

Application Type New
 Facility Type Non-Municipal
 Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0285251
 APS ID 1103565
 Authorization ID 1466950

Applicant and Facility Information

Applicant Name	<u>M Cap LLC</u>	Facility Name	<u>M Cap LLC Properties SRSTP</u>
Applicant Address	<u>328 Riverview Drive</u> <u>New Kensington, PA 15068-5935</u>	Facility Address	<u>5141 Watters Road</u> <u>New Kensington, PA 15068-8709</u>
Applicant Contact	<u>Mark Cook</u>	Facility Contact	<u></u>
Applicant Phone	<u>(724) 681-3625</u>	Facility Phone	<u></u>
Client ID	<u>381781</u>	Site ID	<u>869121</u>
Ch 94 Load Status	<u></u>	Municipality	<u>City of Lower Burrell</u>
Connection Status	<u></u>	County	<u>Westmoreland</u>
Date Application Received	<u>December 28, 2023</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u></u>	If No, Reason	<u></u>
Purpose of Application	<u>NPDES Permit to discharge treated effluent from a single residence sewage treatment plant.</u>		

Summary of Review

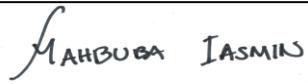
Department of Environmental Protection (DEP) received a new Part 1 NPDES and Part II WQM permit application for the M Cap LLC Properties Single Residence Sewage Treatment Plant (SRSTP). The applications are for an SRSTP located in the City of Lower Burrell, Westmoreland County with an annual average flow of 400 GPD. The proposed facility is being constructed to serve a proposed three-bedroom dwelling. A final WQM permit will be issued concurrently with this NPDES Permit under WQM Number 6523405.

There are no open violations by client ID for M Cap LLC.

This fact sheet is developed in accordance with 40 CFR §124.56.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Approve	Deny	Signatures	Date
X		 Jack Price / Environmental Engineering Manager	January 11, 2024
X		 Mahbuba Iasmin, Ph.D., P.E./Environmental Engineer Manager	January 18, 2024

Discharge and Stream Data – 2 - Receiving Waters and PWS

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.0004</u>
Latitude	<u>40° 35' 23.44"</u>	Longitude	<u>-79° 41' 9.82"</u>
Quad Name	<u>New Kensington East</u>	Quad Code	<u>40079E6</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Unnamed Tributary to Chartiers Run (TSF)</u>	Stream Code	<u>UNT 42531</u>
NHD Com ID	<u>123972450</u>	RMI	<u>0.70</u>
Drainage Area	<u>0.36</u>	Yield (cfs/mi ²)	<u>0.00625</u>
Q ₇₋₁₀ Flow (cfs)	<u>0.00225</u>	Q ₇₋₁₀ Basis	<u>USGS StreamStats</u>
Elevation (ft)	<u>968.8</u>	Slope (ft/ft)	<u>0.0191</u>
Watershed No.	<u>18-A</u>	Chapter 93 Class.	<u>TSF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u></u>	Exceptions to Criteria	<u></u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u></u>		
Source(s) of Impairment	<u></u>		
TMDL Status	<u></u>	Name	<u></u>
Background/Ambient Data		Data Source	
pH (SU)	<u></u>		<u></u>
Temperature (°F)	<u></u>		<u></u>
Hardness (mg/L)	<u></u>		<u></u>
Other:	<u></u>		<u></u>
Nearest Downstream Public Water Supply Intake	<u>Brackenridge Boro Water Dept. (2.5 MGD)</u>		
PWS Waters	<u>Allegheny River</u>	Flow at Intake (cfs)	<u>2,390</u>
PWS RMI	<u>22.93</u>	Distance from Outfall (mi)	<u>2.90 Linear Miles</u> <u>4.51 River Miles</u>

Changes Since Last Permit Issuance: N/A. This is a new facility.

Other Comments:

- This SRSTP was designed where applicable in accordance with the Small Flow Treatment Facility (SFTF) Manual, however the package plant identified in the application is not listed in the SFTF Manual, therefore the facility does not qualify for a PAG-04 General Permit.
- The Allegheny River Q₇₋₁₀ was obtained from the table in Attachment 1.
- The Unnamed Tributary to Chartiers Run Q₇₋₁₀ was obtained using USGS StreamStats. The StreamStats report is included in Attachment 2.
- The Outfall location and RMI along the unnamed tributary to Chartiers Run are shown in eMapPA in Attachment 3. eMapPA was used to determine PWS location, distance, and capacity.

Treatment Facility Summary

Treatment Facility Name: M Cap LLC Properties SRSTP

The application was submitted for a new SRSTP to serve a proposed 3-bedroom house located at 5141 Watters Road, New Kensington. Note: the facility address is within the boundaries of Lower Burrell, while the street address states New Kensington. The effluent from the proposed facility will be piped approximately 210 feet into an unnamed tributary to Chartiers Creek (TSF). The proposed buried pipe is entirely within the boundaries of the property.

The details of the proposed treatment plant will be discussed in the Internal Review & Recommendation (IR&R) that will accompany the WQM permit. In summary, the proposed treatment plant will be a Norweco Singulair 960-500 & Hydro-Kinetic Bio-Film Reactor (Norweco Singulair 960-HKBFR). The Norweco Singulair 960-HKBFR is approved by DEP

Sludge from the facility will be pumped and hauled by a service provider as detailed in the design report submitted to DEP.

WQM Permit No.	Issuance Date
6523405	Pending

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Extended Aeration	UV Disinfection	0.0004

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0004	0.90	-	-	Pumped/Hauled

Other Comments: None.

Development of Effluent Limitations

Outfall No. <u>001</u>	Design Flow (MGD) <u>0.0004</u>
Latitude <u>40° 35' 19.00"</u>	Longitude <u>-79° 41' 14.00"</u>
Wastewater Description: <u>Sewage Effluent</u>	

Technology-Based Limitations

The following effluent limitations and monitoring requirements, at a minimum, will be established in all new and renewed SFTF permits based on the requirements of DEP’s “Standard Operating Procedure (SOP) for Clean Water Program New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Application” (SOP No. BCW-PMT-003, Version 1.8, Final, November 9, 2012, Revised November 9, 2023).

Parameter	Avg	IMAX	Sample Type	Frequency: SFTFs	Frequency: SRSTPs
Flow (GPD)	Report	XXX	Estimate (SRSTPs) Measured (SFTFs)	1/month	1/year
BOD5 (mg/L)	10	20	Grab	1/month	1/year
TSS (mg/L)	10	20	Grab	1/month	1/year
pH*	6.0 S.U. Inst. Min.	9.0 S.U.	Grab	1/month	1/year
TRC (mg/L)	Report for SRSTPs; Use TRC Spreadsheet to determine WQBELs or 0.02 mg/L for SFTFs		Grab	1/month	1/year
Fecal Coliform (No./100 ml)	200 Geometric Mean (SFTFs) / Average (SRSTPs)		Grab	1/month	1/year

* Technology-Based effluent limits for pH will be imposed based upon Federal Regulation 133.102(c) and State Regulation 95.2(1).

Comments: This is a new SRSTP with UV disinfection.

Flow monitoring:

Flow monitoring will be placed in this permit in accordance with SOP BCW-PMT-003. The reporting frequency set forth is once a year and sample type is “Estimate” (for SRSTP.)

Biochemical Oxygen Demand (BOD₅)

An average annual BOD₅ limit of 10 mg/l and IMAX limit of 20 mg/l will be placed in this permit. These limits are consistent with SOP BCW-PMT-003.

Total Suspended Solids (TSS)

An average annual BOD₅ limit of 10 mg/l and IMAX limit of 20 mg/l will be placed in this permit. These limits are consistent with the SOP BCW-PMT-003.

Fecal Coliform:

A year-round annual average and IMAX limit of 200 No./100 ml will be placed in this permit. These limits are consistent with the SOP BCW-PMT-003.

pH:

Daily minimum pH of 6.0 and Daily Maximum pH of 9.0 S.U. will be applied in this permit per Pa Code 25 Ch. 95.2(1).

UV:

SOP BCW-PMT-003 indicates that it is not necessary to require UV intensity or transmittance monitoring in the permit for SRSTPs/SFTFs.

The Design Engineers Report accompanied with the WQM permit indicated that the proposed treatment plant is a package plant design that has been classified by DEP to treat domestic wastewater to an effluent with a maximum CBOD5 of 10.0 mg/l, TSS of 10.0 mg/l, and less than 200 no./100 ml of fecal coliform.

Act 537 Planning was approved via letter, DEP Code 65005-23-067, on October 30, 2023.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the “NPDES Permit Writer’s Manual” (386-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Annual Average	Maximum	Instant. Maximum		
Flow (MGD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/year	Grab
BOD5	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Other Comments: None

Attachment 1-Army Corps of Engineers Chart of Major River Flows

Q₇₋₁₀ Flows of Major Rivers

Nicolas Lazzaro, P.E.
U.S. Army Corp of Engineers
Pittsburgh District Water Management
December 1, 2017

UPPER OHIO BASIN LOW FLOWS		
Location		Q7, 10 Flow (cfs)
Allegheny River		
Franklin downstream of French Creek (RMI 123.96)		1,450
L&D 9 at Templeton (RMI 62.2; Upper Pool El. 822.2)		2,070
L&D 8 at Templeton (RMI 52.6; Upper Pool El. 800.2)		2,070
L&D 7 at Kittanning (RMI 45.7; Upper Pool El. 782.4)	Crooked Creek enters at RMI 40.11	2,070
L&D 6 at Freeport (RMI 36.3; Upper Pool El. 769.4)		2,070
L&D 5 at Freeport (RMI 30.4; Upper Pool El. 757.0)	Kiskiminetas R. enters at RMI 30.2	2,070
L&D 4 at Natrona (RMI 24.2; Upper Pool El. 745.4)		2,390
C.W. Bill Young L&D at New Kensington (RMI 14.5; Upper Pool El. 734.5)		2,390
L&D 2 at Pittsburgh (RMI 6.7, Pool El. 721.0)		2,390
Monongahela River		
Point Marion L&D (RMI 90.8; Upper Pool El. 797.0)	Cheat River enters at RMI 89.68 Dunkard Creek enters at RMI 87.18	420
Grays Landing L&D (RMI 82.0; Upper Pool El. 778.0)	Tennile Creek enters at RMI 65.62	530
Maxwell L&D (RMI 61.2; Upper Pool El. 763.0)	Redstone Creek enters at RMI 54.90	530
L&D 4 at Charleroi (RMI 41.5; Upper Pool El. 743.5)		550
L&D 3 at Elizabeth (RMI 23.8; Upper Pool El. 726.9)		550
McKeesport downstream of the Youghiogheny River (RMI 15.53)		1,060
Braddock L&D (RMI 11.2; Upper Pool El. 718.7)		1,230
Youghiogheny River		
Youghiogheny Dam at Confluence (RMI 74.8)		390
Dam at Connellsville (RMI 46.27)		460
Sutersville downstream of Sewickley Creek (~RMI 15.0)		510
Beaver River		
Beaver Falls		640
Ohio River		
Emsworth L&D (RMI 974.8; Pool El. 710.0)	Q7,10 is halved for each side of Neville Island	4,730
Dashields L&D (RMI 967.7; Upper Pool El. 692.0)		4,730
Montgomery L&D (RMI 949.3; Upper Pool El. 682.0)		5,880
New Cumberland L&D (RMI 926.7; Upper Pool El. 664.5)		5,880
Pike Island L&D (RMI 896.8; Upper Pool El. 664.0)		5,880
Hannibal L&D (RMI 854.6; Upper Pool El. 623.0)		5,880

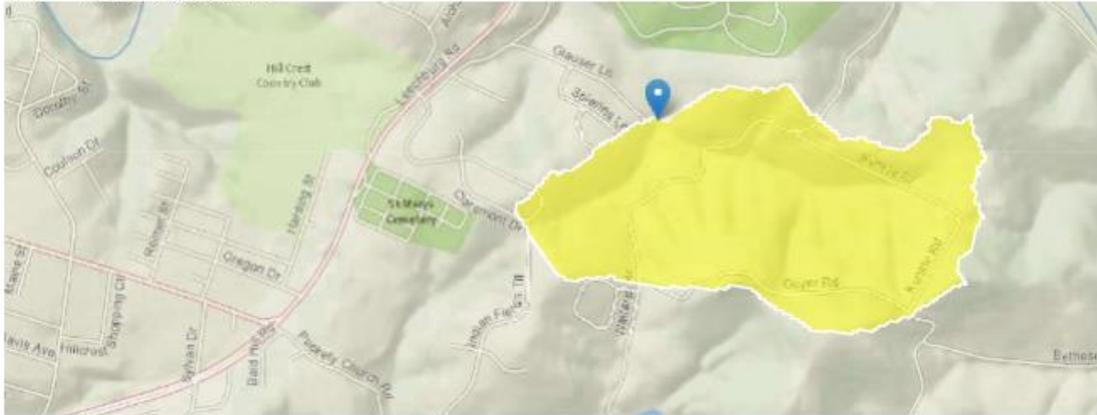
Attachment 2-StreamStats Report

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StreamStats

M Cap LLC Properties SRSTP Upstream StreamStats Report

Region ID: PA
 Workspace ID: PA20240108210915314000
 Clicked Point (Latitude, Longitude): 40.58987, -79.68605
 Time: 2024-01-08 16:09:35 -0500



Collapse All

> Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.36	square miles
ELEV	Mean Basin Elevation	1125	feet

> Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.36	square miles	2.26	1400
ELEV	Mean Basin Elevation	1125	feet	1050	2580

Low-Flow Statistics Disclaimers [Low Flow Region 4]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Low-Flow Statistics Flow Report [Low Flow Region 4]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.00831	ft ³ /s
30 Day 2 Year Low Flow	0.0167	ft ³ /s
7 Day 10 Year Low Flow	0.00225	ft ³ /s
30 Day 10 Year Low Flow	0.00517	ft ³ /s
90 Day 10 Year Low Flow	0.0109	ft ³ /s

Low-Flow Statistics Citations

1/8/24, 4:10 PM

StreamStats

Stuckey, M.H., 2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (<http://pubs.usgs.gov/sir/2006/5130/>)

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Application Version: 4.19.3

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1

Attachment 3-eMap PA Outfall Location

