthly	Grab		X	
Coliform, Fecal	7 day geometric mean	400	No./ 100 ml			Monthly	Grab		X	
Chlorine, Total Residual	Daily max	0.1	mg/l			Daily	Grab		X	(4)

FOOTNOTES ON PAGE 4

PERMIT LIMITS, LEVELS AND MONITORING (continued)

OUTFALL No.	LIMITATIONS APPLY:	RECEIVING WATER	EFFECTIVE	EXPIRING
001	[ ] All Year [**X**] **Seasonal from** Nov. 1 **to** Apr. 30	Turner Brook	03/01/2010	02/28/2015

PARAMETER	EFFLUENT LIMIT					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Influent	Effluent	
Flow	Monthly avg.	0.038	mgd			Continuous	Recorder	X		
BOD_5	Monthly avg.	30	mg/l	9.5	lbs/d	Monthly	Grab	X	X	(1)
BOD_5	7 day avg.	45	mg/l	14.3	lbs/d	Monthly	Grab		X	
Solids, Suspended	Monthly avg.	30	mg/l	9.5	lbs/d	Monthly	Grab	X	X	(1)
Solids, Suspended	7 day avg.	45	mg/l	14.3	lbs/d	Monthly	Grab		X	
Solids, Total Dissolved	Daily max.	1000	mg/l			Quarterly	Grab		X	(2)
Solids, Settleable	Daily max.	0.3	ml/l			Daily	Grab		X	
pH	Range	6.0 – 9.0	SU			Daily	Grab		X	

FOOTNOTES: (1) Effluent shall not exceed 15 % and 15 % of influent concentration values for BOD_5 & TSS respectively.
(2) The permittee may request a permit modification in writing for the substitution of specific conductance for TDS. This request should include information that supports the effluent specific correlation between TDS and specific conductance. Upon approval by the Executive Director of DRBC, the Department may modify the permit to allow the substitution of specific conductance for TDS monitoring.
(3) An interim "**monitoring only**" requirement will be in effect while the permittee determines if upgrades are necessary. The water quality based effluent limit will become effective in accordance with the Schedule of Compliance contained in the permit.
(4) An interim Total Residual Chlorine limit of 2.0 mg/l is in effect until the disinfection system is upgraded to meet the final 0.1 mg/l limit in accordance with the Schedule of Compliance contained in this permit.

DISCHARGE NOTIFICATION REQUIREMENTS

(a) Except as provided in (c) and (f) of these Discharge Notification Act requirements, the permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit. Such signs shall be installed within 90 days of the Effective Date of this Modification.

(b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.

(c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.

(d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

The signs shall have **minimum** dimensions of eighteen inches by twenty four inches (18" x 24") and shall have white letters on a green background and contain the following information:

N.Y.S. PERMITTED DISCHARGE POINT

SPDES PERMIT No.: NY_____

OUTFALL No. :____

For information about this permitted discharge contact:

Permittee Name: _____

Permittee Contact: _____

Permittee Phone: ( ) - ### - #####

OR:

NYSDEC Division of Water Regional Office Address :

NYSDEC Division of Water Regional Phone: ( ) - ### -#####

(e) For each discharge required to have a sign in accordance with a), the permittee shall, concurrent with the installation of the sign, provide a repository of copies of the Discharge Monitoring Reports (DMRs), as required by the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of this permit. This repository shall be open to the public, at a minimum, during normal daytime business hours. The repository may be at the business office repository of the permittee or at an off-premises location of its choice (such location shall be the village, town, city or county clerk's office, the local library or other location as approved by the Department). In accordance with the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of your permit, each DMR shall be maintained on record for a period of five years.

(continued)

(f) All requirements of the Discharge Notification Act, including public repository requirements, are waived for any outfall meeting any of the following circumstances, provided Department notification is made in accordance with (g):

(i) such sign would be inconsistent with any other state or federal statute;

(ii) the Discharge Notification Requirements contained herein would require that such sign could only be located in an area that is damaged by ice or flooding due to a one-year storm or storms of less severity;

(iii) instances in which the outfall to the receiving water is located on private or government property which is restricted to the public through fencing, patrolling, or other control mechanisms. Property which is posted only, without additional control mechanisms, does not qualify for this provision;

(iv) instances where the outfall pipe or channel discharges to another outfall pipe or channel, before discharge to a receiving water; or

(v) instances in which the discharge from the outfall is located in the receiving water, two-hundred or more feet from the shoreline of the receiving water.

(g) If the permittee believes that any outfall which discharges wastewater from the permitted facility meets any of the waiver criteria listed in (f) above, notification (form enclosed) must be made to the Department's Bureau of Water Permits, Central Office, of such fact, and, provided there is no objection by the Department, a sign and DMR repository for the involved outfall(s) are not required. This notification must include the facility's name, address, telephone number, contact, permit number, outfall number(s), and reason why such outfall(s) is waived from the requirements of discharge notification. The Department may evaluate the applicability of a waiver at any time, and take appropriate measures to assure that the ECL and associated regulations are complied with.

(h) The permittee shall periodically inspect the outfall identification signs in order to ensure that they are maintained, are still visible and contain information that is current and factually correct.

SCHEDULE OF COMPLIANCE

The permittee shall comply with the following schedule:

Outfall Number(s)	Compliance Action	Due Date
001	**Total Residual Chlorine** The Permittee shall submit an approvable Engineering Report that identifies the facilities necessary to achieve compliance with the water quality based effluent limitation of 0.1 mg/l for total residual chlorine and an effluent design level of 2.0 mg/l for dissolved oxygen.	03/01/2011
	The Permittee shall submit approvable final plans and specifications, as well as a schedule of construction for the facilities described in the approved Engineering Report.	DEC Approval of Engineering Report + 12 months
	The Permittee shall commence construction of the facilities described in the approved report, plans and specifications in accordance with the approved schedule of construction. This schedule of construction contained in the approved report shall, by this reference, be made part of the permit.	
	The Permittee shall submit progress reports every 6 months detailing the work done in accordance with the approved engineering report and schedule of construction.	DEC Approval of Schedule of Construction + 6 months
	The Permittee shall complete construction in accordance with the approved schedule, but no later than May 1, 2013.	
001	**Short Term Monitoring Program** The permittee shall conduct sampling for the following parameters detected in the WWTP effluent. Sampling shall be conducted once per week for a period of 3 months. The shall permittee submit the results of the analyses along with daily flows: Parameter — EPA Method of Analysis Required — Sample Type Copper, Total — 200.7 — 24 Hr. Composite Zinc, Total — 200.7 — 24 Hr. Composite Cyanide (free) — OIA-1677 (for available cyanide) — 24 Hr. Composite Following review of these results, the Department may reopen the permit to add additional limits or action levels for these parameters.	08/01/2010
NA	**Emergency Operations** Within six months of the EDP, the permittee shall install remote alarm controls and prepare and submit to the Project Review Section of the Delaware River Basin Commission (DRBC) an Emergency Management Plan (EMP). The EMP shall be subject to the approval of the DRBC Executive Director.	06/01/2010
	Within 12 months of EDP, the permittee shall install emergency power at the facility and provide written certification to the DRBC Executive Director and the Department that the emergency power has been installed.	03/01/2011

SCHEDULE OF COMPLIANCE (continued)

The permittee shall comply with the following schedule:

Outfall Number(s)	Compliance Action	Due Date
001	**Ammonia** The Permittee shall conduct weekly monitoring of the wastewater treatment plant effluent during the period from May 1, 2010 to August 31, 2010 to evaluate whether the treatment system is operationally capable of meeting the water quality based effluent limit of 11.2 mg/l for ammonia. The Permittee shall submit correspondence to the Department which provides the results of this analysis and states whether the treatment system can meet the ammonia limit of 11.2 mg/l without system upgrades.	December 1, 2010
	If it is determined that the treatment system can meet the ammonia limit of 11.2 mg/l without system upgrades, the final limit will be in effect.	
	If upgrades are necessary, the Permittee shall submit an approvable Engineering Report that identifies the appropriate upgrades to achieve compliance with the water quality based effluent limitation of 11.2 mg/l for ammonia.	February 1, 2011
	The Permittee shall submit approvable final plans and specifications, as well as a schedule of construction, for the upgrades described in the approved Engineering Report. The Permittee shall commence construction of the facilities described in the approved report, plans and specifications in accordance with the approved schedule of construction.	DEC Approval of Engineering Report + 9 months
	The Permittee shall submit progress reports every 6 months detailing the work done in accordance with the approved engineering report and schedule of construction. The schedule of construction contained in the approved report shall, by this reference, be made part of the permit.	DEC Approval of Schedule of Construction + 6 months
	The Permittee shall complete construction and achieve the final ammonia limit of 11.2 mg/l in accordance with the approved schedule, but no later than May 1, 2013.	

The above compliance actions are one time requirements. The permittee shall comply with the above compliance actions to the Department's satisfaction once. When this permit is administratively renewed by NYSDEC letter entitled A SPDES NOTICE/RENEWAL APPLICATION/PERMIT, the permittee is not required to repeat the submission. The above due dates are independent from the effective date of the permit stated in the letter of SPDES NOTICE/RENEWAL APPLICATION/PERMIT.

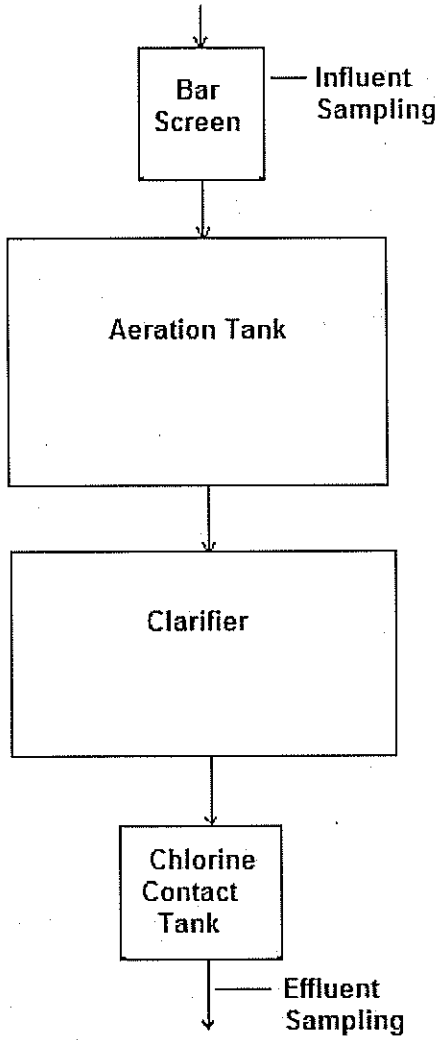
b) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice under terms of the General Conditions (Part II), Section 5. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:

1. A short description of the non-compliance;
2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
3. A description or any factors which tend to explain or mitigate the non-compliance; and
4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.

c) The permittee shall submit copies of any document required by the above schedule of compliance to NYSDEC Regional Water Engineer at the location listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS and to the Bureau of Water Permits, 625 Broadway, Albany, NY 12233-3505, unless otherwise specified in this permit or in writing by the Department.

MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) specified below:



RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

a) The permittee shall also refer to 6 NYCRR Part 750-1.2(a) and 750-2 for additional information concerning monitoring and reporting requirements and conditions.

b) The monitoring information required by this permit shall be summarized, signed and retained for a period of five years from the date of the sampling for subsequent inspection by the Department or its designated agent. **Also, monitoring information required by this permit shall be summarized and reported by submitting;**

[X] (if box is checked) completed and signed Discharge Monitoring Report (DMR) forms for each 1 month reporting period to the locations specified below. Blank forms are available at the Department's Albany office listed below. The first reporting period begins on the effective date of this permit and the reports will be due no later than the 28th day of the month following the end of each reporting period.

[ ] (if box is checked) an annual report to the Regional Water Engineer at the address specified below. The annual report is due by February 1 and must summarize information for January to December of the previous year in a format acceptable to the Department.

[X] (if box is checked) a monthly "Wastewater Facility Operation Report..." (form 92-15-7) to the:
[X] Regional Water Engineer and/or [ ] County Health Department or Environmental Control Agency specified below

Send the DMRs with **original signatures** to:

Department of Environmental Conservation
Division of Water
Bureau of Water Compliance Programs
625 Broadway
Albany, New York 12233-3506

Phone: (518) 402-8177

Send an **additional copy** of each DMR page to:

Send a **copy** of each DMR page to:

Department of Environmental Conservation
Regional Water Engineer
21 South Putt Corners Road
New Paltz, NY 12561

Phone: (845) 256-3019

c) Noncompliance with the provisions of this permit shall be reported to the Department as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2.

d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

e) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculations and recording of the data on the Discharge Monitoring Reports.

f) Calculation for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

g) Unless otherwise specified, all information recorded on the Discharge Monitoring Report shall be based upon measurements and sampling carried out during the most recently completed reporting period.

h) Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section five hundred two of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be sent to the Environmental Laboratory Accreditation Program, New York State Health Department Center for Laboratories and Research, Division of Environmental Sciences , The Nelson A. Rockefeller Empire State Plaza, Albany, New York 12201.

MUNICIPAL FACT SHEET

Background Information:

The current State Pollutant Discharge Elimination System (SPDES) permit **NY0030708** for the **Thompson (T) Melody Lake Sewer District STP** became effective on **March 1, 1990** and has been administratively renewed on **August 23, 1994, July 19, 1999 and July 29, 2004.**

The Department of Environmental Conservation has initiated a modification to the facility's SPDES permit, pursuant to 6 NYCRR Part 750-1.18, known as the New York State's Environmental Benefit Permit Strategy (EBPS). The facility currently has an EBPS score of **51** and a ranking of **375**. The EBPS ranking detail is provided in Appendix B. In response to the Department's **April 3, 2009** Request for Information (RFI) under the EBPS system, the **Town of Thompson** provided a SPDES NY-2A permit application and sampling data as requested in the RFI for the **Thompson (T) Melody Lake Sewer District STP** on **July 20, 2009**. Effluent sampling requested included **conventional parameters, 13 priority pollutant metals, total cyanide, total phenols, volatile and semi-volatile parameters**

Summary of Proposed Permit Changes:

Based upon review of the above information, the draft SPDES permit contains the following revisions:

- Updated permit pages and conditions reflect current permit language, Department guidance, format and nomenclature.

- Based upon requirements of the Delaware River Basin Commission, a total dissolved solids permit limit of 1000 mg/l has been added to the permit.

- A seasonal water quality based effluent limit for ammonia of 11.2 mg/l has been added to the permit which will be effective May 1 to October 31. An interim "monitor only" requirement has been included in the permit while the permittee determines whether treatment system upgrades are necessary as outlined in the schedule of compliance.

- Seasonal monitoring for total phosphorus and nitrate has been added to the permit from May 1 to October 31. This is a monitoring only requirement and there is no discharge limit for these parameters.

- The total residual chlorine limit at Outfall 001 has been reduced from 2.0 mg/l to 0.1 mg/l. This is based upon a more stringent water quality standard for total residual chlorine. The existing limit of 2.0 mg/l will remain in effect as an interim limit until upgrades are completed in accordance with the schedule of compliance.

- The seasonal disinfection period has been extended from May 15 - October 15 to May 1 - October 31 to correspond with other seasonal limits contained in this draft permit

and to eliminate confusion over the reporting disinfection parameters for only half of the months of May and October.

- A Schedule of Compliance actions has been added to the permit to address implementation of a more stringent water quality based effluent limits for total residual chlorine and ammonia.

- A Schedule of Compliance action has been added to the permit to address Emergency Operations as required by the Delaware River Basin Commission. This includes an emergency management plan, installation of remote alarm controls and emergency power.

- A short term monitoring program has also been added to the Schedule of Compliance to evaluate the presence of copper, zinc and cyanide in the Outfall 001 discharge. Effluent sampling conducted by the permittee indicated the presence of these compounds. Further testing is required to provide additional information so that a determination can be made as to whether any of these compounds should be included in the permit.

Treatment Process Description:

The **Thompson (T) Melody Lake Sewer District STP** was constructed to provide secondary treatment for a design flow of **0.038** MGD. Treatment includes **screening, aeration, final settling, and chlorination**. Sludge is **hauled for treatment and disposal at another treatment facility with adequate sludge handling equipment.**

A review of the facility's Discharge Monitoring Reports from **November 1, 2005** to **January 31, 2009** shows that the facility exceeded permit limits as indicated below:

DMR Period	Parameter	Permit Limit	Value Reported
November 2005	BOD_5 % Removal	85 %	65 %
November 2005	TSS % Removal	85 %	69 %
January 2006	TSS 30 day avg.	30 mg/l	40 mg/l
August 2006	BOD_5 % Removal	85 %	77 %
August 2006	TSS % Removal	85 %	74 %
November 2006	BOD_5 % Removal	85 %	77 %
January 2007	BOD_5 30 day avg.	30 mg/l	38 mg/l
January 2007	BOD_5 % Removal	85 %	71 %
January 2007	TSS 30 day avg.	30 mg/l	33 mg/l
January 2007	TSS % Removal	85 %	77 %
February 2007	BOD_5 30 day avg.	30 mg/l	39 mg/l
February 2007	BOD_5 % Removal	85 %	84 %
March 2007	BOD_5 7 day max.	45 mg/l	48 mg/l
March 2007	BOD_5 % Removal	85 %	47 %
March 2007	TSS 30 day avg.	30 mg/l	31 mg/l
March 2007	TSS % Removal	85 %	60 %

DMR Period	Parameter	Permit Limit	Value Reported
April 2007	TSS % Removal	85 %	84 %
May 2007	BOD_5 7 day max.	45 mg/l	49 mg/l
May 2007	BOD_5 % Removal	85 %	82 %
May 2007	TSS 30 day avg.	30 mg/l	45 mg/l
May 2007	TSS 7 day max.	45 mg/l	62 mg/l
May 2007	TSS % Removal	85 %	50 %
June 2007	TSS % Removal	85 %	84 %
August 2007	BOD_5 % Removal	85 %	83 %
August 2007	TSS % Removal	85 %	76 %
January 2008	BOD_5 30 day avg.	30 mg/l	48 mg/l
January 2008	BOD_5 7 day max.	45 mg/l	66 mg/l
January 2008	BOD_5 % Removal	85 %	68 %
January 2008	TSS 30 day avg.	30 mg/l	40 mg/l
January 2008	TSS 7 day max.	45 mg/l	48 mg/l
January 2008	TSS % Removal	85 %	68 %
February 2008	pH Minimum	6.0 s.u.	5.9 s.u.
February 2008	TSS % Removal	85 %	73 %
July 2008	TSS 30 day avg.	30 mg/l	34 mg/l
July 2008	TSS % Removal	85 %	55 %
December 2008	BOD_5 % Removal	85 %	73 %
January 2009	BOD_5 30 day avg.	30 mg/l	44 mg/l
January 2009	BOD_5 7 day max.	45 mg/l	54 mg/l
January 2009	BOD_5 % Removal	85 %	80 %
January 2009	TSS 30 day avg.	30 mg/l	45 mg/l
January 2009	TSS 7 day max.	45 mg/l	50 mg/l
January 2009	TSS % Removal	85 %	73 %

Discharge Composition:

Table 1 in Appendix B presents the existing effluent quality of the **Thompson (T) Melody Lake Sewer District STP**. The average and maximum concentration and mass reported are based on **3 ¼** years from (**November 1, 2005** to **January 31, 2009**) of Discharge Monitoring Report (DMR) data submitted by the permittee. Additional pollutants detected in the effluent were reported in the SPDES NY-2A permit application.

Receiving Water:

The treated sanitary wastewater is discharged though Outfall 001, located at latitude **41° 35' 40"** and longitude **74° 40' 12"**, into **Turner Brook, a tributary of Bush Kill (Water Index No. D-1-22). Turner Brook** is classified as Class **B** with the application of Class **B (T)** standards by the Department with the following beneficial uses:

- **primary contact recreation**
- **fishing**
- **fish propagation and cold water fish species survival**
- **boating**

Additional receiving water information for **Turner Brook** is as follows:

pH (SU): 7.5
Temperature (°C): 24
Hardness (mg/L): Not Applicable
Salinity: Not Applicable

Dilution/Mixing Zone Analysis:

Mixing zone analysis is conducted in accordance with the following documents:

1. EPA T.S.D, entitled "Water Quality Based Toxics Control," dated March, 1991.
2. EPA Region VIII "Mixing Zones and Dilution Policy", dated December, 1994.
3. TOGS 1.3.1, entitled "Total Maximum Daily Loads and Water Quality Based Effluent Limits."

Receiving Water
7Q10 Flow: 0.5 cfs "summer" and 1.2 cfs "winter"
Source: USGS
30Q10: 0.6 cfs "summer" and 1.4 cfs "winter"
Source: Calculation using 7Q10 flow and a multiplier of 1.2
Chronic Dilution Ratio: 8.5:1
Acute Dilution Ratio: 4.25:1

Effluent Limitations:

The NYSDEC followed the Clean Water Act, State and federal regulations, and TOGS 1.3.3 for developing the effluent limits. In general, the Clean Water Act requires that the effluent limits for a particular pollutant be the more stringent of either the technology-based or water quality-based limits. A technology-based effluent limit requires a minimum level of treatment for municipal point sources based on currently available treatment technologies. A water quality-based effluent limit is designed to ensure that the water quality standards of a receiving water are being met. The table detailing the effluent limits is presented on Page **3** of the draft permit. More information on the derivation of technology- and water quality-based effluent limits is presented in Appendix B.

Monitoring Requirements:

Section 308 of the Clean Water Act and federal regulations (40 CFR 122.44(i)) require that monitoring be included in permits to determine compliance with effluent limitations. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required. The **Town of Thompson** is responsible for conducting the monitoring and for reporting results on Discharge Monitoring Reports (DMRs) to NYSDEC.

Page 3 of the draft permit present the monitoring requirements for the facility. Monitoring frequency is based on the minimum sampling necessary to adequately monitor the facility's performance. For municipal facilities, sampling frequency is based on the 1973 NYSDEC-USEPA Agreement as documented in TOGS 1.3.3.

Other Permit Conditions:

Compliance Schedules

Short-term High Intensity Monitoring Program:
A short-term high intensity monitoring program for copper, zinc and cyanide has been added to the permit. Sampling will be required weekly for a 3 month period to gather data to determine whether the pollutant(s) is/are consistently present in the effluent and require a permit limit.

New TRC/Ammonia/Phosphorous Limit:
Compliance schedule items have been added to the draft permit requiring the permittee to evaluate the plant's treatment system and upgrade alternatives to meet the new Water Quality-Based Effluent Limits for Total Residual Chloride and Ammonia. Interim limits will be in effect during this evaluation until the treatment system can be upgraded in accordance with the schedule of compliance in the draft permit.

Additional Permit Provisions

Page 10 of the draft permit contains standard regulatory language that is/are required to be in all SPDES permits. These permit provisions are based largely upon 40 CFR 122, subpart C and include requirements pertaining to monitoring, recording, reporting, and compliance responsibilities.

Other Legal Requirements:

Discharge Notification Act

In accordance with Discharge Notification Act (ECL 17-0815-a), the permittee is required to post a sign at each point of wastewater discharge to surface waters. The permittee is also required to provide a public repository for DMRs as required by the SPDES permit.

Antidegradation Policy

New York State implements the antidegradation portion of the CWA based upon two documents:

1. Organization and Delegation Memorandum #85-40, entitled "Water Quality Antidegradation Policy," signed by the Commissioner of NYSDEC, dated September 9, 1985.

2. TOGS 1.3.9, entitled "Implementation of the NYSDEC Antidegration Policy – Great Lakes Basin (Supplement to Antidegradation Policy dated September 9, 1985)."

An SPDES permit cannot be issued that would result in the water quality criteria being violated. The draft permit for the **Thompson (T) Melody Lake Sewer District STP** contains effluent limits which ensure that the existing beneficial uses of the **Turner Brook** will be maintained.

Appendix A

Basis for Effluent Limitations

Statutory and Regulatory Basis for Limits

Sections 101, 301(b), 304, 308, 401, 402, and 405 of the Clean Water Act (CWA) provide the basis for the effluent limitations and other conditions in the draft permit. The NYSDEC evaluates discharges with respect to these sections of the CWA and the relevant SPDES regulations to determine which conditions to include in the draft permit.

In general, the permit writer does a statistical analysis of the monitoring data provided in permittee-submitted discharge monitoring reports (DMRs). Pollutant screening data as required in the Request for Information are also reviewed to determine the presence of additional contaminants that should be considered for inclusion in the permit. The permit writer determines the technology-based limits that must be incorporated into the permit. The Department then evaluates the water quality expected to result from these controls to determine if any violations of water quality standards in the receiving water would result. If violations could occur, water quality-based limits must be included in the permit. The draft permit limits reflect whichever requirements, technology or water quality, are more stringent. The proposed limits are located on Page 3 of the draft permit. This Appendix describes the technology-based and water quality-based evaluation for the Thompson (T) Melody Lake Sewer District STP.

Technology-Based Evaluation

The 1972 Clean Water Act required publicly owned treatment works (POTWs) to meet performance-based requirements based on wastewater treatment technology. Section 301 of the Act established a required performance level, referred to as "secondary treatment", which all POTWs were required to meet by July 1, 1977.

More specifically, Section 301(b)(1)(B) of the Clean Water Act requires that EPA develop secondary treatment standards for POTWs as defined in Section 304(d)(1) of the CWA. Based on this statutory requirement, EPA developed secondary treatment regulations which are specified in 40 CFR Part 133.102. These technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent quality attainable by secondary treatment in terms of five-day biochemical oxygen demand (BOD_5), total suspended solids, and pH. In addition to the federal regulations, settleable solids need to be monitored for **CLASS B** waters according to 6 NYCRR Part 703.2.

Water Quality-Based Evaluation

In addition to the technology-based limits previously discussed, the NYSDEC evaluated the discharge to determine compliance with Section 301(b)(1)(C) of the Clean Water Act. This section requires the establishment of limitations in permits necessary to meet water quality standards by July 1, 1977.

The regulations in 40 CFR 122.44(d)(1) implement Section 301(b)(1)(C) of the Clean Water Act. These regulations require that SPDES permits include limits for all pollutants or parameters which "are or may be discharged at a level which will cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." The limits must be stringent enough to ensure that water quality standards are met and must be consistent with any available wasteload allocation (WLA).

Water Quality Criteria

Water quality regulations detailed in 6 NYCRR Parts 700-706 and ambient water quality standards and guidance values specified in TOGS 1.1.1 were applied to the **Thompson (T) Melody Lake Sewer District STP** discharge. Specific application of the regulations and standards are detailed in this Appendix.

Reasonable Potential Evaluation

Reasonable potential analysis is the process for determining whether a discharge causes, has the reasonable potential to cause, or contributes to an excursion above New York State water quality criteria for toxic pollutants. When conducting a reasonable potential analysis for each pollutant of concern, factors such as receiving water classification, corresponding water quality criteria and guidance values, pollutant concentration in the effluent, dilution available in the receiving water, background concentrations and additional upstream and downstream dischargers containing the pollutant of concern are used to quantify the receiving water quality. If the expected concentration of the pollutant of concern in the receiving water exceeds the ambient water quality criteria or guidance value then there is reasonable potential that the discharge may cause or contribute to a violation of the water quality standard, and a water quality-based effluent limit or wasteload allocation for the pollutant is required. Calculations performed specifically for the effluent of this facility can be found at the end of this Appendix.

Procedure for Deriving Water Quality-Based Effluent Limits (WQBELs)

The TMDL process is a water quality based approach to implementing water quality standards. It is applied to an entire watershed or drainage basin whenever possible, but may also be applied to waterbody segments with individual or multiple pollutant sources. The TMDL analysis is carried out separately for each pollutant. It allows for the consideration of all sources of the pollutant including point sources, non-point sources, atmospheric deposition and natural background. Dependant on the complexity of the issue and the amount of data available, the analysis can be relatively simple such as a desk-top, mass-balance calculation or it can be exacting and detailed by using complex, multidimensional water quality models. The TMDL

process serves a dual function in the permit development process. It provides the basis for the reasonable potential analysis. If the reasonable potential analysis indicates that the pollutant of concern has the potential to cause or contribute to an excursion of water quality standards, the TMDL process is then used to determine the WQBELs for all sources of the pollutant to assure compliance with the standards.

Pollutant-Specific Analysis

This section outlines the basis for each of the effluent limitations in the **Town of Thompson**'s draft permit.

Biochemical Oxygen Demand and Total Suspended Solids

The **Thompson (T) Melody Lake Sewer District STP** is a publicly owned treatment works (POTW). Therefore, the facility is subject to the technology-based limits required for BOD_5 and TSS of 40 CFR 133.102, as shown in the following table:

Parameter	30-day Average (mg/L)	7-day Average (mg/L)	Percent Removal (%)
BOD_5	30	45	85
TSS	30	45	85

In addition to the concentration limits, 40 CFR 122.45(f) requires that SPDES permits contain mass-based limits for most pollutants. Mass-based limits in lbs/day are derived by multiplying the design flow in MGD by the concentration limit in mg/L by a conversion factor of 8.34.

pH

In addition to limits on BOD_5 and TSS, 40 CFR 133.102 requires that the effluent pH be within the range of 6.0 to 9.0 standard units (SU) for POTWs.

Settleable Solids

The narrative water quality standards provided in 6 NYCRR Part 703.2 state that the discharge of settleable solids shall not cause deposition or impair the receiving waters for their best usages. A Daily Maximum limit of **0.3** ml/L for settleable solids is included in the permit. This parameter is a measure of the proper design and operation of **biological treatment facility without sand filtration**.

Nitrogen, including Total Kjeldahl Nitrogen, Ammonia, Nitrate, and Nitrite

An ammonia limit of **11.2** mg/L is included in the draft permit and will be applied to the discharge from May-October as a 30-day average. The limit is based on the aquatic chronic standard for Class B (T) waters, the facility design flow, the 30Q10 flow in Turner Brook and the ambient pH.

Additionally the Delaware River Basin Commission is requiring seasonal monitoring for Nitrates.

Phosphorus

A monitoring requirement for phosphorus is included in the draft permit due to the location of the Thompson (T) Melody Lake Sewer District STP discharge upstream of Gillman Pond. Monitoring for total phosphorus will be required once per month from May to October. Phosphorus monitoring data will be useful in establishing an effluent limit if the facility were to expand or when phosphorus standards for streams and ponded waters are adopted.

Total Dissolved Solids (TDS)

The Delaware River Basin Commission (DRBC) is requiring quarterly monitoring for TDS with a limit of 1000 mg/l. The permittee may request of the DRBC Executive Director in writing the substitution of specific conductance for TDS. The request should include information that supports the effluent specific correlation between TDS and specific conductance. Upon approval by the DRBC Executive Director, the NYSDEC may modify the permit to allow the substitution of specific conductance for TDS monitoring.

Disinfection Requirements

Thompson (T) Melody Lake Sewer District STP discharges into **Turner Brook**, a Class **B (T)** water. In accordance with TOGS 1.3.3, **seasonal disinfection** of all coliform and/or pathogen bearing wastes discharged into Class B waters is required from **May 1 to October 31**.

Fecal Coliform

During periods when disinfection is required, TOGS 1.3.3 and 6 NYCRR Part 703.4 establish a minimum requirement and a water quality standard that the WWTP should achieve a monthly geometric mean of less than 200 per 100 ml. A geometric mean of samples taken within a 7 consecutive day period shall be less than 400 per 100 ml.

Total Residual Chlorine (TRC)

A TRC limit of **0.1** mg/L is included in the draft permit. 6 NYCRR Part 703.5 establishes a total residual chlorine standard of 5 µg/L. Based on Division guidance, water quality-based effluent limits are determined using the TRC standard and the mass balance principle assuming complete mixing of the effluent with Turner Brook. This calculation yields a TRC WQBEL of 0.05 mg/L. Since the WQBEL is less than the 0.1 mg/L detection level, the detection level will be applied in the permit to determine compliance.

Water Quality Calculations

4/20/09

MA7CO/10 yr Q = 0.5 cfs "S". Per hand written note on pg B-10 of Eng. Report
1.2 cfs "W"

30Q10 = 7Q10 x 1.2 = 0.32 MGD x 1.2 = 0.384 MGD

TRC

0.32 mgd (0 mg/l) + 0.038 mgd (x) = 0.358 mgd (0.005 mg/l)

x = 0.05 mg/l Therefore defer to 0.L of 0.1 mg/l

NH_3

"Summer"

0.384 mgd (0.1 mg/l) + 0.038 mgd (x) = 0.422 mgd (1.1 mg/l)

x = 11.2 mg/l

"winter"

0.93 mgd (0.1 mg/l) + 0.038 mgd (x) = 0.97 mgd (2.2 mg/l)

x = 53.7 mg/l ∴ Not required

Phosphorus

Add monitoring requirement

Appendix B

Individual Outfall Data Summaries and Permit Limit Development

Existing Effluent Quality and Technology Based Effluent Limits (TBEL)

Technology Based Effluent Limit (TBEL) is set based upon an evaluation of Best Available Technology Economically Achievable (BAT), Best Conventional Pollutant Control Technology (BCT), Best Practicable Technology Currently Available (BPT), and Best Professional Judgment (BPJ). BPJ limits may be set using any reasonable method that takes into consideration the criteria set forth in 40 CFR 125.3.

For the Existing Effluent Quality, the statistical methods utilized are in accordance with TOGS 1.2.1 and the USEPA, Office of Water, Technical Support Document For Water Quality-based Toxics Control, March 1991, Appendix E. Statistical calculations were not performed for parameters with insufficient data. Generally, ten or more data points are needed to calculate percentiles (See TOGS 1.2.1 Appendix D). Two or more data points are necessary to calculate an average and a maximum. Non-detects were excluded in the statistical calculations.

Monitoring data collected during the following time period of November 2005 – January 2009 was used to calculate statistics and these data were taken from SPDES Information System.

Water Quality Based Effluent Limits (WQBEL)

Ambient Water Quality Criteria (AWQC) and guidance values specified in "Water Quality Regulations" New York State Codes, Rules and Regulations Title 6, Chapter X, Parts 700-705 and TOGS 1.1.1 were applied to the following pollutants identified in the facilities discharge. Water Quality Based Effluent Limits (WQBEL's) were calculated by applying the TMDL process for each pollutant.

SPDES PRIORITY EVALUATION FACT SHEET
DATE PRINTED 04/03/2009

NY 003 0708
SUPERVISOR
THOMPSON (T)
4052 ROUTE 42 TOWN HALL
MONTICELLO NY 12701

DISCHARGE CLASS 07 SIGNIFICANT MINOR MUNICIPAL
TOXICITY INDICATOR NO
EXPIRATION DATE 03/01/2010

REGION 3
COUNTY ULSTER
LOCATION THOMPSON (T)
BASIN 14-DELAWARE
SUBBASIN 01-NEVERSINK
SIC CODE PRIMARY 4952
SIC CODE SECONDARY - - -
TOTAL OUTFALLS 1

TYPE OWNERSHIP 01 PUBLIC

EBPS Ranking Detail - [Update Scores]

Factor	
14	Longevity Score, Class 01, 07, 09, and 10: Enter the year when last Long Form Application with comprehensive effluent sampling was submitted.

ENV Rating	Mult		Score	Permit Last Modified	DOW EBPS Signed By	Date Added	Date Removed
17	3	=	51	08/02/2004	FRAN G ZAGORSKI	02/02/1998	00/00/0000

Ranking Reason
44

Update Date

TOTAL 51

	Existing Effluent Quality				Technology Based Effluent Limit				Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass		conc.	mass	Type	Basis	AWQC	Effluent			
	Avg	Max	Avg	Max					conc.	conc.	mass	Type	
Flow Rate, units = MGD	Average	0.0064	Maximum	0.017	0.038			BPJ, TOGS 1.3.3					
pH (SU)	Minimum	5.9	Maximum	7.9	6.0 - 9.0		Range	40 CFR133. 102(c)	6.5-8.5	Note 1			T
BOD_5 (30 day), mg/l, lbs/day	20.6	48.0	1.08	2.76	30	9.5	MA	40 CFR 133.102	D.O. Std	Note 1			T
BOD_5 (7 day), mg/l, lbs/day	23.2	66.0	1.08	2.76	45	14.3	Max	40 CFR 133.102	D.O. Std	Note 1			T
UOD, ( ), mg/l, lbs/day								TOGS 1.3.3	D.O. Std	Not Applicable			T
TSS (30 day), mg/l, lbs/day	20.26	45.0	1.08	3.22	30	9.5	MA	40 CFR 133.102	Narrative Std	Note 1			T
TSS (7 day), mg/l, lbs/day	22.18	62.0	1.08	3.22	45	14.3	Max	40 CFR 133.102	Narrative Std	Note 1			T
Solids, Settleable, ml/l	< 0.1	0.1			0.3		Max	TOGS 1.3.3	Narrative Std	Note 1			T
Effluent Disinfection: [ ] All Year [X] Seasonal from:													
Fecal Coliform(30 day/7 day), #/100 ml	40/40	170/300			200/400		GM	6NYCRR 703.4	200/400	200/400			WQ
Chlorine, Total Residual, mg/l	2.3	8.0			2.0		Max	TOGS 1.3.3	0.005	0.05		Daily Max.	WQ
Ammonia, mg/l, (May-Oct.)									1.1	11.2		30-day avg.	WQ
Phosphorus, mg/l									0.02 G.V.	Monitor		1/month	WQ

Note 1: Application of TBEL is protective of water quality.

New York State Department of Environmental Conservation
Division of Environmental Permits, 4th Floor
625 Broadway, Albany, New York 12233-1750
Phone: (518) 402-9182 • **FAX:** (518) 402-9168
Website: www.dec.state.ny.us

Alexander B. Grannis
Commissioner

May 18, 2007

PERMITTEE INFORMATION

William D Culligan
Town of Thompson
4052 Rte 42 - Town Hall
Monticello, NY 12701

FACILITY INFORMATION

FACILITY: Thompson Sackett Lake Sewer District STP
Location: Thompson (T)
County: Sullivan
DEC No. 3-4846-00092-00002
SPDES No. NY 003 0716

Dear Permittee:

Enclosed is a final modified State Pollutant Discharge Elimination System (SPDES) permit for the Thompson Sackett Lake Sewer District STP in Sullivan County. This permit has been modified in accordance with the Environmental Benefit Permit Strategy. No comments were submitted on this modification.

Should you have questions on the administration of this modification, please feel free to contact me at the address or phone number listed above. Should you have technical questions on permit content, please contact the permit drafter, Christopher Keim, at (518) 402-8116 or the Regional Water Engineer, Leonard Meyerson, at (914) 428-2505.

Sincerely,

Teresa Diehsner
Division of Environmental Permits

Enclosures

cc: Margaret Duke, RPA
Leonard Meyerson, RWE
Christopher Keim, BWP
Stacy Strope, BWP

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

State Pollutant Discharge Elimination System (SPDES)
DISCHARGE PERMIT

First3.99

Industrial Code:	**4952**	SPDES Number:	**NY- 003 0716**
Discharge Class (CL):	**07**	DEC Number:	**3-4846-00092-00002**
Toxic Class (TX):	**01**	Effective Date (EDP):	**04/01/2007**
Major Drainage Basin:	**14**	Expiration Date (ExDP):	**03/31/2012**
Sub Drainage Basin:	**01**	Modification Dates: (EDPM)	**05/18/07**
Water Index Number:	**D-10-16**		
Compact Area:			

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et.seq.)(hereinafter referred to as "the Act").

PERMITTEE NAME AND ADDRESS

Name: **Town of Thompson** Attention: **Superintendent**
Street: **4052 Route 42 - Town Hall**
City: **Monticello** State: **NY** Zip Code: **12701**
is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS

Name: **T/O Thompson Sackett Lake Sewer District**
Location (C,T,V): **Thompson (T)** County: **Sullivan**
Facility Address: **4052 Route 42 - Town Hall**
City: **Monticello** State: **NY** Zip Code: **12701**
NYTM -E: NYTM - N:
From Outfall No.: **001** at Latitude: **41 ° 36 ′ 52 ″** & Longitude: **74 ° 45 ′ 00 ″**
into receiving waters known as: **Sackett Lake Outlet** Class: **B**
and; (list other Outfalls, Receiving Waters & Water Classifications)

None

in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1.2(a) and 750-2.

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS

Mailing Name: **T/O Thompson Sackett Lake Sewer District**
Street: **4052 Route 42 - Town Hall**
City: **Monticello** State: **NY** Zip Code: **12701**
Responsible Official or Agent: **William D. Culligan, Superintendent** Phone: **(845) 794-5280**

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

DISTRIBUTION:

CO BWP - Permit Coordinator
RWE
RPA
EPA Region II - Jeffrey Gratz
EFC
Chris Keim

Permit Administrator: William R. Adriance

Address: 625 Broadway
Albany, NY 12233-1750

Signature: William R. Adriance Date: 5/18/07

PERMIT LIMITS, LEVELS AND MONITORING DEFINITIONS

OUTFALL	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
	This cell describes the type of wastewater authorized for discharge. Examples include process or sanitary wastewater, storm water, non-contact cooling water.	This cell lists classified waters of the state to which the listed outfall discharges.	The date this page starts in effect. (e.g. EDP or EDPM)	The date this page is no longer in effect. (e.g. ExDP)

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQ.	SAMPLE TYPE
e.g. pH, TRC, Temperature, D.O.	The minimum level that must be maintained at all instants in time.	The maximum level that may not be exceeded at any instant in time.	SU, °F, mg/l, etc.		

PARA-METER	EFFLUENT LIMIT	PRACTICAL QUANTITATION LIMIT (PQL)	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE
	Limit types are defined below in Note 1. The effluent limit is developed based on the more stringent of technology-based limits, required under the Clean Water Act, or New York State water quality standards. The limit has been derived based on existing assumptions and rules. These assumptions include receiving water hardness, pH and temperature; rates of this and other discharges to the receiving stream; etc. If assumptions or rules change the limit may, after due process and modification of this permit, change.	For the purposes of compliance assessment, the analytical method specified in the permit shall be used to monitor the amount of the pollutant in the outfall to this level, provided that the laboratory analyst has complied with the specified quality assurance/quality control procedures in the relevant method. Monitoring results that are lower than this level must be reported, but shall not be used to determine compliance with the calculated limit. This PQL can be neither lowered nor raised without a modification of this permit.	Type I or Type II Action Levels are monitoring requirements, as defined below in Note 2, that trigger additional monitoring and permit review when exceeded.	This can include units of flow, pH, mass, Temperature, concentration. Examples include µg/l, lbs/d, etc.	Examples include Daily, 3/week, weekly, 2/month, monthly, quarterly, 2/yr and yearly.	Examples include grab, 24 hour composite and 3 grab samples collected over a 6 hour period.

Note 1: DAILY DISCHARGE.: The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average measurement of the pollutant over the day.

DAILY MAX.: The highest allowable daily discharge. DAILY MIN.: The lowest allowable daily discharge.

MONTHLY AVG: The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

7 DAY ARITHMETIC MEAN (7 day average): The highest allowable average of daily discharges over a calendar week.

30 DAY GEOMETRIC MEAN: The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of : the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

7 DAY GEOMETRIC MEAN: The highest allowable geometric mean of daily discharges over a calendar week.

RANGE: The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.

Note 2: ACTION LEVELS: Routine Action Level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted. If the additional monitoring requirement is triggered as noted below, the permittee shall undertake a short-term, high-intensity monitoring program for the parameter(s). Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive operating and discharging days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the additional monitoring requirement was triggered. Results may be appended to the DMR or transmitted under separate cover to the same address. If levels higher than the Action Levels are confirmed, the permit may be reopened by the Department for consideration of revised Action Levels or effluent limits. The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards. TYPE I : The additional monitoring requirement is triggered upon receipt by the permittee of any monitoring results in excess of the stated Action Level. TYPE II: The additional monitoring requirement is triggered upon receipt by the permittee of any monitoring results that show the stated action level exceeded for four of six consecutive samples, or for two of six consecutive samples by 20 % or more, or for any one sample by 50 % or more.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	LIMITATIONS APPLY:	RECEIVING WATER	EFFECTIVE	EXPIRING
001	[X] All Year [ ] Seasonal from _____ to _____	Sackett Lake Outlet	05/18/07	3/31/2012

PARAMETER	EFFLUENT LIMIT					MONITORING REQUIREMENTS				FN
								Location		
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	
Flow	Monthly average	0.5	MGD				Continuous	X		
$CBOD_5$	Daily Max.	10	mg/l	42	lbs/d	2/month	6 hr. Comp.	X	X	(1)
Solids, Suspended	Daily Max.	10	mg/l	42	lbs/d	2/month	6 hr. Comp.	X	X	(1)
Solids, Settleable	Daily Max.	0.1	ml/l			1/day	Grab		X	
pH	Range	6.5 - 8.5	SU			1/day	Grab		X	
Temperature	Daily Maximum	Report	Deg C			1/day	Grab		X	
Dissolved Oxygen	Daily Minimum	>7.0	mg/l			1/day	Grab		X	
Nitrogen, Ammonia (as NH_3)	Daily Maximum	Monitor	mg/l			2/month	6 hr. Comp.		X	
Effluent Disinfection required: [ ] All Year [X] Seasonal from May 15th to October 15th										
Coliform, Fecal	30 day geometric mean	200	No./ 100 ml			1/month	Grab		X	
Coliform, Fecal	7 day geometric mean	400	No./ 100 ml			1/month	Grab		X	
Chlorine, Total Residual	Daily Max.	2.0	mg/l			1/week	Grab		X	

FOOTNOTES: (1) and effluent shall not exceed 35 % and 35 % of influent concentration values for $CBOD_5$ & TSS respectively.

SCHEDULE OF COMPLIANCE

a) Hi-Intensity Sampling

Action Code	Outfall Number(s)	Compliance Action	Due Date
	003	The permittee shall conduct sampling for the following parameters detected in the WWTP effluent and listed in the permit application. Sampling shall be once per week for a period of 3 months. The permittee submit the results of the analyses along with the daily flow:	EDPM + 6 month

Parameter	EPA Method of Analysis Required	Sample Type
Lead, Total	200.7	24 hr. Comp.
Zinc, Total	200.7	24 hr. Comp.
Ammonia	350	24 hr. Comp.

The Department may reopen and modify the permit upon review of the sampling results.

The above compliance actions are one time requirements. The permittee shall comply with the above compliance actions to the Department's satisfaction once. When this permit is administratively renewed by NYSDEC letter entitled "SPDES NOTICE/RENEWAL APPLICATION/PERMIT", the permittee is not required to repeat the submission. The above due dates are independent from the effective date of the permit stated in the letter of "SPDES NOTICE/RENEWAL APPLICATION/PERMIT."

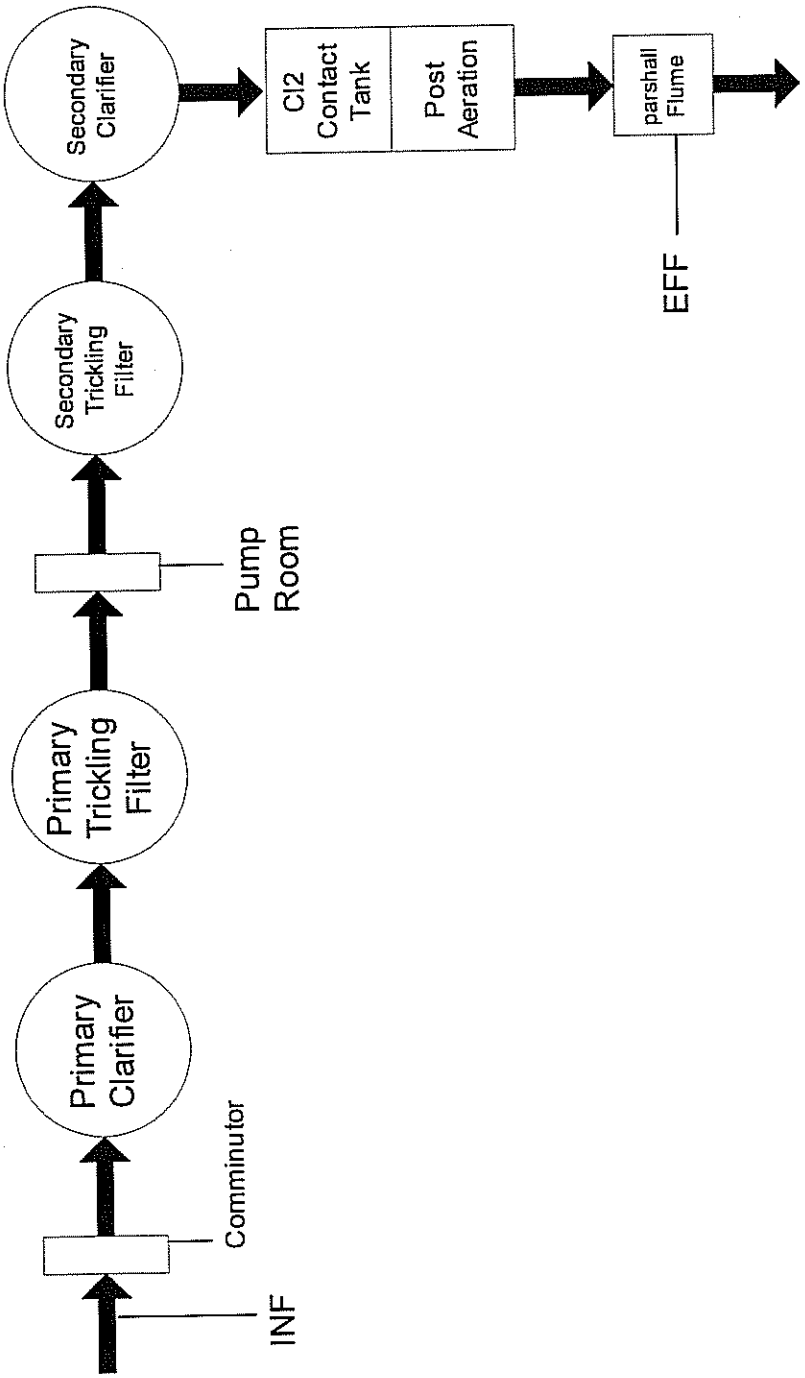
b) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice under terms of the General Conditions (Part II), Section 5. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:

1. A short description of the non-compliance;
2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
3. A description or any factors which tend to explain or mitigate the non-compliance; and
4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.

c) The permittee shall submit copies of any document required by the above schedule of compliance to NYSDEC Regional Water Engineer at the location listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS **and to Alan Fuchs, Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505,** unless otherwise specified in this permit or in writing by the Department.

MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) specified below:



DISCHARGE NOTIFICATION REQUIREMENTS

a) The permittee shall maintain the existing identification signs at all outfalls to surface waters, which have not been waived by the Department in accordance with 17-0815-a. The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

The signs shall have **minimum** dimensions of eighteen inches by twenty four inches (18" x 24") and shall have white letters on a green background and contain the following information:

N.Y.S. PERMITTED DISCHARGE POINT

SPDES PERMIT No.: NY_____

OUTFALL No. :____

For information about this permitted discharge contact:

Permittee Name: _____

Permittee Contact: _____

Permittee Phone: ( ) - ### - ####

OR:

NYSDEC Division of Water Regional Office Address :

NYSDEC Division of Water Regional Phone: ( ) - ### -####

b) For each discharge required to have a sign in accordance with a), the permittee shall provide for public review at a repository accessible to the public, copies of the Discharge Monitoring Reports (DMRs) as required by the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of this permit. This repository shall be open to the public, at a minimum, during normal daytime business hours. The repository may be at the business office repository of the permittee or at an off-premises location of its choice (such location shall be the village, town, city or county clerk's office, the local library or other location as approved by the Department). In accordance with the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of your permit, each DMR shall be maintained on record for a period of five years.

c) The permittee shall periodically inspect the outfall identification signs in order to ensure that they are maintained, are still visible and contain information that is current and factually correct.

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

a) The permittee shall also refer to 6 NYCRR Part 750-1.2(a) and 750-2 for additional information concerning monitoring and reporting requirements and conditions.

b) The monitoring information required by this permit shall be summarized, signed and retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent. **Also, monitoring information required by this permit shall be summarized and reported by submitting;**

[X] (if box is checked) completed and signed Discharge Monitoring Report (DMR) forms for each 1 month reporting period to the locations specified below. Blank forms are available at the Department's Albany office listed below. The first reporting period begins on the effective date of this permit and the reports will be due no later than the 28th day of the month following the end of each reporting period.

[ ] (if box is checked) an annual report to the Regional Water Engineer at the address specified below. The annual report is due by February 1 and must summarize information for January to December of the previous year in a format acceptable to the Department.

[X] (if box is checked) a monthly "Wastewater Facility Operation Report..." (form 92-15-7) to the:
[X] Regional Water Engineer and/or [ ] County Health Department or Environmental Control Agency specified below

Send the **original** (top sheet) of each DMR page to:

Department of Environmental Conservation
Division of Water
Bureau of Water Compliance Programs
625 Broadway
Albany, New York 12233-3506

Phone: (518) 402-8177

Send the **first copy** (second sheet) of each DMR page to:

Department of Environmental Conservation
Regional Water Engineer
100 Hillside Avenue
White Plains, NY 10603

Phone: 914-332-1835

c) Noncompliance with the provisions of this permit shall be reported to the Department as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2.

d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

e) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculations and recording of the data on the Discharge Monitoring Reports.

f) Calculation for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

g) Unless otherwise specified, all information recorded on the Discharge Monitoring Report shall be based uponmeasurements and sampling carried out during the most recently completed reporting period.

h) Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section five hundred two of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be sent to the Environmental Laboratory Accreditation Program, New York State Health Department Center for Laboratories and Research, Division of Environmental Sciences , The Nelson A. Rockefeller Empire State Plaza, Albany, New York 12201.

APPENDIX C

Rents Method Analysis Summary Table

Name	Sewer District	2017 Budget Assesed Values	Assessor File July 2019 points	2018 Budget tax	Assessor File July 2019 calc		Per point 2018	Chapter 194 Code sewer rent process undated? Last Table update 2003, last comp update 1993
Sackett Lake	SD070	4751.00	4851.00	$255,200.00	$260,595.72	O&M	$53.72	Based on existing available data
		7035.38	7132.38	$14,800.00	$14,978.00	Capital	$2.10	*Appears based on Table with extra info on some
				$270,000.00	**$275,573.72**	**TOTAL**		
Kiamesha Lake	SD071	7940.50	7914.00	$639,886.00	$637,789.26	O&M	$80.59	Based on existing available data; but how are points assigned to developers and comm prop?
		19719.21	19695.71	$103,162.00	$103,008.56	Capital	$5.23	*Actually seems based on Kiamesha in Table
				$743,048.00	**$740,797.82**	**TOTAL**		
Melody Lake	SD072	620.00	610.00	$52,000.00	$51,160.70	O&M	$83.87	Based upon a formula of a rate of house and lot
		701.00	670.00	$14,000.00	$13,379.90	Capital	$19.97	*Appears based on Table
				$66,000.00	**$64,540.60**	**TOTAL**		
Harris	SD073	530.00	530.00	**$425,750.00**	**$425,550.12**	O&M	$24.84	Actual $1634.66 per point; but with Catskill Regional flat rate, $812 per point
		668.00	668.00	**$0.00**	**$0.00**	Capital		Article VIII says based on master meter
						TOTAL		works if subtract Regional points and $150,000
Dillon Farm	SD074	120.00	120.00	$8,380.00	$8,379.60	O&M	$69.83	Table 194-46
		120.00	120.00	$0.00	$0.00	Capital		
				$8,380.00	**$8,379.60**	**TOTAL**		
Anawana Lake	SD075	6184.00	6030.00	$248,800.00	$242,586.90	O&M	$40.23	Table 194-46
		7480.50	7143.25	$0.00	$0.00	Capital		
				$248,800.00	**$242,586.90**	**TOTAL**		
Cold Spring		855.00	902.00	**$27,360.00**	**$28,864.00**	O&M	$32.00	Table 194-46
						Capital		
						TOTAL		
Emerald Green	SD077	10540.00	10565.00	$666,850.00	$668,447.55	O&M	$63.27	Table 194-46
LLMarie		11860.90	11864.86	$199,550.00	$199,566.95	Capital	$16.82	
				$866,400.00	**$868,014.50**	**TOTAL**		
Rock Hill	SD078			$45,100.00	$56,214.00	O&M	per use	Based on capital cost of EGLLM and Rock Hill SD; received 2019 Billing from Mike Messenger
				$12,250.00	$11,220.00	Capital	per use	Min. charge residential and small commercial 90,000 gallons; other commercial 180,000 gallons
				$57,350.00		TOTAL		
Harris Woods	SD079	530.00	530.00	$10,000.00	$10,001.10	O&M	$18.87	? No mention in Code *apparently Table 194-46
		668.00	668.00	$73,300.00	$73,299.64	Capital	$109.73	
				$83,300.00	**$83,300.74**	**TOTAL**		
Adelaar Lake	SD080	66.00	889.00	$416,050.00	$416,050.14	O&M	$6,303.79	? No mention in code *Not Table
		66.00	65.00	$0.00	$0.00	Capital		only works if Catskill Regional Medical Center is 1 point or O&M is $468 per point
				$416,050.00	**$416,050.14**	**TOTAL**		Were all 66 connections charged rent at 1 point?
								MMessenger - Town gives budget to Master Developer EPR which bills out by flow meter data

APPENDIX D

Rate Models

2018 Adopted Budget O&M O&M

Districts	**Budget**	**Points**	**$/point**	**Variance**	**Variance SFH**
Harris	$ 275,750.00	11,093.00	$ 24.86	$ 4.16	$ 41.58
Cold Spring	$ 27,360.00	902.00	$ 32.00	$ (2.98)	$ (29.84)
Dillon	$ 8,380.00	120.00	$ 69.83	$ (40.82)	$ (408.17)
Consolidated District	$ 311,490.00	12,115.00			
New Debt *	$ 40,040.01				
Total Budget	$ 351,530.01				

$ 29.02
Consolidated District

These districts have only O&M budgets

minus Catskill Regional flat rate $150,000, no points

* $900,000 at 2% for 30 years

Dillon abandon and connect

2018 Adopted Budget Capital Capital

Districts	**Budget**	**Points**	**$/point**	**Variance**	**Variance SFH**
Harris	$ -	4,930.54	$ -	$ 6.73	$ 67.27
Cold Spring	$ -	902.00	$ -	$ 6.73	$ 67.27
Dillon	$ -	120.00	$ -	$ 6.73	$ 67.27
Consolidated District	$ -	5,952.54			
New Debt *	$ 40,040.01				
Total Budget	$ 40,040.01				

$ 6.73
Consolidated District

minus Catskill Regional flat rate $150,000

* $900,000 at 2% for 30 years

Dillon abandon and connect

Current Capital Debt				
District	Annual Cap Budget	Points	$/Point	SFH @10
Dillion Farms	$ -	120	$ -	$ -
Emerald Green	$ 199,550.00	11864.86	$ 16.82	$ 168.19
Kiamesha Lake	$ 103,162.00	19695.7	$ 5.23	$ 52.30
Sackett Lake	$ 14,800.00	7132.38	$ 2.10	$ 21.00
Melody Lake	$ 14,000.00	670	$ 19.97	$ 199.70
	Total Points	39482.94		

Current 2018 Captial rate per point

Adelaar	$0.00	1 point per parcel	0 point Catskill Regional
Anawana	$0.00		
Kiamesha	$5.23		
Harris Woods	$109.73		

Future Capital		**Market Rate**			2 payments per year			Annual costs for 10 Points			
District	Cap Ex	Term	Interest	bi-Annual Payment	Annual Payment Total	Points	$/point	SFH @ 10	Current + Future	w/All District Costs	District
Dillion Farms (consol)	$ 900,000.00	30	2.0%	$20,020.00	$40,040.01	18113	$2.21	$22.11	$ 22.11	NA	Dillion Farms
Emerald Green	$ 7,300,000.00	30	4.0%	$210,006.15	$420,012.30	11864.86	$35.40	$354.00	$ 522.18	$ 558.03	Emerald Green
Kiamesha Lake	$ 22,000,000.00	30	4.0%	$632,895.25	$1,265,790.50	19695.7	$64.27	$482.01	$ 534.31	$ 570.16	Kiamesha Lake
Sackett Lake	$ 750,000.00	30	4.0%	$21,575.97	$43,151.95	7132.38	$6.05	$60.50	$ 81.50	$ 117.35	Sackett Lake
Melody Lake	$ 100,000.00	30	4.0%	$2,876.80	$5,753.59	670	$8.59	$85.87	$ 285.57	$ 321.43	Melody Lake

Kiamesha current 7.5 points per 210

Future Capital		**Market Rate**			2 payments per year			Annual costs for 10 Points			
District	Cap Ex	Term	Interest	bi-Annual Payment	Annual Payment Total	Points	$/point	SFH @ 10	Current + Future	w/All District Costs	District
Dillion Farms (consol)	$ 900,000.00	30	2.0%	$20,020.00	$40,040.01	18113	$2.21	$22.11	$ 22.11	NA	Dillion Farms
Emerald Green	$ 7,300,000.00	30	4.0%	$210,006.15	$420,012.30	11864.86	$35.40	$354.00	$ 522.18	$ 558.03	Emerald Green
Kiamesha Lake	$ 22,000,000.00	30	4.0%	$632,895.25	$1,265,790.50	27572.3	$45.91	$459.08	$ 511.38	$ 547.23	Kiamesha Lake
Sackett Lake	$ 750,000.00	30	4.0%	$21,575.97	$43,151.95	7132.38	$6.05	$60.50	$ 81.50	$ 117.35	Sackett Lake
Melody Lake	$ 100,000.00	30	4.0%	$2,876.80	$5,753.59	670	$8.59	$85.87	$ 285.57	$ 321.43	Melody Lake

with all districts 10 per 210

Improvements that benefit all Districts								
Future Capital	Cap Ex	Term	Interest	bi-Annual Payment		Points	$/point	SFH @ 10
Press	$ 2,600,000.00	30	4.0%	$74,796.71		39362.94	$1.90	$19.00
Tanker	$ 80,000.00	5	3.5%	$8,790.03		39362.94	$0.22	$2.23
Septage Receiving	$ 2,000,000.00	30	4.0%	$57,535.93		39362.94	$1.46	$14.62
								$35.85

does not include Dillon Farms

KIAMESHA WWTP IMPROVEMENTS Capital Cost Spread

Current Capital					
District	Annual Cap Budget	Points	$/Point	SFH rate	
Adelaar	$ -	889	$ -	$ -	Adelaar 1 point per parcel except Catskill Regional 824
Anawana	$ 199,550.00	7143.25	$ -	$ -	
Kiamesha Lake	$ 103,162.00	19695.7	$ 5.23	$ 39.23	Kiamesha 7.5 point per 210
Harris Woods	$ 14,800.00	668	$ 109.73	$ 1,097.30	
	Total Points	28395.95			

Future Capital		**Market Rate**			2 payments per year			Annual costs for SFH (current rents)			
District	Cap Ex	Term	Interest	bi-Annual Payment	Annual Payment Total	Points	$/point	SFH	Current + Future	w/All District Costs	District
Adelaar						889	$54.76	$54.76	$54.76	$ 90.61	Adelar
Anawana						7143.25	$54.76	$547.56	$547.56	$ 583.41	Anawana
Kiamesha Lake	$ 27,023,978.00	30	4.0%	$777,424.88	$1,554,849.75	19695.7	$54.76	$410.67	$415.90	$ 451.75	Kiamesha Lake
Harris Woods						668	$54.76	$547.56	$657.29	$ 693.14	Harris Woods
						28395.95	$219.02				$1,554,849.75

NOTE Adelaar all currently 1 point, only 1 210

Catskill Regional Medical 824 pts of 889 $36733.92

Residential based on 7.5 points