December 8, 2016

Ms. Karen Larsen, Deputy Director
Division of Water Quality
State Water Resources Control Board
1001 I Street,
Sacramento, CA 95314

Attention: Ms. Mariela Carpio-Obeso

Dear Ms. Larsen:

Subject: Submission of Once-Through Cooling (OTC) Interim Mitigation Fee Requirements for the Los Angeles Department of Water and Power's (LADWP) Harbor Generating Station (HGS), Haynes Generating Station (HnGS), and Scattergood Generating Station (SGS)

Per your letter dated September 26, 2016, the Los Angeles Department of Water and Power submits the information required for the calculation of the Once-Through Cooling (OTC) Interim Mitigation Fee for its Harbor Generating Station (HGS), Haynes Generating Station (HnGS), and Scattergood Generating Station (Reference enclosures 1, 2, and 3). The information enclosed for each facility consists of:

1) the monthly and total flows for October 1, 2015 thru September 30, 2016,
2) the annual impingement total from October 1, 2015 through September 30, 2016, and
3) the calculated impingement and entrainment fee.

LADWP has implemented a normal operations impingement monitoring program that goes beyond that required in the existing National Pollutant Discharge Elimination System (NPDES) Permits for its three coastal plants, HGS – R4-2003-0101, HnGS – 00-081, and SGS – 00-083 through April 1, 2016 and R4-2016-0055 in order to develop a more robust data set. This enhanced impingement monitoring program includes sampling every other week at the OTC units' screens. As can be seen in the enclosures, there is a gap in the monitoring data during the 2015 – 2016 time frame, this was due to a transition from one contract to the other. Therefore, data from 2014 has also been included in order to estimate impingement from October 1, 2015 through September 30, 2016. It was decided to use data starting from 2014 since Haynes Units 5 and 6 had eliminated the use of OTC by December 31, 2013 and

Scattergood Unit 3 had OTC eliminated by December 31, 2015. Starting from 2014 most accurately depicts the current flow/entrainment and impingement at all the generating stations, HGS, HnGS, and SGS. For the most part, there is a very extensive data set included. LADWP's normal operations impingement sampling program was put in place in order to have better information on actual impingement and to better evaluate the results of eliminating OTC. The methodology used for calculating the total impingement rates in lbs/MG and the calculation of the fee for each facility is also enclosed.

If you have any questions or require additional information, please feel free to contact me at (213) 367-0436.

Sincerely,

Katherine Rubin
Manager of Wastewater Quality and Compliance

KR:JM:MQ:lct
Enclosures (3)
c/enc:
Ms. Mariela Carpio-Obeso, State Water Resources Control Board (SWRCB)
Ms. Katherine Faick, SWRCB
Mr. Rik Rasmussen, SWRCB
Renan Jaurequi, SWRCB

Enclosure 1

Harbor Generating Station

Harbor Generating Station

The table below details the Harbor Generating Station interim mitigation fee calculation for the October 1, 2015–September 30, 2016 period. The Los Angeles Department of Water and Power (LADWP) chose to implement a normal operation fish impingement monitoring program beyond that required in the existing National Pollutant Discharge Elimination System (NPDES) permit (R4-2003-0101). This enhanced monitoring included sampling every other week from January 1, 2014 through April 2015 and again from April through September 2016. The gap in monitoring was due to a transition from one contract to another. LADWP chose to execute this enhanced monitoring to develop significantly more robust data than would have been provided by any heat treats and the semi-annual monitoring required by the current NPDES permit. The mean monthly impingement rate (pounds/million gallons of water circulated [lbs/MG]) for each month of monitoring was calculated and presented below. The grand mean impingement rate (lbs/MG) was calculated from the monthly means for each of the three years of monitoring. Blank cells in the table represent months where no surveys were conducted due to either the facility being in an outage and not circulating water or during a temporary suspension of the monitoring program. The grand mean impingement rate (lbs/MG) was multiplied by the total monthly cooling water flow volume circulated (in million gallons [MG]) during the October 1, 2015–September 30, 2016. This resulted in the estimated pounds impinged during the October 1, 2015–September 30, 2016 period. A total of 16,877 MG of water was circulated by the Harbor Generating Station during the specified year.

The fees were calculated per the method adopted by the State Water Board and notated in the letter to LADWP dated September 26, 2016. The annual impingement fee equals the average of annual impinged totals of fishes in pounds x $0.80 per pound. The annual entrainment fee equals the annual cooling water intake volume x $4.60 (per MG of water). The management and monitoring fee equals the sum total of the impingement fee and the entrainment fee x 0.20. The total of all these component fees equals the total interim mitigation fee.

	Impingement Rates (lbs/MG)				2015-16	Estimated
Month	2014	2015	2016	Grand Mean	Flow (MG)	lbs
Jan	2.73E-05	3.15E-05		2.94E-05	1455	<0.1
Feb	0.007358	0.000109		0.004459	110	0.5
Mar	0.000271	0		0.000136	1203	0.2
Apr	0.000591	0.000112	0	0.000301	1,362	0.4
May	0.000569		9.74E-05	0.00038	1,466	0.6
Jun	0.000268		0.000931	0.00071	1730	1.2
Jul	0.000187		0	0.000112	1,645	0.2
Aug	0.000191		0	9.57E-05	1,721	0.2
Sep	0		0	0	1,599	0.0
Oct	0.000152			0.000152	1,776	0.3
Nov	0.000802			0.000802	1,362	1.1
Dec	0.000116			0.000116	1,448	0.2
Harbor Generating Station Total Fish lbs.						4.9
Impingement Fee (lbs x $0.80)						$3.92
Total Annual Cooling Water Volume (MG)					16,877	
Entrainment Fee (Total MG x $4.60 per MG)						$77,634.20
Impingement Fee + Entrainment Fee						$77,638.12
Management and Monitoring Fee						$15,527.62
Total Harbor Generating Station Interim Mitigation Fee, Oct 2015-Sep 2016						$93,165.74

Flow Data

Table 1. *Harbor Generating Station Effluent Flow from October 2015 to September 2016*

	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
Day						**Total Station Flow (MGD)**						
1	69	43	49	43	18	44	44	48	48	48	51	72
2	77	43	47	43	1	0	43	58	48	43	48	51
3	43	45	49	43	0	44	43	59	48	43	48	43
4	43	43	48	51	0	47	44	59	79	47	47	43
5	49	43	43	49	0	85	43	50	43	47	83	45
6	47	43	43	47	0	43	43	48	49	45	43	52
7	50	43	50	48	0	48	43	43	48	47	54	54
8	52	43	47	50	0	47	47	43	45	54	71	43
9	74	48	48	43	0	47	45	51	47	43	45	43
10	74	47	51	43	0	43	44	52	47	43	68	43
11	72	45	48	52	0	61	45	47	43	80	50	43
12	77	47	43	48	0	47	46	47	43	81	50	55
13	80	45	43	47	0	43	45	47	48	83	43	43
114	73	43	49	50	0	55	45	43	48	74	78	43
15	76	43	48	48	0	45	45	43	45	48	96	83
16	96	52	47	43	0	47	44	50	48	43	49	70
17	75	47	48	43	0	47	44	46	48	43	63	43
18	43	47	48	48	0	42	51	48	43	54	48	43
19	47	47	43	50	0	0	51	48	70	48	46	49
20	43	51	43	48	0	0	47	50	81	47	43	48
21	43	43	50	50	0	0	47	43	96	55	43	50
22	81	43	47	43	0	0	43	43	48	47	59	81
23	43	51	48	43	0	4	43	47	47	43	54	60
24	43	47	47	43	0	51	43	43	49	64	48	43
25	43	47	43	45	0	47	49	43	68	75	48	43
26	48	43	43	43	0	43	50	43	71	48	57	83
27	43	43	43	47	5	43	44	45	96	52	43	68
28	43	43	48	75	43	50	44	43	96	47	43	49
29	43	43	48	43	43	43	48	43	93	67	56	54
30	43	51	48	43	[redacted]	43	49	45	47	43	76	59
31	43	[redacted]	48	43		44	[redacted]	48	[redacted]	43	70	[redacted]
Totals	**1776**	**1362**	**1448**	**1455**	**110**	**1203**	**1362**	**1466**	**1730**	**1645**	**1721**	**1599**

Enclosure 2

Haynes Generating Station

Haynes Generating Station

The table below details the Haynes Generating Station interim mitigation fee calculation for the October 1, 2015–September 30, 2016 period. The Los Angeles Department of Water and Power (LADWP) chose to implement a normal operation fish impingement monitoring program beyond that required in the existing National Pollutant Discharge Elimination System (NPDES) permit (00-081). This enhanced monitoring included sampling every other week from January 1, 2014 through April 2015 and again from April through September 2016. Data since the beginning of January 2014 was considered most representative of current conditions as Haynes Units 5 and 6 were decommissioned on December 31, 2013. This decommissioning included taking the cooling water pumps offline, thereby reducing the water volumes drawn into the intake canal from the intake bulkhead in Alamitos Bay by approximately 460 million gallons per day (MGD).

The gap in monitoring was due to a transition from one contract to another. LADWP chose to execute this enhanced monitoring to develop significantly more robust data than would have been provided by any heat treats and the semi-annual monitoring required by the current NPDES permit. The mean monthly impingement rate (pounds/million gallons of water circulated [lbs/MG]) for each month of monitoring was calculated and presented below. The grand mean impingement rate (lbs/MG) was calculated from the monthly means for each of the three years of monitoring. Blank cells in the table represent months where no surveys were conducted due to either the facility being in an outage and not circulating water or during a temporary suspension of the monitoring program. The grand mean impingement rate (lbs/MG) was multiplied by the total monthly cooling water flow volume circulated (in million gallons [MG]) during the October 1, 2015–September 30, 2016. This resulted in the estimated pounds impinged during the October 1, 2015–September 30, 2016 period. A total of 166,270 MG of water was circulated by the Haynes Generating Station across all units during the specified year.

The fees were calculated per the method adopted by the State Water Board and notated in the letter to LADWP dated September 26, 2016. The annual impingement fee equals the average of annual impinged totals of fishes in pounds x $0.80. The annual entrainment fee equals the total annual cooling water intake volume x $4.60 (per MG of water). The management and monitoring fee equals the sum total of the impingement fee and the entrainment fee x 0.20. The total of all these component fees equals the total interim mitigation fee.

Month	Impingement Rates (lbs/mg)				2015-16	Estimated
	2014	2015	2016	Grand Mean	Flow (mg)	lbs
		Unit 1			Total	42.9
Jan	0.0E+00	0.0E+00		0.0E+00	903	0
Feb	0.0E+00	0.0E+00		0.0E+00	3834	0
Mar	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4235	0
Apr	8.9E-05	9.2E-03	0.0E+00	3.1E-03	4094	12.6
May	6.9E-05	1.1E-02	0.0E+00	3.7E-03	4215	15.7
Jun	2.9E-05			2.9E-05	4000	0.1
Jul	4.4E-04			4.4E-04	4174	1.8
Aug	1.1E-04		2.9E-05	7.2E-05	4078	0.3
Sep	1.3E-04		0.0E+00	6.3E-05	4062	0.3
Oct	2.0E-04			2.0E-04	4104	0.8
Nov	2.7E-03			2.7E-03	4082	11
Dec	6.3E-05			6.3E-05	4198	0.3
		Unit 2			Total	14.7
Jan	0.0E+00	2.0E-03		9.9E-04	4198	4.2
Feb	9.7E-06	0.0E+00		4.9E-06	3949	0

Mar	8.8E-05	0.0E+00	0.0E+00	2.9E-05	3770	0.1
Apr	7.0E-05	0.0E+00	0.0E+00	2.3E-05	1905	0
May	7.3E-05	0.0E+00	0.0E+00	2.4E-05	3961	0.1
Jun	0.0E+00		0.0E+00	0.0E+00	4076	0
Jul	3.3E-05		2.9E-05	3.1E-05	4202	0.1
Aug	4.4E-04		2.0E-05	2.3E-04	4164	1
Sep	4.4E-03		3.9E-05	2.2E-03	4063	8.9
Oct	1.8E-05			1.8E-05	2423	0
Nov	1.9E-05			1.9E-05	4076	0.1
Dec	5.9E-05			5.9E-05	4123	0.2
Unit 8 (Formerly Unit 3 Traveling Screen)					Unit 8 Total	22.6
Jan	0.0E+00	0.0E+00		0.0E+00	3560	0
Feb	0.0E+00	0.0E+00		0.0E+00	3335	0
Mar	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3565	0
Apr	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3450	0
May	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3257	0
Jun	0.0E+00		1.2E-05	5.9E-06	3450	0
Jul	0.0E+00		0.0E+00	0.0E+00	3565	0
Aug	0.0E+00		3.0E-04	1.5E-04	3565	0.5
Sep	3.1E-03		0.0E+00	1.5E-03	3450	5.3
Oct	0.0E+00			0.0E+00	2045	0
Nov	0.0E+00			0.0E+00	796	0
Dec	0.0E+00			0.0E+00	3562	0
Unit 8 (Formerly Unit 4 Traveling Screen)						
Jan	0.0E+00	0.0E+00		0.0E+00	3562	0
Feb	0.0E+00	0.0E+00		0.0E+00	3335	0
Mar	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3565	0
Apr	5.2E-03	0.0E+00	0.0E+00	1.7E-03	3450	6
May	4.8E-03	0.0E+00	0.0E+00	1.6E-03	3412	5.4
Jun	0.0E+00		0.0E+00	0.0E+00	3450	0
Jul	0.0E+00		0.0E+00	0.0E+00	3565	0
Aug	1.1E-04		0.0E+00	5.3E-05	3565	0.2
Sep	0.0E+00		0.0E+00	0.0E+00	3450	0
Oct	0.0E+00			0.0E+00	2106	0
Nov	0.0E+00			0.0E+00	757	0
Dec	1.5E-03			1.5E-03	3564	5.2
Haynes Generating Station Total Fish lbs. (all units combined)						80.2
Impingement Fee (lbs x $0.80)						$64.16
Total Annual Cooling Water Volume (MG)					166,270	
Entrainment Fee (Total mg x $4.60 per MG)						$764,842.00
Impingement Fee + Entrainment Fee						$764.906.16
Management and Monitoring Fee						$152,981.23
Total Haynes Generating Station Interim Mitigation Fee, Oct 2015-Sep 2016						$917,887.39

Haynes Generating Station

All Values in million gallons/day

Unit 1 - Daily Flows (Outfall 001A)

October 2015 through September 2016

	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	
1	135	136	132	138	99	132	135	138	138	132	130	136	
2	135	138	132	51	66	134	138	138	136	133	138	136	
3	135	136	134	69	116	135	138	138	138	133	135	136	
4	136	138	130	138	133	135	135	138	135	134	135	136	
5	136	136	132	80	138	136	131	138	136	134	137	137	
6	138	138	132	0	138	136	135	136	137	132	136	136	
7	135	136	132	35	136	136	138	135	136	132	135	138	
8	135	136	132	0	138	135	136	136	136	136	134	119	
9	134	136	133	0	136	136	133	136	136	135	133	138	
10	135	136	138	0	138	136	135	136	136	135	133	135	
11	134	136	136	0	136	135	134	136	136	136	133	138	
12	134	136	138	0	138	138	135	136	135	138	133	136	
13	134	126	136	0	136	138	138	135	73	136	133	138	
14	134	136	138	0	138	138	135	136	127	136	134	138	
15	134	135	136	0	136	138	138	135	135	136	134	136	
16	134	136	138	0	138	138	136	135	135	135	135	138	
17	137	136	136	0	138	138	138	135	135	136	135	135	
18	134	136	138	0	138	138	136	136	138	135	135	138	
19	132	138	134	0	135	138	138	136	135	135	135	134	
20	132	135	136	0	138	136	136	136	135	134	136	134	
21	132	138	136	0	138	138	138	135	135	136	138	134	
22	132	135	135	0	138	136	136	133	136	131	135	134	
23	132	138	137	17	138	135	138	135	136	136	138	134	
24	132	134	138	128	138	138	136	134	138	133	137	133	
25	132	138	137	98	138	135	138	133	138	136	138	135	
26	102	135	138	27	135	138	138	138	138	136	69	134	
27	110	138	137	0	132	137	138	135	133	135	89	134	
28	131	138	138	0	135	138	138	138	133	134	135	138	
29	136	137	136	9	133	138	138	135	132	135	136	136	Total
30	136	135	138	75		138	138	138	133	134	136	138	Annual
31	136		135	38		138		136		135	138		Flow
Monthly Total	4104	4082	4198	903	3834	4235	4094	4215	4000	4174	4078	4062	45979
Monthly Average	132	136	135	29	132	137	136	136	133	135	132	135	

Haynes Generating Station

Unit 2 - Daily Flows (Outfall 001B)

All Values in million gallons/day

October 2015 through September 2016

	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	
1	0	135	132	138	137	138	0	136	135	133	135	136	
2	69	138	132	136	136	135	0	136	138	133	136	136	
3	69	135	138	138	137	138	0	137	136	133	109	136	
4	69	138	129	135	138	136	0	134	138	133	134	136	
5	69	136	132	138	137	138	0	138	135	134	135	137	
6	69	138	132	135	138	135	0	138	137	138	136	136	
7	69	136	111	138	136	138	0	135	136	137	134	136	
8	69	136	96	136	138	98	0	116	137	137	134	135	
9	69	136	133	138	136	111	0	69	136	136	134	136	
10	69	136	138	138	138	136	0	102	136	137	133	136	
11	69	136	136	133	136	138	0	91	136	138	133	136	
12	69	136	138	132	138	135	0	69	135	137	134	136	
13	69	128	136	132	136	132	0	120	136	137	133	136	
14	69	136	138	131	138	137	0	138	135	137	134	138	
15	69	136	136	133	136	138	0	135	135	137	133	136	
16	69	136	138	133	138	136	0	134	136	137	134	136	
17	69	136	136	132	136	135	138	136	138	137	138	136	
18	69	135	116	132	138	136	134	136	138	137	136	136	
19	69	138	136	132	135	136	138	135	135	137	136	133	
20	69	135	136	133	138	136	136	135	135	134	137	135	
21	69	134	136	138	138	136	135	135	135	134	138	134	
22	69	135	135	135	134	136	135	133	138	135	136	134	
23	69	138	137	138	133	135	135	135	135	136	135	134	
24	94	135	138	136	132	138	138	129	138	134	136	133	
25	121	138	137	138	138	134	136	138	138	136	135	134	
26	131	135	138	136	134	138	136	135	138	136	135	134	
27	133	138	137	135	132	137	136	138	133	134	135	134	
28	119	138	138	138	135	138	136	136	133	134	135	138	
29	33	137	136	135	133	16	136	138	132	135	136	135	Total
30	136	132	138	138		0	136	136	133	134	137	135	Annual
31	138		134	138		0		138		135	138		Flow
Monthly Total	2423	4076	4123	4198	3949	3770	1905	3961	4076	4202	4164	4063	44910
Monthly Average	78	136	133	135	136	122	64	128	136	136	134	135	

Haynes Generating Station

All Values in million gallons/day

Unit 8 - Daily Flows (Outfall 002 A & B)

October 2015 through September 2016

	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	
1	230	0	230	230	230	230	230	230	230	230	230	230	
2	230	0	230	230	230	230	230	230	230	230	230	230	
3	230	0	230	230	230	230	230	230	230	230	230	230	
4	230	0	230	230	230	230	230	230	230	230	230	230	
5	230	0	230	230	230	230	230	230	230	230	230	230	
6	230	0	230	230	230	230	230	230	230	230	230	230	
7	230	0	230	230	230	230	230	230	230	230	230	230	
8	230	0	230	230	230	230	230	230	230	230	230	230	
9	230	0	230	226	230	230	230	230	230	230	230	230	
10	230	0	230	230	230	230	230	230	230	230	230	230	
11	230	0	230	230	230	230	230	230	230	230	230	230	
12	230	0	230	230	230	230	230	230	230	230	230	230	
13	230	0	230	230	230	230	230	230	230	230	230	230	
14	230	0	230	230	230	230	230	230	230	230	230	230	
15	230	0	230	230	230	230	230	230	230	230	230	230	
16	230	0	230	230	230	230	230	230	230	230	230	230	
17	230	0	230	230	230	230	230	230	230	230	230	230	
18	192	0	230	230	230	230	230	230	230	230	230	230	
19	49	0	230	230	230	230	230	230	230	230	230	230	
20	0	0	230	230	230	230	230	230	230	230	230	230	
21	0	211	230	230	230	230	230	230	230	230	230	230	
22	0	230	230	230	230	230	230	230	230	230	230	230	
23	0	54	230	230	230	230	230	230	230	230	230	230	
24	0	206	230	230	230	230	230	230	230	230	230	230	
25	0	230	230	230	230	230	230	70	230	230	230	230	
26	0	200	230	230	230	230	230	58	230	230	230	230	
27	0	108	230	230	230	230	230	101	230	230	230	230	
28	0	0	230	230	230	230	230	230	230	230	230	230	
29	0	230	230	230	230	230	230	230	230	230	230	230	Total
30	0	84	226	226		230	230	230	230	230	230	230	Annual
31	0		230	230		230		230		230	230		Flow
Monthly Total	4151	1553	7126	7122	6670	7130	6900	6669	6900	7130	7130	6900	75381
Monthly Average	134	52	230	230	230	230	230	215	230	230	230	230	

Enclosure 3

Scattergood Generating Station

Scattergood Generating Station

The table below details the Scattergood Generating Station interim mitigation fee calculation for the October 1, 2015–September 30, 2016 period. The Los Angeles Department of Water and Power (LADWP) chose to implement a normal operation fish impingement monitoring program beyond that required in the existing National Pollutant Discharge Elimination System (NPDES) permit (00-083 through April 1, 2016 and R4-2016-0055 thereafter). This enhanced monitoring included sampling every other week at Units 1 and 2 from January 1, 2014 through April 2015 and again from April through September 2016. Scattergood Unit 3 was decommissioned on December 31, 2015 and the data was analyzed to reflect this. Normal operation surveys in October-December 2014 were the most recent to occur in those months of the year. Therefore, these surveys were used to represent impingement at Unit 3 during the October-December 2015 period. Heat treatments were done as needed based on operational parameters at Scattergood. The impinged fish poundage recorded during the five events within the October 1 2015-September 30, 2016 period were included.

The gap in monitoring revolves around a transition from one contract to another. LADWP chose to execute this enhanced monitoring to develop significantly more robust data than would have been provided by the monitoring required by the NPDES permits. The mean monthly impingement rate (pounds/million gallons of water circulated [lbs/MG]) for each month of monitoring was calculated and presented below. The grand mean impingement rate (lbs/MG) was calculated from the monthly means for each of the three years of monitoring. Blank cells in the table represent months where no surveys were conducted due to either the facility being in an outage and not circulating water or during a temporary suspension of the monitoring program. The grand mean impingement rate (lbs/MG) was multiplied by the total monthly cooling water flow volume circulated (in million gallons [MG]) during the October 1, 2015–September 30, 2016. This resulted in the estimated pounds impinged during the October 1, 2015–September 30, 2016 period. A total of 67,924 MG of water was circulated by the Scattergood Generating Station across all units during the specified year: 54,261 MG by pumps supporting Units 1 and 2 and 13,663 MG by pumps supporting Unit 3.

The fees were calculated per the method adopted by the State Water Board and notated in the letter to LADWP dated September 26, 2016. The annual impingement fee equals the average of annual impinged totals of fishes in pounds x $0.80. The annual entrainment fee equals the annual cooling water intake volume x $4.60 (per MG of water). The management and monitoring fee equals the sum total of the impingement fee and the entrainment fee x 0.20. The total of all these component fees equals the total interim mitigation fee.

Month	Impingement Rates (lbs/mg)			Grand Mean	2015-16 Flow (mg)	Estimated lbs
	2014	2015	2016			
	Unit 3					**0.6**
Oct	0.000108			0.000108	5386.21	0.6
Nov	0			0	4190.52	0
Dec	0			0	4086.18	0
	Units 1 & 2					**123.6**
Jan	0.000155	0.000391		0.000273	1992.53	0.5
Feb	0	0		0	3257.28	0
Mar	0.000565	0.035649	0.000174	0.012129	4721.54	57.3
Apr	0.003947	3.33E-05	0	0.001327	4120.75	5.5
May	0		0.000155	7.76E-05	5311.8	0.4
Jun	0.024879		0	0.012439	4731.49	58.9
Jul	0		0	0	4710.43	0
Aug	0.000374		0	0.000187	5239.85	1

Sep	0	0	0	5054.4	0
Oct	0		0	6734.53	0
Nov	0		0	3698.96	0
Dec	0		0	4687.02	0
Heat Treatment Total Impinged Fish Pounds					190.5
Scattergood Generating Station Total Fish lbs. (all units combined)					314.7
Impingement Fee (lbs x $0.80)					$251.76
Total Annual Cooling Water Volume (mg)					67,924
Entrainment Fee (Total mg x $4.60 per mg)					$312,450.40
Impingement Fee + Entrainment Fee					$312,702.16
Management and Monitoring Fee					$62,540.43
Scattergood Generating Station Interim Mitigation Fee, Oct 2015-Sep 2016					$375,242.59

Scattergood Generating Station - Daily and Total Annual Intake flow

	2015 Daily Flow (mgd)						2016 Daily Flow (mgd)								
Day	October		November		December		January	February	March	April	May	June	July	August	September
	Unit 1&2	Unit 3	Unit 1&2	Unit 3	Unit 1&2	Unit 3	Unit 1&2	Unit 1&2	Unit 1&2	Unit 1&2	Unit 1&2	Unit 1&2	Unit 1&2	Unit 1&2	Unit 1&2
1	224.64	191.76	150.35	135.36	168.48	135.36	112.32	112.32	112.32	168.48	224.64	168.48	124.02	112.32	168.48
2	224.64	153.69	112.32	135.36	168.48	135.36	112.32	112.32	112.32	168.48	201.24	168.48	168.48	112.32	168.48
3	224.64	181.89	122.85	135.36	168.48	135.36	112.32	112.32	112.32	168.48	168.48	168.48	168.48	112.32	168.48
4	224.64	135.36	112.32	135.36	168.48	135.36	112.32	112.32	112.32	168.48	168.48	168.48	168.48	136.89	168.48
5	224.64	135.36	112.32	135.36	224.64	135.36	112.32	112.32	112.32	168.48	168.48	168.48	168.48	168.48	168.48
6	169.65	203.04	112.32	135.36	224.64	135.36	112.32	112.32	112.32	203.58	168.48	168.48	168.48	168.48	168.48
7	163.8	135.36	112.32	135.36	224.64	135.36	70.2	112.32	112.32	208.85	168.48	168.48	168.48	168.48	168.48
8	200.66	204.45	112.32	135.36	224.64	135.36	56.16	112.32	112.32	168.48	168.48	168.48	168.48	168.48	168.48
9	194.22	205.86	112.32	135.36	224.64	135.36	56.16	112.32	112.32	168.48	168.48	190.71	168.48	168.48	168.48
10	224.64	190.35	112.32	135.36	224.64	135.36	39.78	112.32	112.32	168.48	168.48	208.85	168.48	168.48	168.48
11	224.64	205.86	112.32	135.36	194.22	135.36	56.16	112.32	112.32	168.48	168.48	168.48	149.76	168.48	168.48
12	224.64	219.96	112.32	135.36	168.48	135.36	89.51	112.32	112.32	168.48	168.48	168.48	168.48	168.48	168.48
13	224.64	267.9	112.32	135.36	168.48	135.36	112.32	112.32	138.06	168.48	168.48	168.48	168.48	168.48	168.48
14	224.64	183.3	112.32	135.36	168.48	135.36	112.32	112.32	168.48	168.48	168.48	168.48	116.42	168.48	168.48
15	224.64	196.7	112.32	135.36	168.48	139.59	56.16	112.32	176.09	153.27	168.48	168.48	112.32	168.48	168.48
16	224.64	236.88	112.32	135.36	112.32	135.36	56.16	112.32	224.64	112.32	168.48	191.88	112.32	168.48	168.48
17	224.64	221.37	112.32	135.36	112.32	135.36	39.2	112.32	223.47	112.32	168.48	224.64	112.32	168.48	168.48
18	224.64	180.48	112.32	204.45	112.32	135.36	*	112.32	168.48	112.32	168.48	219.96	146.25	168.48	168.48
19	224.64	135.36	112.32	135.36	112.32	135.36	*	112.32	168.48	112.32	168.48	168.48	168.48	168.48	168.48
20	224.64	153.69	112.32	135.36	112.32	135.36	*	112.32	168.48	112.32	168.48	168.48	207.09	168.48	168.48
21	224.64	186.12	112.32	172.02	112.32	101.52	*	112.32	168.48	97.11	168.48	168.48	169.07	168.48	168.48
22	224.64	229.83	112.32	135.36	112.32	135.36	*	112.32	168.48	56.16	168.48	101.21	168.48	169.65	168.48
23	224.64	236.88	112.32	135.36	112.32	135.36	*	112.32	168.48	56.16	168.48	112.32	168.48	168.48	168.48
24	224.64	164.27	112.32	135.36	112.32	135.36	*	112.32	221.13	56.16	168.48	112.32	168.48	168.48	168.48
25	224.64	0	112.32	0	112.32	135.36	*	112.32	200.07	56.16	168.48	112.32	156.78	168.48	168.48
26	224.64	135.36	168.48	135.36	112.32	135.36	48.56	112.32	168.48	56.16	168.48	112.32	168.48	174.92	168.48
27	224.64	135.36	168.48	157.92	112.32	135.36	76.64	112.32	168.48	56.16	168.48	112.32	159.12	224.64	168.48
28	224.64	135.36	168.48	201.63	112.32	135.36	112.32	112.32	168.48	122.85	168.48	112.32	112.32	224.64	168.48
29	221.72	135.36	168.48	205.86	112.32	135.36	112.32	112.32	168.48	190.13	168.48	112.32	112.32	224.64	168.48
30	224.64	143.82	168.48	135.36	112.32	135.36	112.32		168.48	224.64	168.48	112.32	112.32	209.43	168.48
31	168.48	145.23			112.32	54.99	112.32		168.48		168.48		112.32	168.48	
Average	217.24	173.75	123.30	139.68	151.19	131.81	86.63	112.32	152.31	137.36	171.35	157.72	151.95	169.03	168.48

*There was no flow from January 18 through January 25 due to Units 1&2 being down for maintenance.

Total Monthly Flow (million gallons/month)	6,734.53	5,386.21	3,698.96	4,190.52	4,687.02	4,086.18	1,992.53	3,257.28	4,721.54	4,120.75	5,311.80	4,731.49	4,710.43	5,239.85	5,054.40
Total Annual Flow [Oct. 2015- Sept. 2016] (million gallons/year)	67,923.49		**Total Annual Flow [Oct. 2015 - Sept. 2016] = 67.92 Billion gallons**												