

# ADDENDUM No. 1

## RFP No. 19-13

### WWTP Tertiary Filter Clear Well Improvement Project

**Due: June 13, 2019 by 2:00 p.m. (local time)**

The following changes, additions, and/or deletions shall be made to the Request for Proposal for WWTP Tertiary Filter Clear Well Improvement Project, RFP No. 19-13, on which proposals will be received on/or before the date and time listed above.

The information contained herein shall take precedence over the original documents and all previous addenda (if any), and is appended thereto. **This Addendum includes 17 pages.**

**The Proposer is to acknowledge receipt of this Addendum No. 1, including all attachments in its Proposal by so indicating in the proposal that the addendum has been received. Proposals submitted without acknowledgement of receipt of this addendum may be considered non-conforming.**

**The following forms provided within the RFP Document must be included in submitted proposal:**

- **Attachment B - Non-Discrimination Declaration of Compliance**
- **Attachment C - Living Wage Declaration of Compliance**
- **Attachment D - Vendor Conflict of Interest Disclosure Form**

**Proposals that fail to provide these forms listed above upon proposal opening will be rejected as non-responsive and will not be considered for award.**

#### I. QUESTIONS AND ANSWERS

The following Questions have been received by the City. Responses are being provided in accordance with the terms of the RFP. Respondents are directed to take note in its review of the documents of the following questions and City responses as they affect work or details in other areas not specifically referenced here.

1. Can the City provide a copy of the NPDES permit?  
**RESPONSE: Copies of the previous NPDES permit and the new permit currently being contested by the City of Ann Arbor will be made available to Pre-Bid Meeting attendees via the City's Liquid Files FTP site.**
2. Pre-Bid Meeting Attendee List.  
**RESPONSE: The Pre-Bid Meeting Attendee list is attached.**
3. Are there month(s) when secondary effluent quality would not meet final effluent permit limits?  
**RESPONSE: Although infrequent, there may be instances when secondary effluent does not meet final plant effluent limits; however, not operating the filters in itself would be a permit violation. Consequently, the filters are used at all times and the plant wishes to operate one clear well and associated filters at all times during this project.**

4. Is Ann Arbor going to require all secondary effluent be filtered? Or, is a by-pass plan acceptable should it be needed?  
**RESPONSE: The City of Ann Arbor intends to operate one clear well and associated filters up to their design capacity of 3 MGD each at all times. A by-pass or flow equalization plan will be needed for plant flows that exceed available filter capacity.**
5. Does Ann Arbor have preferred construction months for this project based (i.e., when each filter bank/clear well is taken offline)?  
**RESPONSE: The City does not have specific months for construction in mind. The proposed construction schedule must take into account times of the year when daily flows are higher than a bank of six filters can process. Monthly WWTP effluent flow data for 2018 is attached for your reference.**
6. Will this be a “cash” or loan/bond financed project?  
**RESPONSE: This is a Capital Improvement Project and will be cash funded.**
7. Can you provide hardness and TDS data for the effluent in the clear well?  
**RESPONSE: Effluent hardness is only tested once per year. Review of data for the past several years revealed the hardness to typically range from 230 to 310 mg/l as CaCO<sub>3</sub>. Total dissolved solids (TDS) is not tested.**
8. Do you maintain any chlorine residual in the clear well? What chlorine residual do you maintain?  
**RESPONSE: The WWTP has been using ultraviolet disinfection (UV) since December 2000. During construction of the UV system, for roughly a 12-month period, sodium hypochlorite was added to the clear wells for disinfection. The chlorine dosage was maintained in the range of 0.5 to 0.7 mg/l. There is currently capability to add chlorine to the backwash but it has been used less than five times since 2000. Backwash water is directed to the backwash waste water tank and returned to the retention basin.**
9. Can you provide the PowerPoint As-Built Drawings for 1977 structural and 1997 again? The files that were provided after the pre-bid meeting seem to be corrupt after I downloaded them.  
**RESPONSE: PDF's of the PowerPoint As-Built Drawings for 1977 structural and 1997 Filter projects will made available to the Pre-Bid Meeting attendees via the City's Liquid Files FTP site.**
10. Prior to installation of UV, was a chlorine residual maintained in the clear well? What were the typical high and I residual level?  
**RESPONSE: Please see response to question #8.**

Offerors are responsible for any conclusions that they may draw from the information contained in the Addendum.

## Question #2

### Supporting Information

TERTIARY FILTER CLEAR WELL IMPROVEMENTS PROJECT

Mandatory Pre-Bid Meeting

April 30, 2019 - 10:00 am

Sign In Sheet

Name	Company	Phone / Email
JACK RAFTER	FISHBECK	616-464-3814 jcraft@ftch.com
TJ BATES	DONOHUE	616-201-2820 tbates@donohue-associates.com
Mike Harvey	Donohue	616-201-2825 mharvey@donohue-associates.com
Josh Prusakiewicz	HDR	734-332-6393 josh.prusakiewicz@hdrinc.com
Ted Erickson	PROCESS RESULTS.	734-657-4925 terickson@processresults.com
Jennifer Drinan	OHM advisors	734-303-8954 jennifer.drinan@ohm-advisors.com
Norton Fogel	GHD	734-355-6378 norton.fogel@ghd.com
JOHN ARVAI	WADE TRIM	734-249-2157 jarvai@wade-trim.com
EARL J. KENZIE	A <sup>2</sup> WWTP	(734) 794-6450 ekenzie@a2gov.org
CAREY BOND	OHM	734-787-3933 carey.bond@ohm-advisors.com
CHRIS ENGLERT	A <sup>2</sup> WWTP	734-794-6450 CENGLERT@A2GOV.ORG

## Question #5

### Supporting Information

**Ann Arbor wastewater Treatment Plant**

**Monthly Report**

**TERTIARY FLOWS AND LEVELS**

<b>2018</b>	PEW Flow North	PEW Flow South	PEW Pressure	Total Plant Effluent Flow MGD	UV Chamber OverFlow DO
<b>January</b>	MGD	MGD	PSI	MGD	PPM
1	0.627	0.341	88.64	13.91	9.46
2	0.720	0.382	88.46	15.23	9.03
3	0.667	0.355	88.76	16.60	7.58
4	0.523	0.286	88.17	14.60	7.51
5	0.452	0.252	88.65	17.33	7.68
6	0.502	0.274	87.89	15.97	7.71
7	0.465	0.256	89.60	15.56	9.14
8	0.560	0.296	89.91	16.38	9.42
9	0.535	0.281	89.72	16.36	9.45
10	0.562	0.291	89.82	17.61	9.07
11	0.500	0.261	90.27	21.87	8.12
12	0.437	0.234	87.48	20.92	8.09
13	0.455	0.241	87.34	19.95	9.77
14	0.518	0.259	88.50	15.71	9.94
15	0.555	0.267	89.49	18.91	9.77
16	0.501	0.242	88.16	17.73	10.05
17	0.503	0.242	88.55	18.15	10.89
18	0.462	0.225	89.06	17.74	10.82
19	0.533	0.252	89.70	19.07	10.56
20	0.500	0.239	90.14	16.19	10.37
21	0.509	0.246	91.13	16.41	10.39
22	0.494	0.237	91.29	20.03	9.91
23	0.417	0.219	89.97	21.40	9.60
24	0.447	0.233	89.67	19.33	9.86
25	0.435	0.228	90.29	19.29	9.99
26	0.469	0.242	91.02	18.45	9.92
27	0.439	0.228	90.76	16.31	10.01
28	0.427	0.223	90.53	17.80	10.18
29	0.466	0.240	89.85	18.76	10.09
30	0.459	0.239	89.37	18.13	9.86
31	0.441	0.230	90.64	17.10	9.36
<b>Minimum</b>	0.42	0.22	87.34	13.9	7.51
<b>Maximum</b>	0.72	0.38	91.29	21.9	10.89
<b>Average</b>	0.50	0.26	89.45	17.70	9.47
<b>Total</b>	15.6	8.0		548.8	

**Ann Arbor wastewater Treatment Plant**

**Monthly Report**

**TERTIARY FLOWS AND LEVELS**

<b>2018</b>	PEW Flow North	PEW Flow South	PEW Pressure	Total Plant Effluent Flow	UV Chamber OverFlow DO
<b>February</b>	MGD	MGD	PSI	MGD	PPM
1	0.461	0.245	90.19	18.88	9.78
2	0.450	0.241	88.44	16.82	9.84
3	0.481	0.254	89.91	16.45	10.31
4	0.517	0.269	89.69	16.73	10.23
5	0.525	0.271	87.77	18.49	10.28
6	0.588	0.296	89.07	16.71	9.81
7	0.568	0.290	89.39	17.11	9.51
8	0.534	0.275	88.74	17.22	9.06
9	0.524	0.271	89.06	17.02	8.83
10	0.548	0.281	89.37	15.53	9.58
11	0.552	0.283	89.19	16.08	10.12
12	0.583	0.295	88.96	16.70	10.20
13	0.536	0.273	88.99	16.74	9.42
14	0.448	0.234	89.55	16.81	9.33
15	0.443	0.233	90.13	19.98	8.80
16	0.442	0.234	88.44	22.06	9.15
17	0.440	0.243	88.65	17.77	9.27
18	0.497	0.258	89.48	17.73	10.01
19	0.458	0.242	90.80	20.82	9.71
20	0.409	0.227	89.61	40.96	7.81
21	0.348	0.213	90.00	47.57	8.60
22	0.395	0.220	90.31	30.17	9.03
23	0.383	0.215	91.06	26.08	9.07
24	0.322	0.188	90.39	24.39	9.40
25	0.396	0.220	90.13	21.33	9.59
26	0.338	0.194	90.44	23.36	9.25
27	0.382	0.207	90.56	21.49	9.13
28	0.429	0.228	91.43	19.36	9.37
29					
30					
31					
Minimum			87.77	15.5	7.81
Maximum	0.59	0.30	91.43	47.6	10.31
Average	0.42	0.22	89.63	21.08	9.45
Total	13.0	6.9		590.4	

**Ann Arbor wastewater Treatment Plant  
Monthly Report**

**TERTIARY FLOWS AND LEVELS**

<b>2018</b>	PEW Flow North	PEW Flow South	PEW Pressure	Total Plant Effluent Flow MGD	UV Chamber OverFlow DO
<b>March</b>	MGD	MGD	PSI	MGD	PPM
1	0.328	0.183	88.29	21.92	9.26
2	0.380	0.210	89.33	28.39	8.97
3	0.469	0.252	89.48	27.11	9.41
4	0.587	0.311	89.52	25.12	9.94
5	0.588	0.309	88.43	24.88	9.02
6	0.588	0.308	89.37	21.78	9.14
7	0.589	0.309	89.07	26.00	8.79
8	0.581	0.301	88.80	24.09	8.97
9	0.474	0.250	89.04	21.78	9.39
10	0.417	0.225	89.40	21.36	9.71
11					
12					
13					
14	0.455	0.238	89.46	21.00	9.45
15	0.445	0.233	89.50	19.72	9.39
16	0.458	0.237	89.17	20.83	9.72
17	0.408	0.219	90.38	18.32	9.70
18	0.446	0.237	91.04	18.77	10.03
19	0.441	0.232	90.73	19.95	9.82
20	0.445	0.232	90.60	18.87	9.91
21	0.439	0.230	90.62	19.36	9.82
22	0.440	0.229	90.80	18.66	9.84
23	0.438	0.229	90.64	18.64	10.06
24	0.408	0.216	90.33	17.95	10.34
25	0.459	0.243	90.38	17.28	9.78
26	0.433	0.224	89.87	19.58	10.43
27	0.475	0.248	90.80	20.64	10.01
28	0.441	0.232	90.70	19.16	9.95
29	0.438	0.231	90.66	19.79	9.92
30	0.426	0.228	90.50	19.70	10.10
31	0.414	0.223	90.29	19.03	10.26
Minimum			88.29	17.3	8.79
Maximum	0.59	0.31	91.04	28.4	10.43
Average	0.42	0.22	89.90	21.06	9.68
Total	12.9	6.8		589.7	



**Ann Arbor wastewater Treatment Plant**

**Monthly Report**

**TERTIARY FLOWS AND LEVELS**

<b>2018</b>	PEW Flow North	PEW Flow South	PEW Pressure	Total Plant Effluent Flow	UV Chamber OverFlow DO
<b>April</b>	MGD	MGD	PSI	MGD	PPM
1	0.364	0.203	89.81	19.43	10.41
2	0.329	0.188	90.21	20.14	10.26
3	0.307	0.178	90.13	19.82	9.86
4	0.333	0.198	89.48	25.83	9.39
5	0.326	0.195	90.47	22.53	9.69
6	0.332	0.197	90.17	21.12	9.96
7	0.305	0.185	89.81	20.47	10.13
8	0.318	0.191	90.04	19.87	10.20
9	0.364	0.211	90.27	20.57	10.06
10	0.336	0.199	90.87	18.70	10.04
11	0.317	0.189	90.69	19.83	9.94
12	0.233	0.139	91.13	19.37	9.83
13	0.280	0.174	90.75	20.33	9.63
14	0.262	0.168	88.78	21.42	9.68
15	0.280	0.181	87.11	24.33	9.64
16	0.244	0.151	88.30	27.60	9.30
17	0.218	0.134	89.87	28.00	9.31
18	0.221	0.139	90.47	24.06	9.47
19	0.214	0.135	90.54	22.75	9.55
20	0.242	0.149	90.41	22.83	9.69
21	0.274	0.169	90.37	20.40	9.79
22	0.226	0.131	90.33	19.92	9.77
23	0.337	0.203	91.23	20.86	9.55
24	0.332	0.200	90.96	19.91	9.40
25	0.366	0.216	91.31	20.56	9.29
26	0.466	0.261	90.93	19.77	9.37
27	0.458	0.259	90.74	19.38	9.34
28	0.356	0.212	89.94	19.01	9.55
29	0.318	0.194	90.26	17.77	9.90
30	0.334	0.201	90.72	19.92	9.63
31					
Minimum			87.11	17.8	9.29
Maximum	0.47	0.26	91.31	28.0	10.41
Average	0.30	0.18	90.20	21.22	9.72
Total	9.3	5.6		636.5	

**Ann Arbor wastewater Treatment Plant**

**Monthly Report**

**TERTIARY FLOWS AND LEVELS**

<b>2018</b>	PEW Flow North	PEW Flow South	PEW Pressure	Total Plant Effluent Flow MGD	UV Chamber OverFlow DO
<b>May</b>	MGD	MGD	PSI		PPM
1	0.329	0.199	91.85	17.80	9.59
2	0.341	0.206	91.74	19.05	9.51
3	0.350	0.213	91.51	24.36	9.06
4	0.345	0.211	90.87	24.70	9.07
5	0.317	0.198	91.11	21.70	9.26
6	0.324	0.201	91.13	18.49	9.48
7	0.337	0.207	91.20	20.55	9.52
8	0.351	0.216	91.73	21.78	9.07
9	0.425	0.281	91.62	20.01	8.89
10	0.402	0.255	91.24	19.33	9.07
11	0.345	0.217	89.29	18.50	9.30
12	0.311	0.196	88.58	28.08	9.09
13	0.310	0.196	90.14	30.49	8.80
14	0.318	0.200	92.51	35.23	7.57
15	0.315	0.197	92.69	38.39	7.64
16	0.316	0.196	91.69	29.18	8.47
17	0.318	0.197	92.11	25.82	8.62
18	0.307	0.191	90.68	23.22	8.94
19	0.307	0.191	90.34	22.94	8.85
20	0.312	0.193	89.48	23.84	9.03
21	0.356	0.215	90.16	24.49	8.83
22	0.319	0.195	90.73	23.74	8.73
23	0.314	0.194	90.92	22.71	8.49
24	0.315	0.193	90.29	20.44	7.49
25	0.302	0.186	90.89	20.75	7.52
26	0.298	0.187	90.86	19.11	7.48
27	0.376	0.241	92.18	18.83	7.63
28	0.440	0.284	92.55	17.47	7.71
29	0.447	0.289	91.54	21.19	7.61
30	0.414	0.266	92.38	19.31	7.26
31	0.372	0.229	92.55	20.49	7.19
Minimum	0.30	0.19	88.58	17.5	7.19
Maximum	0.45	0.29	92.69	38.4	9.59
Average	0.34	0.21	91.18	22.97	8.54
Total	10.6	6.6		712.0	

**Ann Arbor wastewater Treatment Plant**

**Monthly Report**

**TERTIARY FLOWS AND LEVELS**

<b>2018</b>	PEW Flow North	PEW Flow South	PEW Pressure	Total Plant Effluent Flow MGD	UV Chamber OverFlow DO
<b>June</b>	MGD	MGD	PSI	MGD	PPM
1	0.357	0.223	92.15	18.96	7.13
2	0.310	0.204	89.92	17.45	7.61
3	0.300	0.200	90.14	18.32	7.64
4	0.304	0.201	91.38	18.95	7.60
5	0.300	0.200	91.43	18.78	7.60
6	0.310	0.207	90.28	17.82	7.64
7	0.314	0.210	91.96	17.71	7.50
8	0.362	0.247	91.98	18.28	7.37
9	0.418	0.289	91.48	16.49	7.55
10	0.430	0.295	91.02	16.88	7.68
11	0.409	0.277	91.00	17.61	7.67
12	0.460	0.318	91.27	17.85	7.41
13	0.471	0.331	91.91	17.79	7.25
14	0.450	0.315	90.69	16.85	7.35
15	0.358	0.239	91.43	17.60	7.34
16	0.338	0.228	92.10	16.14	7.26
17	0.286	0.182	92.39	17.10	7.19
18	0.239	0.135	92.83	18.16	7.01
19	0.230	0.134	90.46	18.70	7.12
20	0.223	0.129	90.43	18.52	7.24
21	0.224	0.129	91.47	17.56	7.22
22	0.220	0.125	90.64	17.38	7.24
23	0.266	0.170	91.57	17.01	7.18
24	0.324	0.221	90.51	16.30	7.25
25	0.328	0.224	89.97	14.77	7.36
26	0.335	0.229	90.75	19.61	7.23
27	0.334	0.227	91.00	16.34	7.15
28	0.333	0.226	91.52	17.78	7.12
29	0.327	0.223	91.62	17.46	7.04
30	0.326	0.222	92.04	16.71	7.01
31					
Minimum			89.92	14.8	7.01
Maximum	0.47	0.33	92.83	19.6	7.68
Average	0.32	0.21	91.24	17.56	7.33
Total	9.9	6.6		526.9	

**Ann Arbor wastewater Treatment Plant**

**Monthly Report**

**TERTIARY FLOWS AND LEVELS**

<b>2018</b>	PEW Flow North	PEW Flow South	PEW Pressure	Total Plant Effluent Flow	UV Chamber OverFlow DO
<b>July</b>	MGD	MGD	PSI	MGD	PPM
1	0.302	0.212	91.51	16.12	7.00
2	0.322	0.218	91.03	16.62	6.99
3	0.336	0.226	94.60	16.73	7.01
4	0.328	0.223	94.96	15.75	7.05
5	0.324	0.224	92.35	15.93	7.18
6	0.305	0.211	91.69	16.99	7.23
7	0.315	0.213	90.84	14.35	7.28
8	0.317	0.214	92.06	15.02	7.34
9	0.321	0.218	92.56	16.09	7.32
10	0.321	0.218	92.91	16.93	7.24
11	0.325	0.220	92.33	15.74	7.27
12	0.317	0.215	92.45	15.96	7.29
13	0.312	0.213	93.00	16.10	7.23
14	0.313	0.213	92.63	16.42	7.16
15	0.316	0.215	92.71	15.35	7.15
16	0.321	0.217	92.68	16.91	7.06
17	0.331	0.220	92.57	16.56	7.10
18	0.336	0.226	91.99	15.72	7.17
19	0.315	0.220	92.56	15.90	7.15
20	0.318	0.221	92.52	17.00	7.06
21	0.315	0.220	92.34	14.72	7.08
22	0.322	0.223	92.00	14.10	7.19
23	0.349	0.236	92.71	18.15	7.04
24	0.337	0.230	93.31	16.25	7.00
25	0.303	0.201	93.52	16.39	6.92
26	0.329	0.225	92.63	15.66	6.87
27	0.317	0.219	91.77	15.73	6.92
28	0.311	0.215	92.32	14.78	7.03
29	0.320	0.220	92.43	14.49	7.08
30	0.321	0.221	91.91	15.21	7.03
31	0.329	0.224	91.37	16.52	6.97
Minimum	0.30	0.20	90.84	14.1	6.87
Maximum	0.35	0.24	94.96	18.2	7.34
Average	0.32	0.22	92.46	15.94	7.11
Total	9.9	6.8		494.2	

**Ann Arbor wastewater Treatment Plant**

**Monthly Report**

**TERTIARY FLOWS AND LEVELS**

<b>2018</b>	PEW Flow North	PEW Flow South	PEW Pressure	Total Plant Effluent Flow MGD	UV Chamber OverFlow DO
<b>August</b>	MGD	MGD	PSI	MGD	PPM
1	0.320	0.220	91.58	20.14	6.80
2	0.322	0.220	93.60	16.48	6.91
3	0.306	0.208	93.46	17.08	7.01
4	0.316	0.214	93.49	15.20	7.01
5	0.309	0.202	93.93	15.39	6.95
6	0.312	0.202	93.61	16.77	6.87
7	0.332	0.219	92.88	18.51	6.56
8	0.331	0.218	93.29	15.88	6.72
9	0.339	0.224	92.75	16.80	6.70
10	0.322	0.215	92.68	16.20	6.67
11	0.392	0.268	91.96	15.10	6.65
12	0.441	0.304	92.31	14.25	6.86
13	0.434	0.293	92.37	15.49	6.88
14	0.321	0.215	93.73	15.81	6.80
15	0.371	0.098	93.68	15.88	6.78
16	0.316	0.000	93.15	16.23	6.81
17	0.379	0.000	92.99	16.08	6.78
18	0.618	0.000	92.20	15.16	6.85
19	0.663	0.000	90.95	15.17	6.99
20	0.547	0.000	90.94	16.37	7.02
21	0.383	0.002	92.34	17.77	6.82
22	0.296	0.000	90.67	15.12	6.96
23	0.355	0.000	91.27	15.83	7.03
24	0.501	0.000	91.20	15.37	6.94
25	0.331	0.000	91.14	15.13	6.89
26	0.341	0.000	91.99	14.79	6.80
27	0.359	0.000	92.56	16.72	6.81
28	0.353	0.000	92.51	16.98	6.74
29	0.348	0.000	91.93	16.34	6.71
30	0.353	0.000	90.31	16.36	6.83
31	0.348	0.000	91.05	15.82	6.82
Minimum	0.30	0.00	90.31	14.3	6.56
Maximum	0.66	0.30	93.93	20.1	7.03
Average	0.38	0.11	92.34	16.14	6.84
Total	11.7	3.3		500.2	

**Ann Arbor wastewater Treatment Plant**

**Monthly Report**

**TERTIARY FLOWS AND LEVELS**

<b>2018</b>	PEW Flow North	PEW Flow South	PEW Pressure	Total Plant Effluent Flow MGD	UV Chamber OverFlow DO
<b>September</b>	MGD	MGD	PSI	MGD	PPM
1	0.341	0.000	91.75	16.28	6.83
2	0.423	0.000	93.00	16.34	6.83
3	0.425	0.000	93.31	17.16	6.81
4	0.357	0.000	92.02	20.11	6.67
5	0.355	0.000	92.61	17.88	6.65
6	0.340	0.000	89.95	20.12	6.61
7	0.339	0.000	88.45	17.46	6.70
8	0.331	0.000	89.85	16.34	6.92
9	0.338	0.000	89.40	16.29	6.92
10	0.350	0.000	89.98	16.54	6.92
11	0.351	0.000	91.79	17.45	6.88
12	0.353	0.000	91.89	16.73	6.92
13	0.293	0.000	92.36	16.38	6.76
14	0.251	0.000	92.46	17.44	6.63
15	0.242	0.000	92.90	16.60	6.60
16	0.241	0.000	92.04	16.30	6.61
17	0.255	0.000	91.87	17.37	6.50
18	0.257	0.000	92.07	17.73	6.43
19	0.437	0.000	90.86	15.98	6.38
20	0.513	0.000	90.89	16.78	6.62
21	0.518	0.000	92.03	16.60	6.54
22	0.512	0.000	89.29	15.34	6.80
23	0.529	0.000	91.17	14.71	6.84
24	0.532	0.000	92.10	16.73	6.87
25	0.522	0.000	93.86	17.62	6.63
26	0.508	0.000	91.71	17.34	6.59
27	0.528	0.000	90.54	15.95	6.87
28	0.517	0.000	91.24	16.11	6.92
29	0.508	0.000	91.61	15.56	7.02
30	0.510	0.000	91.19	14.29	7.07
31					
Minimum			88.45	14.3	6.38
Maximum	0.53	0.00	93.86	20.1	7.07
Average	0.39	0.00	91.47	16.78	6.74
Total	12.0	0.0		503.5	

**Ann Arbor wastewater Treatment Plant**

**Monthly Report**

**TERTIARY FLOWS AND LEVELS**

<b>2018</b>	PEW Flow North	PEW Flow South	PEW Pressure	Total Plant Effluent Flow MGD	UV Chamber OverFlow DO
<b>October</b>	MGD	MGD	PSI	MGD	PPM
1	0.591	0.000	91.02	18.17	6.61
2	0.537	0.000	92.21	16.51	6.92
3	0.554	0.000	93.32	17.41	7.04
4	0.539	0.000	93.02	16.63	7.00
5	0.527	0.000	91.15	16.21	6.99
6	0.528	0.000	94.05	20.68	6.53
7	0.527	0.000	91.44	19.42	6.89
8	0.771	0.000	93.21	18.56	6.93
9	0.845	0.000	93.46	18.20	6.82
10	0.619	0.000	92.51	17.98	6.78
11	0.525	0.000	90.47	17.53	6.83
12	0.516	0.000	87.75	16.46	6.99
13	0.531	0.000	89.70	16.10	7.03
14	0.483	0.000	90.61	15.19	7.20
15	0.383	0.000	89.96	16.26	7.25
16	0.343	0.000	88.78	15.58	7.33
17	0.356	0.000	89.57	16.54	7.32
18	0.343	0.000	89.37	16.13	7.39
19	0.333		90.76	15.82	7.24
20	0.344	0.000	90.54	15.65	7.19
21	0.331	0.000	87.66	15.79	7.43
22	0.345	0.000	90.04	16.60	7.48
23	0.358	0.000	90.90	16.28	7.42
24	0.337	0.000	89.97	16.30	7.47
25	0.341	0.000	90.36	16.72	7.46
26	0.327	0.000	92.37	16.20	7.37
27	0.327	0.000	91.07	15.61	7.40
28	0.332	0.000	90.18	16.50	7.29
29	0.342	0.000	90.85	16.80	7.18
30	0.340	0.000	91.31	16.35	7.20
31	0.334	0.000	92.03	18.22	7.13
Minimum	0.33		87.66	15.2	6.53
Maximum	0.84	0.00	94.05	20.7	7.48
Average	0.45	0.00	90.96	16.85	7.13
Total	13.9	0.0		522.4	

**Ann Arbor wastewater Treatment Plant**

**Monthly Report**

**TERTIARY FLOWS AND LEVELS**

<b>2018</b>	PEW Flow North	PEW Flow South	PEW Pressure	Total Plant Effluent Flow MGD	UV Chamber OverFlow DO
<b>November</b>	MGD	MGD	PSI	MGD	PPM
1	0.333	0.000	90.04	19.55	7.15
2	0.346	0.000	88.19	24.41	6.86
3	0.341	0.000	89.85	18.14	7.28
4	0.000	0.000	90.57	18.02	7.40
5	0.345	0.000	92.41	19.05	7.24
6	0.333	0.000	91.95	19.83	7.19
7	0.341	0.000	88.36	18.25	7.45
8	0.338	0.000	89.12	18.40	7.54
9	0.385	0.000	89.20	17.83	7.57
10	0.480	0.000	86.81	16.84	7.69
11	0.382	0.000	89.18	17.10	7.81
12	0.335	0.000	90.35	17.42	7.71
13	0.345	0.000	89.87	17.47	7.77
14	0.354	0.000	88.20	17.28	7.92
15	0.338	0.000	89.83	17.48	7.67
16	0.339		90.48	17.70	7.64
17	0.325	0.002	90.11	16.77	7.74
18	0.349	0.007	89.21	17.65	4.92
19	0.342	0.002	89.13	19.14	7.66
20	0.351	0.000	89.52	17.12	7.80
21	0.391	0.000	88.39	17.09	7.88
22	0.324	0.000	86.61	14.20	8.15
23	0.322	0.000	88.15	14.36	8.15
24	0.330	0.000	91.44	15.76	7.78
25	0.345	0.000	91.27	15.23	7.89
26	0.386	0.000	90.70	17.88	7.68
27	0.374		93.19	15.94	7.68
28	0.374	0.001	92.85	16.59	7.91
29	0.530	0.000	89.54	18.24	7.91
30	-1.193	-0.002	90.07	17.46	7.93
31					
Minimum	-1.19	0.00	86.61	14.2	4.92
Maximum	0.53	0.01	93.19	24.4	8.15
Average	0.29	0.00	89.82	17.61	7.57
Total	8.9	0.0		528.2	



**Ann Arbor wastewater Treatment Plant**

**Monthly Report**

**TERTIARY FLOWS AND LEVELS**

<b>2018</b>	PEW Flow North	PEW Flow South	PEW Pressure	Total Plant Effluent Flow MGD	UV Chamber OverFlow DO
<b>December</b>	MGD	MGD	PSI	MGD	PPM
1	-2.880		89.38	17.83	7.86
2	-2.880	0.000	90.71	18.38	7.66
3	-1.391	0.000	88.87	19.13	7.66
4	0.527	0.000	88.49	18.17	7.83
5	0.880	0.000	89.06	17.86	8.00
6	0.802	0.000	89.63	17.19	8.16
7	0.857	0.000	89.49	17.61	8.20
8	0.407	0.000	87.48	18.12	8.34
9	0.419	0.000	89.04	16.85	8.37
10	0.460	0.000	90.59	17.54	8.21
11	0.438		90.67	17.43	8.17
12	0.417	0.000	90.50	16.81	8.17
13	0.454	0.000	91.14	17.09	8.15
14	0.430	0.000	90.49	18.04	8.05
15	0.396	0.000	90.56	15.37	8.23
16	0.361	0.000	89.62	15.81	8.22
17	0.379	0.000	89.14	16.85	8.22
18	0.385	0.000	89.19	16.21	8.24
19	0.634	0.000	89.61	16.00	8.11
20	0.559		90.45	15.70	8.04
21	0.445	0.000	90.45	17.45	7.93
22	0.327	0.000	88.17	15.11	8.28
23	0.374	0.000	88.10	14.47	8.44
24	0.317	0.000	88.60	14.55	8.52
25	0.270	0.000	89.07	12.92	8.69
26	0.277	0.000	89.66	13.01	8.79
27	0.294	0.000	90.25	15.31	8.50
28	0.319	0.000	92.19	14.49	8.41
29	0.273	0.000	89.43	14.01	8.59
30	0.300	0.000	88.31	13.51	8.67
31	0.307	0.000	88.88	16.95	8.34
Minimum	-2.88	0.00	87.48	12.9	7.66
Maximum	0.88	0.00	92.19	19.1	8.79
Average	0.17	0.00	89.59	16.32	8.23
Total	5.2	0.0		505.8	