

Chapter 10.04

Sewer Service Charge System

An Ordinance providing for Sewer Service Charges to recover costs associated with:

- (1) Operation, maintenance, and replacement to ensure effective functioning of the City's Wastewater Treatment System.
- (2) Local capital costs incurred in the construction of the City's Wastewater Treatment System.

ARTICLE I

Definitions

Unless the context specifically indicates otherwise, the meaning of the terms used in this ordinance shall be as hereafter designated:

Section 1. "Administration Costs" - Those fixed costs attributable to administration of the wastewater treatment works (i.e., billing and associated bookkeeping and Accounting costs).

Section 2. "Biochemical Oxygen Demand or BOD5" - The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in Five (5) days at 20 degrees C, expressed in milligrams per liter.

Section 3. "City" - The area within the corporate boundaries of the City of Howard Lake, as presently established or as amended by Ordinance or other legal actions at a future time. When used herein the term City may also refer to the City Council or its authorized representative.

Section 4. "Commercial User" - Any place of business which discharges sanitary waste as distinct from industrial wastewater.

Section 5. "Commercial Wastewaters" - Domestic wastewater emanating from a place of business as distinct from industrial wastewater.

Section 6. "Debt Service Charge" - A charge levied on users of wastewater treatment facilities for the cost of repaying money bonded to construct said facilities.

Section 7. "Normal Domestic Strength Wastewater" - Wastewater that is primarily produced by residential users, with BOD5 concentrations not greater than 300 mg/l and suspended solid concentrations not greater than 300 mg/l and Phosphorus concentrations not greater than 12 mg/l.

Section 8. "Extra Strength Waste" - Wastewater having a BOD, TSS, or P, greater than domestic waste as defined in Article I, Section 7 above and not otherwise classified as an incompatible waste.

Section 9. “Governmental User” - Users which are units, agencies or instrumentalities of Federal, State, or local government discharging Normal Domestic Strength Wastewater.

Section 10. “Incompatible Waste” - Waste that either singly or by interaction with other wastes interferes with waste treatment process, constitutes a hazard to humans or animals, creates a public nuisance or creates any hazard in the receiving waters of the wastewater treatment works.

Section 11. Industrial Users or “Industries” are:

- (a) Entities that discharge into a public owned wastewater treatment works, liquid wastes resulting from the processes employed in industrial or manufacturing processes, or from the development of any natural resources. These are identified in the Standard Industrial Classification Manual, 1972, Office of Management and Budget, as amended and supplemented under one of the following division:

Division A. Agriculture, Forestry and Fishing

Division B. Mining

Division D. Manufacturing

Division E. Transportation, Communications, Electric, Gas, and
Sanitary Sewers

Division I. Services

For the purpose of this definition, domestic waste shall be considered to have the following characteristics:

BOD5 less than 300 mg/l

Suspended Solids less than 300 mg/l

Phosphorus less than 12 mg/l

- (b) Any nongovernmental user of a publicly owned treatment works which discharges wastewater to the treatment works which contains toxic pollutants or poisonous solids, liquids, or gases in sufficient quantity either singly or by interaction with other wastes, to contaminate the sludge of any municipal systems, or to injure or to interfere with any sewage treatment process, or which constitutes a hazard to humans or animals, creates a public nuisance, or creates any hazard in or has an adverse effect on the waters receiving any discharge from the treatment works.

Section 12. “Industrial Wastewater” - The liquid processing wastes from an industrial manufacturing process, trade, or business, including but not limited to all Standard Industrial Classification Manual Divisions A, B, D, E, and I manufacturers as distinct from domestic wastewater.

Section 13. “Institutional User” - Users Other than commercial, governmental, industrial or residential users, discharging primarily Normal Domestic Strength waste-water (e.g. Non-Profit organizations).

Section 14. “Operation and Maintenance” - Activities required to provide for the dependable and economical functioning of the treatment works, throughout the design life of the treatment works, and at the level of performance for which the treatment works were constructed. Operation and Maintenance includes replacement.

Section 15. “Operation and Maintenance Costs” - Expenditures for operations and maintenance, including replacement.

Section 16. “Public Wastewater Collection System” - A system of sanitary sewers owned, maintained, operated and controlled by the City.

Section 17. “Replacement” - Obtaining and installing of equipment, accessories, or appurtenances, which are necessary during the design life of the treatment works to maintain the capacity and performance for which such works were designed and constructed.

Section 18. “Replacement Costs” - Expenditures for replacement.

Section 19. “Residential User” - A user of the treatment facilities whose premises or building is used primarily as a residence for one or more persons, including dwelling units such as detached and semi-detached housing, apartments, and mobile homes; and which discharges primarily normal domestic strength sanitary wastes.

Section 20. “Sanitary Sewer” - A sewer intended to carry only liquid and water carried wastes from residences, commercial buildings, industrial plants, and institutions, together with minor quantities of ground, storm, and surface waters which are not admitted intentionally.

Section 21. “Sewer Service Charge” - The aggregate of all charges, including charges for operation, maintenance, replacement, debt service, and other sewer related charges that are billed periodically to users of the City’s wastewater treatment facilities.

Section 22. “Sewer Service Fund” - A fund into which income from Sewer Service Charges is deposited along with other income. Expenditure of the Sewer Service Fund will be for operation, maintenance and replacement costs; and to retire debt incurred through capital expenditure for wastewater treatment.

Section 23. “Shall” - is mandatory: “May” is permissive.

Section 24. “Slug” - Any discharge of water or wastewater which in concentration of any given constituent or in quantity of flow exceeds for any period of duration longer than 15 minutes more than five times the average 24 hour concentration or flows during normal operation and shall adversely affect the collection system and/or performance of the wastewater treatment works.

Section 25. “Standard Industrial Classification Manual” - Office of Management and Budget, 1972.

Section 26. “Suspended Solids (SS) or Total Suspended Solids (TSS)” - The total suspended

matter that either floats on the surface or is in suspension in water, wastewater or other liquids, and is removable by laboratory filtering as prescribed in “Standard Methods for the Examination of Water and Waste-water”, latest edition, and referred to as non-filterable residue.

Section 27. “Toxic Pollutant” - The concentration of any pollutant or combination of pollutants as defined in standards issued pursuant to Section 307(a) of the Act, which upon exposure to or assimilation into any organism will cause Adverse effects.

Section 28. “User Charge” - A charge levied on users of a treatment works for the user’s proportionate share of the cost of operation and maintenance, including replacement.

Section 29. “Users” - Those residential, commercial, governmental, institutional and industrial establishments, which are connected to the public sewer collection system.

Section 30. “Wastewater” - The spent water of a community, also referred to as sewage. From the standpoint of source it may be a combination of the liquid and water-carried wastes from residences, commercial buildings, industrial plants, and institutions together with any ground water, surface water and storm water that may be present.

Section 31. “Wastewater Treatment Works or Treatment Works” - An arrangement of any devices, facilities, structures, equipment, or processes owned or used by the City for the purpose of the transmission, storage, treatment, recycling, and reclamation of municipal sewage, domestic sewage or industrial wastewater, or structures necessary to recycle or reuse water including interceptor sewers, outfall sewers, collection sewers, pumping, power, and other equipment and their appurtenances; extensions, improvements, remodeling, additions, and alterations thereof elements essential to provide a reliable recycled water supply such as standby treatment units and clear well facilities; and any works including land which is an integral part of the treatment process or is used for ultimate disposal of residues resulting from such treatment.

ARTICLE II ESTABLISHMENT OF A SEWER CHARGE SYSTEM

Section 1. The City of Howard Lake hereby establishes a Sewer Service Charge System (SSCS) whereby all revenue collected from users of the wastewater treatment facilities will be used to affect all expenditures incurred for annual operation, maintenance, and replacement and for debt service on capital expenditures incurred in constructing the wastewater treatment works.

Section 2. Each user shall pay its proportionate share of operation, maintenance and replacement costs of the treatment works, based on the user’s proportionate contribution to the total wastewater loading from all users.

Section 3. Each user shall pay debt service charges to retire local capital costs as determined by the City Council.

Section 4. Sewer Service rates and charges to users of the wastewater treatment facility Shall be

determined and fixed in a “Sewer Service Charge System” developed according to the provisions of this Ordinance. The Sewer Service Charge System shall be adopted by resolution upon enactment of this Ordinance, shall be published in the local newspaper, and shall be effective upon publication. Subsequent changes in Sewer Service rates and charges shall be adopted by Council resolution and shall be published in the local newspaper.

Section 5. Revenues collected for Sewer Service shall be deposited in a separate fund known as “The Sewer Service Fund”. Income from revenues collected will be expended to offset the cost of Operation, Maintenance and equipment replacement for the facility and to retire the debt for capital expenditure.

Section 6. Sewer Service Charges and the Sewer Service Fund will be administered in Accordance with the provisions of Article V of this Ordinance.

ARTICLE III DETERMINATION OF SEWER SERVICE CHARGES

Section 1. Users of the City of Howard Lake wastewater treatment works shall be identified as belonging to one of the following user classes:

- 1) Residential
- 2) Commercial
- 3) Industrial
- 4) Institutional
- 5) Governmental

The allocation of users to these categories for the purpose of assessing User Charges and Debt Service Charges shall be the responsibility of the City Hall Clerk. Allocation of users to user classes shall be based on the substantive Intent of the definitions of these classes contained herein.

Section 2. The user shall pay Operation, Maintenance, and Replacement costs in pro portion to the user’s proportionate contribution of wastewater flows and loadings to the treatment plant, with the minimum rate for loadings of BOD, TSS, and Phosphorus (P) being the rate established for concentrations of 300 mg/l BOD, 300 mg/l TSS, and 12 mg/l P (i.e., Normal Domestic Strength Wastewater).

Section 3. Unit Costs For Treatment Of Fixed Service, Flow, BOD And TSS. Unit costs for fixed service and treatment of flow, BOD, TSS, and P shall be determined and fixed annually in the Sewer Service Charge System according to the following procedure:

- A. Determine the Annual OM&R budget.
- B. Allocate total Annual OM&R costs to Fixed Service, Flow, BOD, TSS, and P proportionately; according to the costs of administration and collection, and have the specific treatment processes required affecting or reducing

Flow, BOD, TSS, and P.

- C. Divide the OM&R costs attributable to Fixed Service, Flow, BOD, TSS, and P respectively, by the total annual billable volume and loadings of Flow, BOD, TSS, and F, to arrive at unit costs.
- D. Determine the wastewater volume charge in accordance with the methodology developed in the “Sewer Service Charge System” report, dated March, 1986.

For purposes of determining user charges, the following definitions of unit costs shall apply:

UFS = Unit cost for fixed service in \$/billing period

VUC = Wastewater volume charge in \$/1,000 gals.

UF = Unit cost for treatment of Flow in \$/1,000 gals.

UBOD = Unit cost for treatment of BOD in \$/lb.

UTSS = Unit cost for treatment of TSS in \$/lb.

UP = Unit cost for treatment of P in \$/lb.

Unit cost for 1988 are provided in Tables 5 and 6 of the Sewer Service Charge System. Subsequent calculations of unit costs shall be according to the substantive intent of this SSCS.

Section 4. User Charges For Normal Domestic Strength Users.

a. Calculating Billable Flows and Loading

The billable amount of flow will be calculated from the volume of metered water usage. For residential users, the monthly billable flow shall be equal to an average of water used during the off-season. The “off season” to be determined from time to time by the City Council. For nonresidential users discharging NDSW, billable flow shall be equal to the monthly water usage measured throughout the year.

For users discharging NDSW but not connected to the City water system, the billable amount of flow will be calculated from the volume of metered water usage or, at the discretion of the City, from the measurement of effluent flow at the user’s point of discharge. Measurements shall be according to a regular program prescribed by the City.

Determination of Loadings from Metered Water Usage:

The billable amounts of BOD, TSS, and P will be calculated, from the volume of metered water usage, as determined above, where the billable quantities will be those attributable to a wastewater concentration of 300 mg/l BOD, 300 mg/l TSS and 12 mg/l P (i.e., “Normal Domestic Strength Wastewater”).

b. Calculating User Charges

$$Uc(NDS) UFS + (VUC \times F)$$

Where: Uc(NDS) = User charge for treatment of Normal Domestic Strength Wastewater

UFS = Unit Cost for fixed service in \$/billing period

VUC = Volume charge for treatment of 1,000 gals. Of normal domestic strength wastewater in \$/1,000 gals.

F = Billable flow in 1,000 gals.

Section 5. User Charges For Users Contributing Wastes Greater Than Normal Domestic Strength.

a. Calculating Billable Flows and Loadings

The billable amount of flow will be calculated from the volume of metered water usage, or at the discretion of the City, from the measurement of effluent flow at user's point of discharge. Measurements shall be according to a regular program prescribed by the City.

The billable amounts of BOD, TSS, and P will be calculated by the measurement of these wastes according to a program prescribed by the City in keeping with the latest edition of Standard Methods for the Examination of Water and Wastewater and in accordance with Ordinance No. 10.04, "An Ordinance Establishing Sewer Use Regulations."

b. Calculating User Charges

$$UC(GNDS) = UFS + (VUC \times F) + (UBOD \times QBOD) + (UTSS \times QTSS) + (UP \times QP)$$

Where: UC(GNDS) = User charge for treatment of wastewater that is greater than Normal Domestic Strength

UFS= Unit Cost for fixed service in \$/billing period

VUC= Unit cost for treatment of flow in S/1,000 gals.

F= Billable flow in 1,000 gals.

UBOD = Unit cost for treatment of BOD in \$/lb.

QBOD = Quantity of BOD in excess of 300 mg/l, in lbs.

UTSS = Unit cost for treatment of TSS in \$/lb.

QTSS = Quantity of TSS in excess of 300 mg/l, in lbs.

UP = Unit cost for treatment of P in \$/lb.

QP = Quantity of P in excess of 12 mg/l, in lbs.

QBOD is calculated as follows:

$$QBOD = F \times 0.00834 \times (CBOD - 300)$$

Where: CBOD = Concentration of BOD, in milligrams per liter (mg/l).

QTSS is calculated as follows:

$$QTSS = F \times 0.00834 \times (CBOD - 300)$$

Where: CTSS = Concentration of TSS, in mg/l QP is calculated as follows:

$$QP = F \times 0.00834 \times (CP - 12)$$

Where: CF = Concentration of P, in mg/l

Section 6. The City may, at its discretion require non-residential users to install wastewater flow meters or such additional water meters as may be necessary to determine wastewater volume. The City may require residential connections to install water meters for the purpose of determining wastewater volume. When so required, such meters shall be of a type approved by the City equipped with remote registering recorders, and located at an accessible site on the owner's property.

Section 7. Sewer Service Charge for Recovery of Local Construction Costs. Local construction costs for the Wastewater Treatment Facility will be recovered from users in proportion to their contributions of wastewater flow and loadings into the Treatment Facility as follows:

Unit costs for debt service of capital expenditures attributable to fixed service, Flow, BOD, TSS, and P shall be calculated according to the Sewer Service Charge System as provided in Tables 5 and 6. For purposes of determining debt service charges, the following definitions shall apply:

DFS = Unit cost for debt service of capital expenditures attributable to fixed service in \$/billing period

VDC = Wastewater volume charge for debt service in \$/1,000 gals.

DF = Unit cost for debt service of capital expenditures attributable to flow, in \$/1,000 gals.

DBOD = Unit cost for debt service of capital expenditures attributable to BOD, in \$/lb.

DTSS = Unit cost for debt service of capital expenditures attributable to TSS, in \$/lb.

DP = Unit cost for debt service of capital expenditures attributable to P, in \$/lb.

a. Calculating Flows and Loadings

The calculation of flows and loadings for the debt service charge shall be the same as described in Article III, Sections 4 and 5.

b. Calculating Debt Service Charges

1. For Normal Domestic Strength Users $DC(NDS) = DFS + (VDC \times F)$
2. For users contributing wastes greater than Normal Domestic Strength.

$$DC(GNDS) = DFS + (VDC \times F) + (DBOD \times QBOD) + (DTSS \times QTSS) + (DP \times QP)$$

Where: $DC(NDS)$ = Debt Service Charge to Normal Domestic Strength Users.

$DC(GNDS)$ = Debt Service Charge to users contributing Wastewater that is greater than Normal Domestic Strength.

DFS = Unit cost for fixed service in \$/billing period attributable to flow in \$/1,000 gals.

VDC = Volume charge for treatment of 1,000 gals. Of normal domestic strength wastewater, in \$/1,000 gals.

F = Billable flow in 1,000 gals.

$DBOD$ = Unit cost for debt service of capital expenditures attributable to BOD in \$/lb.

$QBOD$ = Quantity of BOD in excess of 300 mg/l, in lbs.

$DTSS$ = Unit cost for debt service of capital expenditures attributable to TSS, in \$/lb.

$QTSS$ = Quantity of TSS in excess of 300 mg/l, in lbs.

DP = Unit cost for debt service of capital expenditures attributable to F , in \$/lb.

QP = Quantity of P in excess of 12 mg/l, in lbs.

Lows:

$QBOD$ is calculated as follows:

$$QBOD = F \times 0.00834 \times (CBOD - 300)$$

Where: CBOD = Concentration of BOD in mg/l

QTSS is calculated as follows:

$$QTSS = F \times 0.00834 \times (CTSS - 300)$$

Where: CTSS = Concentration of TSS, in mg/l

QP is calculated as follows:

$$QP = F \times 0.00834 \times (CP - 12)$$

Where: CP = Concentration of P, in mg/l

Section 8. Total Sewer Service Charge. The total sewer service charge per billing period shall be calculated as follows:

$$SSC = UC + DC$$

Where: SSC = Sewer Service Charge UC = User Charge

DC = Debt Service Charge

ARTICLE IV SEWER SERVICE FUND

Section 1. The City of Howard Lake hereby establishes a “Sewer Service Fund” as an income fund to receive all revenues a generated by the Sewer Service charge System, and all other income dedicated to the operation, maintenance, replacement and construction of the wastewater treatment works, including taxes, special charges, fees, and assessments intended to retire construction debt.

The City also establishes the following accounts as income and expenditure accounts within the Sewer Service Fund:

- 1) Operation and Maintenance Account
- 2) Equipment Replacement Account
- 3) Debt Retirement Account

Section 2. All revenue generated by the Sewer Charge System, and all other income pertinent to the treatment system, including taxes and special assessments dedicated to retire construction debt, shall be held by the clerk separate and apart from all other funds of the City. Funds received by the Sewer Service Fund shall be transferred to the “Operation and Maintenance Account,” “Equipment Replacement Account,” or “Debt Retirement Account,” in accordance with State and Federal regulations and the provisions of this Ordinance.

Section 3. Revenue generated by the Sewer Service Charge System sufficient to insure adequate replacement throughout the design life of the wastewater facility shall be held separate and apart

in the "Equipment Replacement Account" and dedicated to affecting replacement costs. Interest income generated by the "Equipment Replacement Account" shall remain in the "Equipment Replacement Account."

Section 4. Revenue generated by the Sewer Service Charge System sufficient for payment of debt service stemming from the wastewater facility shall be held separate and apart in the "Debt Service Account."

Section 5. Revenue generated by the Sewer Service Charge System sufficient for payment of debt service stemming from the wastewater facility shall be held separate and apart in the "Debt Service Account."

ARTICLE V ADMINISTRATION

The Sewer Service Charge System and Sewer Service Fund shall be administrated According to the following provisions:

Section 1. The City Clerk shall maintain a proper system of accounts suitable for determining the operation and maintenance, equipment replacement and debt retirement costs of the treatment works, and shall furnish the City Council with a report of such costs annually in October.

The City Council shall annually determine whether or not sufficient revenue is being generated for the effective operation, maintenance, replacement and management of the treatment works, and whether sufficient revenue is being generated for debt retirement. The Council will also determine whether the user charges are distributed proportionately to each user in accordance with Article II, Section 2 of this Ordinance and Section 204(b)(2)(A) of the Federal Water Pollution Control Act, as amended.

The City shall thereafter, but not later than the end of the year reassess, and as necessary revise the Sewer Service Charge System then in use to insure the sufficiency of funds to maintain the capacity and performance to which the facilities were constructed, and to retire the construction debt.

Section 2. In accordance with Federal and State requirements each user will be notified annually in conjunction with a regular billing of that portion of the Sewer Service Charge attributable to operation, maintenance and replacement.

Section 3. In accordance with Federal and State requirements, the City Clerk shall be responsible for maintaining all records necessary to document compliance with the Sewer Service Charge System adopted.

See Chapter 10.01, Section 2 for Ordinance regulating sewer rates and charges.

Section 5. The owner of the premises shall be liable to pay for the services to such premises, and

the service is furnished to the premises by the City only upon the condition that the owner of the premises is liable therefore to the City.

Section 6. Any additional costs caused by discharges to the treatment works of toxics or other incompatible wastes, including the cost of restoring wastewater treatment services, clean up and restoration of the receiving waters and environs, and sludge disposal, shall be borne by the discharger(s) of said wastes, at no expense to the City.

ARTICLE VI PENALTIES

Section 1. Any person, firm or corporation convicted of violating any provision of this ordinance is guilty of a misdemeanor.

ARTICLE VII SEVERABILITY AND VALIDITY

Section 1. If any section or subdivision of this Ordinance shall be held invalid, the invalidity thereof shall not affect the validity of the other provisions of this Ordinance, which shall continue in full force and effect.

Section 2. The Sewer Service Charge System shall take precedence over any terms or conditions of agreements or contracts which are inconsistent with the requirements of Section 204(b)(1)(A) of the Act and Federal regulation 40 CFR (Code of Federal Regulations) 35.2 140 of the Environmental Protection Agencies grant regulations.