

ANNUAL CONSENT DECREE
PROGRESS REPORT
FY 2021



One Donham Plaza
Middletown, OH 45042

July 30, 2021



Middletown has prepared the following Annual Consent Decree Progress Report in accordance with Section VII, Paragraph 31 of the Consent Decree. Pursuant to Paragraph 36, the following statement certifies that the information contained within this document is true, accurate, and complete:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

City of Middletown

Signed: 

Printed Name: Nakita Lancaster

Title: Assistant Public Works & Utilities Director

Date: 7/30/2021

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1. INTRODUCTION AND PURPOSE

On April 12, 2018 (Effective Date), the U.S. District Court for the Southern District of Ohio entered a Consent Decree (CD) between the City of Middletown, the United States America and the State of Ohio (Ohio) to address alleged violations of the Clean Water Act (CWA).

This annual Progress Report is submitted pursuant to Section VII of the CD. Middletown has prepared this report in accordance with the requirements set forth in Paragraph 31 of the CD in order to apprise U.S. EPA and Ohio EPA of the work and activities undertaken by Middletown from the July 1, 2020 through June 30, 2021 (the “reporting period”).

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2. COMPLIANCE DEADLINES AND MILESTONES

The following table summarizes the CD milestones and requirements during the reporting period and the status of Middletown's activities to address such milestones and requirements.

Table 2-1. Consent Decree Milestones		
Consent Decree Submittal	CD Para.	Status
Planning/Design for Bulls Run to Sunset Park CSO Project	Appx C	Complete
Construction for Bulls Run to Sunset Park CSO Project	Appx C	Complete
Construction for Lakeside Redirect CSO Project	Appx C	In progress
Condition Assessment for sewer pipe rehabilitation and replacement	Appx C	In Progress

3. ANNUAL PROJECT AND ACTIVITY UPDATE

3.1 Lakeside Redirect Project

In accordance with Appendix C of the CD, Middletown completed design for the Lakeside Redirect Project in November 2020. The project involves redirecting storm flow from the Lakeside Basin to the Hydraulic Canal via a 10 MGD stormwater pump station. Flow in excess of 10 MGD will overflow at a new diversion structure and return to the combined sewer.

Middletown elected to complete the project using progressive design build project delivery in order to comply with the construction completion date presented in Appendix C of the CD. As such, construction began promptly after completion of design and is currently ongoing. Middletown expects construction to be completed by the end of 2021, consistent with the deadline set forth in the CD.

3.2 Condition Assessment

In accordance with Section IV of CD, Middletown is working towards the Performance Criteria outlined in Paragraph 17. Middletown has completed a Condition Assessment Plan for the sanitary and combined sewer systems. Middletown prioritized the inspection of the sanitary and combined sewer systems based on the overall risk score to include pipes that were within 30 years of their remaining useful life. The prioritization was used to develop a schedule to complete inspection of 706,813 LF of pipe by December 31, 2022.

In 2021, Middletown entered into a contract with RedZone Robotics to conduct the condition assessment. RedZone Robotics uses state of the art equipment to rapidly conduct condition assessments and expects to be completed with the program by fall of 2021. Through the end of June 2021, approximately 400,000 lf have been inspected.

Once all of the data have been received, Middletown will develop and rehab and replacement plan to outline priorities for the next five years.

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4. SYSTEM PERFORMANCE DURING 2021

4.1 NPDES Permit Violations

During the reporting period, from July 1, 2020 to June 30, 2021, there were no NPDES Permit violations.

4.2 CSOs and Dry Weather Overflows

During the reporting period, from July 1, 2020 to June 30, 2021, there were no dry weather overflows, Discharges from Outfall 002, nor unpermitted discharges.

Known combined sewer overflow (CSO) events that occurred during the reporting period are summarized in Table 4-1.

Table 4-1: CSO Summary									
Date		Lafayette	15 th Ave	14 th Ave	Verity PKWY	9 th Ave	2 nd Ave	Bulls Run	Lakeside
7/6/2020	Volume (MG)		0.06	0.05		0.69	0.37	1.62	
	Duration (MIN)		80	35		115	65	105	
7/8/2020	Volume (MG)			0.06		0.31			
	Duration (MIN)			35		65			
7/19/2020	Volume (MG)	0.03	0.07	0.07		0.47	0.15	1.33	
	Duration (MIN)	45	45	40		85	30	90	
7/22/2020	Volume (MG)	0.09	0.10	0.16		0.80	0.16	2.97	
	Duration (MIN)	60	70	40		230	50	345	
7/23/2020	Volume (MG)					0.28	0.27	2.71	
	Duration (MIN)					115	60	240	
7/27/2020	Volume (MG)	0.39	0.19	0.58	0.24	1.27	0.47	6.22	
	Duration (MIN)	115	95	95	10	160	85	255	
7/30/2020	Volume (MG)	0.04	0.03	0.01		0.59	0.13	1.91	
	Duration (MIN)	75	110	55		235	75	555	
8/1/2020	Volume (MG)	0.001	0.01	0.004	0.004	0.19		3.07	
	Duration (MIN)	15	25	15	10	75		440	
8/2/2020	Volume (MG)		0.02	0.01	0.01	0.19	0.07	0.89	

Table 4-1: CSO Summary

Date		Lafayette	15 th Ave	14 th Ave	Verity PKWY	9 th Ave	2 nd Ave	Bulls Run	Lakeside
	Duration (MIN)		35	15	90	70	20	190	
8/3/2020	Volume (MG)						0.27	0.28	
	Duration (MIN)						60	195	
8/10/2020	Volume (MG)		0.01						
	Duration (MIN)		40						
8/18/2020	Volume (MG)		0.01	0.003	0.01	0.12			
	Duration (MIN)		25	10	20	100			
8/22/2020	Volume (MG)		0.10	0.03	0.21	0.45		0.45	
	Duration (MIN)		105	30	40	60		40	
8/23/2020	Volume (MG)						0.12		
	Duration (MIN)						30		
8/24/2020	Volume (MG)				0.02	0.04			
	Duration (MIN)				25	30			
8/25/2020	Volume (MG)					0.13		0.43	
	Duration (MIN)					20		65	
8/28/2020	Volume (MG)						0.2351*		
	Duration (MIN)						495*		
8/29/2020	Volume (MG)						0.0124*		
	Duration (MIN)						35*		
9/1/2020	Volume (MG)						0.01		
	Duration (MIN)						175		
9/8/2020	Volume (MG)		0.09						
	Duration (MIN)		255						
9/9/2020	Volume (MG)		0.02						
	Duration (MIN)		80						
9/13/2020	Volume (MG)	0.54	0.47	0.77	0.80	0.60	0.09	2.64	
	Duration (MIN)	80	1370	65	75	90	25	105	
9/14/2020	Volume (MG)		0.09						
	Duration (MIN)		515						
9/28/2020	Volume (MG)	0.06	0.24	0.05	0.14	0.28		0.88	
	Duration (MIN)	65	545	35	80	95		105	

Table 4-1: CSO Summary

Date		Lafayette	15 th Ave	14 th Ave	Verity PKWY	9 th Ave	2 nd Ave	Bulls Run	Lakeside
9/29/2020	Volume (MG)		0.28		0.22	0.29		1.08	
	Duration (MIN)		700		65	85		90	
10/4/2020	Volume (MG)		0.01			0.02		0.11	
	Duration (MIN)		25			35		45	
10/12/2020	Volume (MG)	0.14	0.19	0.25	0.57	0.56	0.02	2.60	
	Duration (MIN)	70	140	45	60	100	10	110	
10/19/2020	Volume (MG)	0.21	0.27	0.54	0.65	1.06		3.15	
	Duration (MIN)	245	470	140	295	395		560	
10/20/2020	Volume (MG)		0.03	0.51	0.03	0.09		0.35	
	Duration (MIN)		125	5	30	70		190	
10/23/2020	Volume (MG)	0.34	0.23	2.64	0.87	0.78	0.07	5.48	
	Duration (MIN)	80	250	75	80	105	15	245	
10/24/2020	Volume (MG)							0.01	
	Duration (MIN)							25	
10/28/2020	Volume (MG)		0.01		0.001	0.01			
	Duration (MIN)		25		5	15			
10/29/2020	Volume (MG)	0.38	0.48	0.03	1.87	2.39		11.56	
	Duration (MIN)	525	820	160	765	905		1410	
10/30/2020	Volume (MG)			3.60					
	Duration (MIN)			35					
11/10/2020	Volume (MG)		0.01		0.001	0.004			
	Duration (MIN)		20		5	5			
11/11/2020	Volume (MG)		0.04	0.13	0.08	0.18	0.06	0.40	
	Duration (MIN)		120	135	65	135	1350	130	
11/15/2020	Volume (MG)		0.34	0.05		0.02	0.02	0.08	
	Duration (MIN)		25	50		50	50	45	
11/22/2020	Volume (MG)		0.01	0.14		0.03	0.06	0.20	
	Duration (MIN)		60	140		100	140	140	
11/25/2020	Volume (MG)	0.22	0.25	0.53	0.78	1.21	0.25	7.16	
	Duration (MIN)	295	535	535	380	530	535	1070	
11/26/2020	Volume (MG)							0.21	

Table 4-1: CSO Summary

Date		Lafayette	15 th Ave	14 th Ave	Verity PKWY	9 th Ave	2 nd Ave	Bulls Run	Lakeside
	Duration (MIN)							340	
11/30/2020	Volume (MG)		0.04	0.32		0.03	0.15	1.28	
	Duration (MIN)		320	320		150	320	1145	
12/19/2020	Volume (MG)		0.001			0.09		0.06	
	Duration (MIN)		30			30		60	
12/21/2020	Volume (MG)		0.04		0.16	0.38		1.60	
	Duration (MIN)		125		50	125		100	
12/24/2020	Volume (MG)		0.001		0.0004	0.03		0.37	
	Duration (MIN)		10		10	10		50	
12/26/2020	Volume (MG)			0.03		0.02			
	Duration (MIN)			5		5			
12/30/2020	Volume (MG)		0.03		0.10	0.56		1.57	
	Duration (MIN)		185		90	185		425	
12/31/2020	Volume (MG)		0.0004		0.01	0.02		0.40	
	Duration (MIN)		5		15	5		400	
1/1/2021	Volume (MG)	0.31	0.26	0.05	1.31			4.29	
	Duration (MIN)	265	405	125	310			195	
1/2/2021	Volume (MG)		3.66					5.09	
	Duration (MIN)		770					1265	
1/3/2021	Volume (MG)		0.81					0.91	
	Duration (MIN)		445					1095	
1/4/2021	Volume (MG)							0.002	
	Duration (MIN)							85	
1/25/2021	Volume (MG)		0.003		0.002	0.14		0.06	
	Duration (MIN)		55		20	140		135	
1/26/2021	Volume (MG)						0.03		
	Duration (MIN)						5		
1/31/2021	Volume (MG)		0.01		0.13	0.60		2.97	
	Duration (MIN)		155		190	445		735	
2/6/2021	Volume (MG)			0.04					
	Duration (MIN)			5					

Table 4-1: CSO Summary

Date		Lafayette	15 th Ave	14 th Ave	Verity PKWY	9 th Ave	2 nd Ave	Bulls Run	Lakeside
2/19/2021	Volume (MG)			0.03					
	Duration (MIN)			5					
2/23/2021	Volume (MG)							0.20	
	Duration (MIN)							155	
2/28/2021	Volume (MG)	7.20	5.51	1.74	0.67	16.03		46.77*	
	Duration (MIN)	270	820	335	280	905		1044*	
3/1/2021	Volume (MG)		0.01			2.24		6.03	
	Duration (MIN)		30			135		1435	
3/2/2021	Volume (MG)							3.19	
	Duration (MIN)							1090	
3/8/2021	Volume (MG)		0.17						
	Duration (MIN)		5						
3/11/2021	Volume (MG)	0.08	0.07	0.02	0.53	0.76		3.27	
	Duration (MIN)	85	150	55	140	300		420	
3/12/2021	Volume (MG)							0.04	
	Duration (MIN)							95	
3/15/2021	Volume (MG)		0.002		0.03	0.16		0.34	
	Duration (MIN)		35		50	165		285	
3/16/2021	Volume (MG)							0.04	
	Duration (MIN)							130	
3/18/2021	Volume (MG)	0.04	0.03		0.38	0.82		9.18	
	Duration (MIN)	80	165		220	740		1370	
3/19/2021	Volume (MG)				2.14			6.75	
	Duration (MIN)				725			1440	
3/20/2021	Volume (MG)				0.06			4.12	
	Duration (MIN)				100			955	
3/25/2021	Volume (MG)	0.03	0.04	0.002	0.19	0.27		0.82	
	Duration (MIN)	45	100	15	90	155		170	
3/26/2021	Volume (MG)					0.01		0.10	
	Duration (MIN)					30		55	
3/28/2021	Volume (MG)	1.27	0.28	1.40	1.45	1.65	0.21	6.38	

Table 4-1: CSO Summary

Date		Lafayette	15 th Ave	14 th Ave	Verity PKWY	9th Ave	2 nd Ave	Bulls Run	Lakeside
	Duration (MIN)	180	150	105	180	500	45	1270	
3/29/2021	Volume (MG)							0.50	
	Duration (MIN)							515	
3/31/2021	Volume (MG)	0.02	0.001	0.0003	0.08	0.08		0.14	
	Duration (MIN)	35	15	5	30	55		45	
4/8/2021	Volume (MG)	0.05	0.02	0.03	0.18	0.22		1.07	
	Duration (MIN)	50	35	25	45	70		60	
4/10/2021	Volume (MG)		0.01		0.01	0.30		0.61	
	Duration (MIN)		55		65	345		390	
4/26/2021	Volume (MG)		0.03						
	Duration (MIN)		5						
4/28/2021	Volume (MG)		0.01		0.02	0.05		0.01	
	Duration (MIN)		25		20	55		45	
4/29/2021	Volume (MG)	0.96	0.61	1.34	2.82	3.20	0.12	1.63	
	Duration (MIN)	425	620	240	485	695	30	660	
5/3/2021	Volume (MG)		0.01		0.04	0.10		0.02	
	Duration (MIN)		25		40	70		45	
5/4/2021	Volume (MG)	0.32	0.22	0.54	0.90	1.05	0.08	2.52	
	Duration (MIN)	125	170	85	145	210	20	510	
5/6/2021	Volume (MG)					0.03			
	Duration (MIN)					60		0	
5/7/2021	Volume (MG)					0.04		0.12	
	Duration (MIN)					85		70	
5/9/2021	Volume (MG)	0.25	0.18	0.11	1.10	1.57	0.10	2.07	
	Duration (MIN)	195	220	85	230	555	20	840	
5/17/2021	Volume (MG)					0.07		0.19	
	Duration (MIN)					155		120	
5/26/2021	Volume (MG)		0.004		0.02	0.11		0.11	
	Duration (MIN)		25		35	100		75	
5/28/2021	Volume (MG)	0.04	0.05	0.03	0.28	0.40		0.93	
	Duration (MIN)	55	70	30	85	180		195	

Table 4-1: CSO Summary									
Date		Lafayette	15 th Ave	14 th Ave	Verity PKWY	9 th Ave	2 nd Ave	Bulls Run	Lakeside
6/2/2021	Volume (MG)	0.06	0.04	0.01	0.17	0.54		2.06	
	Duration (MIN)	80	110	35	105	440		580	
6/3/2021	Volume (MG)		0.004	0.0002	0.02	0.07		0.20	
	Duration (MIN)		20	5	25	70		50	
6/7/2021	Volume (MG)	0.54	0.43	0.66	0.98	1.15	0.16	4.52	0.09
	Duration (MIN)	100	1000	75	105	140	35	260	40
6/8/2021	Volume (MG)		0.02		0.002	0.02		0.08	
	Duration (MIN)		510		10	30		55	
6/9/2021	Volume (MG)	0.24	0.32	0.15	0.94	1.15	0.03	4.62	
	Duration (MIN)	155	410	90	245	385	20	750	
6/13/2021	Volume (MG)	0.02	0.02	0.01	0.02	0.03			
	Duration (MIN)	35	35	20	15	30			
6/18/2021	Volume (MG)	0.95	0.64	1.81	3.07	2.20	0.07	17.73	0.12
	Duration (MIN)	175	265	135	190	135	15	325	110
6/19/2021	Volume (MG)	19.74	20.45	21.28	2.11	14.06	0.98	61.50	1.43
	Duration (MIN)	560	1330	605	610	635	235	1440	610
6/20/2021	Volume (MG)		0.08					2.02	
	Duration (MIN)		355					1075	
6/23/2021	Volume (MG)		0.004						
	Duration (MIN)		35						
6/29/2021	Volume (MG)				0.03			0.25	
	Duration (MIN)				35			210	
6/30/2021	Volume (MG)		0.01		0.06			0.06	
	Duration (MIN)		30		45			35	

4.3 Unauthorized Releases

During the reporting period, from July 1, 2020 to June 30, 2021, there were no known Unauthorized Releases.

5. PLANNED ACTIVITIES FOR 2021-2022

Middletown will be continuing the overall program outlined in the CD in FY 2022. The following sub-sections provide specifics on this work.

5.1 Lakeside Redirect Project

As described in Section 3.2, design for the Lakeside Redirect Project is underway. Construction is expected to be completed by the end of 2021.

5.2 Condition Assessment

In accordance with Section IV of CD, Middletown is working towards the Performance Criteria outlined in Paragraph 17 and has completed a Condition Assessment Plan as well as began work on the condition assessment. The condition assessment work will be completed in the fall of 2021. At that time, the City will begin work on a rehab and replacement plan focused on the next five years.

5.3 Downtown CSO Storage Basin

In accordance with Section IV, Paragraph 12, Middletown will begin design of the Downtown CSO Storage Basin in 2022. Middletown intends to use the progressive design-build project deliver model to complete the project. The City has contracted with a consultant to begin preparation of procurement documents and expects to have a design-build team under contract early 2022.