

**"100 MGD For Oceans, Estuaries, Tidal
Rivers or one of the Great Lakes (Certain
Waterbodies)" Option**

OMB REVIEW DRAFT
SUPPORTING SPREADSHEETS
FOR
INFORMATION COLLECTION
COSTS FOR SECTION 316(b) PHASE III
EXISTING MANUFACTURERS

27-Oct-04

(APPENDIX A)

Exhibit A.100MGD.1

Facility Cost and Burden Estimates for NPDES Permit Application Activities

Exhibit A.100MGD.1a

Start-up Activities

Activity	Facilities (Respondents)				Facility Manager	Junior Technical	CAD Operator	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Burden Per Facility	Labor Cost per Facility	Capital Costs	O&M Costs*	Total Cost Per Facility	Total Burden (hrs.)	Total Initial Cost
	Year 1	Year 2	Year 3	Total	Assumed Loaded Hourly Rate														
					\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19							
	A				Level of Effort (hrs)								B	C	D	E	C+D+E	A*B	A*(C+D+E)
Read and Understand Rule	8	3	0	11	12	12	0	0	0	0	0	1	25	\$1,305	\$0	\$0		275	\$14,354
Mobilization/Planning	8	3	0	11	4	8	0	0	0	0	0	1	13	\$583	\$0	\$0		143	\$6,416
Training	8	3	0	11	2	2	0	0	0	0	0	1	5	\$233	\$0	\$0		55	\$2,562
Other Direct Costs	8	3	0	11	0	0	0	0	0	0	0	0	0	\$0	\$0	\$50		-	\$550
Totals	8	3	0	11	18	22	0	0	0	0	0	3	43	\$2,121	\$0	\$50	\$2,171	473	\$23,882

Exhibit A.100MGD.1b

Permit Application Activities

Activity	Facilities (Respondents)				Facility Manager	Junior Technical	CAD Operator	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Burden Per Facility	Labor Cost per Facility	Capital Costs	O&M Costs*	Total Cost Per Facility	Total Burden (hrs.)	Total Initial Cost
	Year 1	Year 2	Year 3	Total	Assumed Loaded Hourly Rate														
					\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19							
	A				Level of Effort (hrs)								B	C	D	E	C+D+E	A*B	A*(C+D+E)
Statement of Compliance Option Selected	8	3	0	11	1	0	0	0	0	0	0	1	2	\$92	\$0	\$0		22	\$1,009
Source Water Physical Data	8	3	0	11	2	16	40	0	0	0	0	0	58	\$1,902	\$0	\$0		638	\$20,926
Configuration and Location of CWIS	8	3	0	11	2	5	8	0	0	0	0	0	15	\$559	\$0	\$0		165	\$6,147
Facility Water Balance Diagram	8	3	0	11	1	1	1	0	0	0	0	0	3	\$138	\$0	\$0		33	\$1,513
CWIS Operation Narrative	8	3	0	11	16	40	0	0	0	0	0	0	56	\$2,531	\$0	\$0		616	\$27,843
CWIS Operation Narrative	8	3	0	11	16	40	0	0	0	0	0	0	56	\$2,531	\$0	\$0		616	\$27,843
Engineering Calculations	8	3	0	11	8	32	0	0	0	0	0	0	40	\$1,674	\$0	\$0		440	\$18,410
Submit Materials for Review by State	8	3	0	11	0	0	0	0	0	0	0	6	6	\$111	\$0	\$0		66	\$1,221
Recordkeeping	8	3	0	11	2	5	2	0	0	0	0	2	11	\$414	\$0	\$0		121	\$4,554
Other Direct Costs	8	3	0	11	0	0	0	0	0	0	0	0	0	\$0	\$0	\$510		-	\$5,610
Totals	8	3	0	11									247	\$9,951	\$0	\$510	\$10,461	2,717	\$115,075

Water balance diagram is assumed to be taken from the facility design report. The hours reported here are for incorporation of the diagram(s) in the permit.

Exhibit A.100MGD.1c

Proposal for Collection of Information for Comprehensive Demonstration Study

Activity	Facilities (Respondents)				Facility	Junior	CAD	Contracted	Biologist	Statistician	Biological	Clerical	Burden Per Facility	Labor Cost per Facility	Capital Costs	O&M Costs*	Total Cost Per Facility	Total Burden (hrs.)	Total Initial Cost
					Manager	Technical	Operator	Manager		Technician									
	Year 1	Year 2	Year 3	Total	Assumed Loaded Hourly Rate														
	A				\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19	B	C	D	E	C+D+E	A*B	A*(C+D+E)
Description of Historical Studies that will be Used	8	3	0	11	20	40	0	0	0	0	0	2	62	\$2,861	\$0	\$0		682	\$31,471
Description of Proposed and/or Implemented Technologies	8	3	0	11	8	20	0	0	0	0	0	28	\$1,266	\$0	\$0		308	\$13,922	
Develop Source Water Sampling Plan	8	3	0	11	40	60	8	8	0	0	0	4	120	\$6,012	\$0	\$0		1,320	\$66,128
Submit Data and Plans for Review	8	3	0	11	0	0	0	0	0	0	0	12	12	\$222	\$0	\$0		132	\$2,442
Revise Based on State Review	8	3	0	11	8	16	4	0	0	0	0	4	32	\$1,325	\$0	\$0		352	\$14,573
Recordkeeping	8	3	0	11	3	5	1	1	0	0	0	8	18	\$659	\$0	\$0		198	\$7,247
Other Direct Costs	8	3	0	11	0	0	0	0	0	0	0	0	0	\$0	\$0	\$770		-	\$8,470
Totals	8	3	0	11								272	\$12,344	\$0	\$770	\$13,114	2,992	\$144,252	

Exhibit A.100MGD.1d

Source Water Body Flow Information

Activity	Facilities (Respondents)				Facility	Junior	CAD	Contracted	Biologist	Statistician	Biological	Clerical	Burden Per Facility	Labor Cost per Facility	Capital Costs	O&M Costs*	Total Cost Per Facility	Total Burden (hrs.)	Total Initial Cost
					Manager	Technical	Operator	Manager		Technician									
	Year 1	Year 2	Year 3	Total	Assumed Loaded Hourly Rate														
	A				\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19	B	C	D	E	C+D+E	A*B	A*(C+D+E)
Gather Information to Characterize Flow (FW River/Stream)	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0		-	\$0
Water Body Thermal Stratification Narrative (Lake/Reservoir)	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0		-	\$0
Perform Engineering Calculations	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0		-	\$0
Submit Data and Analysis for Review	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0		-	\$0
Recordkeeping	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0		-	\$0
Other Direct Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0		-	\$0
Totals	0	0	0	0								0	0	\$0	\$0	\$0	0	-	\$0

Exhibit A.100MGD.1e

Design and Construction Technology Plan

Activity	Facilities (Respondents)				Facility	Junior	CAD	Contracted	Biologist	Statistician	Biological	Clerical	Burden Per Facility	Labor Cost per Facility	Capital Costs	O&M Costs*	Total Cost Per Facility	Total Burden (hrs.)	Total Initial Cost
					Manager	Technical	Operator	Manager		Technician									
	Year 1	Year 2	Year 3	Total	Assumed Loaded Hourly Rate														
	A				\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19	B	C	D	E	C+D+E	A*B	A*(C+D+E)
Delineate Hydraulic Zone of Influence	1	6	1	8	2	5	8	0	0	0	0	0	15	\$559	\$0	\$0		120	\$4,470
Develop Narrative Description of Technologies (Impingement)	1	6	1	8	5	11	0	0	0	0	0	0	16	\$740	\$0	\$0		128	\$5,920
Perform Engineering Calculations (Impingement)	1	6	1	8	3	12	0	0	0	0	0	0	15	\$628	\$0	\$0		120	\$5,021
Develop Narrative Description of Technologies (Entrainment)	1	6	1	8	5	11	0	0	0	0	0	0	16	\$740	\$0	\$0		128	\$5,920
Perform Engineering Calculations (Entrainment)	1	6	1	8	3	12	0	0	0	0	0	0	15	\$628	\$0	\$0		120	\$5,021
Submit Data and Analysis for Review	1	6	1	8	0	0	0	0	0	0	0	6	6	\$111	\$0	\$0		48	\$888
Recordkeeping	1	6	1	8	1	2	0	0	0	0	0	6	9	\$252	\$0	\$0		72	\$2,018
Other Direct Costs	1	6	1	8	0	0	0	0	0	0	0	0	0	\$0	\$0	\$380		-	\$3,040
Totals	1	6	1	8								92	\$3,657	\$0	\$380	\$4,037	736	\$32,298	

Exhibit A.100MGD.1f

Impingement Mortality Study and/or Entrainment Characterization Study

Activity	Facilities (Respondents)				Facility	Junior	CAD	Contracted	Biologist	Statistician	Biological	Clerical	Max.	Max. Labor	Max. Capital	Max. O&M	Avg. Total	Total Burden (hrs.)	Total Initial Cost
					Manager	Technical	Operator	Manager		Technician				Burden Per	Cost per	Cost per	Cost per		
	Year 1	Year 2	Year 3	Total	\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19	Facility	Facility for 3	Facility for 3	Facility for 3	Facility over 3	A'B	A'(C+D+E)
	A				Level of Effort (hrs)								B	C	D	E	C+D+E		
Implement Offshore Freshwater Sampling	0	0	0	0	6	52	0	100	2080	67	2080	34	4419	\$205,099	\$0	\$0	-	-	\$0
Other Direct Costs for Offshore Freshwater Sampling	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$3,076	-	\$0	
Impingement Monitoring Freshwater	0	0	0	0	3	16	0	60	1040	33	1040	17	2209	\$103,088	\$0	\$0	-	\$0	
Other Direct Costs for Impingement Monitoring Freshwater	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$1,546	-	\$0	
Entrainment Monitoring Freshwater	0	0	0	0	3	16	0	60	780	33	780	17	1689	\$79,454	\$0	\$0	-	\$0	
Other Direct Costs for Entrainment Monitoring Freshwater	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$1,192	-	\$0	
Implement Offshore Marine Sampling	8	11	11	11	10	101	0	160	4056	100	4056	50	8533	\$394,445	\$0	\$0	85,245	\$3,940,510	
Other Direct Costs for Offshore Marine Sampling	8	11	11	11	0	0	0	0	0	0	0	0	0	\$0	\$0	\$5,917	-	\$59,108	
Impingement Monitoring Marine	8	10	10	10	4	31	0	80	2028	50	2028	25	4246	\$196,487	\$0	\$0	39,590	\$1,832,040	
Other Direct Costs for Impingement Monitoring Marine	8	10	10	10	0	0	0	0	0	0	0	0	0	\$0	\$0	\$2,947	-	\$27,481	
Entrainment Monitoring Marine	8	11	11	11	4	31	0	80	1521	50	1521	25	3232	\$150,400	\$0	\$0	32,288	\$1,502,498	
Other Direct Costs for Entrainment Monitoring Marine	8	11	11	11	0	0	0	0	0	0	0	0	0	\$0	\$0	\$2,256	-	\$22,537	
Biological Study Laboratory Analysis (Freshwater)	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$78,000	-	\$0	
Biological Study Laboratory Analysis (Marine)	8	11	11	11	0	0	0	0	0	0	0	0	0	\$0	\$0	\$152,100	-	\$1,521,000	
Profile of Source Water Biota	8	3	0	11	32	20	0	32	60	0	20	8	172	\$10,017	\$0	\$0	1,892	\$110,189	
Identification of Critical Species	8	3	0	11	32	20	0	20	40	0	0	3	115	\$7,016	\$0	\$0	1,265	\$77,175	
Description of Additional Stresses	8	3	0	11	16	10	0	16	30	0	10	4	86	\$5,009	\$0	\$0	946	\$55,095	
Write Study based on Results and Submit for Review by State	1	6	1	8	80	160	0	16	8	8	0	8	280	\$13,812	\$0	\$0	2,240	\$110,496	
Recordkeeping	1	6	1	8	6	12	0	6	12	3	0	24	63	\$2,656	\$0	\$0	504	\$21,250	
Finalize study based on State review	1	6	1	8	16	32	0	0	0	0	0	8	56	\$2,407	\$0	\$0	448	\$19,258	
Other Direct Costs for Study Report	1	6	1	8	0	0	0	0	0	0	0	0	0	\$0	\$0	\$614	-	\$4,910	
Freshwater Totals	0	0	0	0									9,089	\$428,557	\$0	\$84,428	\$512,985		
Marine Totals	8	11	11	11									16,783	\$782,249	\$0	\$163,834	\$946,083	164,417	\$9,303,545

\$11,734

Exhibit A.100MGD.1g

Pilot Study for New Impingement & Entrainment Technology

Activity	Facilities (Respondents)				Facility	Junior	CAD	Contracted	Biologist	Statistician	Biological	Clerical	Avg.	Avg. Labor	Avg. Capital	Avg. O&M	Avg. Total	Total Burden (hrs.)	Total Initial Cost
					Manager	Technical	Operator	Manager		Technician				Burden Per	Cost per	Costs	Costs*		
	Year 1	Year 2	Year 3	Total	\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19	Facility	Facility for 3	Facility for 3	Facility for 3	Facility over 3	A'B	A'(C+D+E)
	A				Level of Effort (hrs)								B	C	D	E	C+D+E		
Calculate Reduction in Impingement Mortality and Entrainment	1	4	1	6	80	80	8	0	0	0	0	12	180	\$9,040	\$0	\$0	1,080	\$54,242	
Perform Engineering Estimates of Efficacy	1	4	1	6	40	32	0	0	0	0	0	4	76	\$4,090	\$0	\$0	456	\$24,540	
Purchase, Installation & Operation of Pilot Study Technology- Freshwater	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	-	\$0	
Purchase, Installation & Operation of Pilot Study Technology- Freshwater-Impingement Only	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	-	\$0	
Purchase, Installation & Operation of Pilot Study Technology- Marine	1	4	1	6	0	0	0	0	0	0	0	0	0	\$0	\$221,548	\$0	-	\$1,329,285	
Purchase, Installation & Operation of Pilot Study Technology- Marine- Impingement Only	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	-	\$0	
Perform Impingement Monitoring (Freshwater)	0	0	0	0	16	25	0	80	240	40	240	20	661	\$33,927	\$0	\$0	-	\$0	
Perform Entrainment Monitoring (Freshwater)	0	0	0	0	16	25	0	80	180	40	180	20	541	\$28,473	\$0	\$0	-	\$0	
Perform Impingement Monitoring (Marine)	1	4	1	6	16	33	0	80	312	52	312	26	831	\$41,572	\$0	\$0	4,983	\$249,434	
Perform Entrainment Monitoring (Marine)	1	4	1	6	16	33	0	80	234	52	234	26	675	\$34,482	\$0	\$0	4,047	\$206,893	
Pilot Study Entrainment Laboratory Analysis (Freshwater)	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$6,000	-	\$0	
Pilot Study Entrainment Laboratory Analysis (Marine)	1	4	1	6	0	0	0	0	0	0	0	0	0	\$0	\$0	\$7,800	-	\$46,800	
Submit Data and Analysis for Review	1	4	1	6	8	10	0	8	6	4	0	16	52	\$2,512	\$0	\$0	312	\$15,070	
Recordkeeping	1	4	1	6	4	8	0	4	8	2	0	20	46	\$1,845	\$0	\$0	276	\$11,069	
Other Direct Costs	1	4	1	6	0	0	0	0	0	0	0	0	0	\$0	\$0	\$1,020	-	\$6,120	
Totals	1	4	1	6									1,859	\$93,541	\$221,548	\$7,800	\$322,889	11,154	\$1,943,454

Exhibit A.100MGD.1h

Technology Installation and Operation Plan

Activity	Facilities (Respondents)				Facility Manager	Junior Technical	CAD Operator	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Burden Per Facility	Labor Cost per Facility	Capital Costs	O&M Costs*	Total Cost Per Facility	Total Burden (hrs.)	Total Initial Cost							
	Year 1	Year 2	Year 3	Total	\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19														
	A				Assumed Loaded Hourly Rate															B	C	D	E	C+D+E	A*B	A*(C+D+E)
					Level of Effort (hrs)																					
Installation & Maintenance Schedule	1	6	1	8	8	16	0	0	0	0	0	0	24	\$1,130	\$0	\$0		192	\$9,037							
Description of Proposed Monitoring Parameters	1	6	1	8	2	6	0	0	0	0	0	0	8	\$350	\$0	\$0		64	\$2,803							
List of Technology Assessment Activities	1	6	1	8	2	4	0	0	0	0	0	0	6	\$282	\$0	\$0		48	\$2,259							
Schedule & Methodology of Assessment Activities	1	6	1	8	4	4	0	0	0	0	0	0	8	\$429	\$0	\$0		64	\$3,430							
Submit Plan for Review	1	6	1	8	0	0	0	0	0	0	0	2	2	\$37	\$0	\$0		16	\$296							
Recordkeeping	1	6	1	8	1	1	0	0	0	0	0	2	4	\$144	\$0	\$0		32	\$1,154							
Other Direct Costs	1	6	1	8	0	0	0	0	0	0	0	0	0	\$0	\$0	\$80		-	\$640							
Totals	1	6	1	8									52	\$2,372	\$0	\$80		\$2,452	416	\$19,619						

Exhibit A.100MGD.1i

Verification Monitoring Plan

Activity	Facilities (Respondents)				Facility Manager	Junior Technical	CAD Operator	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Burden Per Facility	Labor Cost per Facility	Capital Costs	O&M Costs*	Total Cost Per Facility	Total Burden (hrs.)	Total Initial Cost							
	Year 1	Year 2	Year 3	Total	\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19														
	A				Assumed Loaded Hourly Rate															B	C	D	E	C+D+E	A*B	A*(C+D+E)
					Level of Effort (hrs)																					
Develop Verification Monitoring Plan	1	6	1	8	40	60	8	0	0	0	0	4	112	\$5,284	\$0	\$0		896	\$42,275							
Submit Data and Plans for Review	1	6	1	8	0	0	0	0	0	0	0	2	2	\$37	\$0	\$0		16	\$296							
Revise Based on State Review	1	6	1	8	2	4	1	0	0	0	0	1	8	\$331	\$0	\$0		64	\$2,650							
Recordkeeping	1	6	1	8	1	1	1	1	0	0	0	2	6	\$265	\$0	\$0		48	\$2,123							
Other Direct Costs	1	6	1	8	0	0	0	0	0	0	0	0	0	\$0	\$0	\$410		-	\$3,280							
Totals	1	6	1	8									128	\$5,918	\$0	\$410		\$6,328	1,024	\$50,624						

Total Labor Burden, Labor Cost, and ODCs for All NPDES Application Activities

	Facilities (Respondents)				Total Burden (hrs.)	Total Initial Cost
	Year 1	Year 2	Year 3	Total		
Totals					183,929	\$11,632,749

* The ODC estimate was not estimated for each activity, but rather as a lump sum for each provision of the rule.

Exhibit A.100MGD.2
Facility Cost and Burden Estimates for Annual Activities

Exhibit A.100MGD.2a
Annual Monitoring for Impingement (Freshwater)

Activity	Facilities (Respondents)				Facility Manager	Junior Technical	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Totals Per Facility in the ICR Approval Period				Total for All Facilities in the ICR Approval Period				
	Year 1	Year 2	Year 3	Total	Assumed Loaded Hourly Rate						Burden (hrs)	Labor Cost	O&M Costs*	Total Costs	Burden (hrs.)	Cost (\$)				
	A				\$73	\$34	\$91	\$53	\$61	\$38							\$19	B	C	D
				Level of Effort (hrs)																
Monthly Sample Collection	0	0	0	0	2	0	4	72	0	72	0	150	\$7,055	\$0		-	\$0			
Onsite Analysis of Samples	0	0	0	0	4	0	12	72	0	72	0	160	\$7,928	\$0		-	\$0			
Perform Statistical Analysis	0	0	0	0	8	4	0	0	32	0	0	44	\$2,680	\$0		-	\$0			
Record Keeping	0	0	0	0	2	1	1	4	1	0	16	25	\$841	\$0		-	\$0			
Other Direct Costs	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$510		-	\$0			
Totals	0	0	0	0	16	5	17	148	33	144	16	379	\$18,504	\$510	\$19,014	-	\$0			

Exhibit A.100MGD.2b
Annual Monitoring for Impingement (Marine)

Activity	Facilities (Respondents)				Facility Manager	Junior Technical	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Totals Per Facility in the ICR Approval Period				Total for All Facilities in the ICR Approval Period				
	Year 1	Year 2	Year 3	Total	Assumed Loaded Hourly Rate						Burden (hrs)	Labor Cost	O&M Costs*	Total Costs	Burden (hrs.)	Cost (\$)				
	A				\$73	\$34	\$91	\$53	\$61	\$38							\$19	B	C	D
				Level of Effort (hrs)																
Monthly Sample Collection	0	1	7	7	2	0	5	94	0	94	0	194	\$9,127	\$0		1,555	\$73,019			
Onsite Analysis of Samples	0	1	7	7	4	0	16	94	0	94	0	207	\$10,219	\$0		1,654	\$81,753			
Perform Statistical Analysis	0	1	7	7	8	4	0	0	42	0	0	54	\$3,268	\$0		429	\$26,140			
Record Keeping	0	1	7	7	2	1	1	5	1	0	16	27	\$950	\$0		214	\$7,598			
Other Direct Costs	0	1	7	7	0	0	0	0	0	0	0	0	\$0	\$660		-	\$5,280			
Totals	0	1	7	7	16	5	22	192	43	187	16	482	\$23,564	\$660	\$24,224	3,853	\$193,789			

Exhibit A.100MGD.2c
Annual Monitoring for Entrapment (Freshwater)

Activity	Facilities (Respondents)				Facility Manager	Junior Technical	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Totals Per Facility in the ICR Approval Period				Total for All Facilities in the ICR Approval Period				
	Year 1	Year 2	Year 3	Total	Assumed Loaded Hourly Rate						Burden (hrs)	Labor Cost	O&M Costs*	Total Costs	Burden (hrs.)	Annual Cost				
	A				\$73	\$34	\$91	\$53	\$61	\$38							\$19	B	C	D
				Level of Effort (hrs)																
Biweekly Sample Collection	0	0	0	0	4	0	12	156	0	156	0	328	\$15,564	\$0		-	\$0			
Handling and Preparation of Samples	0	0	0	0	4	0	12	78	0	78	0	172	\$8,474	\$0		-	\$0			
Identify & Enumerate Entrapped Freshwater Biota	0	0	0	0	0	0	0	0	0	0	0	0	\$0	\$7,800		-	\$0			
Perform Statistical Analysis	0	0	0	0	16	4	0	0	64	0	0	84	\$5,224	\$0		-	\$0			
Recordkeeping	0	0	0	0	2	1	1	8	2	0	16	30	\$1,114	\$0		-	\$0			
Other Direct Costs	0	0	0	0	0	0	0	0	0	0	0	-	\$0	\$510		-	\$0			
Totals	0	0	0	0	26	5	25	242	66	234	16	614	\$30,376	\$8,310	\$38,686	-	\$0			

Exhibit A.100MGD.2d

Annual Monitoring for Entrainment (Marine)

Activity	Facilities (Respondents)				Facility Manager	Junior Technical	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Totals Per Facility in the ICR Approval Period				Total for All Facilities in the ICR Approval Period					
	Year 1	Year 2	Year 3	Total	Assumed Loaded Hourly Rate						Burden (hrs)	Labor Cost	O&M Costs*	Total Costs	Burden (hrs.)	Annual Cost					
	A				\$73	\$34	\$91	\$53	\$61	\$38	\$19	B	C	D	C+D	A*B	A*(C+D)				
	Level of Effort (hrs)															B	C	D	C+D	A*B	A*(C+D)
Biweekly Sample Collection	0	1	7	7	4	0	12	203	0	203	0	422	\$19,836	\$0		3,376	\$158,690				
Handling and Preparation of Samples	0	1	7	7	4	0	12	101	0	101	0	218	\$10,565	\$0		1,744	\$84,516				
Identify & Enumerate Entrained Marine Biota	0	1	7	7	0	0	0	0	0	0	0	0	\$0	\$10,140		-	\$81,120				
Perform Statistical Analysis	0	1	7	7	16	4	0	0	83	0	0	103	\$6,387	\$0		824	\$51,094				
Recordkeeping	0	1	7	7	2	1	1	10	3	0	16	33	\$1,281	\$0		264	\$10,247				
Other Direct Costs	0	1	7	7	0	0	0	0	0	0	0	-	\$0	\$660		-	\$5,280				
Totals	0	1	7	7	26	5	25	314	86	304	16	776	\$38,069	\$10,800	\$48,869	6,208	\$390,948				

Exhibit A.100MGD.2e

Biannual Status Report Activities

Activity	Facilities (Respondents)				Facility Manager	Junior Technical	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Totals Per Facility in the ICR Approval Period				Total for All Facilities in the ICR Approval Period					
	Year 1	Year 2	Year 3	Total	Assumed Loaded Hourly Rate						Burden (hrs)	Labor Cost	O&M Costs*	Total Costs	Burden (hrs.)	Annual Cost					
	A				\$73	\$34	\$91	\$53	\$61	\$38	\$19	B	C	D	C+D	A*B	A*(C+D)				
	Level of Effort (hrs)															B	C	D	C+D	A*B	A*(C+D)
Report on Inspection and Maintenance	0	1	6	7	16	16	0	0	0	0	0	32	\$1,715	\$0		224	\$12,006				
Detail Biological Monitoring Results	0	1	6	7	24	32	4	4	24	0	0	88	\$4,889	\$0		616	\$34,224				
Compile and Submit Report	0	1	6	7	80	80	0	0	0	0	16	176	\$8,872	\$0		1,232	\$62,104				
Recordkeeping	0	1	6	7	8	12	0	0	0	0	8	28	\$1,142	\$0		196	\$7,991				
Other Direct Costs	0	1	6	7	0	0	0	0	0	0	0	-	\$0	\$770		-	\$5,390				
Totals	0	1	6	7	128	140	4	4	24	0	24	324	\$16,618	\$770	\$17,388	2,268	\$121,716				

Exhibit A.100MGD.2f

Verification Study

Activity	Facilities (Respondents)				Facility Manager	Junior Technical	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Totals Per Facility in the ICR Approval Period				Total for All Facilities in the ICR Approval Period					
	Year 1	Year 2	Year 3	Total	Assumed Loaded Hourly Rate						Burden (hrs)	Labor Cost	O&M Costs*	Total Costs	Burden (hrs.)	Total Cost (\$)					
	A				\$73	\$34	\$91	\$53	\$61	\$38	\$19	B	C	D	C+D	A*B	A*(C+D)				
	Level of Effort (hrs)															B <td>C <td>D <td>C+D <td>A*B <td>A*(C+D)</td> </td></td></td></td>	C <td>D <td>C+D <td>A*B <td>A*(C+D)</td> </td></td></td>	D <td>C+D <td>A*B <td>A*(C+D)</td> </td></td>	C+D <td>A*B <td>A*(C+D)</td> </td>	A*B <td>A*(C+D)</td>	A*(C+D)
Perform Statistical Analysis	0	1	6	7	25	30	15	15	25	0	1	111	\$6,557	\$0		777	\$45,899				
Submit Monitoring Results & Study Analysis	0	0	0	0	0	0	0	0	0	0	4	4	\$74	\$0		-	\$0				
Record Keeping	0	1	6	7	1	2	0	0	0	0	4	7	\$215	\$0		49	\$1,506				
Other Direct Costs	0	1	6	7	0	0	0	0	0	0	0	-	\$0	\$510		-	\$3,570				
Totals	0	1	6	7	26	32	15	15	25	0	9	122	\$6,846	\$510	\$7,356	826	\$50,975				

Total Burden and Cost for All Annual Activities

	Facilities (Respondents)				Burden (hrs)	Labor Cost	O&M Costs*	Total Costs	Total Burden (hrs.)	Total Cost
	Year 1	Year 2	Year 3	Total						
Totals									13,155	\$757,429

Exhibit A.100MGD.3

Director Burden and Cost Estimates for Activities

Exhibit A.100MGD.3a

Director Start-up Activities

Activity	Directors (Responses)	Senior Technical	Junior Technical	Clerical	Burden Per Director	Labor Cost per Director	O&M Costs*	Total Cost Per Director	Total Burden (hrs.)	Total Initial Cost
		Assumed Loaded Hourly Rate								
		\$50	\$32	\$24						
A	Level of Effort (hrs)			B	C	D	C+D	A*B	A*(C+D)	
Read and Understand Rule	46	12	12	0	24	\$977	\$0		1,104	\$44,933
Mobilization/Planning	46	24	16	0	40	\$1,698	\$0		1,840	\$78,126
Training	46	4	32	0	36	\$1,219	\$0		1,656	\$56,065
Other Direct Costs	46	0	0	0	-	\$0	\$50		-	\$2,300
Totals	46	40	60	0	100	\$3,894	\$50	\$3,944	4,600	\$181,424

Exhibit A.100MGD.3b

Director Permit Issuance Activities

Activity	Directors (Responses)	Senior Technical	Junior Technical	Clerical	Burden Per Permit	Labor Cost per Permit	O&M Costs*	Total Cost Per Permit	Total Burden (hrs.)	Total Initial Cost*
		Assumed Loaded Hourly Rate								
		\$50	\$32	\$24						
A	Level of Effort (hrs)			B	C	D	C+D	A*B	A*(C+D)	
Review Source Water Physical Data	11	2	6	0	8	\$290	\$0		88	\$3,194
Review CWIS Data	11	6	18	0	24	\$871	\$0		264	\$9,583
Review CWS Operation Narrative	11	6	18	0	24	\$871	\$0		264	\$9,583
Review Proposal for Collection of Information for Comprehensive Demonstration Study	11	16	16	0	32	\$1,302	\$0		352	\$14,326
Review Source Water Body Flow Information	0	0	0	0	-	\$0	\$0		-	\$0
Review Design and Construction Technology Plan	8	24	8	0	32	\$1,443	\$0		256	\$11,546
Review Impingement Mortality Monitoring Results	8	80	10	0	90	\$4,279	\$0		720	\$34,232
Review Entrainment Characterization Monitoring Results	8	80	10	0	90	\$4,279	\$0		720	\$34,232
Review Baseline Characterization Monitoring Results and Study Findings	8	240	25	0	265	\$12,678	\$0		2,120	\$101,420
Review Pilot Study for New Impingement & Entrainment Technology	6	16	16	0	32	\$1,302	\$0		192	\$7,814
Review Restoration Measures	1	400	100	0	500	\$22,990	\$0		550	\$25,289
Review Information to Support Site-Specific Determination of BTA	8	800	200	0	1,000	\$45,980	\$0		8,000	\$367,840
Review Technology Installation and Operation Plan & Verification Monitoring Plan	8	16	8	0	24	\$1,047	\$0		192	\$8,378
Determine Monitoring Frequency	11	2	6	0	8	\$290	\$0		88	\$3,194
Determine Record keeping and Reporting Frequency	11	2	6	0	8	\$290	\$0		88	\$3,194
Establish Requirements for Site-Specific Technology	8	8	24	0	32	\$1,162	\$0		256	\$9,293
Considering Public Comments	11	16	16	0	32	\$1,302	\$0		352	\$14,326
Issuing Permit	11	1	6	1	8	\$265	\$0		88	\$2,916
Permit Record Keeping	11	1	1	2	4	\$130	\$0		44	\$1,428
Other Direct Costs	11	0	0	0	-	\$0	\$310		-	\$3,410
Totals	11	1716	494	3	1,330	60,163	\$310	\$60,473	14,634	\$665,200

Exhibit A.100MGD.3c
Verification Study Review

Activity	Directors (Responses)	Senior Technical	Junior Technical	Clerical	Burden Per Permit	Labor Cost per Permit	O&M Costs*	Total Cost Per Permit	Total Burden (hrs.)	Total Initial Cost
		Assumed Loaded Hourly Rate								
		\$50	\$32	\$24						
A	Level of Effort (hrs)			B	C	D	C+D	A*B	A*(C+D)	
Review of Verification Studies	0	2	4	0	6	\$227	\$0		-	\$0
Permit Modification Due to Unfavorable Results	0	4	10	0	14	\$517	\$0		-	\$0
Record Keeping	0	0	0	1	1	\$24	\$0		-	\$0
Other Direct Costs	0	0	0	0	-	\$0	\$10		-	\$0
Totals	0	6	14	1	21	\$768	\$10	\$778	0	\$0

Exhibit A.100MGD.3d
Annual Director Activities

Activity	Directors (Responses)	Senior Technical	Junior Technical	Clerical	Burden Per Permit	Labor Cost per Permit	O&M Costs*	Total Cost Per Permit	Total Burden (hrs.)	Total Annual Cost
		Assumed Loaded Hourly Rate								
		\$50	\$32	\$24						
A	Level of Effort (hrs)			B	C	D	C+D	A*B	A*(C+D)	
Review of Biannual Status Report	7	6	12	0	18	\$680	\$0		126	\$4,759
Compliance Tracking	7	4	12	0	16	\$581	\$0		112	\$4,066
Determination on Monitoring Frequency Reduction	7	4	8	0	12	\$453	\$0		84	\$3,172
Record Keeping	7	1	2	1	4	\$138	\$0		28	\$963
Other Direct Costs	7	0	0	0	-	\$0	\$30		-	\$210
Totals	7	15	34	1	50	\$1,851	\$30	\$1,881	350	\$13,169

Total Burden and Cost for All Director Activities

				Total Burden (hrs.)	Total Initial Cost
Totals				19,584	\$859,793

Exhibit A.100MGD.4
Federal Burden and Cost Estimates for Activities

Exhibit A.100MGD.4a
Federal Permit Program Oversight Activities

Activity	Federal (Responses)	Senior Technical	Junior Technical	Clerical	Burden per permit Review	Labor Cost per Permit Review	ODCs lump sum*	Total Cost per Permit Review	Total Burden (hrs.)	Total Initial Cost *
		Assumed Loaded Hourly Rate								
		\$50	\$32	\$24						
A	Level of Effort (hrs)			B	C	D	C+D	A*B	A*(C+D)	
Review Source Water Physical Data	11	1	3	0	4	\$145	\$0		44	\$1,597
Review CWIS Data	11	1	2	0	3	\$113	\$0		33	\$1,246
Review CWS Operation Narrative	11	1	2	0	3	\$113	\$0		33	\$1,246
Review Proposal for Collection of Information for Comprehensive Demonstration Study	11	1	2	0	3	\$113	\$0		33	\$1,246
Review Source Water Body Flow Information	0	1	2	0	3	\$113	\$0		0	\$0
Review Design and Construction Technology Plan	8	1	3	0	4	\$145	\$0		32	\$1,162
Impingement Mortality Study and/or Entrainment Characterization Study	8	3	6	0	9	\$340	\$0		72	\$2,719
Review Pilot Study for New Impingement & Entrainment Technology	6	1	2	0	3	\$113	\$0		18	\$680
Review Restoration Measures	1	3	6	0	9	\$340	\$0		10	\$374
Review Information to Support Site-Specific Determination of BTA	8	6	12	0	18	\$680	\$0		144	\$5,438
Review Technology Installation and Operation Plan & Verification Monitoring Plan	8	1	3	0	4	\$145	\$0		32	\$1,162
Review the Monitoring Frequency	11	1	2	0	3	\$113	\$0		33	\$1,246
Review Establish Requirements for Site-Specific Technology	8	1	3	0	4	\$145	\$0		32	\$1,162
Permit Record Keeping	11	1	1	2	4	\$130	\$0		44	\$1,428
Other Direct Costs	11	0	0	0	-	\$0	\$50		0	\$550
Totals	11	23	49	2	48	\$1,782	\$50	\$1,832	560	\$21,256

Exhibit A.100MGD.5

Respondents for the ICR Approval Period Year by Year by Activity

Facilities

	Year 1	Year 2	Year 3	Annual Average ¹
	2010	2011	2012	
Start-up Activities	8	3	0	4
Permit Application Activities	8	3	0	4
Proposal for Collection of Information for Comprehensive Demonstration Study	8	3	0	4
FW River/Stream Source Water Body Flow Information	0	0	0	0
FW Lake/Reservoir Source Water Body Flow Information	0	0	0	0
Design and Construction Technology Plan (Impingement)	1	6	1	3
Design and Construction Technology Plan (Entrainment)	1	6	1	3
Design and Construction Technology Plan (All)	1	6	1	3
Freshwater Baseline Monitoring for Impingement Mortality and/or Entrainment Study	0	0	0	0
Freshwater Monitoring for Impingement Mortality Study	0	0	0	0
Freshwater Monitoring for Entrainment Study	0	0	0	0
Marine Baseline Monitoring for Impingement Mortality and/or Entrainment Study	8	11	11	10
Marine Monitoring for Impingement Mortality Study	8	10	10	9
Marine Monitoring for Entrainment Study	8	11	11	10
Impingement Mortality & Entrainment Characterization Study Initial Analysis	8	3	0	4
Impingement Mortality & Entrainment Characterization Study Final Report	1	6	1	3
Pilot Study Impingement Monitoring (Freshwater)	0	0	0	0
Pilot Study Entrainment Monitoring (Freshwater)	0	0	0	0
Pilot Study Impingement Monitoring (Marine)	1	4	1	2
Pilot Study Entrainment Monitoring (Marine)	1	4	1	2
Pilot Study Entrainment Monitoring (All)	1	4	1	2
Technology Installation and Operation Plan	1	6	1	3
Verification Monitoring Plan	1	6	1	3
Annual Monitoring for Impingement (Freshwater)	0	0	0	0
Annual Monitoring for Impingement (Marine)	0	1	7	3
Annual Monitoring for Entrainment (Freshwater)	0	0	0	0
Annual Monitoring for Entrainment (Marine)	0	1	7	3
Biannual Status Report Activities	0	1	6	2
Verification Study	0	1	6	2
Respondents	8	11	11	10

Directors

	Year 1	Year 2	Year 3	Annual Average ²
	2010	2011	2012	
Director Start-up Activities	46	0	0	15
Director Permit Issuance Activities				
Review Permit Application Information	8	3	0	4
Review Proposal for Collection of Information for Comprehensive Demonstration Study	8	3	0	4
Review Source Water Body Flow Information	0	0	0	0
Review Design and Construction Technology Plan	1	6	1	3
Review Impingement Mortality Monitoring Results	1	6	1	3
Review Entrainment Characterization Monitoring Results	1	6	1	3
Review Baseline Characterization Monitoring Results and Study Findings	1	6	1	3
Review Pilot Study for New Impingement & Entrainment Technology	1	4	1	2
Review Restoration Measures	1	0	0	0
Review Information to Support Site-Specific Determination of BTA	1	6	1	3
Review Technology Installation and Operation Plan & Verification Monitoring Plan	1	6	1	3
Determine Monitoring Frequency	8	3	0	4
Determine Permit Requirements and Issue Permit	8	3	0	4
Verification Study Review	0	0	0	0
Alternative Regulatory Requirements	0	0	0	0
Annual Director Activities				
Review of Biannual Status Report	0	1	6	2
Compliance Tracking	0	1	6	2
Determination on Monitoring Frequency Reduction	0	1	6	2
Record Keeping	0	1	6	2
Respondents	46	11	11	23

Sum for Facilities and Directors

	Year 1	Year 2	Year 3	Annual Average
	2010	2011	2012	
Facilities	8	11	11	10
Directors	46	11	11	23
Yearly Total	54	22	22	33

[1] Each facility is one respondent. One respondent may be involved in more than one activity; however, in order to avoid double-counting, the maximum number of respondents expected to be involved in the rule activities annually is assumed to be the number of respondents for that year.

[2] Each Director is one respondent.

Exhibit A.100MGD.6

Responses for the ICR Approval Period Year by Year by Activity

Facilities

	Year 1	Year 2	Year 3	Annual Average
	2010	2011	2012	
Start-up Activities	8	3	0	4
Permit Application Activities	8	3	0	4
Proposal for Collection of Information for Comprehensive Demonstration Study	8	3	0	4
FW River/Stream Source Water Body Flow Information	0	0	0	0
FW Lake/Reservoir Source Water Body Flow Information	0	0	0	0
Design and Construction Technology Plan (Impingement)	1	6	1	3
Design and Construction Technology Plan (Entrainment)	1	6	1	3
Design and Construction Technology Plan (All)	1	6	1	3
Freshwater Baseline Monitoring for Impingement Mortality and/or Entrainment Study	0	0	0	0
Freshwater Monitoring for Impingement Mortality Study	0	0	0	0
Freshwater Monitoring for Entrainment Study	0	0	0	0
Marine Baseline Monitoring for Impingement Mortality and/or Entrainment Study	8	11	11	10
Marine Monitoring for Impingement Mortality Study	8	10	10	9
Marine Monitoring for Entrainment Study	8	11	11	10
Impingement Mortality & Entrainment Characterization Study Initial Analysis	8	3	0	4
Impingement Mortality & Entrainment Characterization Study Final Report	1	6	1	3
Pilot Study Impingement Monitoring (Freshwater)	0	0	0	0
Pilot Study Entrainment Monitoring (Freshwater)	0	0	0	0
Pilot Study Impingement Monitoring (Marine)	1	4	1	2
Pilot Study Entrainment Monitoring (Marine)	1	4	1	2
Pilot Study Entrainment Monitoring (All)	1	4	1	2
Technology Installation and Operation Plan	1	6	1	3
Verification Monitoring Plan	1	6	1	3
Annual Monitoring for Impingement (Freshwater)	0	0	0	0
Annual Monitoring for Impingement (Marine)	0	1	7	3
Annual Monitoring for Entrainment (Freshwater)	0	0	0	0
Annual Monitoring for Entrainment (Marine)	0	1	7	3
Biannual Status Report Activities	0	1	6	2
Verification Study	0	1	6	2
Responses	67	108	69	81

Directors

	Year 1	Year 2	Year 3	Annual Average
	2010	2011	2012	
Director Start-up Activities	46	0	0	15
Director Permit Issuance Activities				
Review Permit Application Information	8	3	0	4
Review Proposal for Collection of Information for Comprehensive Demonstration Study	8	3	0	4
Review Source Water Body Flow Information	0	0	0	0
Review Design and Construction Technology Plan	1	6	1	3
Review Impingement Mortality Monitoring Results	1	6	1	3
Review Entrainment Characterization Monitoring Results	1	6	1	3
Review Baseline Characterization Monitoring Results and Study Findings	1	6	1	3
Review Pilot Study for New Impingement & Entrainment Technology	1	4	1	2
Review Restoration Measures	1	0	0	0
Review Information to Support Site-Specific Determination of BTA	1	6	1	3
Review Technology Installation and Operation Plan & Verification Monitoring Plan	1	6	1	3
Determine Monitoring Frequency	8	3	0	4
Determine Permit Requirements and Issue Permit	8	3	0	4
Verification Study Review	0	0	0	0
Alternative Regulatory Requirements	0	0	0	0
Annual Director Activities				
Review of Biannual Status Report	0	1	6	2
Compliance Tracking	0	1	6	2
Determination on Monitoring Frequency Reduction	0	1	6	2
Record Keeping	0	1	6	2
Responses	86	56	31	58

Sum for Facilities and Directors

	Year 1	Year 2	Year 3	Annual Average
	2010	2011	2012	
Facilities	67	108	69	81
Directors	86	56	31	58
Yearly Total	153	164	100	139

**Exhibit A.100MGD.7
Hourly Burden for the ICR Approval Period Year by Year
for Facilities**

Facility Activities

	Source (Exhibit)	Year 1	Year 2	Year 3	Annual Average
		2010	2011	2012	
NPDES Permit Application Activities					
Start-up Activities	A.100MGD.1a	344	129	0	158
Permit Application Activities	A.100MGD.1b	1,976	741	0	906
Proposal for Collection of Information for Comprehensive Demonstration Study	A.100MGD.1c	2,176	816	0	997
FW River/Stream Source Water Body Flow Information	A.100MGD.1d	0	0	0	0
FW Lake/Reservoir Source Water Body Flow Information	A.100MGD.1d	0	0	0	0
Design and Construction Technology Plan (Impingement)	A.100MGD.1e	31	186	31	83
Design and Construction Technology Plan (Entrainment)	A.100MGD.1e	31	186	31	83
Design and Construction Technology Plan (All)	A.100MGD.1e	30	180	30	80
Freshwater Baseline Monitoring for Impingement Mortality and/or Entrainment Study	A.100MGD.1f	0	0	0	0
Freshwater Monitoring for Impingement Mortality Study	A.100MGD.1f	0	0	0	0
Freshwater Monitoring for Entrainment Study	A.100MGD.1f	0	0	0	0
Marine Baseline Monitoring for Impingement Mortality and/or Entrainment Study	A.100MGD.1f	22,732	31,256	31,256	28,415
Marine Monitoring for Impingement Mortality Study	A.100MGD.1f	11,311	14,139	14,139	13,197
Marine Monitoring for Entrainment Study	A.100MGD.1f	8,610	11,839	11,839	10,763
Impingement Mortality & Entrainment Characterization Study Initial Analysis	A.100MGD.1f	2,984	1,119	0	1,368
Impingement Mortality & Entrainment Characterization Study Final Report	A.100MGD.1f	399	2,394	399	1,064
Pilot Study Impingement Monitoring (Freshwater) for Pilot Study	A.100MGD.1g	0	0	0	0
Pilot Study Entrainment Monitoring (Freshwater) for Pilot Study	A.100MGD.1g	0	0	0	0
Pilot Study Impingement Monitoring (Marine) for Pilot Study	A.100MGD.1g	831	3,322	831	1,661
Pilot Study Entrainment Monitoring (Marine) for Pilot Study	A.100MGD.1g	675	2,698	675	1,349
Pilot Study Entrainment Monitoring (All) for Pilot Study	A.100MGD.1g	354	1,416	354	708
Technology Installation and Operation Plan	A.100MGD.1h	52	312	52	139
Verification Monitoring Plan	A.100MGD.1i	128	768	128	341
NPDES Permit Application Activity Total		52,663	71,501	59,764	61,310
Annual Activities					
Annual Monitoring for Impingement (Freshwater)	A.100MGD.2a	0	0	0	0
Annual Monitoring for Impingement (Marine)	A.100MGD.2b	0	482	3,371	1,284
Annual Monitoring for Entrainment (Freshwater)	A.100MGD.2c	0	0	0	0
Annual Monitoring for Entrainment (Marine)	A.100MGD.2d	0	776	5,432	2,069
Biannual Status Report Activities	A.100MGD.2e	0	324	1,944	756
Verification Study	A.100MGD.2f	0	118	708	275
Annual Activity Yearly Labor Total		0	1,700	11,455	4,385
Yearly Labor Total		52,663	73,201	71,220	65,695

Exhibit A.100MGD.8

Hourly Burden for the ICR Approval Period Year by Year for Directors and Federal Government

Director Activities

	Source (Exhibit)	Year 1	Year 2	Year 3	Annual Average
		2010	2011	2012	
Director Start-up Activities	A.100MGD.3a	4,600	0	0	1,533
Director Permit Issuance Activities	A.100MGD.3b	3,149	9,920	1,565	4,878
Verification Study Review	A.100MGD.3c	0	0	0	0
Alternative Regulatory Requirements	A.100MGD.3d	0	0	0	0
Annual Director Activities	A.100MGD.3e	0	50	300	117
Yearly Total		7,749	9,970	1,865	6,528

Federal Activities

	Source (Exhibit)	Year 1	Year 2	Year 3	Annual Average
		2010	2011	2012	
Federal Permit Program Oversight Activities	A.100MGD.4a	209	309	42	187
Yearly Total		209	309	42	187

Exhibit A.100MGD.9
Costs for the ICR Approval Period Year by Year
for Facilities

Facility Activities

	Source (Exhibit)	Year 1	Year 2	Year 3	Annual Average
		2010	2011	2012	
NPDES Permit Application Activities					
Start-up Activities	A.100MGD.1a	\$16,969	\$6,363	\$0	\$7,777
Permit Application Activities	A.100MGD.1b	\$79,611	\$29,854	\$0	\$36,488
Proposal for Collection of Information for Comprehensive Demonstration Study	A.100MGD.1c	\$98,750	\$37,031	\$0	\$45,261
FW River/Stream Source Water Body Flow Information	A.100MGD.1d	\$0	\$0	\$0	\$0
FW Lake/Reservoir Source Water Body Flow Information	A.100MGD.1d	\$0	\$0	\$0	\$0
Design and Construction Technology Plan (Impingement)	A.100MGD.1e	1,368	8,206	1,368	3,647
Design and Construction Technology Plan (Entrainment)	A.100MGD.1e	1,368	8,206	1,368	3,647
Design and Construction Technology Plan (All)	A.100MGD.1e	922	5,532	922	2,459
Freshwater Baseline Monitoring for Impingement Mortality and/or Entrainment Study	A.100MGD.1f	0	0	0	0
Freshwater Monitoring for Impingement Mortality Study	A.100MGD.1f	0	0	0	0
Freshwater Monitoring for Entrainment Study	A.100MGD.1f	0	0	0	0
Marine Baseline Monitoring for Impingement Mortality and/or Entrainment Study	A.100MGD.1f	1,050,803	1,444,854	1,444,854	1,313,503
Marine Monitoring for Impingement Mortality Study	A.100MGD.1f	523,440	654,300	654,300	610,680
Marine Monitoring for Entrainment Study	A.100MGD.1f	400,666	550,916	550,916	500,833
Impingement Mortality & Entrainment Characterization Study Initial Analysis	A.100MGD.1f	176,334	66,125	0	80,820
Impingement Mortality & Entrainment Characterization Study Final Report	A.100MGD.1f	18,875	113,252	18,875	50,334
Pilot Study Impingement Monitoring (Freshwater) for Pilot Study	A.100MGD.1g	0	0	0	0
Pilot Study Entrainment Monitoring (Freshwater) for Pilot Study	A.100MGD.1g	0	0	0	0
Pilot Study Impingement Monitoring (Marine) for Pilot Study	A.100MGD.1g	41,572	166,290	41,572	83,145
Pilot Study Entrainment Monitoring (Marine) for Pilot Study	A.100MGD.1g	34,482	137,929	34,482	68,964
Pilot Study Entrainment Monitoring (All) for Pilot Study	A.100MGD.1g	17,487	69,947	17,487	34,974
Technology Installation and Operation Plan	A.100MGD.1h	\$2,372	\$14,234	\$2,372	6,326
Verification Monitoring Plan	A.100MGD.1i	\$5,918	\$35,508	\$5,918	\$15,781
NPDES Permit Application Activity Total		\$2,470,937	\$3,348,547	\$2,774,434	\$2,864,639
Annual Activities					
Marine Monitoring for Impingement Mortality Study	A.100MGD.2a	\$0	\$0	\$0	\$0
Impingement Mortality & Entrainment Characterization Study Initial Analysis	A.100MGD.2b	\$0	\$23,564	\$164,946	\$62,836
Impingement Mortality & Entrainment Characterization Study Final Report	A.100MGD.2c	\$0	\$0	\$0	\$0
Pilot Study Impingement Monitoring (Freshwater)	A.100MGD.2d	\$0	\$38,069	\$266,480	\$101,516
Biannual Status Report Activities	A.100MGD.2e	\$0	\$16,618	\$99,708	\$38,775
Verification Study	A.100MGD.2f	\$0	\$6,772	\$40,633	\$15,802
Annual Activity Yearly Labor Total		\$0	\$85,022	\$571,766	\$218,930
Yearly Labor Total		\$2,470,937	\$3,433,569	\$3,346,200	\$3,083,569

Facility O&M

	Source (Exhibit)	Year 1	Year 2	Year 3	Annual Average
		2010	2011	2012	
NPDES Application					
Purchase, Installation & Operation of Pilot Study Technology-Freshwater	A.100MGD.1i	\$0	\$0	\$0	\$0
Purchase, Installation & Operation of Pilot Study Technology-Freshwater-Impingement Only	A.100MGD.1i	\$0	\$0	\$0	\$0
Purchase, Installation & Operation of Pilot Study Technology-Marine	A.100MGD.1i	\$221,548	\$886,190	\$221,548	\$443,095
Purchase, Installation & Operation of Pilot Study Technology-Marine- Impingement Only	A.100MGD.1i	\$0	\$0	\$0	\$0
Biological Study Laboratory Analysis (Freshwater)	A.100MGD.1i	\$0	\$0	\$0	\$0
Biological Study Laboratory Analysis (Marine)	A.100MGD.1i	\$405,600	\$557,700	\$557,700	\$507,000
Pilot Study Entrainment Laboratory Analysis (Freshwater)	A.100MGD.1i	\$0	\$0	\$0	\$0
Pilot Study Entrainment Laboratory Analysis (Marine)	A.100MGD.1i	\$7,800	\$31,200	\$7,800	\$15,600
Other Direct Costs	A.100MGD.1a-l	\$42,767	\$56,724	\$42,255	\$47,249
Annual					
Identify & Enumerate Entrained Freshwater Biota	A.100MGD.2g	\$0	\$0	\$0	\$0
Identify & Enumerate Entrained Marine Biota	A.100MGD.2g	\$0	\$10,140	\$70,980	\$27,040
Other Direct Costs	A.100MGD.2a-g	\$0	\$2,600	\$16,920	\$6,507
Equipment Cost Subtotal		\$221,548	\$886,190	\$221,548	\$443,095
Laboratory Analysis Subtotal		\$413,400	\$599,040	\$636,480	\$549,640
Other Direct Costs Subtotal		\$42,767	\$59,324	\$59,175	\$53,755
Yearly O&M Total		\$677,715	\$1,544,554	\$917,202	\$1,046,490

Exhibit A.100MGD.10
Costs for the ICR Approval Period Year by Year
for Directors and Federal Government

Director Activities

	Source (Exhibit)	Year 1	Year 2	Year 3	Annual Average
		2010	2011	2012	
Director Start-up Activities	A.100MGD.3a	\$179,124	\$0	\$0	\$59,708
Director Permit Issuance Activities	A.100MGD.3b	\$135,468	\$454,152	\$72,170	\$220,597
Verification Study Review	A.100MGD.3c	\$0	\$0	\$0	\$0
Alternative Regulatory Requirements	A.100MGD.3d	\$0	\$0	\$0	\$0
Annual Director Activities	A.100MGD.3e	\$0	\$1,851	\$11,108	\$4,320
Yearly Total		\$314,592	\$456,003	\$83,278	\$284,624

Director O&M

	Source (Exhibit)	Year 1	Year 2	Year 3	Annual Average
		2010	2011	2012	
Start-Up & NPDES Application					
Other Direct Costs	A.100MGD.3a-b	\$4,780	\$930	\$0	\$1,903
Annual					
Other Direct Costs	A.100MGD.3c-d	\$0	\$30	\$180	\$70
Yearly O&M Cost Total		\$4,780	\$960	\$180	\$1,973

Federal Labor Activities

	Source (Exhibit)	Year 1	Year 2	Year 3	Annual Average
		2010	2011	2012	
Federal Permit Program Oversight Activities	A.100MGD.4a	7,666	11,472	1,569	\$6,902
Yearly Total		\$7,666	\$11,472	\$1,569	\$6,902

Federal O&M

	Source (Exhibit)	Year 1	Year 2	Year 3	Annual Average
		2010	2011	2012	
Federal Permit Program Oversight ODCs	A.100MGD.4a	\$400	\$150	\$0	\$183
Yearly Total		\$400	\$150	\$0	\$183

Exhibit A.100MGD.11

Summary of the Burden, Respondents, Responses, and Costs for the ICR Approval Period by Year and Annual Averages

Facilities

	Source (Exhibit)	Year 1	Year 2	Year 3	Annual Average	Three Year Total ¹
		2010	2011	2012		
Burden (hours)	A.100MGD.7	52,663	73,201	71,220	65,695	197,084
Respondents (number)	A.100MGD.5	8	11	11	10	11
Responses (number)	A.100MGD.6	67	108	69	81	244
Costs (labor)	A.100MGD.9	\$2,470,937	\$3,433,569	\$3,346,200	\$3,083,569	\$9,250,707
Costs (Equipment)	A.100MGD.9	\$221,548	\$886,190	\$221,548	\$443,095	\$1,329,285
Costs (Lab Analysis)	A.100MGD.9	\$413,400	\$599,040	\$636,480	\$549,640	\$1,648,920
Costs (Other Direct Costs)	A.100MGD.9	\$42,767	\$59,324	\$59,175	\$53,755	\$161,266
Total Costs		\$3,148,652	\$4,978,123	\$4,263,402	\$4,130,059	\$12,390,178

[1] Each facility is one respondent. One respondent may perform activities in more than one year. So to avoid double-counting, the respondent 3 year total, is the total number of facilities that must perform one or more activities during the ICR approval period.

Directors

	Source (Exhibit)	Year 1	Year 2	Year 3	Annual Average	Three Year Total ¹
		2010	2011	2012		
Burden (hours)	A.100MGD.8	7,749	9,970	1,865	6,528	19,584
Respondents (number)	A.100MGD.5	46	11	11	23	46
Responses (number)	A.100MGD.6	86	56	31	58	173
Costs(labor)	A.100MGD.10	\$314,592	\$456,003	\$83,278	\$284,624	\$853,873
Costs (Other Direct Costs)	A.100MGD.10	\$4,780	\$960	\$180	\$1,973	\$5,920
Total Costs		\$319,372	\$456,963	\$83,458	\$286,598	\$859,793

[1] Each director is one respondent. One respondent may perform activities in more than one year. So to avoid double-counting, the respondent 3 year total, is the total number of directors that must perform one or more activities during the ICR approval period.

Federal Government

	Source (Exhibit)	Year 1	Year 2	Year 3	Annual Average	Three Year Total
		2010	2011	2012		
Burden (hours)	A.100MGD.8	209	309	42	187	560
Costs(labor)	A.100MGD.10	\$7,666	\$11,472	\$1,569	\$6,902	\$20,706
Costs (O&M)	A.100MGD.10	\$400	\$150	\$0	\$183	\$550
Total Costs		\$8,066	\$11,622	\$1,569	\$7,085	\$21,256

Totals for Respondents (Facilities and Directors)*

	Annual Average	Three Year Total
Total Respondent Burden (hours)	72,223	216,668
Total Respondents (number)	33	57
Total Respondent Labor Costs	\$3,368,193	\$10,104,579
Total Respondent Capital and O&M Costs	\$1,048,464	\$3,145,391
Total Respondent Cost for All Activities	\$4,416,657	\$13,249,970

* Totals for annual averages may not match exactly due to rounding discrepancies

Exhibit A.100MGD.12
 Facility Cost and Burden Estimates for NPDES Permit Renewal Activities

Exhibit A.100MGD.12a
 Start-up Activities

Activity	Facility Manager	Junior Technical	CAD Operator	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Burden Per Facility	Labor Cost per Facility	O&M Costs*	Total Cost Per Facility
	Assumed Loaded Hourly Rate											
	\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19				
	Level of Effort (hrs)											
Read and Understand Rule	4	4	0	0	0	0	0	0	8	\$429		
Mobilization/Planning	1	2	0	0	0	0	0	0	3	\$141		
Training	1	1	0	0	0	0	0	0	2	\$107		
Other Direct Costs	0	0	0	0	0	0	0	0	0	\$0	\$50	
Totals	6	7	0	0	0	0	0	0	13	\$677		\$727

Exhibit A.100MGD.12b
 Permit Application Activities

Activity	Facility Manager	Junior Technical	CAD Operator	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Burden Per Facility	Labor Cost per Facility	O&M Costs*	Total Cost Per Facility
	Assumed Loaded Hourly Rate											
	\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19				
	Level of Effort (hrs)											
Source Water Physical Data	1	5	12	0	0	0	0	0	18	\$607		
Configuration and Location of CWIS	1	1	1	0	0	0	0	0	3	\$138		
Facility Water Balance Diagram	1	1	1	0	0	0	0	0	3	\$138		
CWIS Operation Narrative	12	30	0	0	0	0	0	0	42	\$1,898		
CWS Operation Narrative	12	30	0	0	0	0	0	0	42	\$1,898		
Engineering Calculations	6	24	0	0	0	0	0	0	30	\$1,255		
Submit Materials for Review by State	0	0	0	0	0	0	0	3	3	\$56		
Recordkeeping	1	3	1	0	0	0	0	1	6	\$224		
Other Direct Costs	0	0	0	0	0	0	0	0	0	\$0	\$255	
Totals	34	94	15	0	0	0	0	4	147	\$6,213		\$6,468

Exhibit A.100MGD.12c

Proposal for Collection of Information for Comprehensive Demonstration Study

Activity	Facility Manager	Junior Technical	CAD Operator	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Burden Per Facility	Labor Cost per Facility	O&M Costs*	Total Cost Per Facility
	Assumed Loaded Hourly Rate											
	\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19				
	Level of Effort (hrs)								B	C	D	C+D
Description of Historical Studies that will be Used	6	12	0	0	0	0	0	1	19	\$866		
Description of Proposed and/or Implemented Technologies	2	6	0	0	0	0	0	0	8	\$350		
Develop Source Water Sampling Plan	12	18	2	0	0	0	0	1	33	\$1,582		
Submit Data and Plans for Review	0	0	0	0	0	0	0	4	4	\$74		
Revise Based on State Review	2	5	1	0	0	0	0	1	9	\$364		
Recordkeeping	1	2	0	0	0	0	0	2	5	\$178		
Other Direct Costs	0	0	0	0	0	0	0	0	0	\$0	\$200	
Totals	23	43	3.6	0	0	0	0	9	78	\$3,414		\$3,614

Exhibit A.100MGD.12d

Source Water Body Flow Information

Activity	Facility Manager	Junior Technical	CAD Operator	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Burden Per Facility	Labor Cost per Facility	O&M Costs*	Total Cost Per Facility
	Assumed Loaded Hourly Rate											
	\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19				
	Level of Effort (hrs)								B	C	D	C+D
Gather Information to Characterize Flow (FW River/Stream)	0	0	0	0	0	0	0	0	0	\$0		
Water Body Thermal Stratification Narrative (Lake/Reservoir)	0	0	0	0	0	0	0	0	0	\$0		
Perform Engineering Calculations	0	0	0	0	0	0	0	0	0	\$0		
Submit Data and Analysis for Review	0	0	0	0	0	0	0	0	0	\$0		
Recordkeeping	0	0	0	0	0	0	0	0	0	\$0		
Other Direct Costs	0	0	0	0	0	0	0	0	0	\$0	\$0	
Totals	-	-	0	0	0	0	0	-	0	\$0		\$0

Exhibit A.100MGD.12e

Design and Construction Technology Plan

Activity	Facility Manager	Junior Technical	CAD Operator	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Burden Per Facility	Labor Cost per Facility	O&M Costs*	Total Cost Per Facility
	Assumed Loaded Hourly Rate											
	\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19				
	Level of Effort (hrs)								B	C	D	C+D
Delineate Hydraulic Zone of Influence	1	3	4	0	0	0	0	0	8	\$296		
Develop Narrative Description of Technologies (Impingement)	3	6	0	0	0	0	0	0	9	\$424		
Perform Engineering Calculations (Impingement)	2	6	0	0	0	0	0	0	8	\$350		
Develop Narrative Description of Technologies (Entrainment)	3	6	0	0	0	0	0	0	9	\$424		
Perform Engineering Calculations (Entrainment)	2	6	0	0	0	0	0	0	8	\$350		
Submit Data and Analysis for Review	0	0	0	0	0	0	0	3	3	\$56		
Recordkeeping	1	1	0	0	0	0	0	3	5	\$163		
Other Direct Costs	0	0	0	0	0	0	0	0	0	\$0	\$150	
Totals	12	28	4	0	0	0	0	6	50	\$2,063		\$2,213

Exhibit A.100MGD.12f

Impingement Mortality Study and/or Entrainment Characterization Study

Activity	Facility Manager	Junior Technical	CAD Operator	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Burden Per Facility	Labor Cost per Facility	O&M Costs*	3 Year Total Cost Per Facility
	Assumed Loaded Hourly Rate											
	\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19				
	Level of Effort (hrs)								B	C	D	C+D
Implement Offshore Freshwater Sampling	2	16	0	60	1248	40	1248	10	2624	\$122,221	\$1,846	
Impingement Monitoring Freshwater	1	5	0	0	0	20	0	5	31	\$1,560	\$928	
Entrainment Monitoring Freshwater	1	5	0	0	0	20	0	5	31	\$1,560	\$715	
Implement Offshore Marine Sampling	3	30	0	96	2434	60	2434	15	5072	\$235,166	\$3,550	
Impingement Monitoring Marine	1	9	0	0	0	30	0	8	48	\$2,363	\$1,768	
Entrainment Monitoring Marine	1	9	0	0	0	30	0	8	48	\$2,363	\$1,354	
Biological Study Laboratory Analysis (Freshwater)	0	0	0	0	0	0	0	0	0	\$31,200		
Biological Study Laboratory Analysis (Marine)	0	0	0	0	0	0	0	0	0	\$60,840		
Profile of Source Water Biota	10	6	0	10	18	0	6	2	52	\$3,063		
Identification of Critical Species	10	6	0	6	12	0	0	1	35	\$2,136		
Description of Additional Stresses	5	3	0	5	9	0	3	1	26	\$1,532		
Write Study based on Results and Submit for Review by State	24	48	0	5	2	2	0	2	83	\$4,109		
Recordkeeping	2	4	0	2	4	1	0	7	20	\$867		
Finalize study based on State review	5	10	0	0	0	0	0	2	17	\$743		
Freshwater Totals	60	103	0	88	1293	83	1257	35	2919	\$137,790	\$3,489	\$141,278
Marine Totals	61	125	0	124	2479	123	2443	46	5401	\$344,382	\$6,672	\$351,054

Exhibit A.100MGD.12g

Information to Support Site-Specific Determination of BTA

Activity	Facility Manager	Junior Technical	CAD Operator	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Burden Per Facility	Labor Cost per Facility	O&M Costs*	Total Cost Per Facility
	Assumed Loaded Hourly Rate											
	\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19				
	Level of Effort (hrs)								B	C	D	C+D
Perform Comprehensive Cost Evaluation Study	0	0	0	0	0	0	0	0	0	\$0		
Perform Valuation of Monetized Benefits	0	0	0	0	0	0	0	0	0	\$0		
Evaluate Detailed Mortality Data	0	0	0	0	0	0	0	0	0	\$0		
Perform Engineering Calculations	0	0	0	0	0	0	0	0	0	\$0		
Submit Data and Analysis for Review	0	0	0	0	0	0	0	0	0	\$0		
Recordkeeping	0	0	0	0	0	0	0	0	0	\$0		
Totals	-	-	0	0	0	0	0	-	0	\$0	\$0	\$0

Exhibit A.100MGD.12h

Site-Specific Technology Plan

Activity	Facility Manager	Junior Technical	CAD Operator	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Burden Per Facility	Labor Cost per Facility	O&M Costs*	Total Cost Per Facility
	Assumed Loaded Hourly Rate											
	\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19				
	Level of Effort (hrs)								B	C	D	C+D
Develop Narrative Description of Technologies	0	0	0	0	0	0	0	0	0	\$0		
Document that Technologies Are Optimal	0	0	0	0	0	0	0	0	0	\$0		
Develop Design Calculations, Drawings, & Estimates	0	0	0	0	0	0	0	0	0	\$0		
Perform Engineering Calculations	0	0	0	0	0	0	0	0	0	\$0		
Submit Data and Analysis for Review	0	0	0	0	0	0	0	0	0	\$0		
Recordkeeping	0	0	0	0	0	0	0	0	0	\$0		
Totals	-	-	0	0	0	0	0	-	0	\$0	\$0	\$0

Exhibit A.100MGD.12i

Technology Installation and Operation Plan

Activity	Facility Manager	Junior Technical	CAD Operator	Contracted Manager	Biologist	Statistician	Biological Technician	Clerical	Burden Per Facility	Labor Cost per Facility	O&M Costs*	Total Cost Per Facility
	Assumed Loaded Hourly Rate											
	\$73	\$34	\$30	\$91	\$53	\$61	\$38	\$19				
	Level of Effort (hrs)								B	C	D	C+D
Installation & Maintenance Schedule	5	10	0	0	0	0	0	0	15	\$706		
Description of Proposed Monitoring Parameters	1	4	0	0	0	0	0	0	5	\$209		
List of Technology Assessment Activities	1	2	0	0	0	0	0	0	3	\$141		
Schedule & Methodology of Assessment Activities	2	2	0	0	0	0	0	0	4	\$214		
Submit Plan for Review	0	0	0	0	0	0	0	1	1	\$19		
Recordkeeping	1	1	0	0	0	0	0	1	3	\$126		
Other Direct Costs	0	0	0	0	0	0	0	0	0	\$0	\$48	
Totals									31	\$1,415	\$48	\$1,463

Exhibit A.100MGD.13

Director Burden and Cost Estimates for Permit Renewal

Exhibit A.100MGD.13a

Director Permit Reissuance Activities

Activity	Senior Technical	Junior Technical	Clerical	Burden Per Permit	Labor Cost per Permit	ODCs lump sum*	Total Cost Per Permit
	Assumed Loaded Hourly Rate						
	\$50	\$32	\$24				
	Level of Effort (hrs)						
Review Source Water Physical Data	1	2	0	3	\$113		
Review CWIS Data	2	5	0	7	\$259		
Review CWS Operation Narrative	2	5	0	7	\$259		
Review Proposal for Collection of Information for Comprehensive Demonstration Study	5	5	0	10	\$407		
Review Source Water Body Flow Information	0	0	0	-	\$0		
Review Design and Construction Technology Plan	7	2	0	9	\$410		
Review Impingement Mortality Monitoring Results	24	3	0	27	\$1,284		
Review Entrainment Characterization Monitoring Results	24	3	0	27	\$1,284		
Review Baseline Characterization Monitoring Results and Study Findings	72	8	0	80	\$3,819		
Review Restoration Measures	120	30	0	150	\$6,897		
Review Information to Support Site-Specific Determination of BTA	240	60	0	300	\$13,794		
Review Technology Installation and Operation Plan	5	2	0	7	\$311		
Determine Monitoring Frequency	1	2	0	3	\$113		
Determine Record keeping and Reporting Frequency	1	2	0	3	\$113		
Establish Requirements for Site-Specific Technology	2	7	0	9	\$322		
Considering Public Comments	5	5	0	10	\$407		
Issuing Permit	0	2	0	2	\$64		
Permit Record Keeping	0	0	1	1	\$24		
Totals	511	143	1	655	\$29,880	\$310	\$30,190