**TOWNSHIP OF LOWER MACUNGIE**
Lehigh County, Pennsylvania

**RESOLUTION NO.** 2022-79
(Duly Adopted December 1, 2022)

RESOLUTION OF THE BOARD OF COMMISSIONERS OF LOWER MACUNGIE TOWNSHIP, LEHIGH COUNTY, PENNSYLVANIA AUTHORIZING THE ADOPTION OF A TAPPING FEE CALCULATION AND SCHEDULE OF FEES FOR SEWER TAPPING FEES ASSESSED BY THE TOWNSHIP PURSUANT TO CHAPTER 18 OF THE CODE OF ORDINANCES OF LOWER MACUNGIE TOWNSHIP, AND IN ACCORDANCE WITH PENNSYLVANIA ACTS 1990-203 AND 2003-57.

**WHEREAS,** Lower Macungie Township is a municipal corporation and Township of the First Class, duly organized and existing under the laws of the Commonwealth of Pennsylvania, including the First Class Township Code, 53 P.S. § 55101, et seq.; and

**WHEREAS,** Lower Macungie Township ("Township") is the operator of a municipal sanitary sewer system which serves portions of this Township; and

**WHEREAS,** by Acts 1990-203 (applicable to municipalities through Act 1990-209) and 2003-57, the Pennsylvania General Assembly enacted new and detailed requirements relating to the imposition of fees for acquiring the right to connect to and use transmission, collection, and capacity facilities of municipal sanitary sewer systems; and

**WHEREAS,** the Board of Commissioners of the Township (formerly the Board of Supervisors) through the adoption of Resolution 2005-48, dated June 30, 2005, adopted a tapping fee schedule for sewer tapping fees assessed by the Township of Lower Macungie pursuant to Chapter 131 (Chapter 18, as re-codified) of the Code of Ordinances of the Township, and in accordance with Acts 1990-203 and 2003-57; and

**WHEREAS,** the Board of Commissioners of the Township desires to revise the sewer tapping fees and charges for buildings and facilities desiring to newly connect to the municipal sanitary sewer system in accordance with Chapter 18, and Acts 1990-203 and 2003-57; and

**WHEREAS,** the fees described in the Lower Macungie Township Sanitary Sewer System 2022 Tapping Fee Tabulation, marked as Exhibit "A," attached hereto and made a part hereof, has been prepared by the Township Engineer in accordance with Chapter 18 of the Code of Ordinances of the Township of Lower Macungie, Lehigh County, Pennsylvania, and Acts 1990-203 and 2003-57; and

**WHEREAS,** the Township has available for public inspection the detailed itemization of all calculations clearly showing the manner in which the fees were determined.

**NOW, THEREFORE, BE IT ADOPTED AND RESOLVED** that the Board of Commissioners of the Township of Lower Macungie, Lehigh County, Pennsylvania hereby authorizes the following:

1. Adoption of the Lower Macungie Township Sanitary Sewer System 2022 Tapping Fee Tabulation, marked as Exhibit "A," attached hereto and made a part hereof, in accordance with Chapter 18 of the Code of Ordinances of the Township of Lower Macungie, Lehigh County, Pennsylvania, and Pennsylvania Acts 1990-203 and 2003-57.

2. The Tapping Fee Tabulation shall be revised annually, in accordance with Chapter 18 of the Code of Ordinances of the Township of Lower Macungie, Lehigh County, Pennsylvania, Pennsylvania and Acts 1990-203 and 2003-57, and considered for adoption by the Board of Commissioners, with the Township making available for public inspection the detailed itemization of all calculations clearly showing the manner in which the fees were determined.

**DULY ADOPTED** this this 1st day of December, 2022, by the Board of Commissioners of Lower Macungie Township, in lawful session duly assembled.

LOWER MACUNGIE TOWNSHIP
BOARD OF COMMISSIONERS

Brian P. Higgins, President

ATTEST:

Renea Flexer, Secretary

I, Renea Flexer, Secretary to the Board of Commissioners, hereby certifies that the foregoing Resolution is a true and correct copy of the Township's Resolution No. 2022-79, adopted, December 1, 2022.

**EXHIBIT A**

**Lower Macungie Township Sanitary Sewer System**
**2022 Tapping Fee Tabulation**

CKS ENGINEERS

4259 W. Swamp Road
Suite 410
Doylestown, PA 18902

www.cksengineers.com
215.340.0600

November 16, 2022
Ref: #12501-060

Lower Macungie Township
3400 Brookside Road
Macungie, PA 18062

Attention: Bruce Beitel, Township Manager

Reference: Sewer Tapping Fees - 2022 Update – Second Revision

Dear Mr. Beitel:

In accordance with your request, I have prepared an updated Tapping Fee Report based on the 2022 Engineering News Record (ENR) Index and also with the requirements of the Tapping Fee Regulations. Attached to this letter is the information utilized in the updating of the Lower Macungie Township Tapping Fees.

If you recall, CKS Engineers, Inc., prepared a sewer tapping fee update in 2020. This latest update will reflect a change in the ENR Index, which is utilized in the updating of costs to reflect inflation and increased building costs. This tapping fee update provides information on the allowable Lower Macungie Township Tapping Fees for each of the nine (9) sewer districts located within the Township.

I have also included in the update the latest Lehigh County Authority Tapping Fees (Effective July 2022) which will enable you to determine the total tapping fee requirements for each EDU, within the Township. If you have any questions or wish to further discuss this update with you or the Board, please do not hesitate to contact me.

Very truly yours,
CKS ENGINEERS, INC
Township Engineers

Joseph J. Nolan, P.E.

JJN/paf
Enclosure
cc: David Brooman, Esq., Township Solicitor
Bryan McAdam, P.E., CKS Engineers, Inc.
Zachary Graves, SEO, Lower Macungie Township
File

CKS Engineers

Revised November 15, 2022
Ref: # 12501-060

**LOWER MACUNGIE TOWNSHIP**
**SANITARY SEWER SYSTEM**
**2022 TAPPING FEE TABULATION [1]**

| District | Lower Macungie Township Tapping Fee/EDU | Lehigh County Authority Tapping Fee/EDU [2] | Total Tapping Fee |
|---|---|---|---|
| I | $772.59 | $3,200.05 | $3,972.64 |
| IA | $870.05 | $3,200.05 | $4,070.10 |
| IB | $772.59 | $2,078.36 | $2,850.95 |
| IC | $1,201.41 | $3,200.05 | $4,401.46 |
| ID | $8,569.94 | $3,200.05 | $11,769.99 |
| IIA | $999.41 | $334.33 | $1,333.74 |
| IIB | $666.34 | $2,078.36 | $2,744.70 |
| IIC | $1,027.83 | $2,078.36 | $3,106.19 |
| IID | $0 | $3,841.62 | $3,841.62 |

(1) Tapping Fees/EDU's are based on 223 gpd for LCA and 223 gpd for Lower Macungie. Commercial Fee shall be determined on a "per gallon" basis using the EDU Fee and the Associated Flow Factor.

(2) LCA Tapping Fees from LCA effective July, 2022.

CKS Engineers

Revised November 15, 2022
Ref: # 12501-060

**LOWER MACUNGIE TOWNSHIP**
**SANITARY SEWER SYSTEM TAPPING FEES**
**2022 UPDATE OF RESIDENTIAL FEES**

| | TAPPING FEES/EDU [1] | | |
|---|---|---|---|
| **Fee Component [3]** | **2005 (ENR 7398)** | **2022 (ENR 13111)** | **Method/Source [2]** |
| A | $883 | $1,744.03 | LCA |
| B | $602 | $1,129.62 | LCA |
| C | $118 | $334.33 | LCA |
| D | $265 | $469.58 | Historical Trend |
| E | $204 | $361.49 | Historical Trend |
| F | $65 | $115.18 | Historical Trend |
| G | $11 | $19.56 | Historical Trend |
| H | $35 | $62.02 | Historical Trend |
| I | $55 | $97.46 | Historical Trend |
| J | $242 | $428.82 | Historical Trend |
| K | $4,400 | $7,797.35 | Historical Trend |
| X | $0 | $641.57 | LCA |
| Y | $436 | $772.59 | Historical Trend |
| Z | $499 | $884.23 | Historical Trend |

(1) LCA EDU = 223 gpd; Lower Macungie EDU = 223 gpd.

(2) LCA 2022 Fees based on July 2019 Sewer System Tapping Fee Report by Keystone Alliance Consulting, Inc. and July 2022 Fees adopted by LCA; Lower Macungie 2022 Fees based on Historical Trending from 2020 to 2022 using ENR Index.

(3) See KCE Letter (attached) of June 24, 2005 for Description of Fee Components.

(4) The calculation in the KCE June 24, 2005 letters has been revised to reflect the current EDU flow number of 223 gpd, which is used for 537 planning and tapping fee determination.

CKS Engineers

Revised November 15, 2022
Ref: # 12501-060

**LOWER MACUNGIE TOWNSHIP**
**CALCULATION OF SEWER TAPPING FEES UNDER ORDINANCE**

## CAPACITY PART

District I: Fee consists of the sum of Fee Components A, B and C.

District IA: Fee consists of the sum of Fee Components A, B, C and I.

District IB: Fee consists of Fee Components A and C.

District IC: Fee consists of the sum of Fee Components A, B, C and J.

District ID: Fee consists of the sum of Fee Components A, B and C.

District IIA: Fee consists of the sum of Fee Components C, F, and Z.

District IIB: Fee consists of the sum of Fee Components A, D, F, G and H.

District IIC: Fee consists of the sum of Fee Components A, D, E, F, G and H.

District IID: Fee consists of the sum of Fee Components A, B, C and X.

## COLLECTION PART

District I: Fee consists of Fee Component Y.

District IA: Fee consists of Fee Component Y.

District IB: Fee consists of Fee Component Y.

District IC: Fee consists of Fee Component Y.

District ID: Fee consists of Fee Component Y.

District IIA: Fee consists of Fee Component Z.

## SPECIAL PURPOSE PART

District ID: Fee consists of Fee Component K.

Fee Components

A: This component represents the cost of sewage treatment capacity in the Allentown Treatment Plant.

Cost Method: Replacement cost.

Basis: Lehigh County Authority Resolution No. 6-2005-1 establishes the cost of an additional EDU (223 gallons per day) for treatment capacity. This cost represents the charge to Lower Macungie Township for acquiring an additional EDU of capacity, and so it appropriately represents the per-EDU replacement cost of treatment capacity.

Amount: $ 883/EDU

B: This component represents the cost of capacity in the Western Lehigh Interceptor.

Cost Method: Replacement cost.

Basis: Lehigh County Authority Resolution No. 6-2005-1 establishes the cost of an additional EDU (223 gallons per day) for capacity in the Western Lehigh Interceptor. This cost represents the charge to Lower Macungie Township for acquiring an additional EDU of such capacity, and so it appropriately represents the per-EDU replacement cost of capacity in the Western Lehigh Interceptor.

Amount: $602/EDU

C: This component represents the cost of capacity in the Little Lehigh Relief Interceptor.

Cost Method: Replacement cost.

Basis: Lehigh County Authority Resolution No. 6-2005-1 establishes the cost of an additional EDU (223 gallons per day) for capacity in the Little Lehigh Relief Interceptor. This cost represents the charge to Lower Macungie Township for acquiring an additional EDU of such capacity, and so it appropriately represents the per-EDU replacement cost of capacity in the Little Lehigh Relief Interceptor.

Amount: $118/EDU

D: The component represents the cost of capacity in the Lower Macungie Township Cedar Creek Interceptor, Phase I.

Cost Method: Trended historical cost.

Calculation: Interceptor was constructed at a total historical cost of $ 300,000 (net of a contribution from the Pennsylvania Turnpike Commission) with a downstream capacity limitation of 1,320,000 gallons per day (peak flow). Assuming that peak flow is 2.5 times average flow and that one EDU equals 238 gallons per day of average flow, the number of EDU's of available capacity is 1,320,000 ÷ 2.5 ÷ 238 =

the ENR Construction Cost Index from 1981 to May 2005 is $300,000 × (7398 ÷ 3535) = $627,836. The price per EDU = $627,836÷ 2,218 = $283.

Amount: $283/EDU

E: The component represents the cost of capacity in the Lower Macungie Township Cedar Creek Interceptor, Phase II.

Cost Method: Trended historical cost.

Calculation: Interceptor was constructed at a total historical cost of $434,000 (net of a contribution from the developer of the Hamilton Fields Subdivision) with a downstream capacity limitation of 1,320,000 gallons per day (peak flow). Assuming that peak flow is 2.5 times average flow and that one EDU equals 238 gallons per day of average flow, the number of EDUs of available capacity is 1,320,000 ÷ 2.5 ÷ 238 = 2,218. Since the project was designed/constructed in June 2003, the trended cost based on the ENR Construction Cost Index from June 2003 to May 2005 is $434,000 × (7398 ÷ 6642) = $483,398. The price per EDU = $483,398 ÷ 2,218 = $218.

Amount: $218/EDU

F: This component represents the cost of capacity in the portion of the South Whitehall Township Cedar Creek Interceptor which is downstream if Manhole H-12 (Section 1).

Cost Method: Trended historical cost.

Calculation: Interceptor capacity of 1,320,000 gallons per day (peak flow) was purchased for $73,916 in 1981. Assuming that peak flow is 2.5 times average flow and that one EDU equals 225 gallons per day of average flow the number of EDUs of capacity purchased is 1,320,000 ÷ 2.5 ÷ 238 = 2,218. Since the capacity was purchased in 1981, the trended cost based on the ENR Construction Cost Index from 1981 to May 2005 is $73,916 × (7398 ÷ 3535) = $154,690. The price per EDU = $154,690÷ 2,218 = $70.

Amount: $70/EDU.

G: This component represents the cost of capacity in the portion of the South Whitehall Township Cedar Creek Interceptor which is between Cedarbrook Road and Manhole H-12 (Section 2).

Cost Method: Trended historical cost.

Calculation: Interceptor capacity of 1,320,000 gallons per day (peak flow) was purchased for $16,270. Assuming that peak flow is 2.5 times average flow and that one EDU equals 238 gallons per day of average flow, the number of EDUs of capacity purchased is 1,320,000 ÷ 2.5 ÷ 238 = 2,218. Since the capacity was purchased in 1991, the trended cost based on the ENR Construction Cost Index from

1991 to May 2005 is $16,270 × (7398 ÷ 4835) = $24,895. The price per EDU = $24,895 ÷ 2,218 = $11.

Amount: $11/EDU.

H: This component represents the cost of capacity in the portion of the South Whitehall Township Cedar Creek Interceptor which is upstream from Cedarbrook Road (Section 3).

Cost Method: Trended historical cost.

Calculation: Interceptor capacity was purchased with a downstream limitation of 1,320,000 gallons per day (peak flow) for $54,475. Assuming that peak flow is 2.5 times average flow and that one EDU equals 238 gallons per day of average flow, the number of EDUs of capacity purchased is 1,320,000 ÷ 2.5 ÷ 238 = 2,218. Since the capacity was purchased in 1991, the trended cost based on the ENR Construction Cost Index from 1981 to May 2005 is $54,475 × (7398 ÷ 4835) = $83,352. The price per EDU = $83,352 ÷ 2,218 = $38.

Amount: $38/EDU.

I: This component represents the cost of capacity in the Upper Macungie Township Authority trunk sewer line.

Cost Method: Trended historical cost.

Calculation: Interceptor capacity of 1,700,000 gallons per day (peak flow) was purchased for $105,000 in November 1989. Assuming that peak flow is 2.5 times average flow and that one EDU equals 238 gallons per day of average flow, the number of EDUs of capacity purchased is 1,700,000 ÷ 2.5 ÷ 238 = 2,857. Since the capacity was purchased in November 1989, the trended cost based on the ENR Construction Cost Index from November 1989 to May 2005 is $105,000 × (7398 ÷ 4668) = $166,407. The price per EDU = $166,407 ÷ 2,857 = $58.

Amount: $58/EDU.

J: This component represents the cost of capacity in the Lower Macungie Township Elbow Lane sewer relief trunk line.

Cost Method: Replacement cost.

Calculation: Trunk line capacity of 600,000 gallons per day (peak flow) was recently constructed at a total project cost of $260,100. Assuming that peak flow is 2.5 times average flow and that one EDU equals 238 gallons per day of average flow, the number of EDUs of capacity purchased is 600,000 ÷ 2.5 ÷ 238 = 1,008. The price per EDU = $260,100 ÷ 1,008 = $258.

Amount: $258/EDU.

K: This component represents the cost of the Mill Creek Road trunk sewer line crossing of Mill Creek.

Cost Method: Replacement Cost.

Calculation: Trunk line was recently constructed at a total project cost of $88,850. The ultimate number of residential lots (EDUs) which will be served by the trunk sewer line is 20. The price per lot or EDU = $88,850 ÷ 20 = $4,400.

Amount: $4,400/EDU.

Y: This component represents the cost of the collection system in the area served by the Lehigh County Authority interceptor system.

Cost Method: Trended historical cost.

Calculation: The total principal and interest paid on sewer revenue bonds which financed this project was $3,909,318 as of June 1991. The trended cost based on the ENR Construction Cost Index from June 1991 to May 2005 is $3,909,318 × (7398 ÷ 4818) = $6,002,726. Additional construction funds were obtained through sewer assessment bonds, but those amounts have not been included since assessment revenue was received for those construction costs. The build-out capacity of the collector system is 3,070,000 gallons per day of average flow. Assuming that one EDU equals 238 gallons per day of average flow, the number of EDUs of collection system capacity is 3,070,000 ÷ 238 = 12,899. The price per EDU = $6,002,726 ÷ 12,899=$465.

Amount: $465/EDU.

Z: This component represents the cost of the collection system in the area served by the South Whitehall Township interceptor system.

Cost Method: Trended historical cost.

Calculation: The total principal and interest paid on sewer revenue bonds which financed this project was $768,911 as of June 1991. The trended cost based on the ENR Construction Cost Index from June 1991 to May 2005 is $768,911 × (7398 ÷ 4818) = $1,180,656. Additional construction funds were obtained through sewer assessment bonds, but those amounts have not been included since assessment revenue was received for those construction costs. The build-out capacity of the collector system is 528,000 gallons per day of average flow. Assuming that one EDU equals 238 gallons per day of average flow, the number of EDUs of collection system capacity is 528,000 ÷ 238 = 2,218. The price per EDU = $1,180,656 ÷2,218=$532.

Amount: $532/EDU

2020 Fee Component

**X: This fee component represents the cost of Lower Macungie connection to the UMiT Interceptor as calculated by Lehigh County Authority, Sewer System Tapping Fee Calculations for Suburban Wastewater Division, July 2019, as prepared by Keystone Alliance Consulting, Inc.**

**Amount: $632.03/EDU**