

Paul R. Noland WWTP, NPDES Permit Number: AR00020010, AFIN #:72-00781, daily effluent flow is calculated from Noon-Noon each day. Flow meter records totalizer in 1,000 gallon increments.

For instance:

12/27/15 12:00 pm 311315 totalizer

– 12/26/15 12:00 pm 207585 totalizer

= 103730 Then instrument recording increment multiplier is added $103730 \times 0.0001 = 12/28/15, 10.373 \text{ MGD}$.

Paul R. Noland WWTP is equipped with 170 million gallon capacity storage ponds and a Bioprocess Flow Valve which is operated to manage how much flow is allowed to the bio-reactor. Influent flow not allowed to the bio-reactor is diverted to storage ponds. If the influent was 22 mgd and the bioprocess flow was set at 10 mgd for the bio-reactor the other 12 mgd is diverted to storage ponds for later handling/treatment.

Beginning on 12/27/15 at 15:50 the water level in the receiving stream rose enough to slow plant effluent discharge velocity and submerge the flow meter within the Parshall flume. This resulted in inaccurate effluent flow readings until 06:30 12/28/15. On 12/27/15 at 13:45 the bioprocess flow valve was adjusted from 58.5% to 50.0%. The lag time from the bioprocess valve adjustment to stabilize flow at the point of discharge can take up to one hour. The valve remained at this setting throughout the rest of this days flow. As illustrated from 07:00-12:00, flow is relatively stable during these conditions, so these readings were averaged to calculate the flow during the time the flow meter was submerged.

ESTIMATED HOURLY FLOWS			
	Hourly 12/27-12/28 Time	Effluent Flow Meter Totalizer	Hourly Flow & Estimated Flows
12/27/2015	1200	147207585	
	1300	147212575	0.4990
	1400	147217689	0.5114
	1500	147222448	0.4759
	1600	-	0.4175
	1700	-	0.4175
	1800	-	0.4175
	1900	-	0.4175
	2000	-	0.4175
	2100	-	0.4175
	2200	-	0.4175
	2300	-	0.4175
12/28/2015	2400	-	0.4175
	100	-	0.4175
	200	-	0.4175
	300	-	0.4175
	400	-	0.4175
	500	-	0.4175
	600	-	0.4175
	700	147293278	0.4175
	800	147297425	0.4147
	900	147301652	0.4227
	1000	147305695	0.4043
	1100	147309929	0.4234
1200	147314151	0.4222	
		TOTAL MDG	10.253

TOTALIZER SUMMARY	
Hourly 12/27-12/28 Time	Hourly Effluent Flow Totalizer
12/27/2015 12:00	147207585
13:00	147212575
14:00	147217689
15:00	147222448
16:00	147226794
17:00	147231202
18:00	147235633
19:00	147240200
20:00	147244827
21:00	147249289
22:00	147254020
23:00	147258451
12/28/2015 0:00	147262757
1:00	147267116
2:00	147271344
3:00	147275747
4:00	147280246
5:00	147284708
6:00	147289092
7:00	147293278
8:00	147297425
9:00	147301652
10:00	147305695
11:00	147309929
12:00	147314151