

Cape May County Municipal Utilities Authority

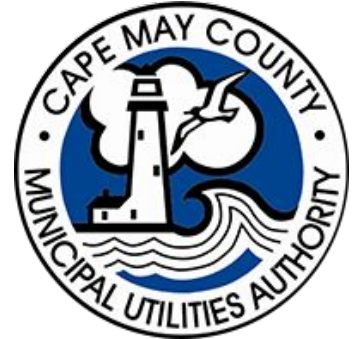
Ocean City Utility Advisory Commission Presentation

March 25, 2021



Agenda

- Introductions
- CMCMUA Operation and Mission
- Ocean City Regional System
- Regional Rate Setting Methodology
- Capital Investments



Introductions

Executive Director:

Joseph Rizzuto

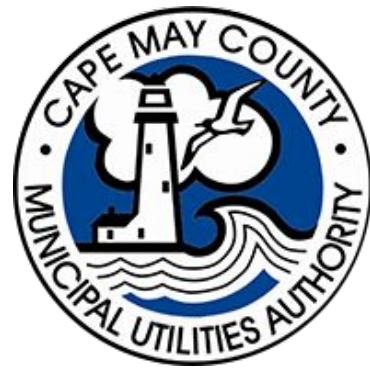
Administration:

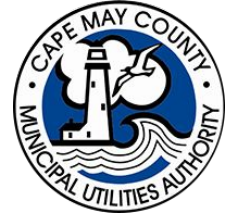
Wastewater Program Manager - Joshua Palombo

Chief Engineer - Tom LaRocco P.E.

Ocean City Regional Wastewater Treatment Facility:

Regional Supervisor- Jason Lynch, Foreman-Carl Seabrook





Vision, Mission & Core Values

Vision

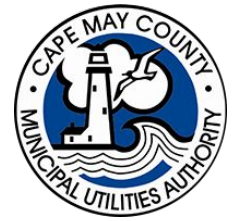
“CMCMUA will be a leader in the pursuit and implementation of innovative, environmentally sustainable and reliable wastewater treatment and solid waste management systems.”

Mission

“To efficiently implement progressive and fiscally prudent solutions to safeguard the public health and protect Cape May County's unique natural environment in partnership with an engaged community and staff.”

Core Values

- Environmental Stewardship
- Collaborative Workforce
- Respect
- Integrity
- Credible and Dependable
- Sense of Community



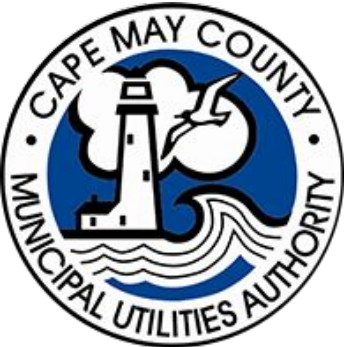
CMCMUA History

- In 1972, the Cape May County Municipal Utilities Authority (CMCMUA or Authority) was created by the Cape May County Board of Chosen Freeholders.
- The CMCMUA, and its appointed Board of Commissioners, was entrusted with the task of designing, constructing, and operating, efficient and cost-effective wastewater treatment facilities to respond to the passage of the 1972 Amendment to the **Federal Water Pollution Control Act**. This Amendment mandated the abatement of pollution of the nation's water resources. These new regional treatment facilities would replace numerous outdated municipal treatment plants which discharged effluent into back bay areas and contributed to the degradation of estuaries and the marine environment.
- The CMCMUA securing more than **\$183 million in state and federal grants** to pay for the design and construction costs of the new regional wastewater treatment projects constructed by the Authority. The construction phase for the four (4) regional systems, which include Ocean City, Cape May, Seven Mile Beach-Middle and Wildwood Lower, began in 1979 with the **first facility completed in 1982** and the fourth facility completed in 1988.
- With the implementation of the CMCMUA Regional Wastewater Management Program, the water quality of back bay areas significantly improved. This program has resulted in **significantly cleaner back bay and ocean waters** resulting in water that is swimmable, fishable and essential for marine habitats and our tourism economy to thrive.

The CMCMUA is responsible for providing **31 million gallons per day** in wastewater treatment and disposal capacity for all or part of 14 of the 16 municipalities located in Cape May County.

1979 the Wastewater Service Agreement is signed between the Authority and the County Participants.

- Established responsibilities
- Established Rate and Billing structure



Typical Wastewater Service Agreement

Revised 4/28/76	Revised 6/9/77
Revised 7/13/76	Revised 6/30/77
Revised 9/17/76	Revised 5/8/78
Revised 12/2/76	Revised 8/22/78
Revised 5/4/77	Revised 2/24/79

THIS AGREEMENT

made and dated as of the *20th* day of *June*, One
Thousand Nine Hundred and Seventy-Nine

BETWEEN

THE CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY (hereinafter referred to as "Authority"), a public body politic and corporate of the State of New Jersey,

AND

The Cities of CAPE MAY, NORTH WILDWOOD, OCEAN CITY, SEA ISLE CITY and WILDWOOD, the Boroughs of AVALON, CAPE MAY POINT, STONE HARBOR, WEST CAPE MAY, WEST WILDWOOD and WILDWOOD CREST, The Townships of LOWER and MIDDLE, The MIDDLE TOWNSHIP SEWERAGE DISTRICTS #1, #2 and #3, The LOWER TOWNSHIP MUNICIPAL UTILITIES AUTHORITY, and The NEW JERSEY WATER COMPANY, a corporation of the State of New Jersey, all situate in the County of Cape May, New Jersey (hereinafter singularly referred to as "Participant" and jointly as "Participants"),

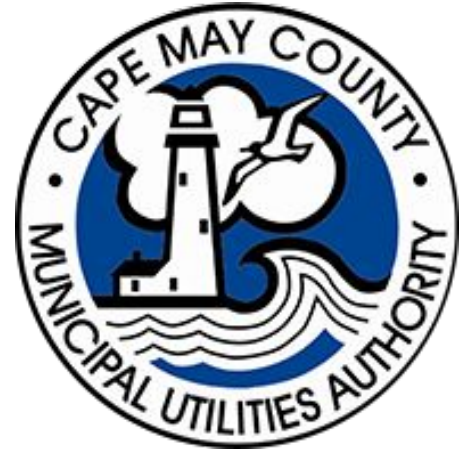
Four Regional Wastewater Treatment Facilities (WTF)

Cape May WTF: 3 MGD

Wildwood / Lower WTF: 14.2 MGD

Seven Mile Middle / TWP: 7.6 MGD

Ocean City: 8.76 MGD



Cape May Regional WTF

- City of Cape May
- Borough of West Cape May
- Borough of Cape May Point

Wildwood/Lower TWP Regional WTF

- City of North Wildwood
- City of Wildwood
- Borough of Wildwood Crest
- Borough of West Wildwood
- Middle Township
- Lower Township

GREETINGS
FROM

Ocean City Regional WTF

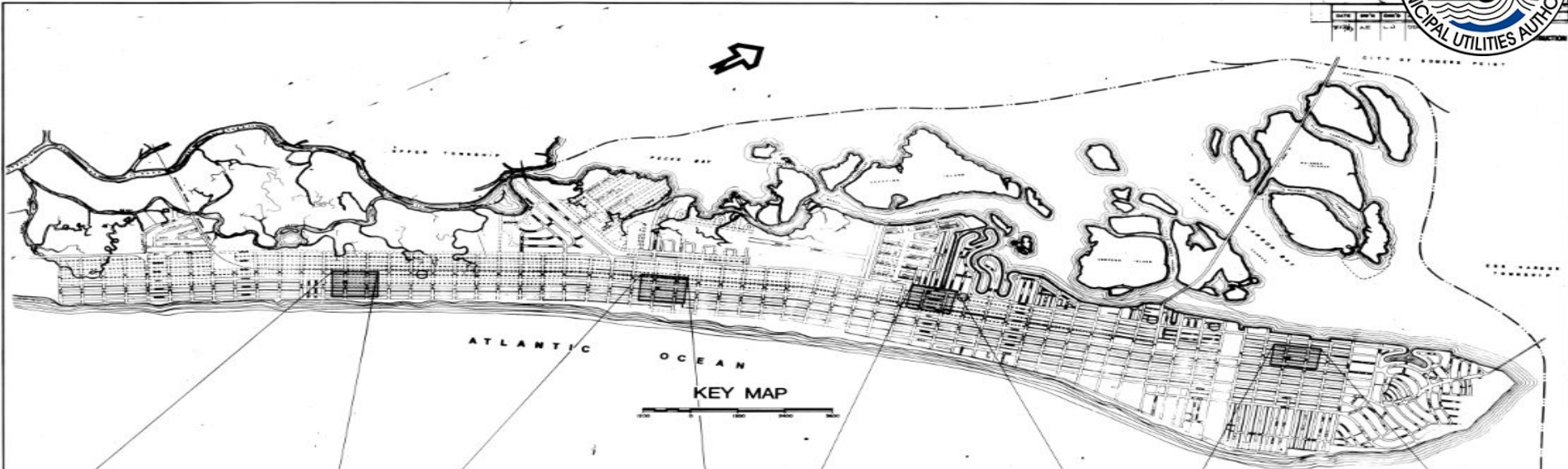
Seven Mile Middle Regional WTF

- Sea isle City
- Borough of Avalon
- Borough of Stone Harbor
- Middle Township

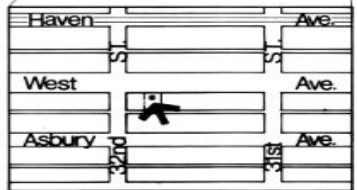
Ocean City Wastewater Treatment Facility



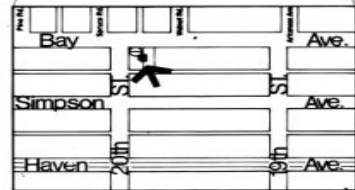
Ocean City Region



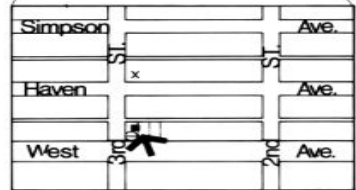
46th St. pump station
(SEE SITE PLAN-SHEET 35 OF 52)



32nd St. pump station
(SEE SITE PLAN-SHEET 13 OF 52)



20th St. pump station
(SEE SITE PLAN-SHEET 32 OF 52)



3rd St. pump station
(SEE SITE PLAN-SHEET 3 OF 52)



INSET SCALE - 1" = 560'

X - CRITICAL VEHICULAR ACCESS AREA (REFER TO EGC 13)
 O - ENVIRONMENTALLY SUITABLE EQUIPMENT STORAGE & MATERIALS STOCK PILE SITE (REFER TO EGC 31)

RECORD DRAWING

PANDULLO QUIRK ASSOCIATES
 Science Engineering Design
 PASSAIC, CAPE MAY AND ATLANTIC COUNTIES NEW JERSEY

DESIGNED: *JK*
 DRAWN: *JK*
 CHECKED: *JK/SJK*

APPROVALS
 PROJ. MGR. *JK*
 PROF. ENGR. *JK*
 CHIEF DRAFTSMAN *JK*

FRANCIS PANDULLO
 PROFESSIONAL ENGINEER
 N.J. LIC. NO. 11826 DATE: 7/17/02

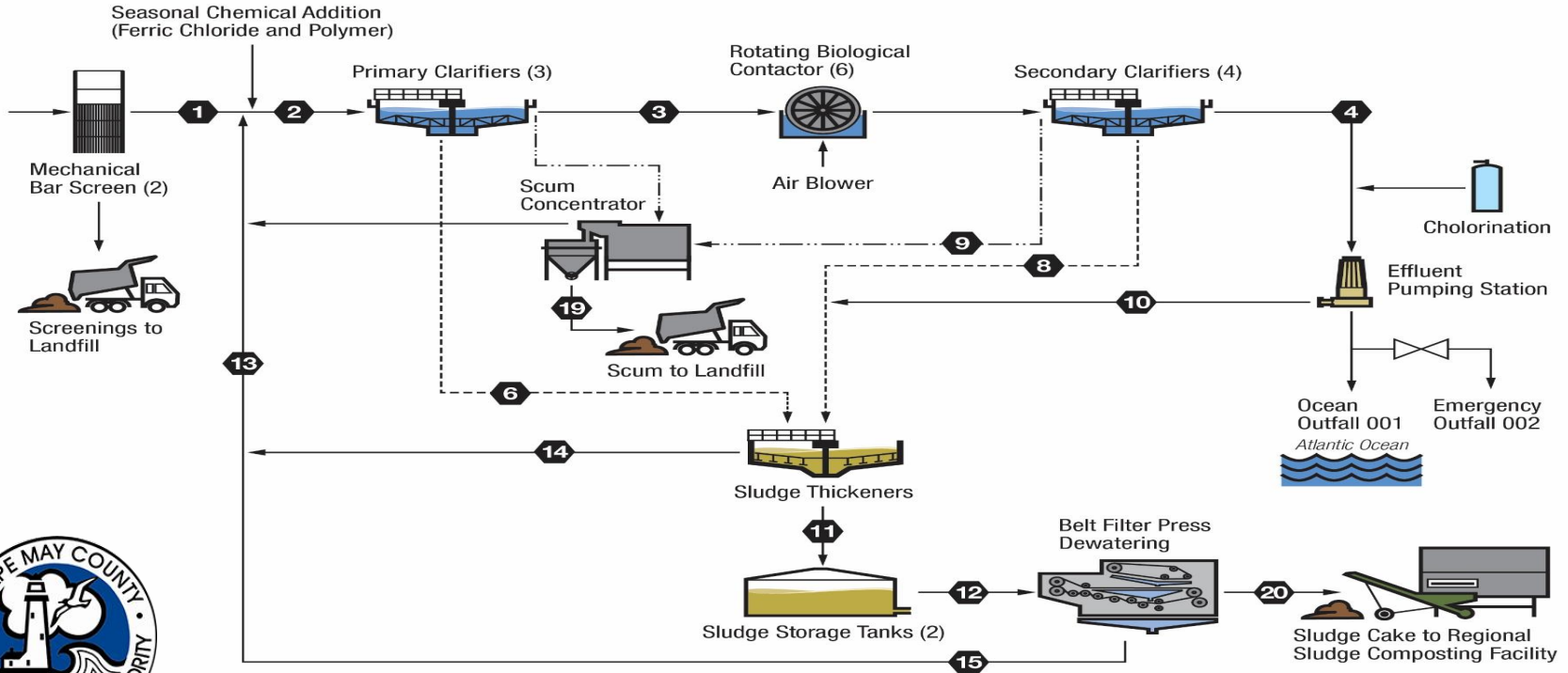
CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY
 CAPE MAY COUNTY NEW JERSEY
 OCEAN CITY REGION
 PUMPING STATIONS-CONTRACT O.C.-PS-16/1E

KEY MAP

PROJECT NO. 6412
 SCALE: AS SHOWN
 DRAWN: *JK*
 SHEET 2 OF 52

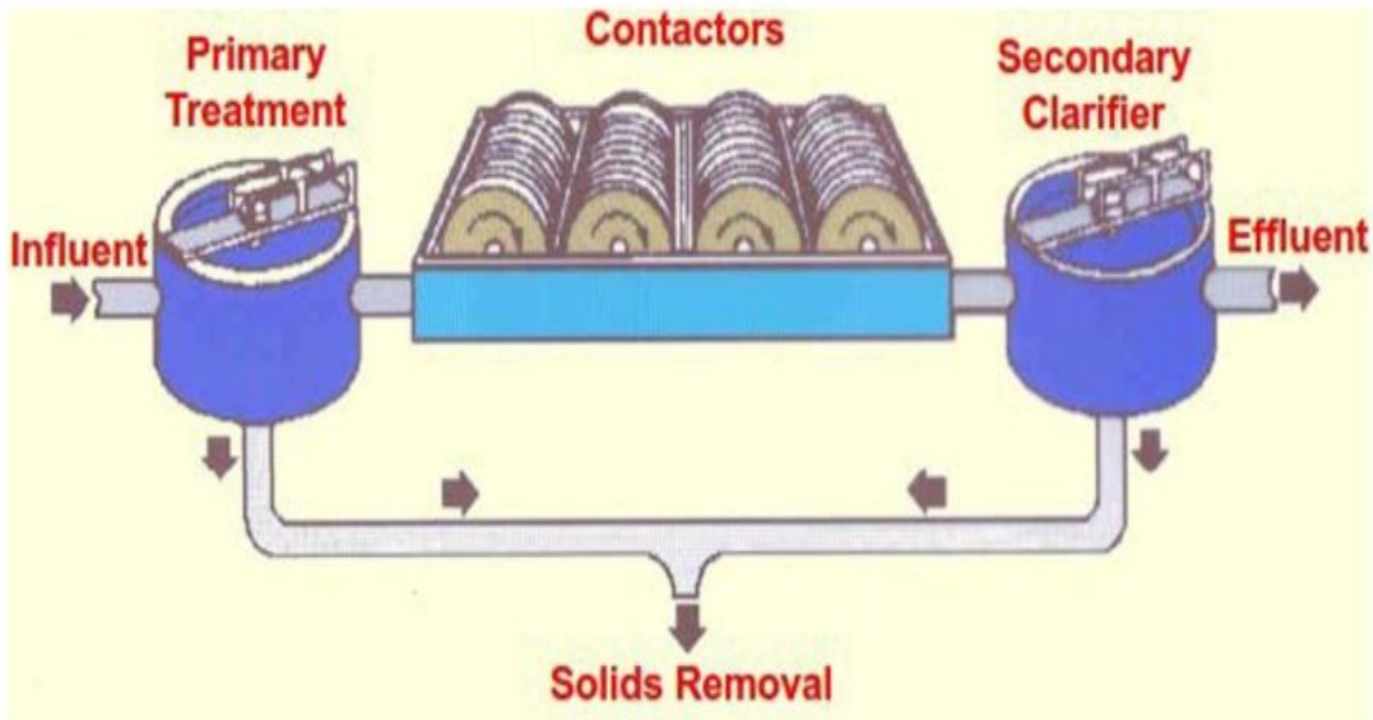
Ocean City Wastewater Treatment Facility

8.24 MGD permitted capacity



Design =
14,845 lb/day

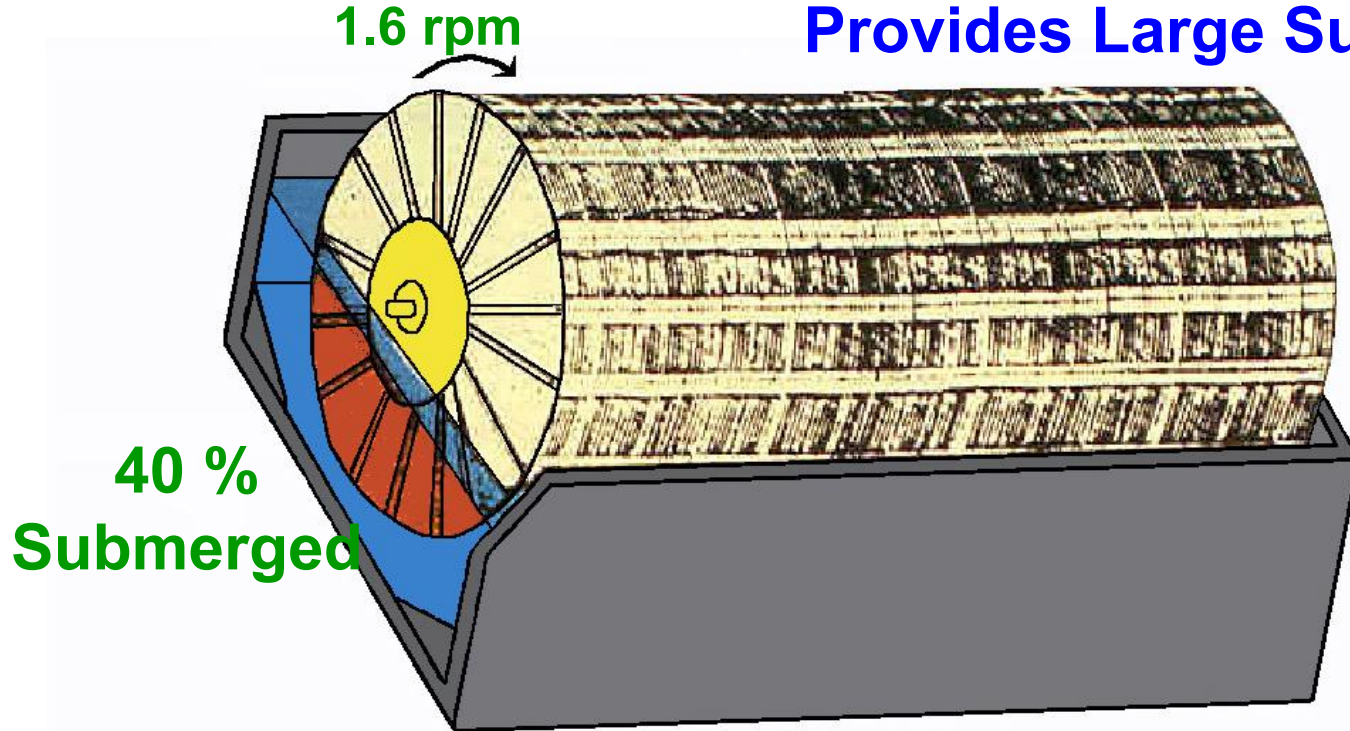
Rotating Biological Contactors: Secondary Treatment



RBC Secondary Treatment

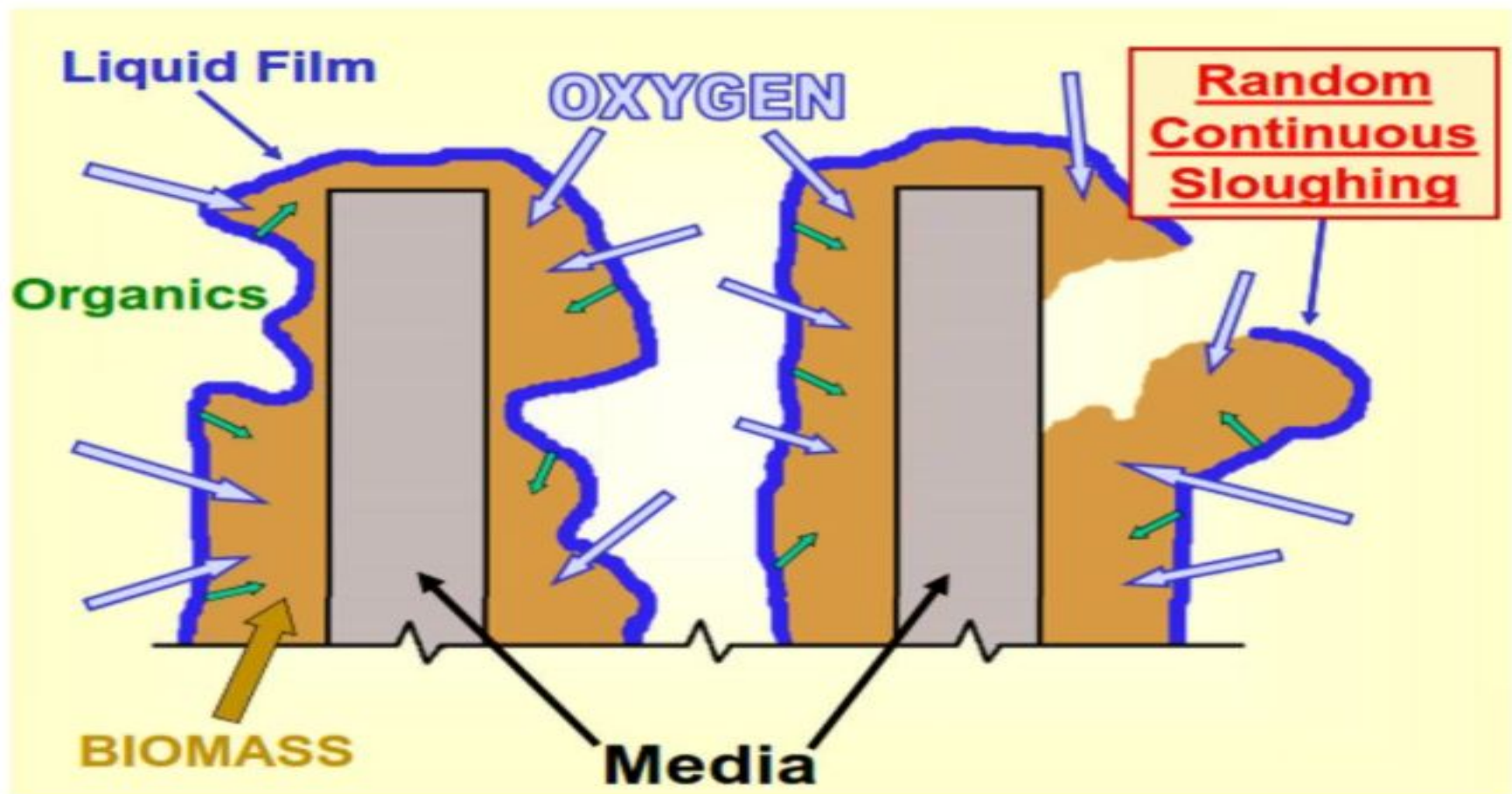
Rotating Plastic Media

Provides Large Surface Area



Microorganisms Treat the Wastewater







Cape May County
Municipal Utilities...

4500

4400-48

Simpson Ave

45th St

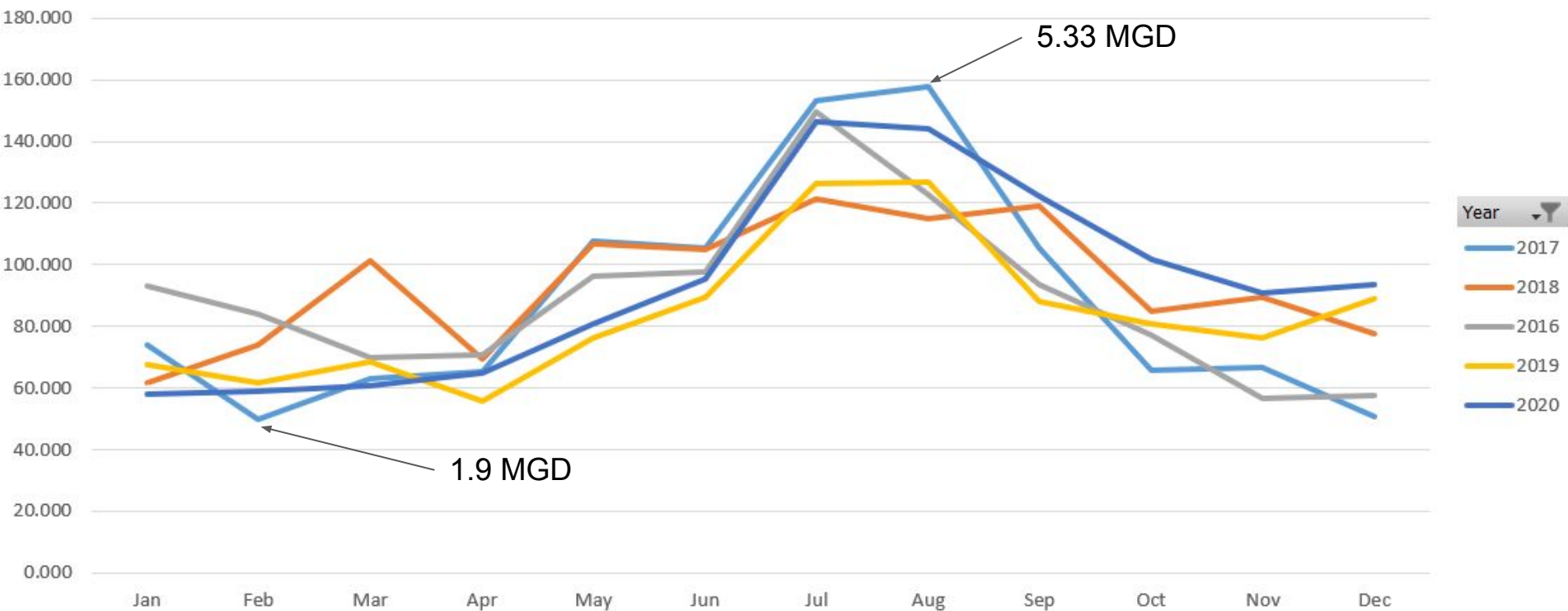
45th St

Simpson Ave

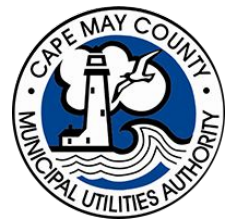


Flow Variations

Sum of OC TOTAL FLOW

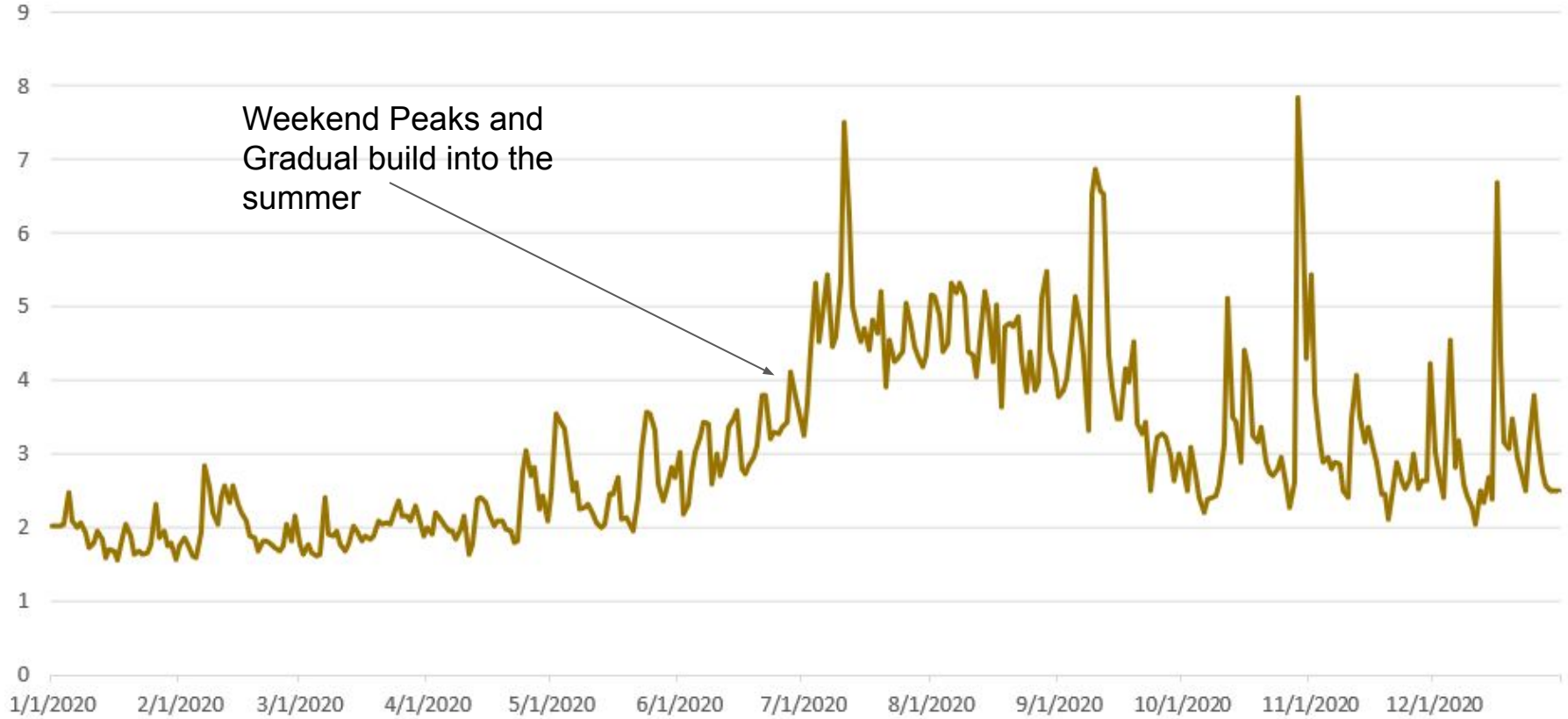


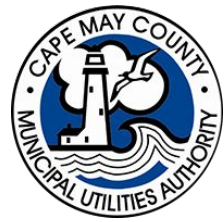
Flow Variations cont'd



Daily Flow

Weekend Peaks and
Gradual build into the
summer





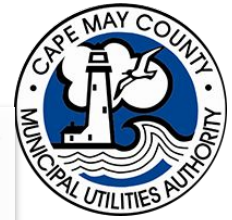
Wastewater Treatment Plant Performance

~ 1.2 Billion Gallons of Wastewater Treated Annually

Permitted to remove Total Suspended Solids (TSS), Carbonations Biochemical Oxygen Demand (CBOD), Enterococci (Bacterial Indicator), & Chlorine Produced Oxidants (CPO)

	Permitted Effluent Discharge Limit	Typical Performance	Permitted % removal	Typical Performance
TSS	25 mg/l	7-10 mg/l	85 %	95%
CBOD	25mg/l	7-10 mg/l	85 %	95%
Enterococci	35 mg/l	<5	NA	NA
CPO	3.8 mg/l - 7mg/l	<1.5	NA	NA

Rate Setting Methodology



CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY



- Budget and User Charge Development: June - August
 - Development of costs and flows
- User Charges advertised for public comment: September
- User Charge Public Hearing: October
- User Charges Adopted: January 1st.

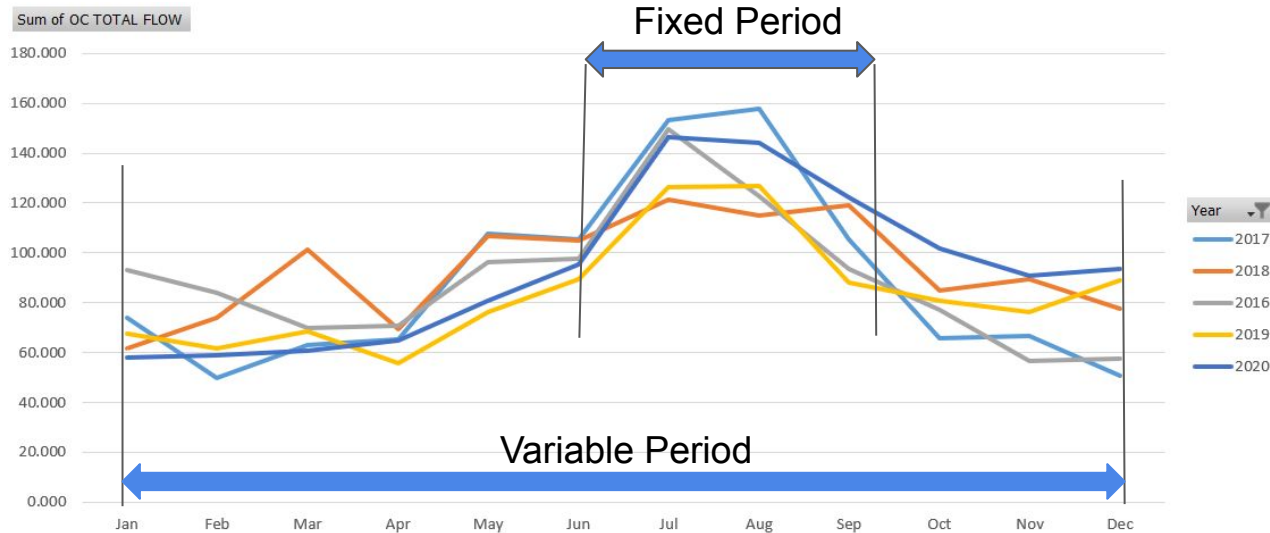
**CMCMUA USER CHARGE SYSTEM
RATE SETTING REPORT**

**WASTEWATER MANAGEMENT PROGRAM
USER CHARGES**

**EFFECTIVE JANUARY 1, 2021
(PROPOSED)**

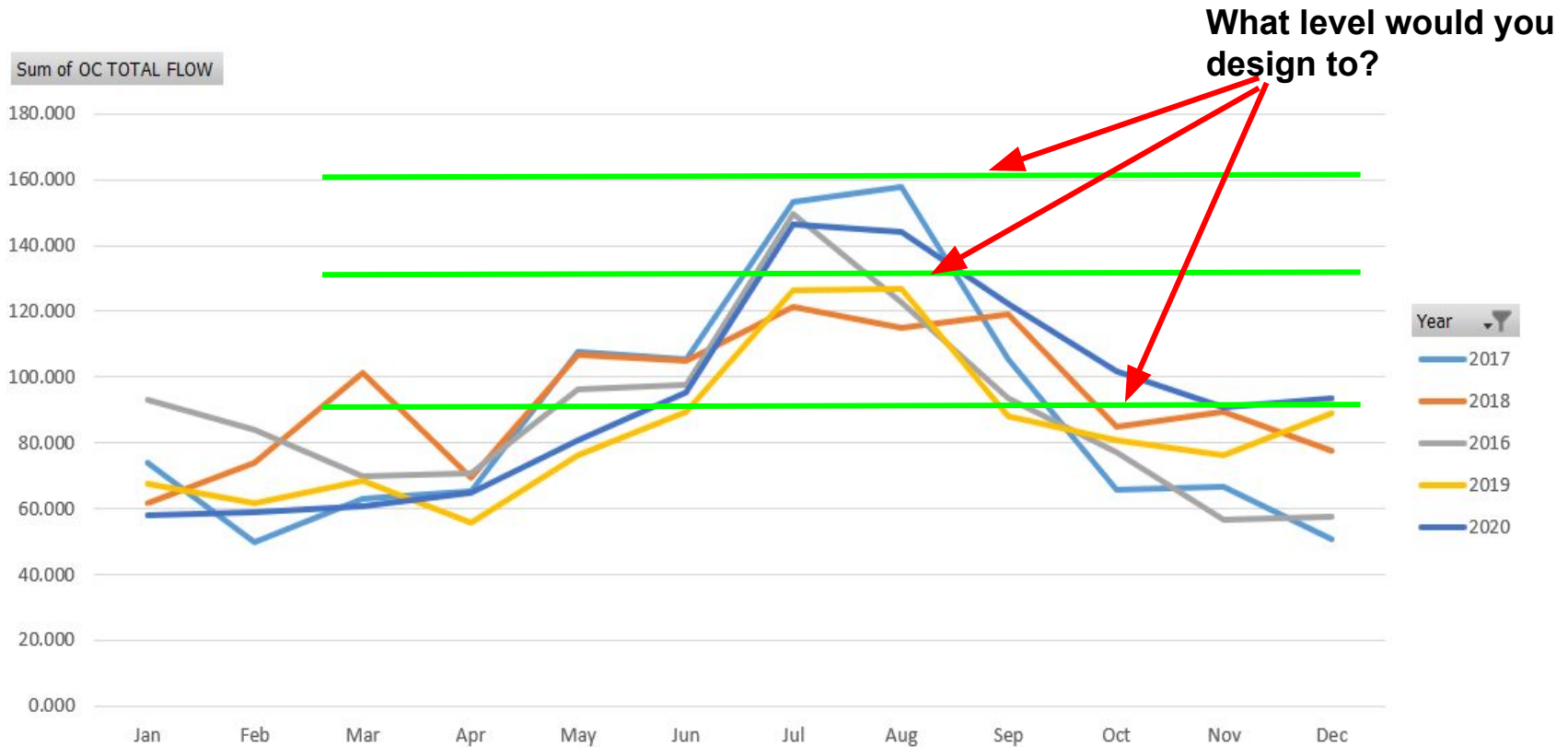
Cost Allocation

- Fixed Charges:
 - Not Related to Flow. EX: Labor, Maintenance
 - Allocated based on **percentage of total** Summer Flow: Ninety (90) day period between June and September
- Variable Charges:
 - Related To Flow
 - EX: Electricity, Chemicals
 - Allocated based on **percentage of total** Yearly Flow:



Fixed vs. Variable .. Why?

Seasonal Gallons treated: ~400 Million Gallons (33% of total)

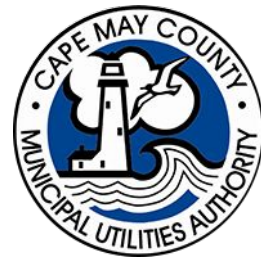


Cost Allocation Timeline

- Participants begin paying Adopted User Charges on January 1st in quarterly installments.
- Flow data is provided in the form of a monthly report to each participant.
- November of each year, the Authority sends out a “Pre-ReAllocation” Notice to all Participants.
- Following completion of the annual Financial Audit (April of following year) the Authority issues Final Reallocation.



Expenses vs. Revenues



	2018 BUDGET	2019 BUDGET	2020 BUDGET	2021 PROPOSED	2022 PROJECTED	2023 PROJECTED	2024 PROJECTED
EXPENSES							
Debt Service	\$3,890,000	\$3,862,252	\$3,862,252	\$883,132	\$882,311	\$882,962	\$880,794
Increase/(Decrease) in Debt	\$9	\$23,420,297	(\$15,147)	(\$2,979,120)	(\$821)	\$651	(\$2,168)
Operations & Maintenance	\$18,479,125	\$18,882,148	\$23,265,411	\$23,420,297	\$24,005,804	\$24,605,950	\$25,221,098
Increase/(Decrease) in O&M	\$289,850	\$403,023	\$4,383,263	\$154,886	\$585,507	\$600,145	\$615,149
	1.5%	2.2%	2.1%	0.67%	2.50%	2.50%	2.50%
Renewal and Replacement Project Overl	\$1,391,000	\$1,391,000	\$1,391,000	\$1,391,000	\$1,391,000	\$1,391,000	\$1,391,000
Renewal and Replacement Projects	\$11,867,000	\$11,867,000	\$11,867,000	\$11,867,000	\$11,867,000	\$11,867,000	\$11,867,000
Total Renewal & Replacement							
Contribution	\$13,258,000	\$13,855,000	\$15,539,000	\$15,234,000	\$15,374,500	\$15,513,000	\$15,654,000
TOTAL EXPENSES	\$35,627,566	\$36,614,547	\$42,666,663	\$39,537,429	\$40,262,615	\$41,001,912	\$41,755,892
REVENUES							
Annual Interest Income			\$700,000	\$100,000	\$100,000	\$100,000	\$100,000
Increase/(Decrease) in Int. Income			\$300,000	(\$600,000)	\$0	\$0	\$0
Management Fee			\$2,000,000	\$2,040,000	\$2,040,000	\$2,040,000	\$2,040,000
Septage/Leachate Disposal	\$880,000	\$880,000	\$925,000	\$900,000	\$900,000	\$900,000	\$900,000
Compost Product Sales	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Lower Twp. Effluent Disposal		\$73,584	\$483,056	\$491,501	\$501,331	\$511,358	\$521,585
Lower Twp. MUA Settlement		\$0	\$0	\$0	\$0	\$0	\$0
Processing of "Outside" Sludge		\$10,000	\$125,000	\$200,000	\$200,000	\$200,000	\$200,000
Tower Rental		\$15,000	\$105,000	\$105,000	\$105,000	\$105,000	\$105,000
Miscellaneous	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Withdrawal from Rate Stab. Fund ⁽¹⁾	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Use of Bond Reserve	\$0	\$0	\$2,979,375	\$0	\$0	\$0	\$0
TOTAL REVENUES	\$1,670,083	\$1,978,584	\$7,337,431	\$3,856,501	\$3,866,331	\$3,876,358	\$3,886,585
NET FROM USERS	\$33,957,483	\$34,635,963	\$35,329,237	\$35,680,928	\$36,396,284	\$37,125,554	\$37,869,307
INCREASE/DECREASE	\$665,099	\$678,480	\$693,269	\$351,696	\$715,356	\$729,269	\$743,754
PERCENTAGE	2.00%	2.00%	2.00%	1.00%	2.00%	2.00%	2.00%

\$23,420,297

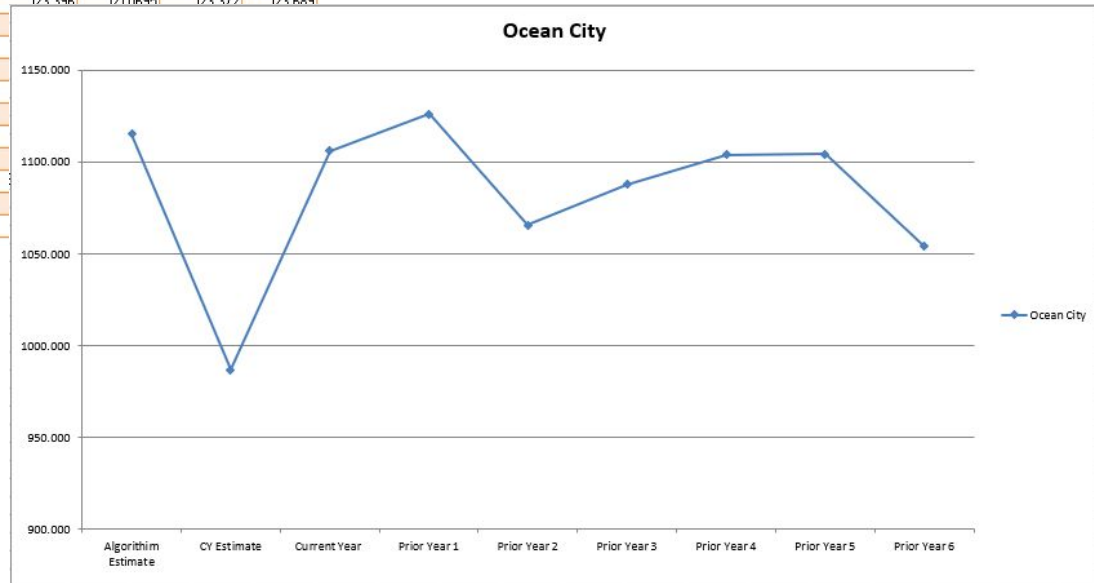
2.5% or less

\$35,680,928

2% or less

Predicting Flows - Variable Period

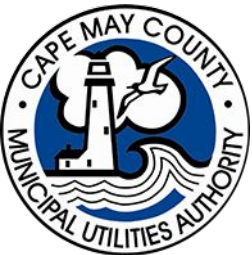
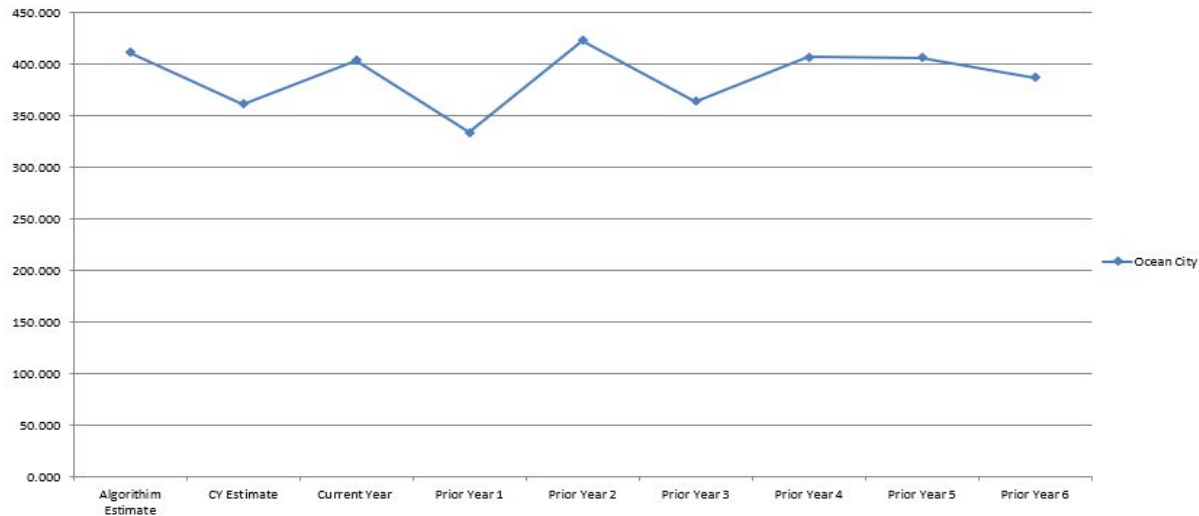
Variable Table In MG - 365				Current Year	2019	2018	2017	2016	2015	2014	2013
User	% Estimate	Estimate Based on Percent of	Algorithm Estimate	Current Year	Prior Year	Prior Year	Prior Year	Prior Year	Prior Year	Prior Year	Prior Year
Ocean City	101%	1,096.197	1115.205	986.765	1105.744	1125.834	1065.413	1087.721	1103.727	1104.277	1053.724
Cape May City	99%	376.034	337.694	390.5	342.828	403.330	372.644	380.909	383.2205	379.0535	381.128
West Cape May	111%	48.788	73.437	54.587	66.036	48.714	43.058	59.63	39.4695	36.413	41.918
Cape May Point	101%	25.662	27.506	30.2328	27.106	30.227	24.895	26.133	23.1815	22.642	25.914
Stone Harbor	106%	150.893	172.072	155.363	162.836	164.055	155.678	163.514	133.395	127.837	119.184
Sea Isle	98%	395.751	388.302	367.4125	397.137	382.811	363.117	370.469	429.601	439.1435	460.283
Avalon	101%	422.785	445.629	373.14004	440.264	389.057	442.827	442.034	434.8775	391.005	419.323
Crest Haven	97%	34.919	28.086	31.60785	29.058	33.140	34.894	35.8466	38.9095	38.037	36.047
Rio Grande	105%	130.200	141.448	188.955	135.199	160.417	129.340	127.357	122.392	109.388	107.324
Cape May Court House	102%	133.719	136.195	199.4525	133.613	162.761	140.673	123.396	121.0695	123.372	123.689
Avalon Manor	102%	9.353	10.463	9.282241062	10.235	9.793	8.773				
Stone Harbor Blvd	106%	10.862	12.547	11.50526	11.879	11.651	10.042				
Court House South	107%	58.156	70.009	88.179	65.410	71.752	59.924				
Harbor Bay Center	88%	1.606	0.471	0.96577	0.535	1.820	1.825				
Oceanview Service Area	110%	0.625	0.786	0.779320146	0.712	0.768	0.667				
Wildwood	98%	424.761	371.138	419.9	379.193	458.244	398.078				
Wildwood Crest	99%	366.234	376.661	384.2085	382.231	378.676	340.261				
West Wildwood	101%	60.499	61.130	67.15883596	60.486	68.579	63.254				
North Wildwood	100%	429.046	429.994	415.701	431.590	455.184	396.574				
Shawcrest	102%	23.269	23.357	23.43042	22.799	24.460	22.187				



Predicting Flow - Fixed Period

Fixed Table In MG - 90			Current Year	2019	2018	2017	2016	2015	2014	2013	
User	% Estimate	Estimate Based on Percent of	Algorithm Estimate	CY Estimate	Current Year	Prior Year	Prior Year	Prior Year	Prior Year	Prior Year	
Ocean City	102%	386.544	411.597	361.479	404.382	334.007	423.317	364.131	407.097	406.602	387.567
Cape May City	98%	125.596	114.043	126.2618621	116.061	120.167	147.4774	115.554	130.743	130.041	136.953
West Cape May	107%	13.531	17.927	15.68417664	16.822	13.812	12.3919	15.061	11.997	11.223	12.276
Cape May Point	100%	9.420	9.349	10.30674465	9.363	9.603	10.5328	9.005	8.964	9.387	9.63
Stone Harbor	103%	66.351	73.469	66.5755955	71.083	63.908	73.7056	67.16	63.765	60.957	59.454
Sea Isle	98%	161.675	156.226	149.373	158.626	144.075	160.139	155.184	181.413	177.921	177.642
Avalon	100%	151.393	155.631	140.5600973	155.733	130.019	173.8772	154.758	154.845	146.97	168.165
Crest Haven	97%	8.692	7.191	8.66862137	7.421	8.327	9.3378	8.2453	9.567	9.657	9.234
Rio Grande	103%	32.425	35.234	40.18136682	34.327	37.620	37.624	33.144	27.792	24.633	31.176
Cape May Court House	102%	32.256	32.927	39.73324748	32.296	37.195	38.59433	28.677	28.917	28.827	30.519
Avalon Manor	102%	3.028	3.404	3.286208438	3.299	3.295	3.465	3.859	3.893	3.898	3.895
Stone Harbor Blvd	103%	3.571	4.091	3.883700882	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Court House South	106%	14.575	17.173	18.82101197	16.1	16.1	16.1	16.1	16.1	16.1	16.1
Harbor Bay Center	88%	0.388	0.146	0.394964068	0.146	0.146	0.146	0.146	0.146	0.146	0.146
Oceanview Service Area	107%	0.280	0.295	0.298746222	0.295	0.295	0.295	0.295	0.295	0.295	0.295
Wildwood	97%	161.788	141.275	162.8166908	141.275	141.275	141.275	141.275	141.275	141.275	141.275
Wildwood Crest	98%	152.451	151.579	158.4848706	151.579	151.579	151.579	151.579	151.579	151.579	151.579
West Wildwood	102%	16.852	17.695	17.9247733	17.695	17.695	17.695	17.695	17.695	17.695	17.695
North Wildwood	98%	163.205	153.229	161.9724317	153.229	153.229	153.229	153.229	153.229	153.229	153.229
Shawcrest	102%	7.064	7.860	7.020536209	7.860	7.860	7.860	7.860	7.860	7.860	7.860

Ocean City



Flow Allocation - From 2019 User Charges

	SUMMER (Million Gallons / Day)	TOTAL YEARLY (Million Gallons / Day)	TOTAL SUMMER FLOW (1): (Thousands of Gallons)		TOTAL NON-SUMMER FLOW: (Thousands of Gallons)		TOTAL YEARLY FLOW (2): (Thousands of Gallons)	
			gallons	% of Total Flow	gallons	% of Total Flow	gallons	% of Total Flow
OCEAN CITY	3.896	2.827	350,640	24.01%	681,215	26.83%	1,031,855	25.80%
CITY OF CAPE MAY	1.383	1.008	124,470	8.52%	243,450	9.59%	367,920	9.20%
WEST CAPE MAY	0.162	0.126	14,580	1.00%	31,410	1.24%	45,990	1.15%
CAPE MAY POINT	0.115	0.071	10,350	0.71%	15,565	0.61%	25,915	0.65%
STONE HARBOR	0.755	0.405	67,950	4.65%	79,875	3.15%	147,825	3.70%
SEA ISLE CITY	1.684	0.953	151,560	10.38%	196,285	7.73%	347,845	8.70%
AVALON	1.550	1.036	139,500	9.55%	238,640	9.40%	378,140	9.45%
CREST HAVEN	0.096	0.094	8,640	0.59%	25,670	1.01%	34,310	0.86%
RIO GRANDE	0.437	0.397	39,330	2.69%	105,575	4.16%	144,905	3.62%
C. M. COURT HOUSE	0.435	0.408	39,150	2.68%	109,770	4.32%	148,920	3.72%
AVALON MANOR	0.036	0.024	3,240	0.22%	5,520	0.22%	8,760	0.22%
S. H. BOULEVARD	0.044	0.030	3,960	0.27%	6,990	0.28%	10,950	0.27%
COURT HOUSE SOUTH	0.198	0.186	17,820	1.22%	50,070	1.97%	67,890	1.70%
HARBOR BAY CENTER	0.005	0.005	450	0.03%	1,375	0.05%	1,825	0.05%
TOTAL MIDDLE TWP.	1.155	1.050	103,950	7.12%	279,300	11.00%	383,250	9.58%
NJ TURNPIKE AUTHORITY	0.003	0.002	270	0.02%	460	0.02%	730	0.02%
WILDWOOD	1.767	1.119	159,030	10.89%	249,405	9.82%	408,435	10.21%
WILDWOOD CREST	1.618	0.921	145,620	9.97%	190,545	7.50%	336,165	8.40%
WEST WILDWOOD	0.183	0.164	16,470	1.13%	43,390	1.71%	59,860	1.50%
NORTH WILDWOOD	1.787	1.118	160,830	11.01%	247,240	9.74%	408,070	10.20%
SHAWCREST (LTMUA)	0.075	0.065	6,750	0.46%	16,975	0.67%	23,725	0.59%
TOTALS	16.229	10.959	1,460,610	100%	2,539,425	100%	4,000,035	100.00%

Cost Allocation - From 2019 User Charges

USER CHARGES BY PARTICIPANT:						
	FIXED CHARGES:		VARIABLE CHARGES:		TOTAL:	
	PERCENT	DOLLARS	PERCENT	DOLLARS		
	(1)		(1)			
OCEAN CITY	24.01%	\$6,989,369	25.80%	\$1,424,300	\$8,413,669	
CITY OF CAPE MAY	8.52%	\$2,481,083	9.20%	\$507,851	\$2,988,933	
WEST CAPE MAY	1.00%	\$290,626	1.15%	\$63,481	\$354,107	
CAPE MAY POINT	0.71%	\$206,308	0.65%	\$35,771	\$242,080	
STONE HARBOR	4.65%	\$1,354,459	3.70%	\$204,047	\$1,558,507	
SEA ISLE CITY	10.38%	\$3,021,072	8.70%	\$480,141	\$3,501,213	
AVALON	9.55%	\$2,780,678	9.45%	\$521,958	\$3,302,636	
CREST HAVEN	0.59%	\$172,223	0.86%	\$47,359	\$219,582	
RIO GRANDE	2.69%	\$783,972	3.62%	\$200,017	\$983,988	
C. M. COURT HOUSE	2.68%	\$780,384	3.72%	\$205,559	\$985,943	
AVALON MANOR	0.22%	\$64,583	0.22%	\$12,092	\$76,675	
S. H. BOULEVARD	0.27%	\$78,935	0.27%	\$15,115	\$94,050	
COURT HOUSE SOUTH	1.22%	\$355,209	1.70%	\$93,711	\$448,920	
HARBOR BAY CENTER	0.03%	\$8,970	0.05%	\$2,519	\$11,489	
MIDDLE TWP. TOTAL		\$2,072,054		\$529,011	\$2,601,065	
NJ TURNPIKE AUTHORITY	0.02%	\$5,382	0.02%	\$1,008	\$6,390	
WILDWOOD	10.89%	\$3,169,973	10.21%	\$563,775	\$3,733,748	
WILDWOOD CREST	9.97%	\$2,902,669	8.40%	\$464,018	\$3,366,688	
WEST WILDWOOD	1.13%	\$328,299	1.50%	\$82,627	\$410,926	
NORTH WILDWOOD	11.01%	\$3,205,853	10.20%	\$563,271	\$3,769,124	
SHAWCREST (LTMUA)	0.46%	\$134,549	0.59%	\$32,748	\$167,297	
TOTALS (2):	100.00%	\$29,114,598	100.00%	\$5,521,365	\$34,635,963	



Monthly Data

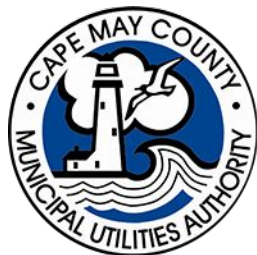
- Presented in total flow and % of total



CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY REGIONAL MONTHLY FLOW SUMMARY AND DETAILS REPORT

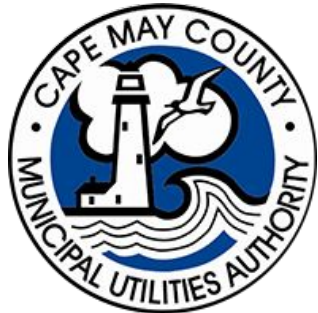
Feb 2021

Billing Party	Million Gallons	% of Total
New Jersey American Water	82.067	25.47%
Middle Township	37.810	11.74%
City of North Wildwood	31.986	9.93%
Borough Avalon	30.936	9.60%
City of Wildwood	30.753	9.55%
City of Sea Isle City	27.747	8.61%
City of Cape May	27.582	8.56%
Borough of Wildwood Crest	24.588	7.63%
Borough of Stone Harbor	8.707	2.70%
Borough of West Wildwood	7.501	2.33%
Borough of West Cape May	6.336	1.97%
Borough of Cape May Point	2.069	0.64%
Board of Chosen Freeholders	2.055	0.64%
Lower Township MUA	1.988	0.62%
New Jersey Turnpike Authority	0.057	0.02%
Total	322.181	100.00%



Year-To-Date Data

- Presented in total flow and % of total



CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY YEAR TO DATE SUMMARY

Feb 2021

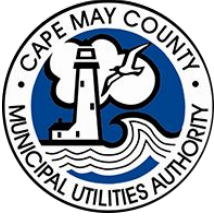
Billing Party	YTD MG	YTD % of Total
New Jersey American Water	150.569	25.77%
Middle Township	74.344	12.72%
City of North Wildwood	60.940	10.43%
City of Wildwood	53.221	9.11%
Borough Avalon	52.127	8.92%
City of Sea Isle City	49.162	8.41%
City of Cape May	48.269	8.26%
Borough of Wildwood Crest	43.731	7.48%
Borough of Stone Harbor	16.730	2.86%
Borough of West Wildwood	12.016	2.06%
Borough of West Cape May	11.600	1.99%
Board of Chosen Freeholders	4.099	0.70%
Borough of Cape May Point	4.049	0.69%
Lower Township MUA	3.294	0.56%
New Jersey Turnpike Authority	0.113	0.02%
Total	584.262	100.00%

2019 Actual Flow Data

USER	SEASONAL (Fixed) FLOW:		YEARLY (Variable) FLOW:		TOTAL SEASONAL (Fixed) FLOW:				TOTAL YEARLY (Variable) FLOW:			
	estimated	actual	estimated	actual	estimated		actual		estimated		actual	
	(Million Gallons per Day)		(Million Gallons per Day)		Million Gallons	%	Million Gallons	%	Million Gallons	%	Million Gallons	%
OCEAN CITY	3.8960	3.8248	2.8270	2.7725	350.640	24.01%	344.23	24.47%	1,031.855	25.80%	1,011.946	24.36%
CITY OF CAPE MAY	1.3830	1.3331	1.0080	1.0729	124.470	8.52%	119.975	8.53%	367.920	9.20%	391.622	9.43%
WEST CAPE MAY	0.1620	0.1637	0.1260	0.1476	14.580	1.00%	14.730	1.05%	45.990	1.15%	53.877	1.30%
CAPE MAY POINT	0.1150	0.1050	0.0710	0.0795	10.350	0.71%	9.452	0.67%	25.915	0.65%	29.009	0.70%
STONE HARBOR	0.7550	0.6964	0.4050	0.4174	67.950	4.65%	62.680	4.46%	147.825	3.70%	152.359	3.67%
SEA ISLE CITY	1.6840	1.6162	0.9530	0.9936	151.560	10.38%	145.458	10.34%	347.845	8.70%	362.657	8.73%
AVALON	1.5500	1.4734	1.0360	1.0190	139.500	9.55%	132.605	9.43%	378.140	9.45%	371.942	8.95%
CREST HAVEN	0.0960	0.0816	0.0940	0.0825	8.640	0.59%	7.343	0.52%	34.310	0.86%	30.100	0.72%
RIO GRANDE	0.4370	0.4001	0.3970	0.4598	39.330	2.69%	36.008	2.56%	144.905	3.62%	167.818	4.04%
COURT HOUSE	0.4350	0.3995	0.4080	0.4831	39.150	2.68%	35.954	2.56%	148.920	3.72%	176.340	4.25%
AVALON MANOR	0.0360	0.0334	0.0240	0.0258	3.240	0.22%	3.002	0.21%	8.760	0.22%	9.415	0.23%
STONE HARBOR BOULEVARD	0.0440	0.0380	0.0300	0.0305	3.960	0.27%	3.421	0.24%	10.950	0.27%	11.146	0.27%
COURT HOUSE SOUTH	0.1980	0.1915	0.1860	0.2109	17.820	1.22%	17.238	1.23%	67.890	1.70%	76.968	1.85%
HARBOR BAY CENTER	0.0050	0.0024	0.0050	0.0023	0.450	0.03%	0.220	0.02%	1.825	0.05%	0.836	0.02%
MIDDLE TOWNSHIP TOTAL	1.1550	1.0649	1.0500	1.2124	103.950	7.12%	95.842	6.81%	383.250	9.58%	442.522	10.65%
OCEANVIEW SERVICE AREA	0.0030	0.0138	0.0020	0.0064	0.270	0.02%	1.243	0.09%	0.730	0.02%	2.331	0.06%
WILDWOOD	1.7670	1.7025	1.1190	1.1519	159.030	10.89%	153.227	10.89%	408.435	10.21%	420.438	10.12%
WILDWOOD CREST	1.6180	1.6585	0.9210	1.0723	145.620	9.97%	149.264	10.61%	336.165	8.40%	391.394	9.42%
WEST WILDWOOD	0.1830	0.1674	0.1640	0.1688	16.470	1.13%	15.065	1.07%	59.860	1.50%	61.598	1.48%
NORTH WILDWOOD	1.7870	1.6549	1.1180	1.1228	160.830	11.01%	148.944	10.59%	408.070	10.20%	409.813	9.87%
LTMUA (SHAWCREST)	0.0750	0.0728	0.0650	0.0612	6.750	0.46%	6.551	0.47%	23.725	0.59%	22.332	0.54%
TOTALS					1,460.610	100.00%	1,406.611	100.00%	4,000.035	100.00%	4,153.940	100.00%

Reallocation of User Charges based on actual flow data

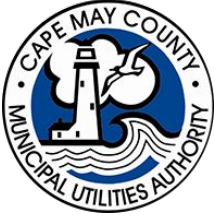
	2019 ESTIMATED USER RATES:			REALLOCATION USING ACTUAL FLOWS AND AUDITED COSTS:			BALANCE DUE:
	Seasonal (fixed)	Yearly (variable)	Total	Seasonal (fixed)	Yearly (variable)	Total	Payable/(Credit)
OCEAN CITY	\$ 6,989,369	\$ 1,424,300	\$ 8,413,669	\$ 7,125,080	\$ 1,345,065	\$ 8,470,145	\$ 56,476
CITY OF CAPE MAY	\$ 2,481,083	\$ 507,851	\$ 2,988,933	\$ 2,483,281	\$ 520,540	\$ 3,003,820	\$ 14,887
WEST CAPE MAY	\$ 290,626	\$ 63,481	\$ 354,107	\$ 304,879	\$ 71,613	\$ 376,492	\$ 22,385
CAPE MAY POINT	\$ 206,308	\$ 35,771	\$ 242,080	\$ 195,643	\$ 38,558	\$ 234,200	\$ (7,879)
STONE HARBOR	\$ 1,354,459	\$ 204,047	\$ 1,558,507	\$ 1,297,384	\$ 202,513	\$ 1,499,897	\$ (58,609)
SEA ISLE CITY	\$ 3,021,072	\$ 480,141	\$ 3,501,213	\$ 3,010,748	\$ 482,039	\$ 3,492,787	\$ (8,426)
AVALON	\$ 2,780,678	\$ 521,958	\$ 3,302,636	\$ 2,744,711	\$ 494,381	\$ 3,239,092	\$ (63,544)
CREST HAVEN	\$ 172,223	\$ 47,359	\$ 219,582	\$ 151,978	\$ 40,009	\$ 191,987	\$ (27,595)
RIO GRANDE	\$ 783,972	\$ 200,017	\$ 983,988	\$ 745,308	\$ 223,062	\$ 968,370	\$ (15,619)
COURT HOUSE	\$ 780,384	\$ 205,559	\$ 985,943	\$ 744,180	\$ 234,388	\$ 978,569	\$ (7,374)
AVALON MANOR	\$ 64,583	\$ 12,092	\$ 76,675	\$ 62,128	\$ 12,515	\$ 74,642	\$ (2,033)
STONE HARBOR BOULEVARD	\$ 78,935	\$ 15,115	\$ 94,050	\$ 70,801	\$ 14,815	\$ 85,616	\$ (8,433)
COURT HOUSE SOUTH	\$ 355,209	\$ 93,711	\$ 448,920	\$ 356,799	\$ 102,304	\$ 459,104	\$ 10,184
HARBOR BAY CENTER	\$ 8,970	\$ 2,519	\$ 11,489	\$ 4,555	\$ 1,111	\$ 5,666	\$ (5,823)
MIDDLE TOWNSHIP TOTAL:	\$ 2,072,054	\$ 529,011	\$ 2,601,065	\$ 1,983,772	\$ 588,195	\$ 2,571,967	\$ (29,098)
OCEANVIEW SERVICE AREA	\$ 5,382	\$ 1,008	\$ 6,390	\$ 25,725	\$ 3,098	\$ 28,823	\$ 22,433
WILDWOOD	\$ 3,169,973	\$ 563,775	\$ 3,733,748	\$ 3,171,554	\$ 558,841	\$ 3,730,395	\$ (3,353)
WILDWOOD CREST	\$ 2,902,669	\$ 464,018	\$ 3,366,688	\$ 3,089,526	\$ 520,236	\$ 3,609,762	\$ 243,074
WEST WILDWOOD	\$ 328,299	\$ 82,627	\$ 410,926	\$ 311,815	\$ 81,876	\$ 393,691	\$ (17,235)
NORTH WILDWOOD	\$ 3,205,853	\$ 563,271	\$ 3,769,124	\$ 3,082,903	\$ 544,718	\$ 3,627,621	\$ (141,503)
LTMUA (SHAWCREST)	\$ 134,549	\$ 32,748	\$ 167,297	\$ 135,599	\$ 29,683	\$ 165,283	\$ (2,015)
TOTALS	\$ 29,114,598	\$ 5,521,365	\$ 34,635,963	\$ 29,114,598	\$ 5,521,365	\$ 34,635,963	\$ -
2019 BUDGET FIGURES	\$ 29,114,598	\$ 5,521,365	\$ 34,635,963	\$ 29,114,598	\$ 5,521,365	\$ 34,635,963	



Capital Investments

- Replace Facility Generators
 - **\$600,000**
- Bay Ave Force Main Replacement
 - **\$8,500,000**
- Belt Filter Press Replacement
 - \$2,800,000 (Ocean City Portion: **\$650,000**)
- Pump Station Wet Well Restoration
 - \$8,600,000 (Ocean City Portion: **\$2,700,000**)
- Pump Station Electrical Upgrades
 - \$6,650,000 (Ocean City Portion: **\$1,200,000**)
- Odor Control System Upgrades
 - \$1,900,000 (Ocean City Portion: **\$640,000**) **Project only reflects engineering costs**
 - Expected Budget \$9,000,000
- Replace Pumps at 32nd Street Pump Station
 - **\$500,000**
- Rotating Biological Contactor and Rotating Biological Reactor Replacements
 - Project is not bid yet. Expected Budget: **\$2,500,000**

Over \$18,000,000 dollars since 2016!!!



Bay Ave Force Main Replacement

- History
 - October 2000: 20in Force Main failed at 31st and Bay.
 - August 2017 20in Ductile Iron Force Main failed at the 2500 block of Bay Ave.
 - Both failures required **emergency repair** and were of the same nature.
- Alternatives:
 - What is known about the existing profile of the remaining portion of the Force Main the Authority had two options.
 - Wait for more failures and repair as needed - **Reactive**
 - Replace/Rehabilitate the existing Force Main. - **Proactive**
- Scope:
 - Replace 20in Ductile Iron Force Main with 20in PVC Force Main.
 - Slip Line existing 20in Ductile Iron Force Main with 16in HDPE.
 - Extents: 31st and Haven to 8th and Bay











ROAD
CLOSED

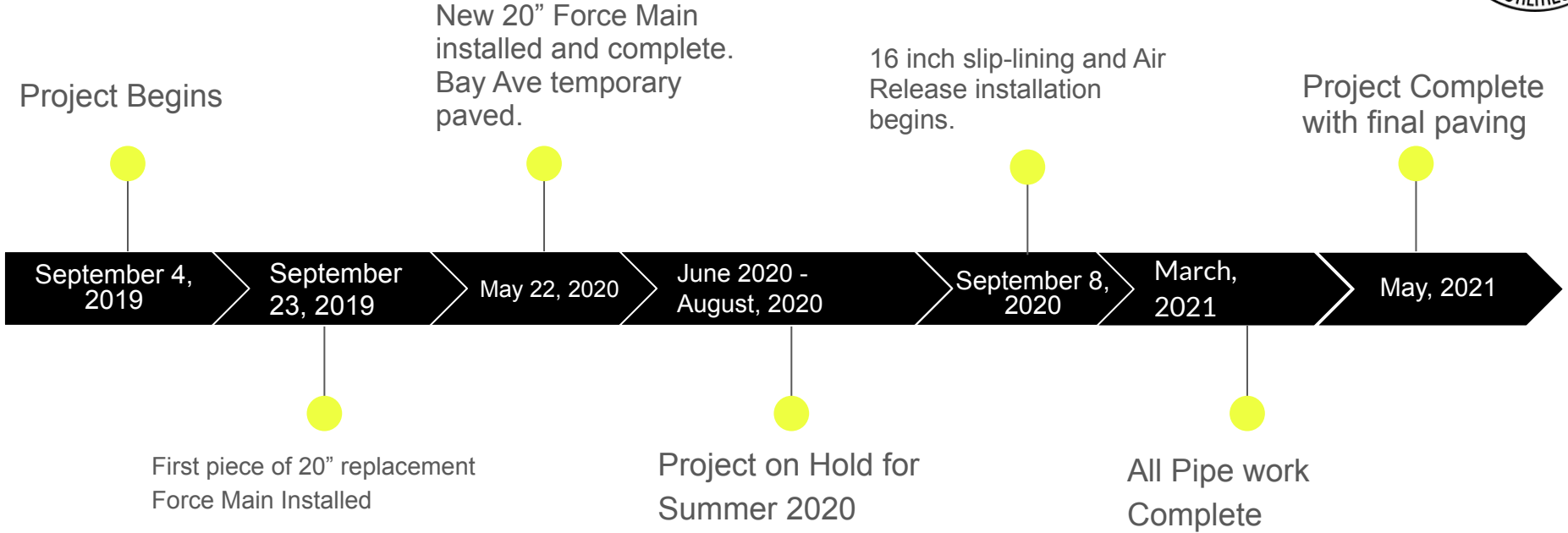
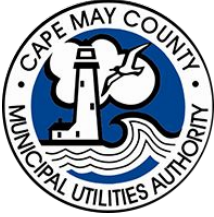
ROAD
CLOSED

DETOUR
←


TRUCK
ROUTE
↑



Project Timeline





LEGEND	
	EXISTING 12" D.I. PIPE
	EXISTING 20" D.I. PIPE
	PROPOSED 20" PVC PIPE




	REVISION	DATE	DESCRIPTION	APP'D
	BAY AVENUE FORCE MAIN REPLACEMENT CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY			
T.J. LAROCO PROFESSIONAL ENGINEER No. 127, 901, 8100	DATE	SCALE	DRAWN BY	
	CHECKED BY APPROVED BY	DATE DATE	TOTAL NO. OF SHEETS SHEET NO.	PROJECT NO. DATE
PROJECT LIMITS				DRAWING NO. 1 OF 3



LEGEND	
	EXISTING 12" D.I. PIPE
	EXISTING 20" D.I. PIPE
	PROPOSED 20" PVC PIPE

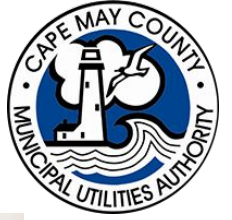
 THOMAS J. LaROCCO PROFESSIONAL ENGINEER <small>N.J. LIC. NO. 35326</small>			
BAY AVENUE FORCE MAIN REPLACEMENT CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY <small>1000 STATE ST. 3RD FLOOR BRIDGE TOWNSHIP NJ 08243-2625</small>			
<small>DESIGNED BY</small>	<small>DATE</small>	<small>ISSUED BY</small>	<small>DATE</small>
<small>NO. 1000</small>	<small>NO. 1000</small>	<small>NO. 1000</small>	<small>NO. 1000</small>
<small>CHECKED BY</small>	<small>APPROVED BY</small>	<small>DATE</small>	<small>DATE</small>
PROJECT LIMITS			<small>DRAWING NO.</small> 2 OF 3



LEGEND	
	EXISTING 12" D.I. PIPE
	EXISTING 20" D.I. PIPE
	PROPOSED 20" PVC PIPE

	REVISION	DATE	DESCRIPTION	BY
BAY AVENUE FORCE MAIN REPLACEMENT CAPE MAY COUNTY MUNICIPAL UTILITIES AUTHORITY				
DESIGNED BY	THOMAS J. LAROCCO	CHECKED BY		DATE
PROJECT LIMITS		DRAWING NO. 3 OF 3		

Other Capital Improvements - RBC Replacement



Other Capital Improvements - Belt Filter Press Replacement



Please **do not** Flush

Even though a product is small enough to be flushed, does not mean it should be. Flushing items that are not meant to be flushed, including those labeled "flushable" can lead to problems in the sewer pipes, at the wastewater treatment plant, and for the environment.



SANITARY
WIPES



FEMININE
HYGIENE
PRODUCTS



MEDICATIONS &
SUPPLEMENTS



CHEMICALS



TRASH



METALS &
PLASTICS



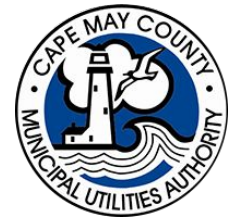
FATS,
OILS & GREASE



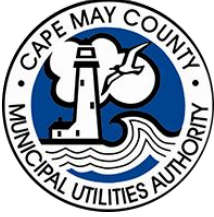
Microfiber wipes



Fats, Oils and Greases







Wait there's more!!!



Cape May County Hazard Mitigation Plan Update 2021

Steering Committee Meeting #5 | December 29, 2020

The 2021 Hazard Mitigation Plan included sea wall to be built around the Wastewater Treatment Facility



Thank you!

Josh Palombo

palomboj@cmcmua.com



Ocean City Utility Advisory Commission
Public Information Presentation

New Jersey American Water

Billing process including the fees for
Water, Wastewater Service, and Other
Charges, Irrigation Meters and Fees, and
Ways to Save Water.

April 8, 2021 6:30 PM
Via Zoom