



**BAY SHORE POWER PLANT  
FISH ENTRAINMENT AND IMPINGEMENT STUDY REPORT**

Kinectrics Report: 112026-005-RA-0001-R00

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Environmental and Aquatic Management Services

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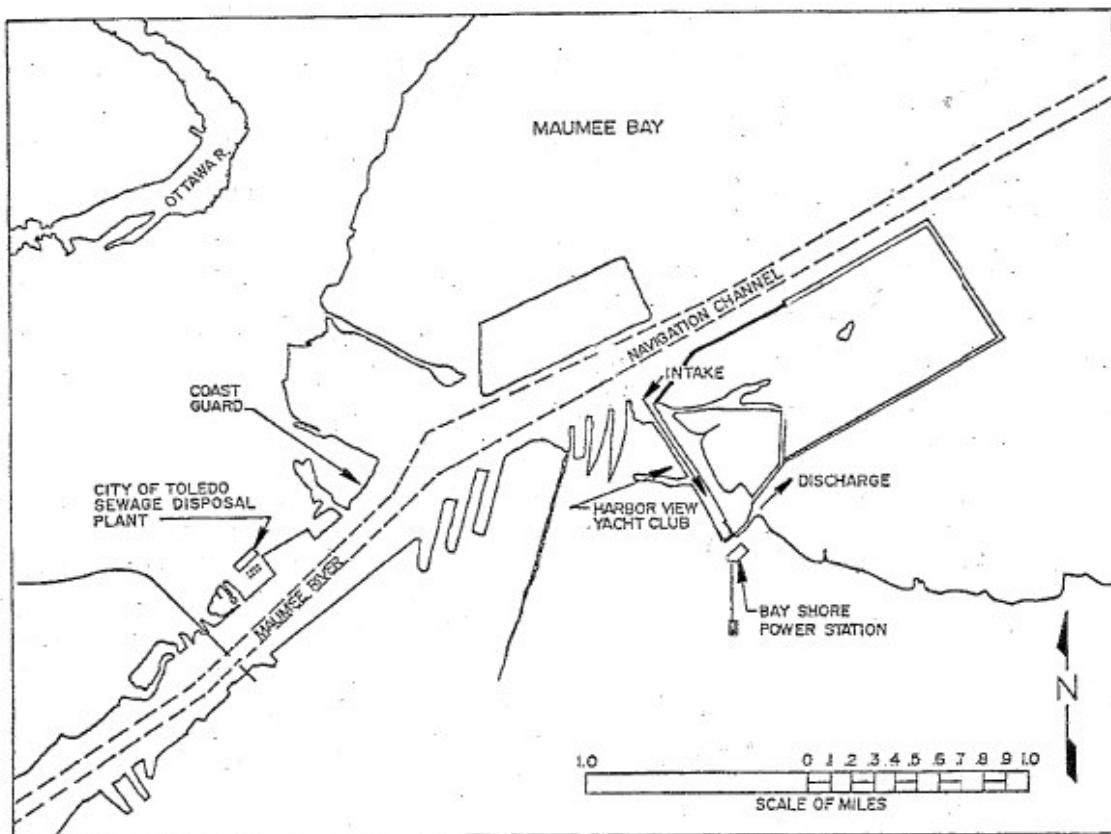
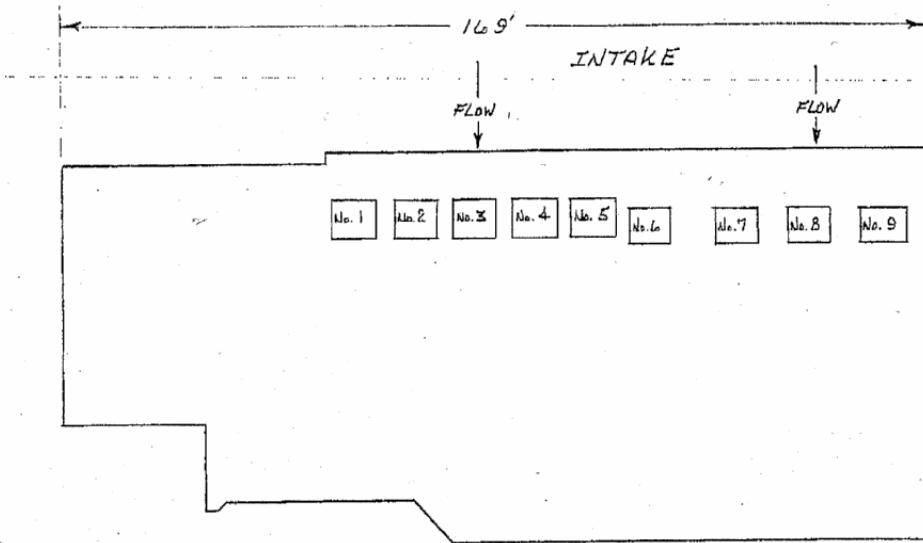


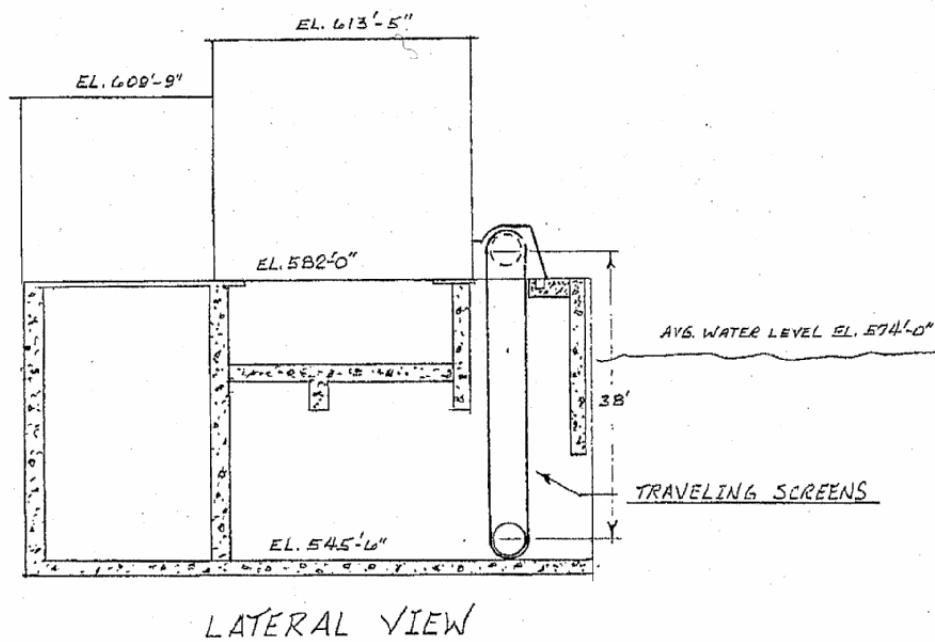
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PLAN VIEW



LATERAL VIEW

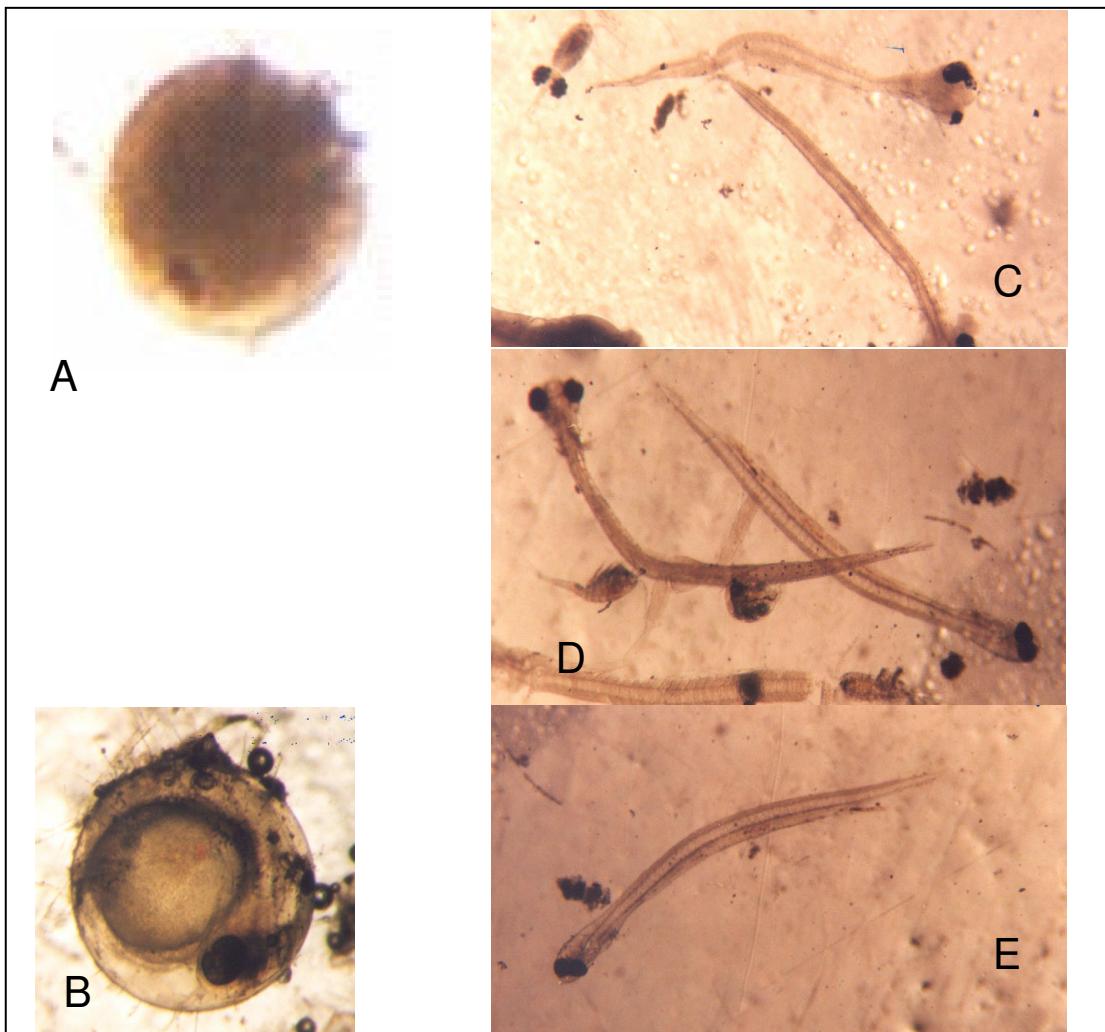
OVERVIEW AND LATERAL VIEW OF TRAVELING SCREENS  
AT THE BAY SHORE POWER STATION

TOLEDO EDISON BAY SHORE  
POWER STATION SCREENHOUSE

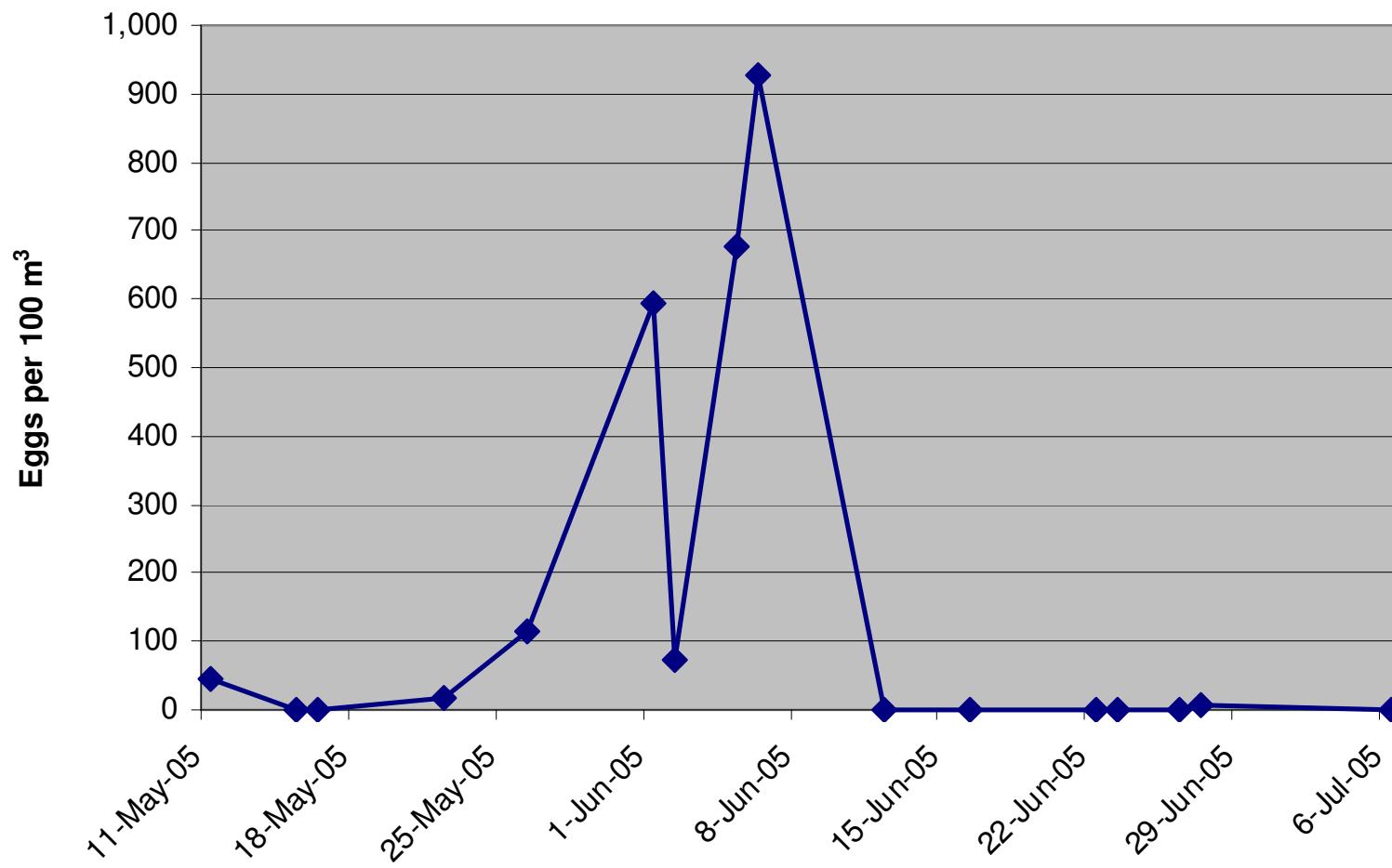
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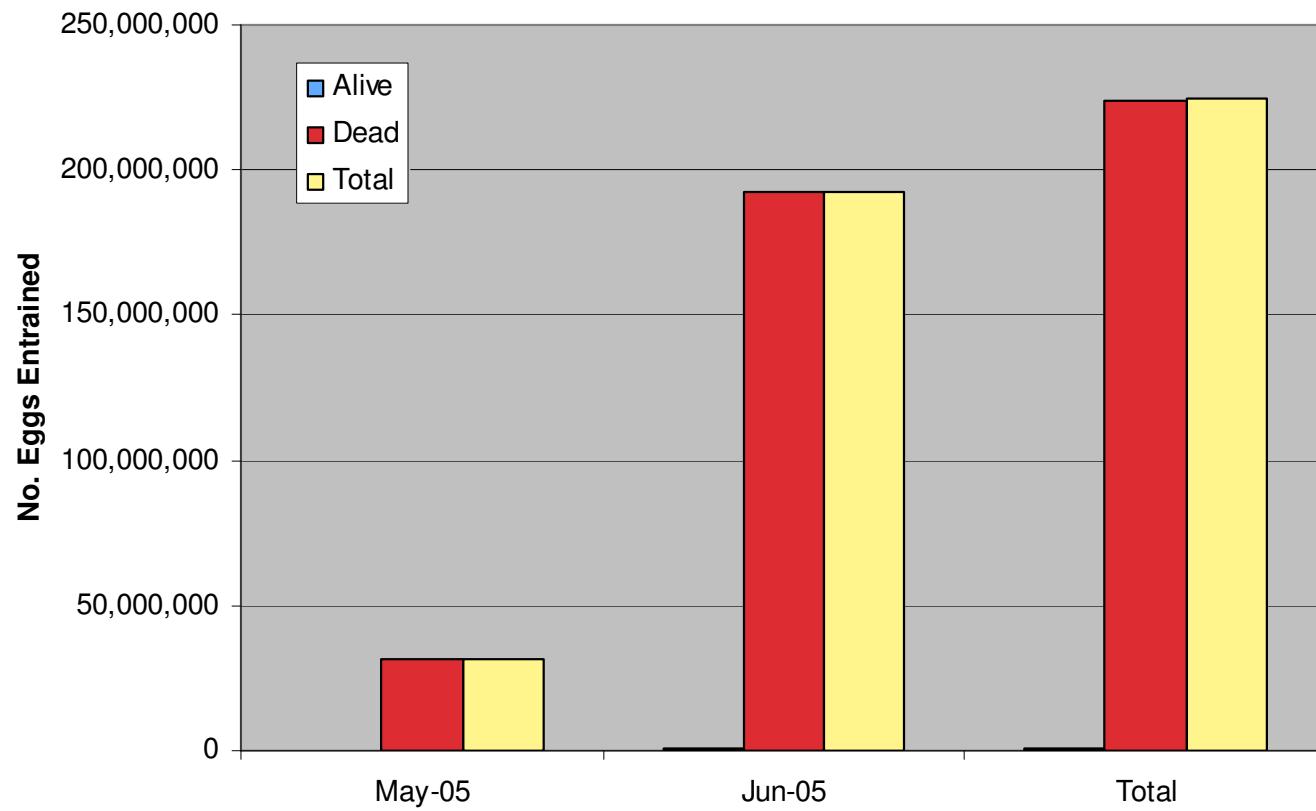


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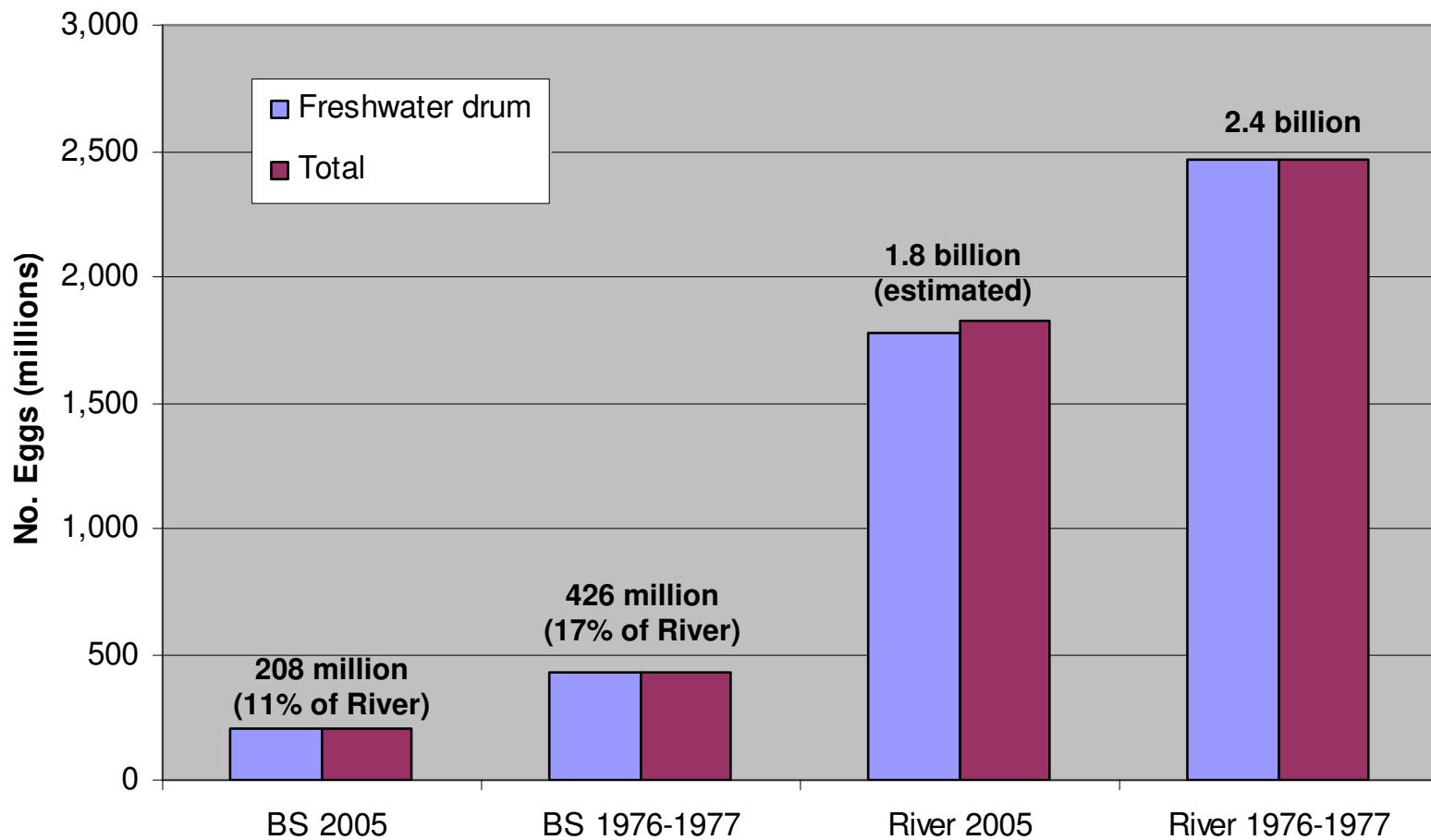


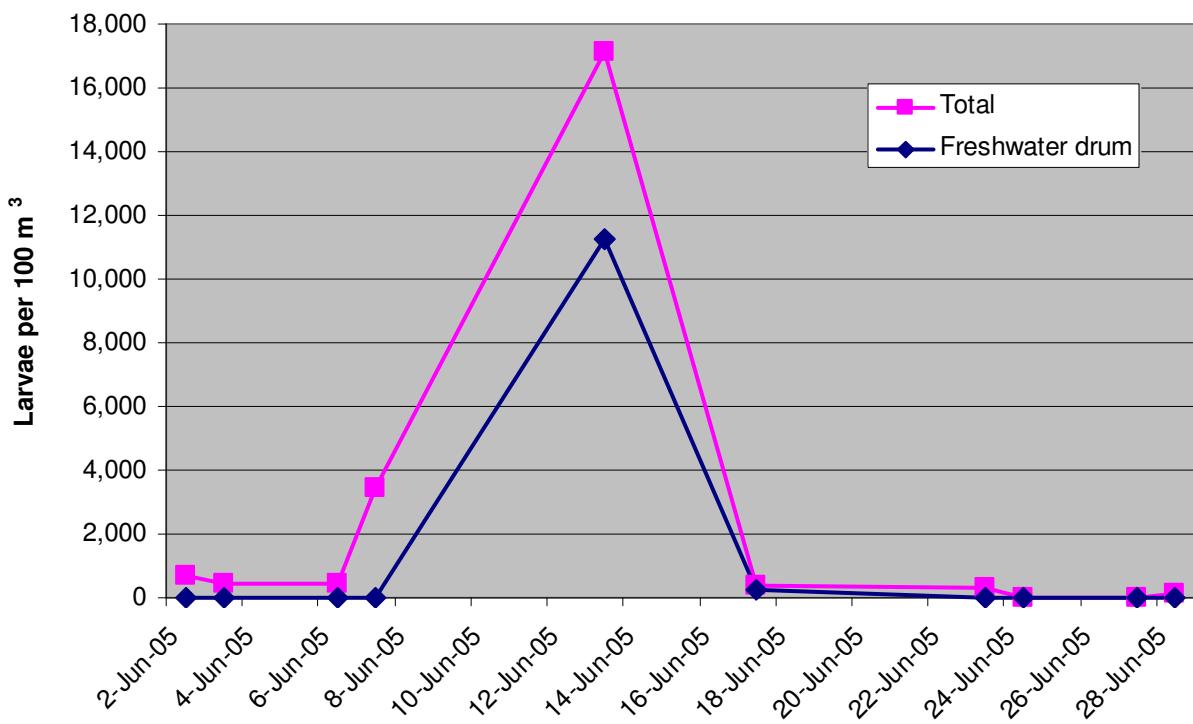
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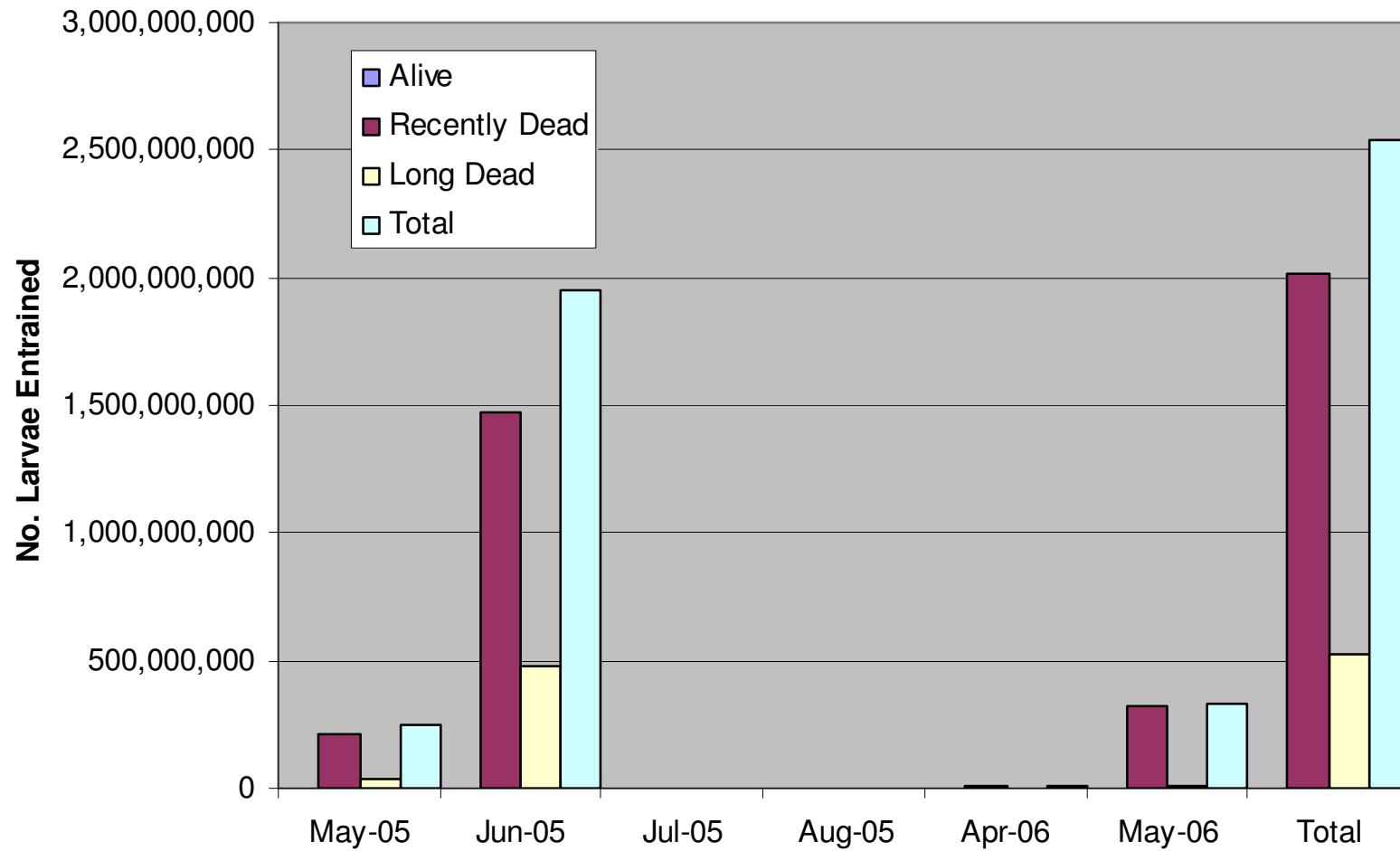
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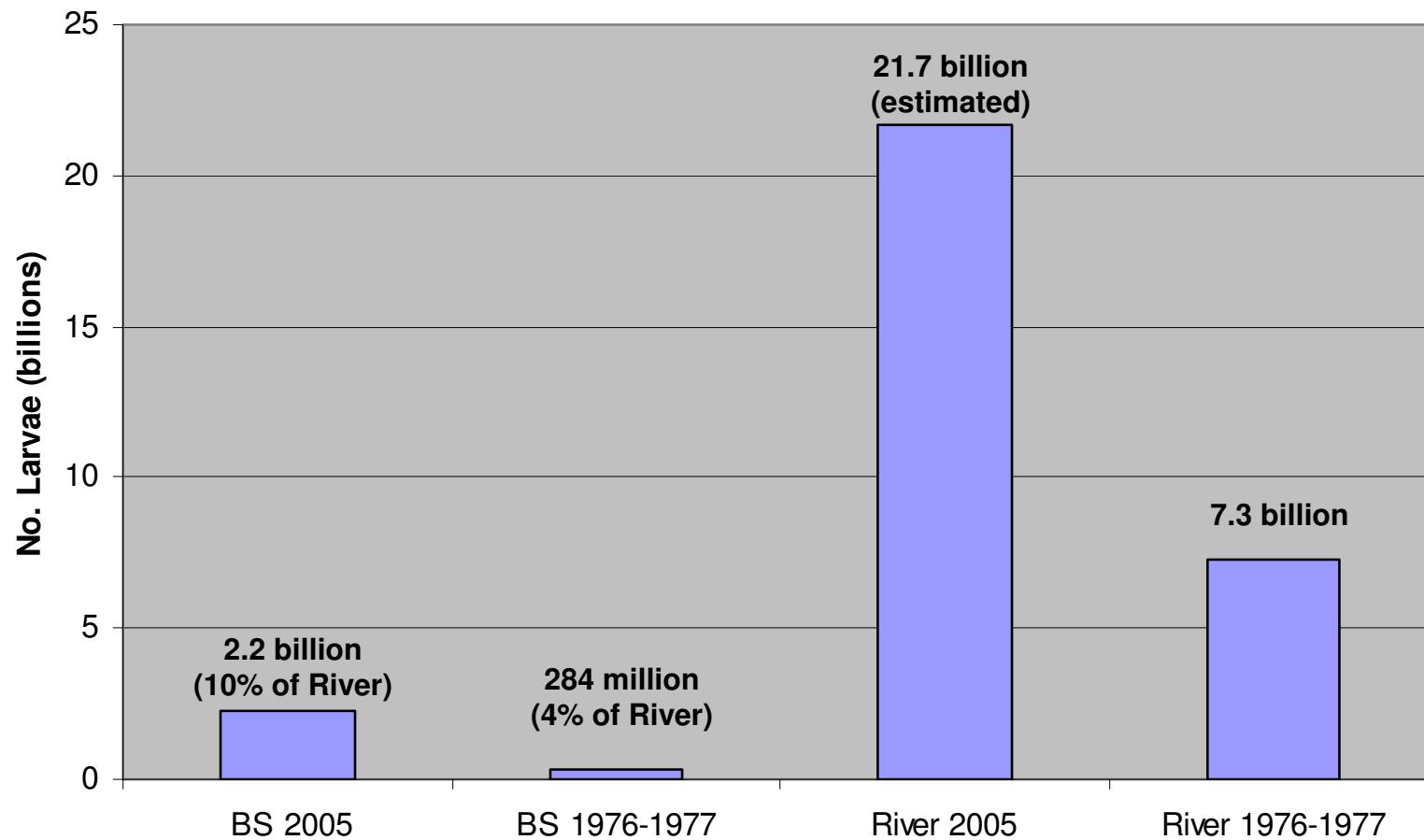


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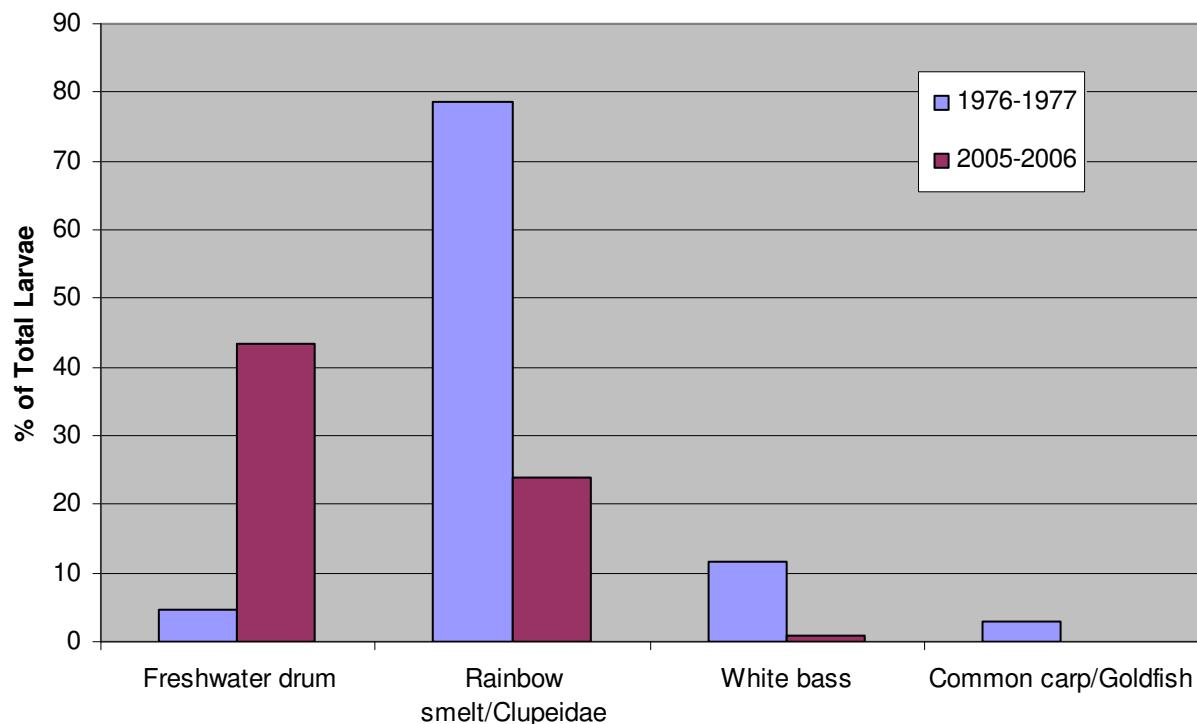
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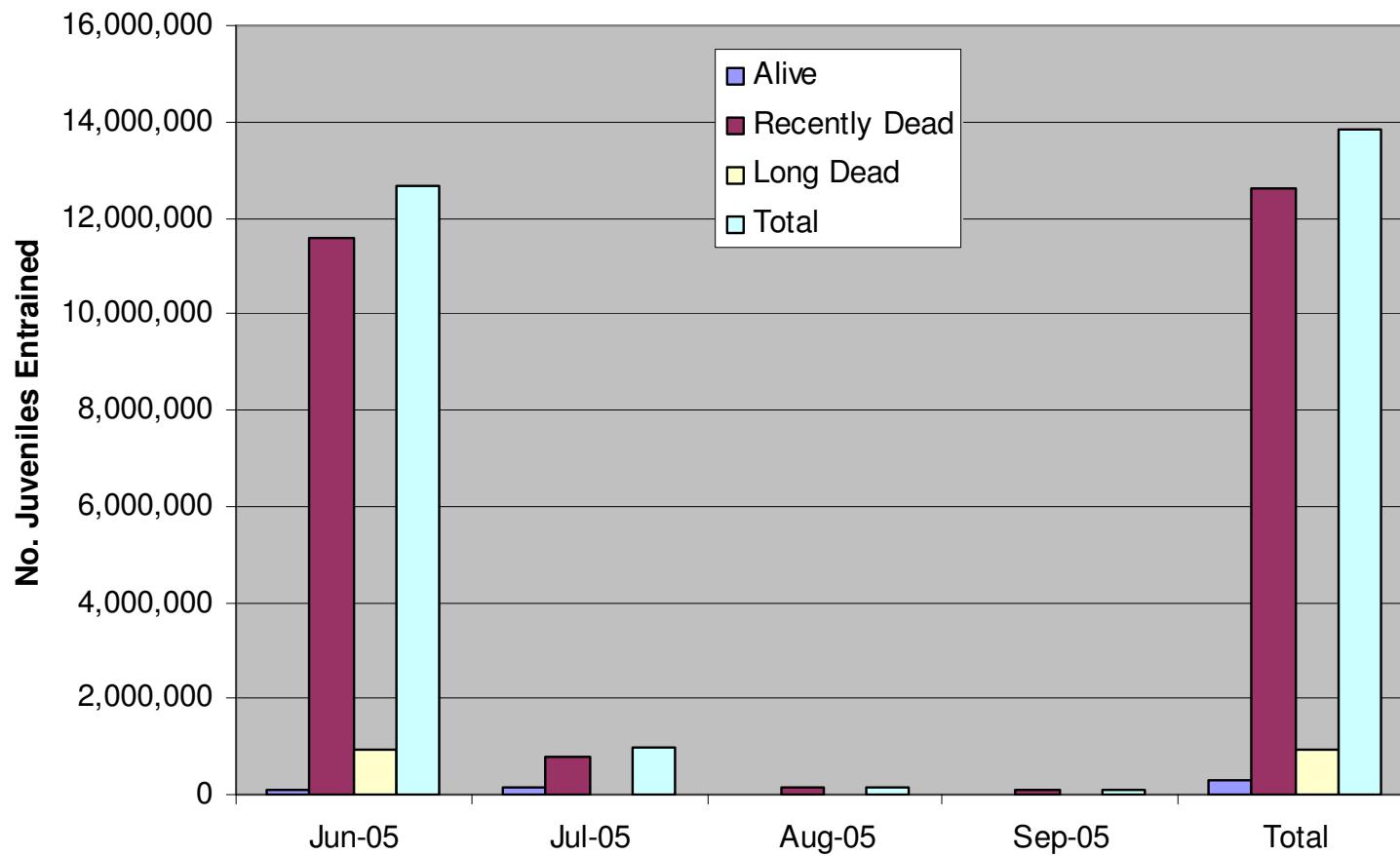
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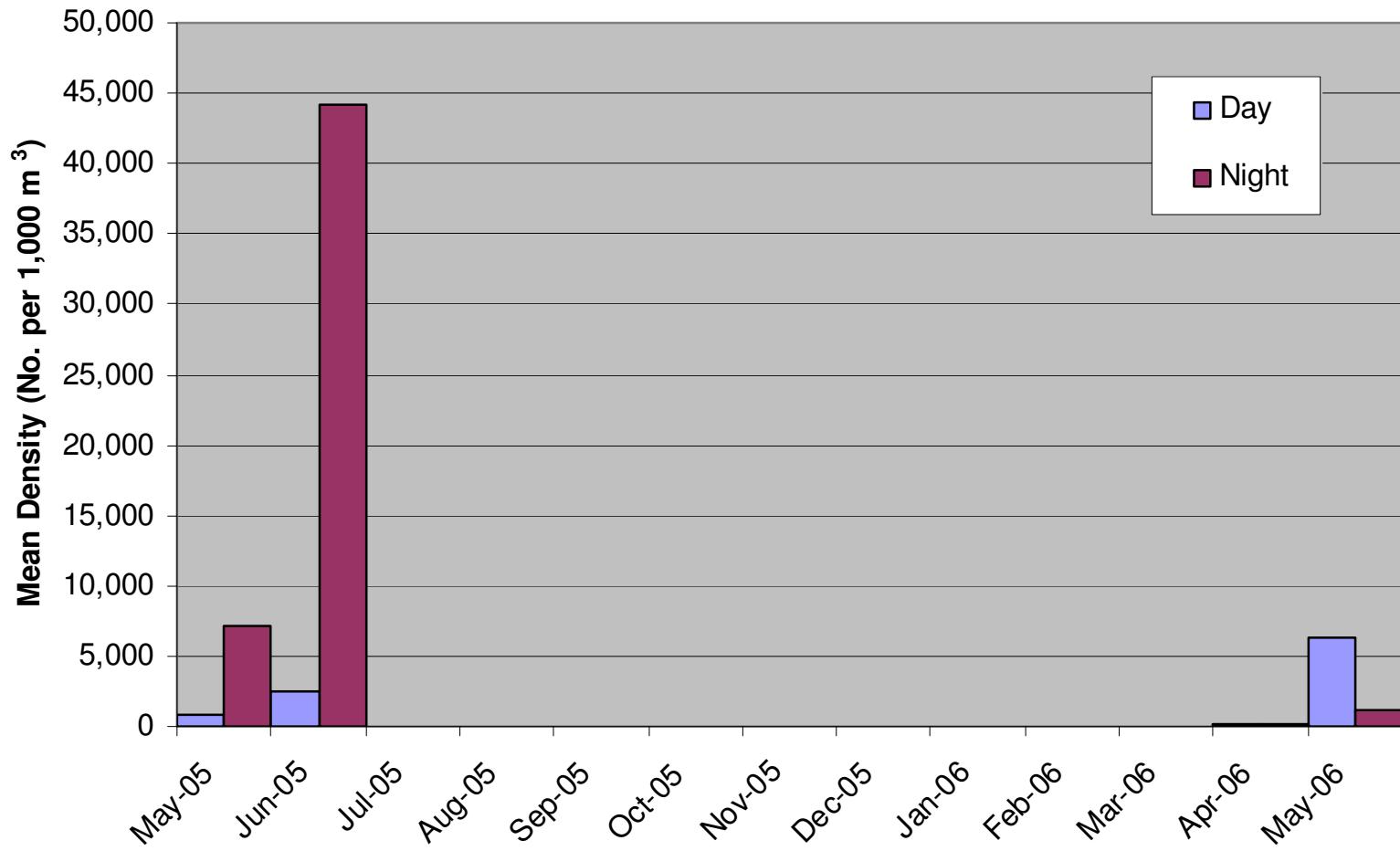
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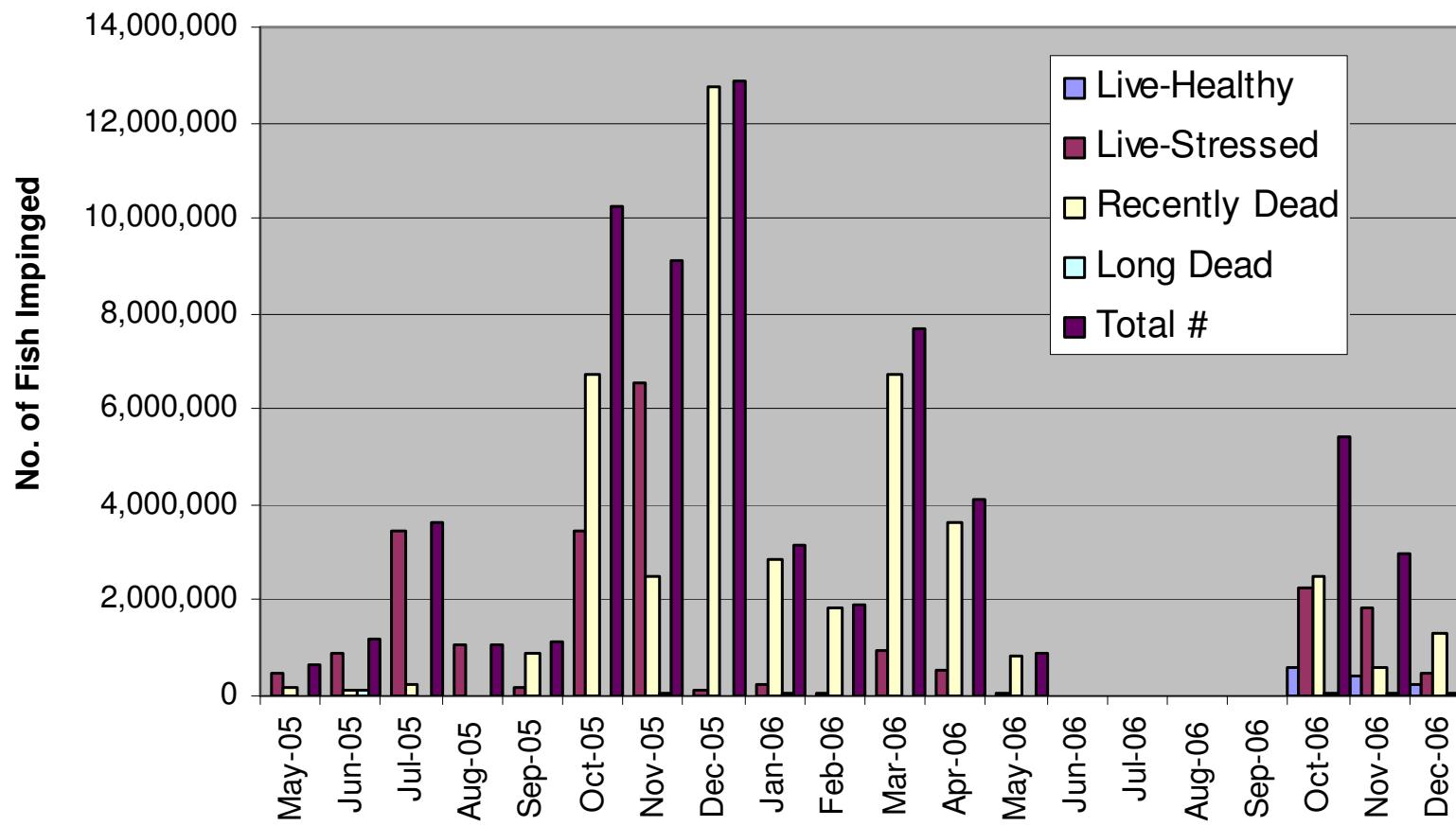
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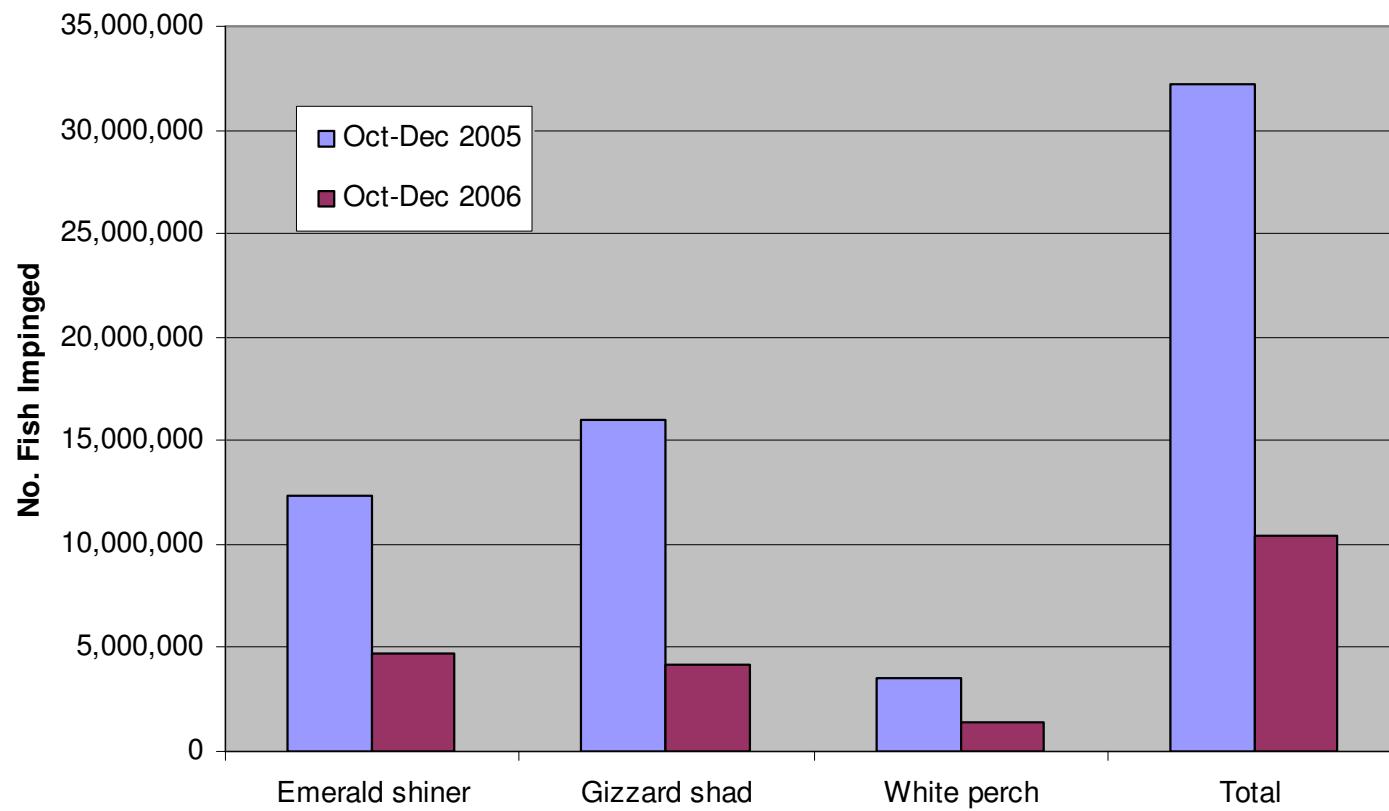
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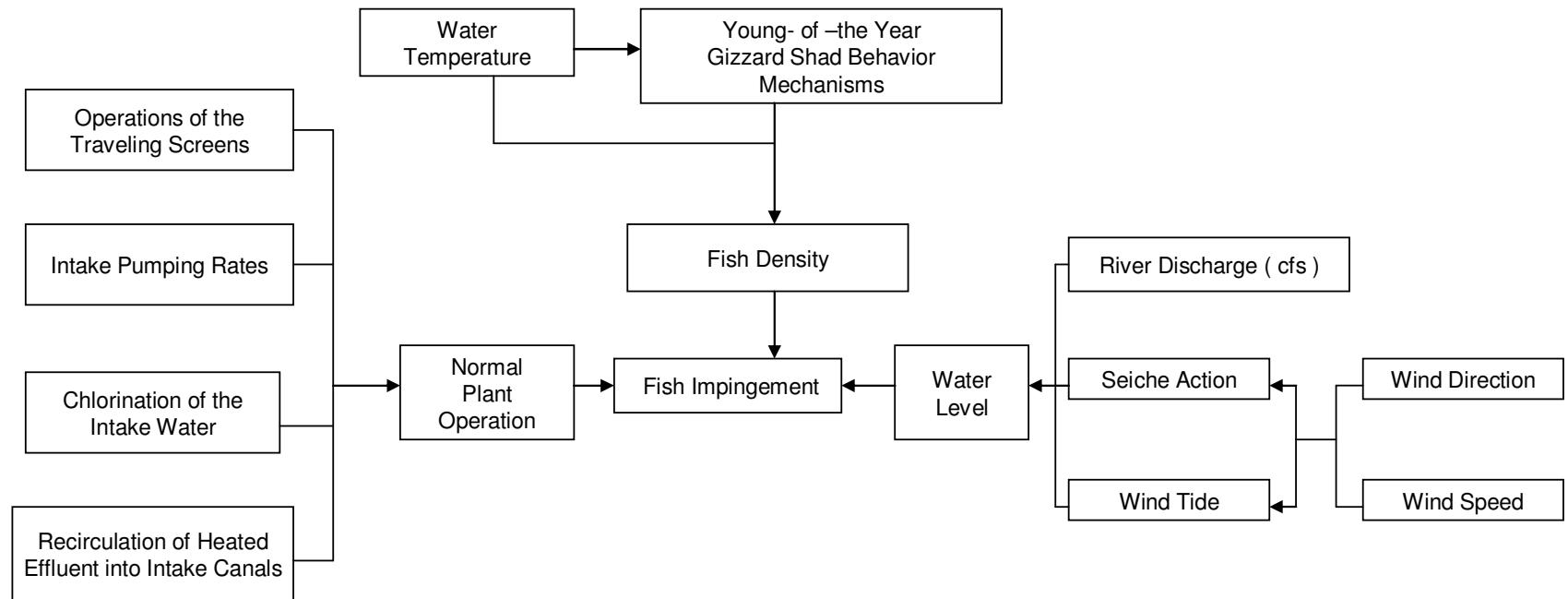
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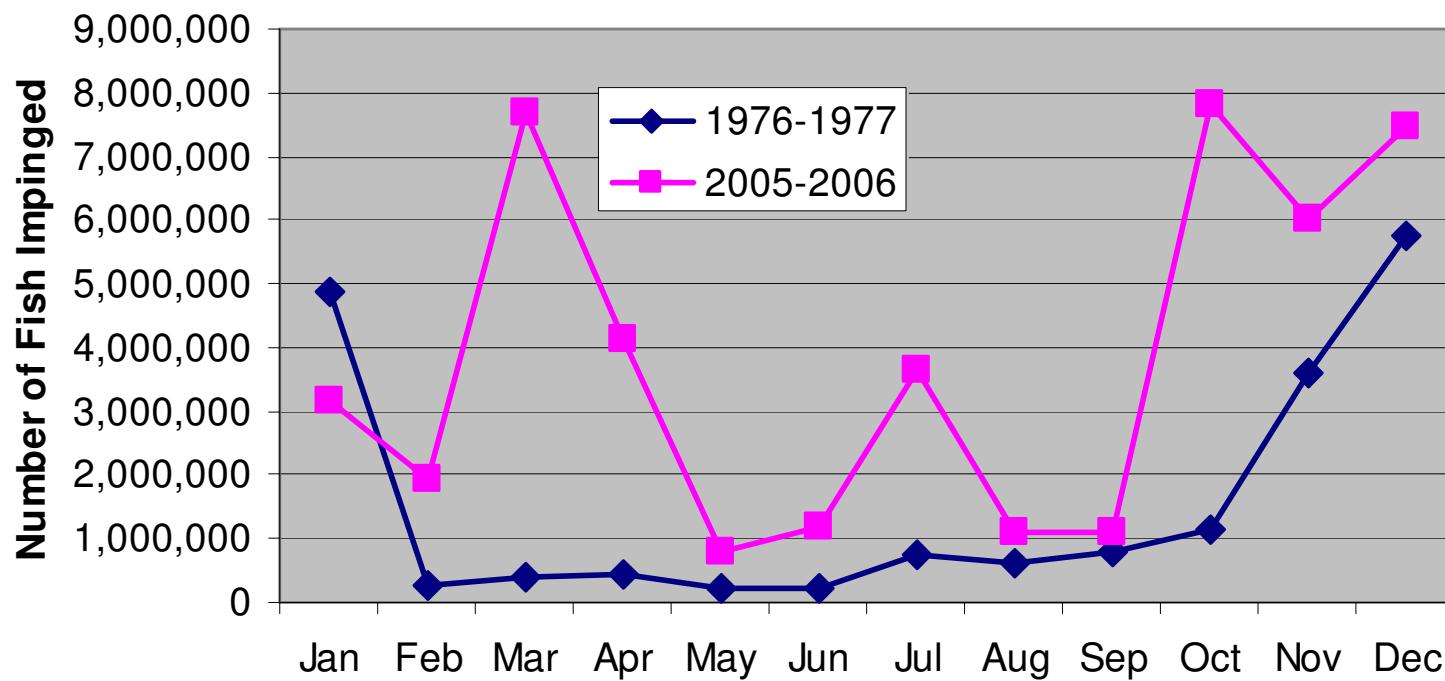
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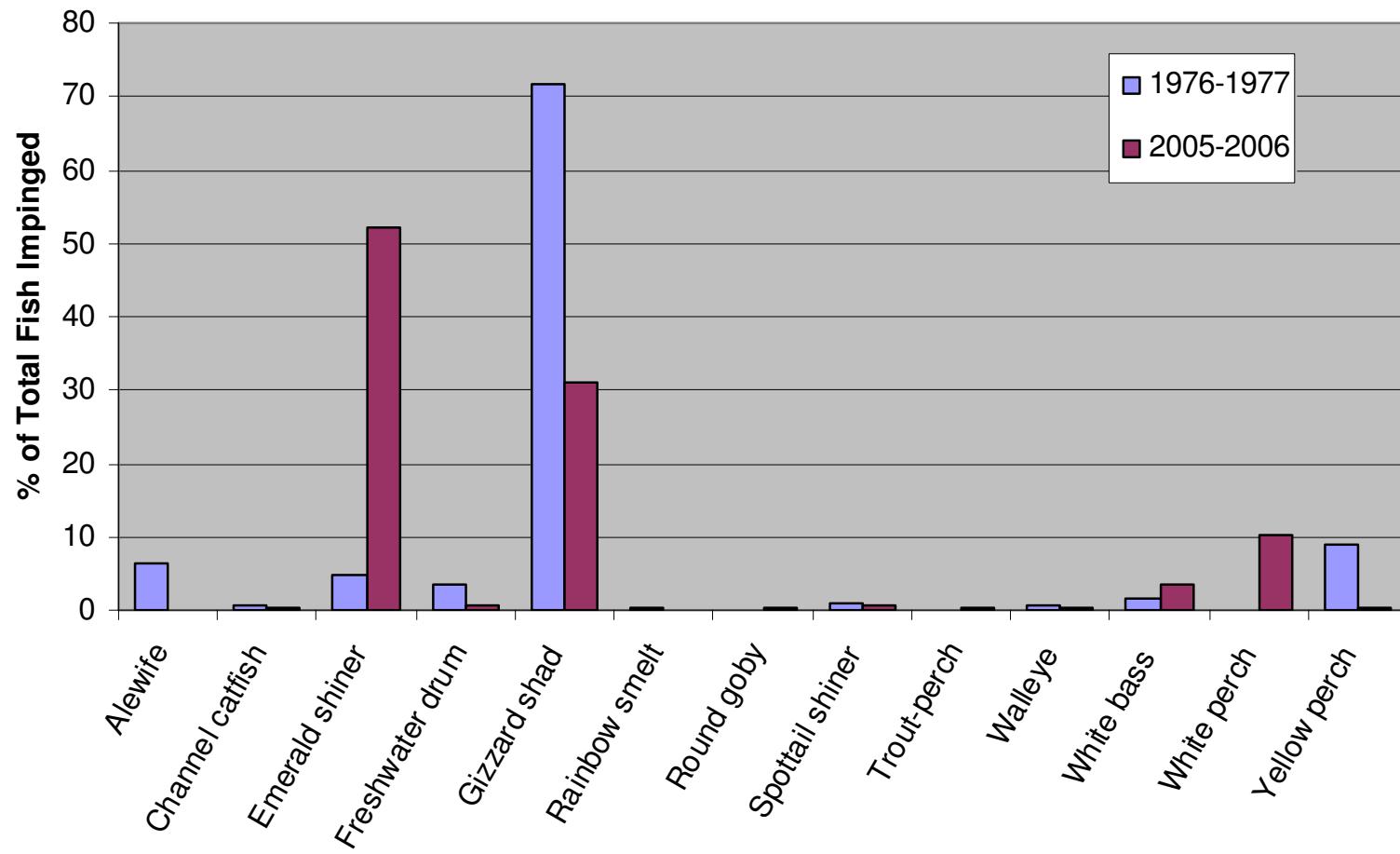
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**(1976-1977 versus 2005-2006)**



**Figure 19**  
**Comparison of Most Prominent Impinged Species at Bay Shore Power Plant**  
**(1976-1977 versus 2005-2006)**



**Table 1. Capacity of Bay Shore Generating Units**

<b>Unit</b>	<b>Generating Capacity (MW)</b>
1	136
2	138
3	142
4	215
<b>Total</b>	<b>631</b>

**Table 2. Entrainment Sampling Schedule for Bay Shore Power Plant**

<b>Month</b>	<b>Number of Entrainment Events/Month</b>	<b>Samples per Event</b>	<b>Samples per month</b>
May, 2005	5	10	50
June, 2005	10	10	100
July, 2005	8	10	80
August, 2005	6	10	60
September, 2005	2	10	20
March, 2006	4	10	40
April, 2006	8	10	80
May, 2006	4	10	40
<b>Total Events = 47</b>			<b>Total Samples = 470</b>

**Table 3. Impingement Sampling Schedule for Bay Shore Power Plant**

<b>Month</b>	<b>Number of Impingement Events</b>
May, 2005	5
June, 2005	10
July, 2005	8
August, 2005	8
September, 2005	10
October, 2005	10
November, 2005	8
December, 2005	3
January, 2006	4
February, 2006	4
March, 2006	7
April, 2006	8
May, 2006	4
October, 2006	5
November, 2006	8
December, 2006	2
<b>TOTAL</b>	<b>104</b>

**Table 4**  
**Estimated Number of Fish Eggs Entrained each Month at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

<b>Species</b>	<b>Bay Shore - Estimated Number of Entrained Eggs</b>									<b>% of Total</b>
	<b>May-05</b>	<b>Jun-05</b>	<b>Jul-05</b>	<b>Aug-05</b>	<b>Sep-05</b>	<b>Mar-06</b>	<b>Apr-06</b>	<b>May-06</b>	<b>Total</b>	
Freshwater drum	24,648,421	191,114,437							215,762,858	96.17%
Unidentifiable	6,755,519	1,490,751							8,246,270	3.68%
Catostomidae	73,781	179,419							253,199	0.11%
Morone spp.	84,046								84,046	0.04%
<b>Total</b>	<b>31,561,767</b>	<b>192,784,606</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>224,346,374</b>	<b>100.00%</b>

Individual estimates may not add to totals due to rounding.

**Table 5**  
**Annual Estimate of Fish Eggs Entrained at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

<b>Species</b>	<b>Bay Shore - Annual Number of Entrained Eggs</b>									<b>% of Total</b>
	<b>May-05/06</b>	<b>Jun-05</b>	<b>Jul-05</b>	<b>Aug-05</b>	<b>Sep-05</b>	<b>Mar-06</b>	<b>Apr-06</b>	<b>Total</b>		
Freshwater drum	12,324,211	191,114,437						203,438,647		97.54%
Unidentifiable	3,377,760	1,490,751						4,868,510		2.33%
Catostomidae	36,890	179,419						216,309		0.10%
Morone spp.	42,023							42,023		0.02%
<b>Total</b>	<b>15,780,884</b>	<b>192,784,606</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>208,565,490</b>	<b>100.00%</b>	

Individual estimates may not add to totals due to rounding.

**Table 6. Comparision of Fish Egg Entrainment at Bay Shore  
(2005-2006 versus 1976-1977)\***

Taxa	Egg Density at Intake (Eggs per 100 m <sup>3</sup> )		Annual Number of Eggs Entrained		Estimated River Population		% of River Population	
	2005	1976-1977	2005	1976-1977	2005	1976-1977	2005	1976-1977
Catostomidae	0.05		216,309		1,834,162		11.8%	
Freshwater drum	45.3	NA	203,438,647	425,804,075	1,779,346,087	2,463,574,487	11.4%	17.3%
Morone spp.	0.01		42,023		366,832		11.5%	
Unidentifiable	1.2	NA	4,868,510	346,034	46,587,710	153,818	10.5%	225.0%
<b>TOTAL</b>	<b>46.5</b>		<b>208,565,490</b>	<b>426,150,109</b>	<b>1,828,134,792</b>	<b>2,463,728,305</b>	<b>11.4%</b>	<b>17.3%</b>

\* 1976-1977 data obtained from Reutter et al., 1978.

**Table 7**  
**Estimated Number of Fish Larvae Entrained each Month at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Species	Bay Shore - Estimated Number of Entrained Larvae									% of Total
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Mar-06	Apr-06	May-06	Total	
Freshwater drum		977,312,351	79,788	34,772					977,426,912	38.5%
Rainbow smelt/Clupeidae	110,522,234	415,780,097	519,964				45,406	129,318,500	656,186,202	25.9%
Unidentifiable	44,270,441	426,336,716	165,664	66,103			762,596	32,957,500	504,559,020	19.9%
Morone spp.	80,588,532	37,242,661	95,920					119,833,828	237,760,940	9.4%
Logperch	222,588	8,600,492					2,348,669	43,406,370	54,578,119	2.2%
White sucker		28,964,338						464,475	29,428,813	1.2%
Emerald shiner		18,826,286	175,288						19,001,574	0.7%
White bass		17,816,675	23,581						17,840,256	0.7%
Walleye	8,369,756	793,968					1,543,107	3,271,751	13,978,581	0.6%
Cyprinidae	899,883	7,010,821	23,581						7,934,285	0.3%
Notropis spp.		4,707,966							4,707,966	0.2%
Yellow perch	36,890	1,258,759	63,356	62,662			875,848	1,802,843	4,100,359	0.2%
Percidae	636,573						1,731,756	501,191	2,869,521	0.1%
Common carp/Goldfish	73,781	2,018,974	87,326						2,180,081	0.1%
Catostomidae	1,092,580							184,907	1,277,487	0.1%
Trout-perch		655,666							655,666	0.03%
Walleye/Yellow perch							616,543		616,543	0.02%
White perch		488,198	23,581						511,779	0.02%
Lepomis spp.		17,436		250,649					268,084	0.01%
Grass pickerel							45,328	184,907	230,235	0.01%
Pomoxis spp.		180,015							180,015	0.01%
Burbot	168,513								168,513	0.01%
Spottail shiner		56,596	23,228						79,825	0.003%
Channel catfish			70,390						70,390	0.003%
Centrarchidae	42,128								42,128	0.002%
Lake whitefish							20,814		20,814	0.001%
<b>Total</b>	<b>246,923,900</b>	<b>1,948,068,015</b>	<b>1,351,666</b>	<b>414,186</b>	<b>0</b>	<b>0</b>	<b>7,990,066</b>	<b>331,926,273</b>	<b>2,536,674,106</b>	<b>100.0%</b>

Individual estimates may not add to totals due to rounding.

**Table 8**  
**Annual Estimate of Fish Larvae Entrained at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Species	Bay Shore - Annual Number of Entrained Larvae								% of Total
	May 05/06	Jun-05	Jul-05	Aug-05	Sep-05	Mar-06	Apr-06	Total	
Freshwater drum		977,312,351	79,788	34,772				977,426,912	43.5%
Rainbow smelt/Clupeidae	119,920,367	415,780,097	519,964				45,406	536,265,835	23.9%
Unidentifiable	38,613,971	426,336,716	165,664	66,103			762,596	465,945,050	20.7%
Morone spp.	100,211,180	37,242,661	95,920					137,549,760	6.1%
Logperch	21,814,479	8,600,492					2,348,669	32,763,640	1.5%
White sucker	232,238	28,964,338						29,196,575	1.3%
Emerald shiner		18,826,286	175,288					19,001,574	0.8%
White bass		17,816,675	23,581					17,840,256	0.8%
Walleye	5,820,753	793,968					1,543,107	8,157,828	0.4%
Cyprinidae	449,942	7,010,821	23,581					7,484,343	0.3%
Notropis spp.		4,707,966						4,707,966	0.2%
Yellow perch	919,867	1,258,759	63,356	62,662			875,848	3,180,492	0.1%
Percidae	568,882						1,731,756	2,300,638	0.1%
Common carp/Goldfish	36,890	2,018,974	87,326					2,143,190	0.1%
Catostomidae	638,744							638,744	0.03%
Trout-perch		655,666						655,666	0.03%
Walleye/Yellow perch							616,543	616,543	0.03%
White perch		488,198	23,581					511,779	0.02%
Lepomis spp.		17,436		250,649				268,084	0.01%
Grass pickerel	92,453						45,328	137,782	0.01%
Pomoxis spp.		180,015						180,015	0.01%
Burbot	84,256							84,256	0.004%
Spottail shiner		56,596	23,228					79,825	0.004%
Channel catfish			70,390					70,390	0.003%
Centrarchidae	21,064							21,064	0.001%
Lake whitefish							20,814	20,814	0.001%
<b>Total</b>	<b>289,425,086</b>	<b>1,948,068,015</b>	<b>1,351,666</b>	<b>414,186</b>	<b>0</b>	<b>0</b>	<b>7,990,066</b>	<b>2,247,249,020</b>	<b>100.0%</b>

Individual estimates may not add to totals due to rounding.

**Table 9**  
**Estimated Number of Live and Recently Dead Fish Larvae Entrained each Month at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Species	Bay Shore - Number of Entrained Larvae (Excluding Long Dead Larvae)									
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Mar-06	Apr-06	May-06	TOTAL	% of Total
Freshwater drum		939,780,338	47,399	34,772					939,862,509	46.7%
Rainbow smelt/Clupeidae	89,665,905	275,183,963	519,964				45,406	129,132,710	494,547,948	24.6%
Morone spp.	73,337,410	30,041,339	47,841					119,232,157	222,658,747	11.1%
Unidentifiable	36,310,192	151,582,534	94,798	31,331			762,596	30,886,184	219,667,634	10.9%
Logperch	222,588	7,882,519					2,348,669	40,170,818	50,624,593	2.5%
White sucker		28,964,338						464,475	29,428,813	1.5%
White bass		16,435,601	23,581						16,459,181	0.8%
Walleye	6,538,535	703,960					1,543,107	3,042,042	11,827,644	0.6%
Emerald shiner		9,633,376	175,288						9,808,664	0.5%
Cyprinidae	789,212	3,375,220	23,581						4,188,013	0.2%
Yellow perch		1,258,759	47,161				875,848	1,802,843	3,984,611	0.2%
Percidae	599,683						1,731,756	365,641	2,697,080	0.1%
Notropis spp.		1,308,013							1,308,013	0.1%
Catostomidae	1,092,580							184,907	1,277,487	0.1%
Common carp/Goldfish	0	1,182,063	87,326						1,269,389	0.1%
Trout-perch		655,666							655,666	0.03%
Walleye/Yellow perch							616,543		616,543	0.03%
White perch		470,763	23,581						494,343	0.02%
Lepomis spp.		17,436		250,649					268,084	0.01%
Pomoxis spp.		180,015							180,015	0.01%
Channel catfish			70,390						70,390	0.003%
Spottail shiner		39,161	23,228						62,389	0.003%
Grass pickerel							45,328		45,328	0.002%
Centrarchidae	42,128								42,128	0.002%
Lake whitefish							20,814		20,814	0.001%
Burbot									0	0.000%
<b>Total</b>	<b>208,598,234</b>	<b>1,468,695,061</b>	<b>1,184,139</b>	<b>316,752</b>	<b>0</b>	<b>0</b>	<b>7,990,066</b>	<b>325,281,777</b>	<b>2,012,066,028</b>	<b>100.0%</b>

**Table 10**  
**Annual Estimate of Live and Recently Dead Fish Larvae Entrained at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Species	Bay Shore - Annual Number of Entrained Larvae (Excluding Long Dead Larvae)								
	May 05/06	Jun-05	Jul-05	Aug-05	Sep-05	Mar-06	Apr-06	TOTAL	% of Total
Freshwater drum		939,780,338	47,399	34,772				939,862,509	53.9%
Rainbow smelt/Clupeidae	109,399,307	275,183,963	519,964				45,406	385,148,641	22.1%
Morone spp.	96,284,784	30,041,339	47,841					126,373,963	7.2%
Unidentifiable	33,598,188	151,582,534	94,798	31,331			762,596	186,069,447	10.7%
Logperch	20,196,703	7,882,519					2,348,669	30,427,890	1.7%
White sucker	232,238	28,964,338						29,196,575	1.7%
White bass		16,435,601	23,581					16,459,181	0.9%
Walleye	4,790,288	703,960					1,543,107	7,037,356	0.4%
Emerald shiner		9,633,376	175,288					9,808,664	0.6%
Cyprinidae	394,606	3,375,220	23,581					3,793,407	0.2%
Yellow perch	901,422	1,258,759	47,161				875,848	3,083,190	0.2%
Percidae	482,662						1,731,756	2,214,418	0.1%
Notropis spp.		1,308,013						1,308,013	0.1%
Catostomidae	638,744							638,744	0.0%
Common carp/Goldfish		1,182,063	87,326					1,269,389	0.1%
Trout-perch		655,666						655,666	0.04%
Walleye/Yellow perch							616,543	616,543	0.04%
White perch		470,763	23,581					494,343	0.03%
Lepomis spp.		17,436		250,649				268,084	0.02%
Pomoxis spp.		180,015						180,015	0.01%
Channel catfish			70,390					70,390	0.004%
Spottail shiner		39,161	23,228					62,389	0.004%
Grass pickerel							45,328	45,328	0.003%
Centrarchidae	21,064							21,064	0.001%
Lake whitefish							20,814	20,814	0.001%
Burbot								0	0.000%
<b>Total</b>	<b>266,940,005</b>	<b>1,468,695,061</b>	<b>1,184,139</b>	<b>316,752</b>	<b>0</b>	<b>0</b>	<b>7,990,066</b>	<b>1,745,126,022</b>	<b>100.0%</b>

**Table 11. Comparison of Larval Entrainment at Bay Shore  
(2005-2006 versus 1976-1977)**

Species	Larval Density at Intake (Larvae per 100 m <sup>3</sup> )		Annual Number of Larvae Entrained		Estimated River Population		% of River Population	
	2005	1976-1977	2005	1976-1977	2005	1976-1977	2005	1976-1977
Bluegill				28,201		0		
Burbot	0.02		84,256		733,665		11.5%	
Catostomidae	0.2		638,744		7,162,070		8.9%	
Centrarchidae	0.005		21,064		183,416		11.5%	
Channel catfish	0.01		70,390	564,532	550,249	0	12.8%	
Common carp/Goldfish	0.5	1.9	2,300,638	8,251,539	21,459,693	12,590,973	10.7%	65.5%
Crappie				28,778		3,027,329		1.0%
Cyprinidae	1.9		7,484,343		73,733,305		10.2%	
Emerald shiner	5.0		19,001,574	142,572	197,539,229	5,172,246	9.6%	2.8%
Freshwater drum	246.9	3.4	977,426,912	13,479,134	9,704,476,157	139,656,878	10.1%	9.7%
Grass pickerel	0.03		180,015		1,100,497		16.4%	
Green sunfish						27,771		0.0%
Lake whitefish	0.005		20,814		183,416		11.3%	
Lepomis spp.	0.04		268,084		1,650,746		16.2%	
Logperch	6.8		29,196,575	28,778	266,136,881	285,804	11.0%	10.1%
Morone spp.	32.3		137,549,760		1,271,449,818		10.8%	
Notropis spp.	1.2		4,707,966		48,055,040		9.8%	
Percidae	0.5		2,143,190		19,808,948		10.8%	
Pomoxis spp.	0.04		137,782		1,467,329		9.4%	
Quillback carpsucker						28,358		0.0%
Rainbow smelt/Clupeidae	124.7	55.9	536,265,835	224,187,505	4,900,513,140	6,522,661,227	10.9%	3.4%
Spottail shiner	0.02		79,825	238,132	733,665	1,937,219	10.9%	12.3%
Trout-perch	0.1		655,666	12,747	5,869,318	0	11.2%	
Unidentifiable	116.7		465,945,050	88,078	4,586,878,226	2,610,012	10.2%	3.4%
Unidentified shiner				166,784		276,446		60.3%
Unidentified sucker				357,889		357,167		100.2%
Unidentified sunfish				493,434		16,540,804		3.0%
Walleye	2.1	0.1	8,157,828	441,614	83,087,531	6,049,074	9.8%	7.3%
Walleye/Yellow perch	0.1	0.7	511,779		5,135,653		10.0%	
White bass	4.5	13.4	17,840,256	33,107,855	177,188,987	560,518,850	10.1%	5.9%
White crappie						27,771		0.0%
White perch	0.1		616,543		5,319,069		11.6%	
White sucker	7.4		32,763,640	637,614	289,448,768	1,857,758	11.3%	34.3%
Yellow perch	0.7		3,180,492	2,426,431	25,861,682	29,630,704	12.3%	8.2%
<b>Total</b>	<b>551.9</b>	<b>86.2</b>	<b>2,247,249,020</b>	<b>284,681,617</b>	<b>21,695,726,497</b>	<b>7,303,256,391</b>	<b>10.4%</b>	<b>3.9%</b>

**Table 12**  
**Estimated Number of Entrained Juvenile Fish Entrained each Month at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Species	Bay Shore - Estimated Number of Juveniles Entrained									
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Mar-06	Apr-06	May-06	Total	% of Total
Rainbow smelt/Clupeidae		4,310,763	23,581	31,331					4,365,674	31.6%
Emerald shiner		3,499,021	232,316	91,377	92,851				3,915,565	28.3%
Round goby		1,694,072	480,568						2,174,639	15.7%
Logperch		1,328,768							1,328,768	9.6%
White bass		993,216	104,588						1,097,805	7.9%
Walleye		663,715							663,715	4.8%
Freshwater drum		139,239	16,303						155,542	1.1%
White perch		34,871	23,581						58,452	0.4%
Bluntnose minnow			23,228						23,228	0.2%
Mottled sculpin			23,228						23,228	0.2%
Notropis spp.		17,405							17,405	0.1%
<b>Total</b>	<b>0</b>	<b>12,681,069</b>	<b>927,394</b>	<b>122,709</b>	<b>92,851</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13,824,022</b>	<b>100.0%</b>

Individual estimates may not add to totals due to rounding.

**Table 13**  
**Estimated Number of Live and Recently Dead Juvenile Fish Entrained each Month at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Species	Bay Shore - Number of Entrained Juveniles (Excluding Long Dead Juveniles)									
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Mar-06	Apr-06	May-06	TOTAL	% of Total
Rainbow smelt/Clupeidae		3,962,049	23,581	31,331					4,016,961	31.2%
Emerald shiner		3,220,050	232,316	91,377	92,851				3,636,594	28.2%
Round goby		1,554,586	480,568						2,035,154	15.8%
Logperch		1,328,768							1,328,768	10.3%
White bass		993,216	104,588						1,097,805	8.5%
Walleye		499,799							499,799	3.9%
Freshwater drum		139,239	16,303						155,542	1.2%
White perch		34,871	23,581						58,452	0.5%
Bluntnose minnow			23,228						23,228	0.2%
Mottled sculpin			23,228						23,228	0.2%
Notropis spp.		17,405							17,405	0.1%
	0	11,749,983	927,394	122,709	92,851	0	0	0	12,892,936	100.0%

**Table 14. Estimated Number of Fish Impinged each Month at Bay Shore Power Plant (May 2005 – December 2006)**

Species	Bayshore - Estimated Number of Impinged Fish																		
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Oct-06	Nov-06	Dec-06	Total	% of Total	
Emerald shiner	506,277	618,371	42,916	42,567	139,778	1,013,604	5,739,232	5,552,830	2,284,338	1,612,578	6,659,892	3,543,633	685,528	1,010,011	2,236,205	1,529,922	33,217,681	48.8%	
Gizzard shad	1,990	66,329	1,054,323	189,086	453,612	7,573,814	1,503,371	6,873,770	841,949	312,631	959,327	343,786	11,605	3,538,063	180,320	501,211	24,405,185	35.8%	
White perch	59,691	141,923	1,127,358	520,414	423,310	1,556,693	1,592,399	409,310	17,052	5,046	8,703	23,093	39,589	804,588	526,775	15,485	7,271,428	10.7%	
White bass	1,995	218,670	1,300,298	45,596	13,570	4,649	2,905		486		2,778	5,740	1,252	1,321			1,599,260	2.3%	
Spottail shiner	16,184	5,127	65,859	116,259	21,522	16,058	3,188	10,443	1,891	702	20,670	51,350	4,761	3,519	4,484	1,256	343,273	0.5%	
Freshwater drum	20,903	12,826	10,756	78,740	23,383	23,378	10,954	648	760	836	745	49,154	30,909	9,039	766	419	274,213	0.4%	
Yellow perch	1,482	1,016	351	974	714	482	220,741	1,305	868		1,340	3,649	2,058	1,037	1,879		237,897	0.3%	
TROUT-perch	31,146	11,801	2,015	20,670	8,570	1,302	2,338	0	326	0	20,336	30,366	93,275	1,728	799	0	224,672	0.3%	
Round goby	7,980	19,707	16,876	32,361	8,545	2,267	395	658	326		744	2,177	3,744	8,324	902	2,093	107,099	0.2%	
Channel catfish	1,242	4,173	10,994	12,106	9,407	14,091	5,489	648		789	372	14,980	7,798	18,655	1,373		102,117	0.1%	
Walleye	499	67,861	2,653	118	421	347	2,012				645	2,927	3,261		256		80,999	0.1%	
Logperch		1,244	11,543	24,298	1,825	22,086	814			294		158	707	346		419	63,732	0.1%	
Bluegill	249	309	123	816	162	4,928	6,758	658	868		1,936	2,640	1,103	15,646	1,823	1,332	39,351	0.1%	
Sand shiner											744	29,453	3,831				34,027	0.05%	
Brook silverside	0	0	0	10,586	0	231	1,042	1,305	760	511	596	977	0	550	1,388	9,702	27,647	0.04%	
Rainbow smelt							9,221	13,020		351							22,592	0.03%	
Silver chub	489	771	1,851	4,278	1,015					248		158	4,277					13,086	0.02%
Common carp	0	3,920	2,097	0	108	0	0	0	0	0	0	1,922	1,252	0	0	0	9,299	0.01%	
Brown bullhead			123			231			434	550	1,488	4,409	521		135		7,891	0.01%	
Smallmouth bass					432	4,842			326	256		260	1,321	442			7,877	0.01%	
Goldfish	249						1,174		760		373	158	260	2,199	2,679		7,853	0.01%	
Largemouth bass	307	381	122	270	145	2,441					539				236		4,442	0.01%	
Pumpkinseed	499	93	293	741	887					224	1,159	260					4,156	0.01%	
Bluntnose minnow	249	201	1,727			96					126	260					2,660	0.004%	
Shorthead redhorse	0	0	0	0	0	0	0	0	0	0	630	0	1,321	529	0	2,480	0.004%		
Redhorse		182									508	1,252					1,942	0.003%	
White crappie			237				260	648	434			260			101		1,941	0.003%	
Orangespotted sunfish	108	123		162						372	750	211					1,726	0.003%	
Quillback			171		96				294		693	446					1,701	0.002%	
Black redhorse														1,652			1,652	0.002%	
Central stoneroller						1,630											1,630	0.002%	
White sucker						231					595	252			419	1,497	0.002%		
Tadpole madtom					486		260			372	284						1,402	0.002%	
Yellow bullhead			123							744	382						1,249	0.002%	
Fathead minnow	108	617		270													995	0.001%	
Black crappie										126					837		963	0.001%	
Spotfin shiner	309			432													741	0.001%	
Black bullhead					145			256			260						661	0.001%	
Green sunfish			123			521											644	0.001%	
Northern pike						395			224								619	0.001%	
Golden shiner	108		122								372						602	0.001%	
Alewife														540			540	0.001%	
Stonecat madtom	249			171						372							420	0.001%	
Black darter				342													342	0.001%	
Channel darter																	281	<0.001%	
Bigmouth buffalo			123							158							260	<0.001%	
Creek chub							260					260					260	<0.001%	
Northern redfin shiner															256		256	<0.001%	
Sauger				171													171	<0.001%	
Lepomis spp.				171													171	<0.001%	
Western banded killifish			171														171	<0.001%	
Flathead catfish											158						158	<0.001%	
Silver lamprey										152							152	<0.001%	
Rainbow trout		93															93	<0.001%	
Steelhead trout		93															93	<0.001%	
<b>Total</b>	<b>651,373</b>	<b>1,175,648</b>	<b>3,653,593</b>	<b>1,100,434</b>	<b>1,108,736</b>	<b>10,242,235</b>	<b>9,106,170</b>	<b>12,865,242</b>	<b>3,151,575</b>	<b>1,935,340</b>	<b>7,683,592</b>	<b>4,116,642</b>	<b>899,576</b>	<b>5,419,319</b>	<b>2,961,888</b>	<b>2,063,091</b>	<b>68,134,453</b>	<b>100.0%</b>	

**Table 15. Estimated Weight (kg) of Fish Impinged each Month at Bay Shore Power Plant (May 2005 – December 2006)**

Species	Bayshore - Estimated Weight of Impinged Fish																		Total	% of Total
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Oct-06	Nov-06	Dec-06	Total			
Gizzard shad	565	93	786	576	2,348	76,450	17,161	86,228	17,231	4,459	16,364	6,840	453	23,540	1,470	9,439	264,003	60.2%		
Emerald shiner	1,690	1,766	80	31	250	1,431	12,183	10,221	5,194	2,663	12,400	6,367	2,004	1,720	3,989	2,890	64,878	14.8%		
White perch	7,699	641	950	1,398	1,868	9,322	10,656	2,394	101	29	228	3,056	5,680	5,266	3,306	87	52,681	12.0%		
Walleye	339	369	67	40	21	262	1,264			539	2,213	20,666		222			26,001	5.9%		
Freshwater drum	1,443	1,480	37	717	367	614	534	87	272	90	16	3,353	4,699	342	14	131	14,195	3.2%		
White bass	315	148	662	92	77	99	472		154		793	544	299	57			3,711	0.8%		
Yellow perch	71	49	25	115	46	35	1,536	112	6		234	184	153	43	29		2,638	0.6%		
Channel catfish	3	104	149	50	82	167	42	16		74	1	559	310	195	2		1,753	0.4%		
Trout-perch	189	63	6	23	19	5	5		2		251	182	475	8	4		1,231	0.3%		
Redhorse		0										2	1,114				1,117	0.3%		
Spottail shiner	31	8	81	108	42	66	16	71	10	10	131	287	26	24	52	7	969	0.2%		
White sucker						8					378	4				480	870	0.2%		
Smallmouth bass					9	71			286	3			53	16	53		492	0.1%		
Goldfish	12						18		7		20	43	2	349	22		474	0.1%		
Shorthead redhorse												9		247	89		344	0.1%		
Northern pike							246				82						328	0.1%		
Silver chub	25	52	9	4	4					8		4	206				314	0.1%		
Largemouth bass	0.307	1	2	2	1	175					78				8		268	0.01%		
Black redhorse														268			268	0.1%		
Sauger														245			245	0.1%		
Common carp		2	2		3						38	197					242	0.1%		
Round goby	18	39	35	40	17	9	2	4	0.326		2	7	5	24	3	2	206	0.05%		
Brown bullhead		0			8			10	10	36	86	31		20		201	0.05%			
Logperch	1	11	12	5	75	1			0.294		1	2	2		2	112	0.03%			
Pumpkinseed	18	1		9	19	12				13	28	2				101	0.02%			
Bigmouth buffalo		0.123									97						97	0.02%		
Bluegill	0.499	2	2	1	0.324	8	6	1	1		3	17	14	27	3	1	88	0.02%		
Quillback			2			0			2		29	31					64	0.01%		
Black crappie											0				46		46	0.01%		
Central stoneroller					33												33	0.01%		
Brook silverside			10			1	3	1	1	1	1			1	1	10	29	0.01%		
Black bullhead					8				5				15				28	0.01%		
Yellow bullhead		0.123							9	16							25	0.01%		
White crappie		0.176				1	21	1				2			0.101		24	0.01%		
Sand shiner										1	19	2					22	0.005%		
Rainbow smelt					6	13		0.351			10	2	2				20	0.005%		
Orangespotted sunfish	0.108	1		3							15						17	0.004%		
Silver Lamprey																	15	0.003%		
Rainbow trout		8															8	0.002%		
Steelhead trout		8															8	0.002%		
Stonecat madtom	6		1														6	0.001%		
Alewife															6		6	0.001%		
Green sunfish		0.123				5											5	0.001%		
Tadpole madtom				1		1				2	1						5	0.001%		
Golden shiner	3		0.122								1						4	0.001%		
Bluntnose minnow	0.499	0.309	2			0.193					0.126	0.260					3	0.001%		
Creek chub						0.260							3				3	0.001%		
Black darter									2								2	0.001%		
Spotfin shiner	0.309			1		0.270											2	<0.001%		
Fathead minnow	0.108	1			0.270												0.995	<0.001%		
Channel darter			0.342														0.342	<0.001%		
Northern redfin shiner					0.260												0.260	<0.001%		
Lepomis spp.			0.171														0.171	<0.001%		
Western banded killifish			0.171														0.171	<0.001%		
Flathead catfish												0.158					0.158	<0.001%		
<b>Total</b>	<b>12,425</b>	<b>4,839</b>	<b>2,905</b>	<b>3,232</b>	<b>5,184</b>	<b>88,684</b>	<b>44,331</b>	<b>99,169</b>	<b>23,276</b>	<b>7,354</b>	<b>31,516</b>	<b>24,081</b>	<b>36,448</b>	<b>32,127</b>	<b>9,540</b>	<b>13,095</b>	<b>438,205</b>	<b>100.0%</b>		

Individual estimates may not add to totals due to rounding.

**Table 16. Annual Number of Fish Impinged at Bay Shore Power Plant (May 2005 – December 2006)**

Species	Bayshore - Annual Number of Impinged Fish													Total	% of Total
	Jan-06	Feb-06	Mar-06	Apr-06	May-05/06	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05/06	Nov-05/06	Dec-05/06			
Emerald shiner	2,284,338	1,612,578	6,659,892	3,543,633	595,903	618,371	42,916	42,567	139,778	1,011,807	3,987,719	3,541,376	24,080,877	52.3%	
Gizzard shad	841,949	312,631	959,327	343,786	6,797	66,329	1,054,323	189,086	453,612	5,555,938	841,846	3,687,490	14,313,113	31.1%	
White perch	17,052	5,046	8,703	23,093	49,640	141,923	1,127,358	520,414	423,310	1,180,641	1,059,587	212,397	4,769,163	10.4%	
White bass	486		2,778	5,740	1,624	218,670	1,300,298	45,596	13,570	2,985	1,453		1,593,199	3.5%	
Spottail shiner	1,891	702	20,670	51,350	10,473	5,127	65,859	116,259	21,522	9,788	3,836	5,849	313,326	0.7%	
Freshwater drum	760	836	745	49,154	25,906	12,826	10,756	78,740	23,383	16,208	5,860	533	225,706	0.5%	
TROUT-perch	326		20,336	30,366	62,210	11,801	2,015	20,670	8,570	1,515	1,569		159,379	0.3%	
Yellow perch	868		1,340	3,649	1,770	1,016	351	974	714	760	111,310	653	123,405	0.3%	
Round goby	326		744	2,177	5,862	19,707	16,876	32,361	8,545	5,296	648	1,375	93,918	0.2%	
Walleye			645	2,927	1,880	67,861	2,653	118	421	174	1,134		77,812	0.2%	
Channel catfish		789	372	14,980	4,520	4,173	10,994	12,106	9,407	16,373	3,431	324	77,469	0.2%	
Largemouth		294		158	353	1,244	11,543	24,298	1,825	11,216	407	209	51,547	0.1%	
Sand shiner			744	29,453	1,915								32,112	0.1%	
Bluegill		868		1,936	2,640	676	309	123	816	162	10,287	4,290	995	23,103	0.1%
Brook silverside		760	511	596	977				10,586		391	1,215	5,503	20,538	0.04%
Rainbow smelt			351								4,611	6,510	11,472	0.02%	
Silver chub		248		158	2,383	771	1,851	4,278	1,015				10,703	0.02%	
Common carp				1,922	626	3,920	2,097		108				8,673	0.02%	
Brown bullhead		434	550	1,488	4,409	260		123			116	68	7,448	0.02%	
Goldfish		760		373	158	255					1,100	1,927	4,571	0.01%	
Smallmouth bass		326	256			130				432	3,081	221	4,445	0.01%	
Pumpkinseed			224	1,159	380	93		293	741	444			3,333	0.01%	
Largemouth bass				539		307	381	122	270	72	1,339		3,031	0.01%	
Bluntnose minnow					126	255	201	1,727			48		2,357	0.01%	
Orangespotted sunfish			372		750	105	108	123		162			1,621	0.004%	
Shorthead redhorse					630						660	265		1,555	0.003%
Quillback		294			693	223		171		48			1,430	0.003%	
Redhorse					508	626	182						1,315	0.003%	
White crappie		434				130		237			181	324	1,306	0.003%	
Tadpole madtom			372	284					486		130		1,272	0.003%	
Yellow bullhead			744	382			123						1,249	0.003%	
White sucker			595	252						116		209	1,172	0.003%	
Fathead minnow						108	617		270				995	0.002%	
Black redhorse										826			826	0.002%	
Central stoneroller										815			815	0.002%	
Spotfin shiner						309			432				741	0.002%	
Black crappie				126							419	545		545	0.001%
Black bullhead		256				130				72			458	0.001%	
Northern pike			224								197		421		0.001%
Golden shiner						186	108	122					416		0.001%
Green sunfish							123			260			384		0.001%
Black darter		372											372		0.001%
Channel darter								342					342		0.001%
Stonecat madtom					125			171					296		0.001%
Bigmouth buffalo				158			123						281		0.001%
Alewife											270		270		0.001%
Lepomis spp.								171					171		<0.001%
Western banded killifish								171					171		<0.001%
Flathead catfish					158								158		<0.001%
Silver lamprey					152								152		<0.001%
Creek chub						130							130		<0.001%
Northern redfin shiner											130		130		<0.001%
Sauger											128		128		<0.001%
Rainbow trout						93							93		<0.001%
Steelhead trout						93							93		<0.001%
<b>Total</b>	<b>3,151,575</b>	<b>1,935,340</b>	<b>7,683,592</b>	<b>4,116,642</b>	<b>775,474</b>	<b>1,175,648</b>	<b>3,653,593</b>	<b>1,100,434</b>	<b>1,108,736</b>	<b>7,830,777</b>	<b>6,034,029</b>	<b>7,464,166</b>	<b>46,030,006</b>	<b>100.0%</b>	

Individual estimates may not add to totals due to rounding.

**Table 17. Annual Weight (kg) of Fish Impinged at Bay Shore Power Plant (May 2005 – December 2006)**

Species	Bayshore - Annual Weight of Impinged Fish (kg)													Total	% of Total
	Jan-06	Feb-06	Mar-06	Apr-06	May-05/06	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05/06	Nov-05/06	Dec-05/06			
Gizzard shad	17,231	4,459	16,364	6,840	509	93	786	576	2,348	49,995	9,315	47,833	156,350	57.8%	
Emerald shiner	5,194	2,663	12,400	6,367	1,847	1,766	80	31	250	1,575	8,086	6,556	46,814	17.3%	
White perch	101	29	228	3,056	6,689	641	950	1,398	1,868	7,294	6,981	1,241	30,476	11.3%	
Walleye			539	2,213	10,503	369	67	40	21	131	743		14,625	5.4%	
Freshwater drum	272	90	16	3,353	3,071	1,480	37	717	367	478	274	109	10,263	3.8%	
White bass	154		793	544	307	148	662	92	77	78	236		3,090	1.1%	
Yellow perch	6		234	184	112	49	25	115	46	39	782	56	1,648	0.6%	
Channel catfish		74	1	559	157	104	149	50	82	181	22	8	1,386	0.5%	
Trout-perch	2		251	182	332	63	6	23	19	6	5		888	0.3%	
Spottail shiner	10	10	131	287	28	8	81	108	42	45	34	39	823	0.3%	
White sucker			378	4					4				240	626	0.2%
Redhorse				2	557	0.182								559	0.2%
Smallmouth bass	286	3			27				9	43	27		396	0.1%	
Goldfish	7		20	43	7					175	20		272	0.1%	
Northern pike			82						0	123			205	0.1%	
Silver chub		8		4	116	52	9	4	4	0	0		198	0.1%	
Shorthead redhorse				9						123	44		176	0.1%	
Largemouth bass			78		0.307	1	2	2	1	92			176	0.1%	
Round goby	0.326			2	7	11	39	35	40	17	16	2	3	174	0.1%
Brown bullhead	10	10	36	86	16		0.247			4	10		171	0.1%	
Common carp				38	99	2	2		3				143	0.1%	
Black redhorse										134			134	0.05%	
Sauber									0	123			123	0.05%	
Bigmouth buffalo				97			0.123			0	0		97	0.04%	
Pumpkinseed		13	28	10	1		9	19	6	0			85	0.03%	
Logperch	0.294			1	1	1	11	12	5	38	0	1	72	0.03%	
Bluegill	1		3	17	7,109	2	2	1	0.324	18	5	1	57	0.02%	
Quillback		2		29	16			2		0.096			48	0.02%	
Yellow bullhead			9	16		0.123							25	0.01%	
Black crappie				0.252									23	0.01%	
Brook silverside	1	1	1	1				10		0.275	1	6	21	0.01%	
Sand shiner			1	19	1								21	0.01%	
Black bullhead		5			7				4				16	0.01%	
Central stoneroller									16				16	0.01%	
Orangespotted sunfish		10	2	1	0.108	1		3					16	0.01%	
Silver Lamprey				15									15	0.01%	
White crappie	1				1		0.176			0.311	10	13	0.005%		
Rainbow smelt	0.351								3	7	10		0.004%		
Rainbow trout						8							8	0.003%	
Steelhead trout						8							8	0.003%	
Tadpole madtom		2	1						1		0.391		4	0.002%	
Golden shiner				0.279	3		0.122						4	0.001%	
Stonecat madtom				3			1						4	0.001%	
Alewife										3			3	0.001%	
Green sunfish						0.123				3			3	0.001%	
Bluntnose minnow			0.126	0.380	0.309	2			0.096				3	0.001%	
Black darter		2			0.309			1					2	0.001%	
Spottin shiner													2	0.001%	
Creek chub				1									1	<0.001%	
Fathead minnow					0.108	1		0.270					1	<0.001%	
Channel darter							0.342						0.342	<0.001%	
Lepomis spp.							0.171						0.171	<0.001%	
Western banded killifish							0.171						0.171	<0.001%	
Flathead catfish			0.158										0.158	<0.001%	
Northern redfin shiner										0.130			0.130	<0.001%	
<b>Total</b>	<b>23,276</b>	<b>7,354</b>	<b>31,516</b>	<b>24,081</b>	<b>24,437</b>	<b>4,839</b>	<b>2,905</b>	<b>3,232</b>	<b>5,184</b>	<b>60,405</b>	<b>26,935</b>	<b>56,132</b>	<b>270,296</b>	<b>100.0%</b>	

Individual estimates may not add to totals due to rounding.

**Table 18. Number of Fish Impinged at Bay Shore power Plant  
(September 1976 – September 1977)**

Sampling Period		No. Fish Impinged
Start	End	
15-Sep-76	29-Sep-76	73,169
29-Sep-76	13-Oct-76	202,327
13-Oct-76	27-Oct-76	939,462
27-Oct-76	10-Nov-76	2,128,550
10-Nov-76	24-Nov-76	1,492,081
24-Nov-76	8-Dec-76	3,179,858
8-Dec-76	22-Dec-76	2,558,400
22-Dec-76	5-Jan-77	1,664,243
5-Jan-77	19-Jan-77	2,423,509
19-Jan-77	2-Feb-77	766,746
2-Feb-77	16-Feb-77	65,857
16-Feb-77	2-Mar-77	190,137
2-Mar-77	16-Mar-77	260,938
16-Mar-77	24-Mar-77	79,284
24-Mar-77	1-Apr-77	61,747
1-Apr-77	9-Apr-77	95,144
9-Apr-77	17-Apr-77	105,083
17-Apr-77	25-Apr-77	170,755
25-Apr-77	3-May-77	74,989
3-May-77	11-May-77	54,338
11-May-77	19-May-77	51,150
19-May-77	27-May-77	48,066
27-May-77	4-Jun-77	48,331
4-Jun-77	12-Jun-77	50,432
12-Jun-77	23-Jun-77	52,012
23-Jun-77	7-Jul-77	138,156
7-Jul-77	21-Jul-77	313,279
21-Jul-77	4-Aug-77	412,062
4-Aug-77	18-Aug-77	252,447
18-Aug-77	1-Sep-77	346,144
1-Sep-77	15-Sep-77	720,448
<b>TOTAL</b>		<b>19,019,144</b>

Reutter *et al.*, 1978.

**Table 19**  
**Comparison of Most Prominent Impinged Species at Bay Shore Power Plant**  
**(1976-1977 versus 2005-2006)**

<b>Species</b>	<b>% of Total</b>	
	<b>1976-1977</b>	<b>2005-2006</b>
Alewife	6.3	0.001
Channel catfish	0.6	0.2
Emerald shiner	4.7	52.3
Freshwater drum	3.4	0.5
Gizzard shad	71.8	31.1
Rainbow smelt	0.2	0.05
Round goby	<0.1	0.2
Spottail shiner	1	0.7
Trout-perch	<0.1	0.3
Walleye	0.7	0.2
White bass	1.6	3.5
White perch	<0.1	10.4
Yellow perch	8.9	0.3

**Table 20. List of Specimens Entrained and Impinged at Bay Shore Power Plant, (May 2005 – December 2006)**

Common Species Name	Scientific Name	Entrainment			Impingement
		Eggs	Larvae	Juvenile	
Alewife	<i>Alosa pseudoharengus</i>		Yes	Yes	Yes
Bigmouth buffalo	<i>Ictiobus cyprinellus</i>				Yes
Black bullhead	<i>Ameiurus melas</i>				Yes
Black crappie	<i>Pomoxis nigromaculatus</i>				Yes
Black darter	<i>Etheostoma duryi</i>				Yes
Black redhorse	<i>Moxostoma duquesnei</i>				Yes
Bluegill	<i>Lepomis macrochirus</i>				Yes
Bluntnose minnow	<i>Pimephales notatus</i>			Yes	Yes
Brook silverside	<i>Labidesthes sicculus</i>				Yes
Brown bullhead	<i>Ameiurus nebulosus</i>				Yes
Burbot <sup>1</sup>	<i>Lota lota</i> <sup>1</sup>		Yes <sup>1</sup>		
Central stoneroller	<i>Campostoma anomalum</i>				Yes
Channel catfish	<i>Ictalurus punctatus</i>		Yes		Yes
Channel darter <sup>2</sup>	<i>Percina copelandi</i> <sup>2</sup>				Yes <sup>2</sup>
Common carp	<i>Cyprinus carpio</i>		Yes		Yes
Creek chub	<i>Semotilus atromaculatus</i>				Yes
Emerald shiner	<i>Notropis atherinoides</i>		Yes	Yes	Yes
Fathead minnow	<i>Pimephales promelas</i>				Yes
Flathead catfish	<i>Pylodictis olivaris</i>				Yes
Freshwater drum	<i>Aplodinotus grunniens</i>	Yes	Yes	Yes	Yes
Gizzard shad	<i>Dorosoma cepedianum</i>		Yes	Yes	Yes
Golden shiner	<i>Notemigonus crysoleucas</i>				Yes
Goldfish	<i>Carassius auratus</i>		Yes		Yes
Grass pickerel	<i>Esox americanus</i>		Yes		
Green sunfish	<i>Lepomis cyanellus</i>				Yes
Lake whitefish <sup>1</sup>	<i>Coregonus clupeaformis</i> <sup>1</sup>		Yes <sup>1</sup>		
Largemouth bass	<i>Micropterus salmoides</i>				Yes
Logperch	<i>Percina caprodes</i>		Yes	Yes	Yes
Mottled sculpin	<i>Cottus bairdi</i>			Yes	
Northern pike	<i>Esox lucius</i>				Yes
Redfin shiner	<i>Lythrurus umbratilis</i>				Yes
Orangespotted sunfish	<i>Lepomis humilis</i>				Yes
Pumpkinseed	<i>Lepomis gibbosus</i>				Yes
Quillback	<i>Carpoides cyprinus</i>				Yes
Rainbow smelt	<i>Osmerus mordax</i>		Yes	Yes	Yes
Rainbow trout	<i>Oncorhynchus mykiss</i>				Yes
Redhorse	<i>Moxostoma spp.</i>				Yes
Round goby	<i>Neogobius melanostomus</i>			Yes	Yes
Sand shiner	<i>Notropis stramineus</i>				Yes
Sauger	<i>Sander canadensis</i>				Yes
Shorthead redhorse	<i>Moxostoma macrolepidotum</i>				Yes
Silver chub	<i>Macrhybopsis storriiana</i>				Yes
Silver lamprey	<i>Ichthyomyzon unicuspis</i>				Yes
Smallmouth bass	<i>Micropterus dolomieu</i>				Yes
Spotfin shiner	<i>Cyprinella spiloptera</i>				Yes
Spottail shiner	<i>Notropis hudsonius</i>		Yes		Yes
Steelhead trout	<i>Oncorhynchus mykiss</i>				Yes
Stonecat	<i>Noturus flavus</i>				Yes
Tadpole madtom	<i>Noturus gyrinus</i>				Yes
Trout-perch	<i>Percopsis omiscomaycus</i>		Yes		Yes
Walleye	<i>Sander vitreus</i>		Yes	Yes	Yes
Western banded killifish <sup>3</sup>	<i>Fundulus diaphanus menona</i> <sup>3</sup>				Yes <sup>3</sup>
White bass	<i>Morone chrysops</i>		Yes	Yes	Yes
White crappie	<i>Pomoxis annularis</i>				Yes
White perch	<i>Morone americana</i>		Yes	Yes	Yes
White sucker	<i>Catostomus commersonii</i>		Yes		Yes
Yellow bullhead	<i>Ameiurus natalis</i>				Yes
Yellow perch	<i>Perca flavescens</i>		Yes		Yes
Common Genus Name	Scientific Name				
Crappies	<i>Pomoxis spp.</i>		Yes		
Shiners	<i>Notropis spp.</i>		Yes	Yes	
Sunfishes	<i>Lepomis spp.</i>		Yes		Yes
Temperate basses	<i>Morone spp.</i>	Yes	Yes		
Common Family Name	Scientific Name				
Carps and minnows	<i>Cyprinidae</i>		Yes		
Perches	<i>Percidae</i>		Yes		
Suckers	<i>Catostomidae</i>	Yes	Yes		
Sunfishes	<i>Centrarchidae</i>		Yes		

<sup>1</sup> Identified by the Ohio Department of Natural Resources as a species of concern.

<sup>2</sup> Identified by the Ohio Department of Natural Resources as a threatened species.

<sup>3</sup> Identified by the Ohio Department of Natural Resources as an endangered species.

**Table 21. Summary of Water Quality and Air Temperature Data Collected During Entrainment and Impingement Sampling at Bay Shore Power Plant, (May 2005 – December 2006)**

Date	Time	Intake Temp (°C)	Conductivity $\mu\text{S}/\text{cm}$	DO mg/L	Water Transparency (m)	pH	Air Temp (°C)
MAY 2005	Minimum	14.6	262	6.3	0.1	7.8	9.0
	Maximum	18.4	597	10.6	0.1	8.3	15.0
	Average	16.3	453	7.3	0.1	8.1	11.6
JUNE 2005	Minimum	20.8	401	4.9	NA	7.7	17.6
	Maximum	27.8	561	11.4	NA	9.0	32.0
	Average	23.8	504	8.4	NA	8.4	25.4
JULY 2005	Minimum	25.0	319	2.7	0.3	7.3	22.0
	Maximum	29.7	638	6.9	0.5	8.7	28.0
	Average	27.0	507	4.7	0.4	7.8	25.6
AUG 2005	Minimum	24.3	293	4.2	0.2	6.9	19.0
	Maximum	28.9	911	8.1	0.5	8.6	30.0
	Average	26.1	566	5.6	0.3	7.6	25.1
SEP 2005	Minimum	20.4	406	4.1	0.4	6.4	17.0
	Maximum	25.2	588	7.5	0.5	8.0	28.2
	Average	23.0	488	6.2	0.5	7.5	21.7
OCT 2005	Minimum	10.5	232	5.1	0.4	6.6	7.0
	Maximum	21.5	548	10.0	0.5	8.4	24.0
	Average	14.9	426	7.7	0.4	7.4	13.5
NOV 2005	Minimum	0.7	436	7.2	0.2	7.5	-4.0
	Maximum	12.9	695	11.3	0.5	8.2	17.0
	Average	6.2	534	9.4	0.4	8.0	5.5
DEC 2005	Minimum	0.3	431	9.3	0.2	6.8	-3.0
	Maximum	2.2	614	11.4	0.3	8.0	-1.0
	Average	1.2	524	10.0	0.3	7.5	-2.0
JAN 2006	Minimum	3.7	424	9.5	0.1	6.7	1.0
	Maximum	5.6	876	10.3	0.1	7.1	7.0
	Average	4.3	597	10.0	0.1	6.8	4.0
FEB 2006	Minimum	0.8	452	8.5	0.0	6.3	-1.0
	Maximum	6.4	625	11.8	0.2	8.2	7.0
	Average	2.9	503	9.9	0.1	6.9	2.3
MAR 2006	Minimum	2.4	424	8.0	0.1	7.0	-3.0
	Maximum	9.6	557	11.4	0.2	8.1	13.0
	Average	5.3	507	9.9	0.1	7.7	2.4
APRIL 2006	Minimum	9.4	558	6.8	0.0	7.3	1.0
	Maximum	17.3	664	10.9	0.3	8.4	19.0
	Average	13.2	589	8.2	0.2	7.8	11.4
MAY 2006	Minimum	17.4	594	6.1	0.1	7.9	10.0
	Maximum	17.7	621	8.0	0.5	9.1	25.8
	Average	17.6	608	7.2	0.3	8.4	18.7
OCT 2006	Minimum	8.3	313	7.6	0.2	7.1	7.2
	Maximum	16.7	468	10.8	0.4	8.8	18.3
	Average	11.7	402	9.2	0.4	8.0	12.1
NOV 2006	Minimum	6.6	187	8.2	0.2	6.6	1.11
	Maximum	9.5	386	10.1	0.3	8.1	18.3
	Average	8.5	319	9.2	0.2	7.6	7.4
DEC 2006	Minimum	1.4	148	10.7	0.1	6.7	2.2
	Maximum	2.5	202	11.7	0.1	8.2	7.2
	Average	2.0	175	11.2	0.1	7.4	4.7

## **APPENDIX 1**

### **Preservative for Egg and Larval Fish Samples**

#### **Davidson's B Solution:**

1. 37-40g Formaldehyde + 10-15g MeOH fill to 100 mL with deionized H<sub>2</sub>O to produce a stock solution of 100% Formalin.
2. Dilute to 10% Formalin with deionized H<sub>2</sub>O
3. 400 ml of 10% formalin solution + 400 ml glycerol + 2 L ethanol or methanol + 1200 ml distilled water

This solution preserves the chromatophores (dark pigmented patterns) and prevents specimens from drying out. It also clears the tissues so that the myomeres can be counted.

#### **Reference:**

Humason, 1972. A Manual of Tissue Techniques. Published by Wilt Freeman.

**APPENDIX 2**  
**Cooling Water Volumes for Bay Shore Power Plant**  
**(April 2005 – December 2006)**

Date	Cooling Water MGD	Date	Cooling Water MGD	Date	Cooling Water MGD
1-Apr-05	745.9	1-May-05	745.9	1-Jun-05	745.9
2-Apr-05	745.9	2-May-05	745.9	2-Jun-05	745.9
3-Apr-05	745.9	3-May-05	745.9	3-Jun-05	745.9
4-Apr-05	745.9	4-May-05	745.9	4-Jun-05	745.9
5-Apr-05	745.9	5-May-05	745.9	5-Jun-05	745.9
6-Apr-05	745.9	6-May-05	745.9	6-Jun-05	745.9
7-Apr-05	745.9	7-May-05	745.9	7-Jun-05	745.9
8-Apr-05	745.9	8-May-05	745.9	8-Jun-05	745.9
9-Apr-05	745.9	9-May-05	745.9	9-Jun-05	745.9
10-Apr-05	745.9	10-May-05	745.9	10-Jun-05	745.9
11-Apr-05	745.9	11-May-05	745.9	11-Jun-05	745.9
12-Apr-05	745.9	12-May-05	561.6	12-Jun-05	745.9
13-Apr-05	745.9	13-May-05	561.6	13-Jun-05	745.9
14-Apr-05	745.9	14-May-05	561.6	14-Jun-05	745.9
15-Apr-05	745.9	15-May-05	561.6	15-Jun-05	745.9
16-Apr-05	745.9	16-May-05	561.6	16-Jun-05	745.9
17-Apr-05	745.9	17-May-05	561.6	17-Jun-05	745.9
18-Apr-05	745.9	18-May-05	561.6	18-Jun-05	745.9
19-Apr-05	745.9	19-May-05	561.6	19-Jun-05	745.9
20-Apr-05	745.9	20-May-05	561.6	20-Jun-05	745.9
21-Apr-05	745.9	21-May-05	561.6	21-Jun-05	745.9
22-Apr-05	745.9	22-May-05	561.6	22-Jun-05	745.9
23-Apr-05	745.9	23-May-05	561.6	23-Jun-05	745.9
24-Apr-05	745.9	24-May-05	561.6	24-Jun-05	745.9
25-Apr-05	745.9	25-May-05	745.9	25-Jun-05	745.9
26-Apr-05	745.9	26-May-05	745.9	26-Jun-05	745.9
27-Apr-05	745.9	27-May-05	745.9	27-Jun-05	745.9
28-Apr-05	745.9	28-May-05	745.9	28-Jun-05	745.9
29-Apr-05	745.9	29-May-05	745.9	29-Jun-05	745.9
30-Apr-05	745.9	30-May-05	745.9	30-Jun-05	745.9
		31-May-05	745.9		

**APPENDIX 2 (cont'd)**  
**Cooling Water Volumes for Bay Shore Power Plant**  
**(April 2005 – December 2006)**

Date	Cooling Water MGD	Date	Cooling Water MGD	Date	Cooling Water MGD
1-Jul-05	745.9	1-Aug-05	745.9	1-Sep-05	745.9
2-Jul-05	745.9	2-Aug-05	745.9	2-Sep-05	745.9
3-Jul-05	745.9	3-Aug-05	745.9	3-Sep-05	745.9
4-Jul-05	745.9	4-Aug-05	745.9	4-Sep-05	745.9
5-Jul-05	745.9	5-Aug-05	745.9	5-Sep-05	745.9
6-Jul-05	745.9	6-Aug-05	745.9	6-Sep-05	745.9
7-Jul-05	745.9	7-Aug-05	745.9	7-Sep-05	745.9
8-Jul-05	745.9	8-Aug-05	745.9	8-Sep-05	745.9
9-Jul-05	745.9	9-Aug-05	745.9	9-Sep-05	745.9
10-Jul-05	745.9	10-Aug-05	745.9	10-Sep-05	745.9
11-Jul-05	745.9	11-Aug-05	745.9	11-Sep-05	745.9
12-Jul-05	745.9	12-Aug-05	745.9	12-Sep-05	745.9
13-Jul-05	745.9	13-Aug-05	722.9	13-Sep-05	745.9
14-Jul-05	745.9	14-Aug-05	561.6	14-Sep-05	745.9
15-Jul-05	745.9	15-Aug-05	561.6	15-Sep-05	745.9
16-Jul-05	745.9	16-Aug-05	561.6	16-Sep-05	745.9
17-Jul-05	745.9	17-Aug-05	561.6	17-Sep-05	745.9
18-Jul-05	745.9	18-Aug-05	561.6	18-Sep-05	745.9
19-Jul-05	745.9	19-Aug-05	745.9	19-Sep-05	745.9
20-Jul-05	745.9	20-Aug-05	745.9	20-Sep-05	745.9
21-Jul-05	745.9	21-Aug-05	745.9	21-Sep-05	745.9
22-Jul-05	745.9	22-Aug-05	745.9	22-Sep-05	745.9
23-Jul-05	561.6	23-Aug-05	745.9	23-Sep-05	745.9
24-Jul-05	745.9	24-Aug-05	745.9	24-Sep-05	745.9
25-Jul-05	745.9	25-Aug-05	745.9	25-Sep-05	745.9
26-Jul-05	745.9	26-Aug-05	745.9	26-Sep-05	745.9
27-Jul-05	561.6	27-Aug-05	745.9	27-Sep-05	745.9
28-Jul-05	561.6	28-Aug-05	745.9	28-Sep-05	745.9
29-Jul-05	561.6	29-Aug-05	745.9	29-Sep-05	745.9
30-Jul-05	745.9	30-Aug-05	745.9	30-Sep-05	745.9
31-Jul-05	745.9	31-Aug-05	745.9		

**APPENDIX 2 (cont'd)**  
**Cooling Water Volumes for Bay Shore Power Plant**  
**(April 2005 – December 2006)**

Date	Cooling Water MGD	Date	Cooling Water MGD	Date	Cooling Water MGD
1-Oct-05	745.9	1-Nov-05	745.9	1-Dec-05	745.9
2-Oct-05	745.9	2-Nov-05	745.9	2-Dec-05	745.9
3-Oct-05	745.9	3-Nov-05	745.9	3-Dec-05	745.9
4-Oct-05	745.9	4-Nov-05	745.9	4-Dec-05	745.9
5-Oct-05	745.9	5-Nov-05	745.9	5-Dec-05	745.9
6-Oct-05	745.9	6-Nov-05	745.9	6-Dec-05	745.9
7-Oct-05	745.9	7-Nov-05	745.9	7-Dec-05	745.9
8-Oct-05	745.9	8-Nov-05	745.9	8-Dec-05	745.9
9-Oct-05	745.9	9-Nov-05	745.9	9-Dec-05	745.9
10-Oct-05	745.9	10-Nov-05	745.9	10-Dec-05	745.9
11-Oct-05	745.9	11-Nov-05	745.9	11-Dec-05	745.9
12-Oct-05	745.9	12-Nov-05	745.9	12-Dec-05	745.9
13-Oct-05	745.9	13-Nov-05	745.9	13-Dec-05	745.9
14-Oct-05	745.9	14-Nov-05	745.9	14-Dec-05	745.9
15-Oct-05	745.9	15-Nov-05	745.9	15-Dec-05	745.9
16-Oct-05	745.9	16-Nov-05	745.9	16-Dec-05	745.9
17-Oct-05	745.9	17-Nov-05	745.9	17-Dec-05	745.9
18-Oct-05	745.9	18-Nov-05	745.9	18-Dec-05	745.9
19-Oct-05	745.9	19-Nov-05	745.9	19-Dec-05	745.9
20-Oct-05	745.9	20-Nov-05	745.9	20-Dec-05	745.9
21-Oct-05	745.9	21-Nov-05	745.9	21-Dec-05	745.9
22-Oct-05	745.9	22-Nov-05	745.9	22-Dec-05	745.9
23-Oct-05	745.9	23-Nov-05	745.9	23-Dec-05	745.9
24-Oct-05	745.9	24-Nov-05	745.9	24-Dec-05	745.9
25-Oct-05	745.9	25-Nov-05	745.9	25-Dec-05	745.9
26-Oct-05	745.9	26-Nov-05	745.9	26-Dec-05	745.9
27-Oct-05	745.9	27-Nov-05	745.9	27-Dec-05	745.9
28-Oct-05	745.9	28-Nov-05	745.9	28-Dec-05	745.9
29-Oct-05	745.9	29-Nov-05	745.9	29-Dec-05	745.9
30-Oct-05	745.9	30-Nov-05	745.9	30-Dec-05	745.9
31-Oct-05	745.9			31-Dec-05	745.9

**APPENDIX 2 (cont'd)**  
**Cooling Water Volumes for Bay Shore Power Plant**  
**(April 2005 – December 2006)**

Date	Cooling Water MGD	Date	Cooling Water MGD	Date	Cooling Water MGD
1-Jan-06	745.9	1-Feb-06	745.9	1-Mar-06	745.9
2-Jan-06	745.9	2-Feb-06	745.9	2-Mar-06	745.9
3-Jan-06	745.9	3-Feb-06	745.9	3-Mar-06	745.9
4-Jan-06	745.9	4-Feb-06	745.9	4-Mar-06	745.9
5-Jan-06	745.9	5-Feb-06	745.9	5-Mar-06	745.9
6-Jan-06	745.9	6-Feb-06	745.9	6-Mar-06	745.9
7-Jan-06	745.9	7-Feb-06	745.9	7-Mar-06	745.9
8-Jan-06	745.9	8-Feb-06	745.9	8-Mar-06	745.9
9-Jan-06	745.9	9-Feb-06	745.9	9-Mar-06	745.9
10-Jan-06	745.9	10-Feb-06	745.9	10-Mar-06	745.9
11-Jan-06	745.9	11-Feb-06	745.9	11-Mar-06	745.9
12-Jan-06	745.9	12-Feb-06	745.9	12-Mar-06	745.9
13-Jan-06	745.9	13-Feb-06	745.9	13-Mar-06	745.9
14-Jan-06	745.9	14-Feb-06	745.9	14-Mar-06	745.9
15-Jan-06	745.9	15-Feb-06	745.9	15-Mar-06	745.9
16-Jan-06	745.9	16-Feb-06	745.9	16-Mar-06	745.9
17-Jan-06	745.9	17-Feb-06	745.9	17-Mar-06	745.9
18-Jan-06	745.9	18-Feb-06	745.9	18-Mar-06	745.9
19-Jan-06	745.9	19-Feb-06	745.9	19-Mar-06	745.9
20-Jan-06	745.9	20-Feb-06	745.9	20-Mar-06	745.9
21-Jan-06	745.9	21-Feb-06	745.9	21-Mar-06	745.9
22-Jan-06	745.9	22-Feb-06	745.9	22-Mar-06	745.9
23-Jan-06	745.9	23-Feb-06	745.9	23-Mar-06	745.9
24-Jan-06	745.9	24-Feb-06	745.9	24-Mar-06	745.9
25-Jan-06	745.9	25-Feb-06	745.9	25-Mar-06	745.9
26-Jan-06	745.9	26-Feb-06	745.9	26-Mar-06	745.9
27-Jan-06	745.9	27-Feb-06	745.9	27-Mar-06	745.9
28-Jan-06	745.9	28-Feb-06	745.9	28-Mar-06	745.9
29-Jan-06	745.9			29-Mar-06	745.9
30-Jan-06	745.9			30-Mar-06	745.9
31-Jan-06	745.9			31-Mar-06	745.9

**APPENDIX 2 (cont'd)**  
**Cooling Water Volumes for Bay Shore Power Plant**  
**(April 2005 – December 2006)**

Date	Cooling Water MGD	Date	Cooling Water MGD	Date	Cooling Water MGD
1-Apr-06	745.9	1-May-06	745.9	1-Jun-06	745.9
2-Apr-06	745.9	2-May-06	745.9	2-Jun-06	745.9
3-Apr-06	745.9	3-May-06	745.9	3-Jun-06	745.9
4-Apr-06	745.9	4-May-06	745.9	4-Jun-06	745.9
5-Apr-06	745.9	5-May-06	745.9	5-Jun-06	745.9
6-Apr-06	745.9	6-May-06	745.9	6-Jun-06	745.9
7-Apr-06	745.9	7-May-06	745.9	7-Jun-06	745.9
8-Apr-06	745.9	8-May-06	745.9	8-Jun-06	745.9
9-Apr-06	745.9	9-May-06	745.9	9-Jun-06	745.9
10-Apr-06	745.9	10-May-06	745.9	10-Jun-06	745.9
11-Apr-06	745.9	11-May-06	745.9	11-Jun-06	745.9
12-Apr-06	745.9	12-May-06	745.9	12-Jun-06	745.9
13-Apr-06	745.9	13-May-06	745.9	13-Jun-06	745.9
14-Apr-06	745.9	14-May-06	745.9	14-Jun-06	745.9
15-Apr-06	745.9	15-May-06	745.9	15-Jun-06	745.9
16-Apr-06	745.9	16-May-06	745.9	16-Jun-06	745.9
17-Apr-06	745.9	17-May-06	745.9	17-Jun-06	745.9
18-Apr-06	745.9	18-May-06	745.9	18-Jun-06	745.9
19-Apr-06	745.9	19-May-06	745.9	19-Jun-06	745.9
20-Apr-06	745.9	20-May-06	745.9	20-Jun-06	745.9
21-Apr-06	745.9	21-May-06	745.9	21-Jun-06	745.9
22-Apr-06	745.9	22-May-06	745.9	22-Jun-06	745.9
23-Apr-06	745.9	23-May-06	745.9	23-Jun-06	745.9
24-Apr-06	745.9	24-May-06	745.9	24-Jun-06	745.9
25-Apr-06	745.9	25-May-06	745.9	25-Jun-06	745.9
26-Apr-06	745.9	26-May-06	745.9	26-Jun-06	745.9
27-Apr-06	745.9	27-May-06	745.9	27-Jun-06	745.9
28-Apr-06	745.9	28-May-06	745.9	28-Jun-06	745.9
29-Apr-06	745.9	29-May-06	745.9	29-Jun-06	745.9
30-Apr-06	745.9	30-May-06	745.9	30-Jun-06	745.9
		31-May-06	745.9		

**APPENDIX 2 (cont'd)**  
**Cooling Water Volumes for Bay Shore Power Plant**  
**(April 2005 – December 2006)**

Date	Cooling Water MGD	Date	Cooling Water MGD
1-Jul-06	745.9	1-Aug-06	745.9
2-Jul-06	745.9	2-Aug-06	745.9
3-Jul-06	745.9	3-Aug-06	745.9
4-Jul-06	745.9	4-Aug-06	745.9
5-Jul-06	745.9	5-Aug-06	745.9
6-Jul-06	745.9	6-Aug-06	745.9
7-Jul-06	745.9	7-Aug-06	745.9
8-Jul-06	745.9	8-Aug-06	745.9
9-Jul-06	745.9	9-Aug-06	745.9
10-Jul-06	745.9	10-Aug-06	745.9
11-Jul-06	745.9	11-Aug-06	745.9
12-Jul-06	745.9	12-Aug-06	745.9
13-Jul-06	745.9	13-Aug-06	745.9
14-Jul-06	745.9	14-Aug-06	745.9
15-Jul-06	745.9	15-Aug-06	745.9
16-Jul-06	745.9	16-Aug-06	745.9
17-Jul-06	745.9	17-Aug-06	745.9
18-Jul-06	745.9	18-Aug-06	745.9
19-Jul-06	745.9	19-Aug-06	745.9
20-Jul-06	745.9	20-Aug-06	745.9
21-Jul-06	745.9	21-Aug-06	745.9
22-Jul-06	745.9	22-Aug-06	745.9
23-Jul-06	745.9	23-Aug-06	745.9
24-Jul-06	745.9	24-Aug-06	745.9
25-Jul-06	745.9	25-Aug-06	745.9
26-Jul-06	745.9	26-Aug-06	745.9
27-Jul-06	745.9	27-Aug-06	745.9
28-Jul-06	745.9	28-Aug-06	745.9
29-Jul-06	745.9	29-Aug-06	745.9
30-Jul-06	745.9	30-Aug-06	745.9
31-Jul-06	745.9	31-Aug-06	745.9

**APPENDIX 2 (cont'd)**  
**Cooling Water Volumes for Bay Shore Power Plant**  
**(April 2005 – December 2006)**

Date	Cooling Water MGD	Date	Cooling Water MGD	Date	Cooling Water MGD
1-Oct-06	745.9	1-Nov-06	745.9	1-Dec-06	745.9
2-Oct-06	745.9	2-Nov-06	745.9	2-Dec-06	745.9
3-Oct-06	745.9	3-Nov-06	745.9	3-Dec-06	745.9
4-Oct-06	745.9	4-Nov-06	745.9	4-Dec-06	745.9
5-Oct-06	745.9	5-Nov-06	745.9	5-Dec-06	745.9
6-Oct-06	745.9	6-Nov-06	745.9	6-Dec-06	745.9
7-Oct-06	745.9	7-Nov-06	745.9	7-Dec-06	745.9
8-Oct-06	745.9	8-Nov-06	745.9	8-Dec-06	745.9
9-Oct-06	745.9	9-Nov-06	745.9	9-Dec-06	745.9
10-Oct-06	745.9	10-Nov-06	745.9	10-Dec-06	745.9
11-Oct-06	745.9	11-Nov-06	745.9	11-Dec-06	745.9
12-Oct-06	745.9	12-Nov-06	745.9	12-Dec-06	745.9
13-Oct-06	745.9	13-Nov-06	745.9	13-Dec-06	745.9
14-Oct-06	745.9	14-Nov-06	745.9	14-Dec-06	745.9
15-Oct-06	745.9	15-Nov-06	745.9	15-Dec-06	745.9
16-Oct-06	745.9	16-Nov-06	745.9	16-Dec-06	745.9
17-Oct-06	745.9	17-Nov-06	745.9	17-Dec-06	745.9
18-Oct-06	745.9	18-Nov-06	745.9	18-Dec-06	745.9
19-Oct-06	745.9	19-Nov-06	745.9	19-Dec-06	745.9
20-Oct-06	745.9	20-Nov-06	745.9	20-Dec-06	745.9
21-Oct-06	745.9	21-Nov-06	745.9	21-Dec-06	745.9
22-Oct-06	745.9	22-Nov-06	745.9	22-Dec-06	745.9
23-Oct-06	745.9	23-Nov-06	745.9	23-Dec-06	745.9
24-Oct-06	745.9	24-Nov-06	745.9	24-Dec-06	745.9
25-Oct-06	745.9	25-Nov-06	745.9	25-Dec-06	745.9
26-Oct-06	745.9	26-Nov-06	745.9	26-Dec-06	745.9
27-Oct-06	745.9	27-Nov-06	745.9	27-Dec-06	745.9
28-Oct-06	745.9	28-Nov-06	745.9	28-Dec-06	745.9
29-Oct-06	745.9	29-Nov-06	745.9	29-Dec-06	745.9
30-Oct-06	745.9	30-Nov-06	745.9	30-Dec-06	745.9
31-Oct-06	745.9			31-Dec-06	745.9

**APPENDIX 3**  
**Estimated Daily Entrainment of Fish Eggs at Bay Shore Power Plant (May 2005 – May 2006)**

Event No.	Date	Species	Bayshore: Eggs Collected			Volume Filtered (m³)	Eggs per 1,000 m³			Flow MGD	Flow 1,000 m³	Bayshore: Eggs per day		
			Live	Dead	Total		Live	Dead	Total			Live	Dead	Total
	12-May-05	Catostomidae	0	2	2	399	0.0	5.0	5.0	561.6	2,126	0	10,652	10,652
	12-May-05	Unidentifiable	2	172	174	399	5.0	430.9	435.9	561.6	2,126	10,652	916,029	926,681
<b>1</b>	<b>12-May-05</b>	<b>Daily Total</b>	<b>2</b>	<b>174</b>	<b>176</b>	<b>399</b>	<b>5.0</b>	<b>435.9</b>	<b>440.9</b>	<b>561.6</b>	<b>2,126</b>	<b>10,652</b>	<b>926,681</b>	<b>937,332</b>
	16-May-05	Unidentifiable	0	4	4	350	0.0	11.4	11.4	561.6	2,126	0	24,328	24,328
<b>2</b>	<b>16-May-05</b>	<b>Daily Total</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>350</b>	<b>0.0</b>	<b>11.4</b>	<b>11.4</b>	<b>561.6</b>	<b>2,126</b>	<b>0</b>	<b>24,328</b>	<b>24,328</b>
<b>3</b>	<b>17-May-05</b>	<b>Daily Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>491</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>561.6</b>	<b>2,126</b>	<b>0</b>	<b>0</b>	<b>0</b>
	23-May-05	Freshwater drum	0	83	83	458	0.0	181.3	181.3	561.6	2,126	0	385,510	385,510
<b>4</b>	<b>23-May-05</b>	<b>Daily Total</b>	<b>0</b>	<b>83</b>	<b>83</b>	<b>458</b>	<b>0.0</b>	<b>181.3</b>	<b>181.3</b>	<b>561.6</b>	<b>2,126</b>	<b>0</b>	<b>385,510</b>	<b>385,510</b>
	27-May-05	Freshwater drum	0	523	523	465	0.0	1123.7	1123.7	745.9	2,824	0	3,172,914	3,172,914
		Morone spp.	2	0	2	465	4.3	0.0	4.3	745.9	2,824	12,134	0	12,134
		Unidentifiable	0	4	4	465	0.0	8.6	8.6	745.9	2,824	0	24,267	24,267
<b>5</b>	<b>27-May-05</b>	<b>Daily Total</b>	<b>2</b>	<b>527</b>	<b>529</b>	<b>465</b>	<b>4.3</b>	<b>1132.3</b>	<b>1136.6</b>	<b>745.9</b>	<b>2,824</b>	<b>12,134</b>	<b>3,197,181</b>	<b>3,209,315</b>
	2-Jun-05	Catostomidae	8	0	8	378	21.2	0.0	21.2	745.9	2,824	59,806	0	59,806
		Freshwater drum	0	2,224	2,224	378	0.0	5888.4	5888.4	745.9	2,824	0	16,626,150	16,626,150
		Unidentifiable	8	0	8	378	21.2	0.0	21.2	745.9	2,824	59,806	0	59,806
<b>6</b>	<b>2-Jun-05</b>	<b>Daily Total</b>	<b>16</b>	<b>2,224</b>	<b>2,240</b>	<b>378</b>	<b>42.4</b>	<b>5888.4</b>	<b>5930.8</b>	<b>745.9</b>	<b>2,824</b>	<b>119,613</b>	<b>16,626,150</b>	<b>16,745,762</b>
	3-Jun-05	Freshwater drum	8	260	268	376	21.3	690.7	711.9	745.9	2,824	60,005	1,950,159	2,010,164
<b>7</b>	<b>3-Jun-05</b>	<b>Daily Total</b>	<b>8</b>	<b>260</b>	<b>268</b>	<b>376</b>	<b>21.3</b>	<b>690.7</b>	<b>711.9</b>	<b>745.9</b>	<b>2,824</b>	<b>60,005</b>	<b>1,950,159</b>	<b>2,010,164</b>
	6-Jun-05	Freshwater drum	0	2,796	2,796	413	0.0	6763.3	6763.3	745.9	2,824	0	19,096,271	19,096,271
<b>8</b>	<b>6-Jun-05</b>	<b>Daily Total</b>	<b>0</b>	<b>2,796</b>	<b>2,796</b>	<b>413</b>	<b>0.0</b>	<b>6763.3</b>	<b>6763.3</b>	<b>745.9</b>	<b>2,824</b>	<b>0</b>	<b>19,096,271</b>	<b>19,096,271</b>
	7-Jun-05	Freshwater drum	0	3,775	3,775	413	0.0	9131.7	9131.7	745.9	2,824	0	25,783,655	25,783,655
		Unidentifiable	0	64	64	413	0.0	154.8	154.8	745.9	2,824	0	437,111	437,111
<b>9</b>	<b>7-Jun-05</b>	<b>Daily Total</b>	<b>0</b>	<b>3,839</b>	<b>3,839</b>	<b>413</b>	<b>0.0</b>	<b>9286.5</b>	<b>9286.5</b>	<b>745.9</b>	<b>2,824</b>	<b>0</b>	<b>26,220,766</b>	<b>26,220,766</b>
<b>10</b>	<b>13-Jun-05</b>	<b>Daily Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>459</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>745.9</b>	<b>2,824</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>11</b>	<b>17-Jun-05</b>	<b>Daily Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>457</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>745.9</b>	<b>2,824</b>	<b>0</b>	<b>0</b>	<b>0</b>
	23-Jun-05	Freshwater drum	0	2	2	486	0.0	4.1	4.1	745.9	2,824	0	11,624	11,624
<b>12</b>	<b>23-Jun-05</b>	<b>Daily Total</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>486</b>	<b>0.0</b>	<b>4.1</b>	<b>4.1</b>	<b>745.9</b>	<b>2,824</b>	<b>0</b>	<b>11,624</b>	<b>11,624</b>
<b>13</b>	<b>24-Jun-05</b>	<b>Daily Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>486</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>745.9</b>	<b>2,824</b>	<b>0</b>	<b>0</b>	<b>0</b>
	27-Jun-05	Freshwater drum	0	2	2	389	0.0	5.1	5.1	745.9	2,824	0	14,504	14,504
<b>14</b>	<b>27-Jun-05</b>	<b>Daily Total</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>389</b>	<b>0.0</b>	<b>5.1</b>	<b>5.1</b>	<b>745.9</b>	<b>2,824</b>	<b>0</b>	<b>14,504</b>	<b>14,504</b>
	28-Jun-05	Freshwater drum	0	28	28	487	0.0	57.5	57.5	745.9	2,824	0	162,445	162,445
<b>15</b>	<b>28-Jun-05</b>	<b>Daily Total</b>	<b>0</b>	<b>28</b>	<b>28</b>	<b>487</b>	<b>0.0</b>	<b>57.5</b>	<b>57.5</b>	<b>745.9</b>	<b>2,824</b>	<b>0</b>	<b>162,445</b>	<b>162,445</b>
<b>16</b>	<b>7-Jul-05</b>	<b>Daily Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>479</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>745.9</b>	<b>2,824</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>17</b>	<b>8-Jul-05</b>	<b>Daily Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>474</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>745.9</b>	<b>2,824</b>	<b>0</b>	<b>0</b>	<b>0</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 3 (cont'd)**  
**Estimated Daily Entrainment of Fish Eggs at Bay Shore Power Plant (May 2005 – May 2006)**

Event No.	Date	Species	Bayshore: Eggs Collected			Volume Filtered (m <sup>3</sup> )	Eggs per 1,000 m <sup>3</sup>			Flow MGD	Flow 1,000 m <sup>3</sup>	Bayshore: Eggs per day		
			Live	Dead	Total		Live	Dead	Total			Live	Dead	Total
18	11-Jul-05	Daily Total	0	0	0	281	0.0	0.0	0.0	745.9	2,824	0	0	0
19	12-Jul-05	Daily Total	0	0	0	465	0.0	0.0	0.0	745.9	2,824	0	0	0
20	21-Jul-05	Daily Total	0	0	0	486	0.0	0.0	0.0	745.9	2,824	0	0	0
21	22-Jul-05	Daily Total	0	0	0	486	0.0	0.0	0.0	745.9	2,824	0	0	0
22	28-Jul-05	Daily Total	0	0	0	525	0.0	0.0	0.0	561.6	2,126	0	0	0
23	29-Jul-05	Daily Total	0	0	0	521	0.0	0.0	0.0	561.6	2,126	0	0	0
24	1-Aug-05	Daily Total	0	0	0	487	0.0	0.0	0.0	745.9	2,824	0	0	0
25	2-Aug-05	Daily Total	0	0	0	487	0.0	0.0	0.0	745.9	2,824	0	0	0
26	9-Aug-05	Daily Total	0	0	0	439	0.0	0.0	0.0	745.9	2,824	0	0	0
27	12-Aug-05	Daily Total	0	0	0	219	0.0	0.0	0.0	745.9	2,824	0	0	0
28	15-Aug-05	Daily Total	0	0	0	454	0.0	0.0	0.0	561.6	2,126	0	0	0
29	18-Aug-05	Daily Total	0	0	0	NA	0.0	0.0	0.0	561.6	2,126	0	0	0
30	2-Sep-05	Daily Total	0	0	0	524	0.0	0.0	0.0	745.9	2,824	0	0	0
31	11-Sep-05	Daily Total	0	0	0	456	0.0	0.0	0.0	745.9	2,824	0	0	0
32	19-Mar-06	Daily Total	0	0	0	491	0.0	0.0	0.0	745.9	2,824	0	0	0
33	25-Mar-06	Daily Total	0	0	0	483	0.0	0.0	0.0	745.9	2,824	0	0	0
34	26-Mar-06	Daily Total	0	0	0	460	0.0	0.0	0.0	745.9	2,824	0	0	0
35	31-Mar-06	Daily Total	0	0	0	488	0.0	0.0	0.0	745.9	2,824	0	0	0
36	3-Apr-06	Daily Total	0	0	0	463	0.0	0.0	0.0	745.9	2,824	0	0	0
37	7-Apr-06	Daily Total	0	0	0	489	0.0	0.0	0.0	745.9	2,824	0	0	0
38	9-Apr-06	Daily Total	0	0	0	509	0.0	0.0	0.0	745.9	2,824	0	0	0
39	14-Apr-06	Daily Total	0	0	0	458	0.0	0.0	0.0	745.9	2,824	0	0	0
40	17-Apr-06	Daily Total	0	0	0	488	0.0	0.0	0.0	745.9	2,824	0	0	0
41	20-Apr-06	Daily Total	0	0	0	489	0.0	0.0	0.0	745.9	2,824	0	0	0
42	24-Apr-06	Daily Total	0	0	0	446	0.0	0.0	0.0	745.9	2,824	0	0	0
43	26-Apr-06	Daily Total	0	0	0	491	0.0	0.0	0.0	745.9	2,824	0	0	0
44	4-May-06	Daily Total	0	0	0	484	0.0	0.0	0.0	745.9	2,824	0	0	0
45	6-May-06	Daily Total	0	0	0	471	0.0	0.0	0.0	745.9	2,824	0	0	0
46	8-May-06	Daily Total	0	0	0	473	0.0	0.0	0.0	745.9	2,824	0	0	0
47	12-May-06	Daily Total	0	0	0	469	0.0	0.0	0.0	745.9	2,824	0	0	0
		<b>TOTAL</b>	<b>28</b>	<b>9,939</b>	<b>9,967</b>							<b>202,402</b>	<b>68,615,619</b>	<b>68,818,021</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 4**  
**Estimated Monthly Entrainment of Fish Eggs at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Species	Bayshore: Eggs per Month		
	Alive	Dead	Total
Catostomidae	0	73,781	73,781
Freshwater drum	0	24,648,421	24,648,421
Morone spp.	84,046	0	84,046
Unidentifiable	73,781	6,681,739	6,755,519
<b>MAY 2005</b>	<b>157,827</b>	<b>31,403,941</b>	<b>31,561,767</b>
Catostomidae	179,419	0	179,419
Freshwater drum	180,015	190,934,422	191,114,437
Unidentifiable	179,419	1,311,332	1,490,751
<b>JUNE 2005</b>	<b>538,852</b>	<b>192,245,754</b>	<b>192,784,606</b>
<b>TOTAL</b>	<b>696,679</b>	<b>223,649,695</b>	<b>224,346,374</b>

**APPENDIX 5**  
**Estimated Daily Entrainment of Larval and Entrainable Juvenile Fish at**  
**Bay Shore Power Plant (May 2005 – May 2006)**

Event No.	Date	Species	Life Stage	Bayshore: Larvae/Juveniles Collected				Volume Filtered (m³)	Larvae/Juveniles per 1,000 m³				Flow MGD	Flow 1000 m³	Bayshore: Larvae/Juveniles per Day				
				Live	Recently Dead	Long Dead	Total		Live	Recently Dead	Long Dead	Total			Live	Recently Dead	Long Dead	Total	
	12-May-05	Rainbow smelt/Clupeidae	PYSL			1	1	399			2.5	2.5	561.6	2,126			5,326	5,326	
	12-May-05	Rainbow smelt/Clupeidae	undetermined			4	4	399			10.0	10.0	561.6	2,126			21,303	21,303	
	12-May-05	Rainbow smelt/Clupeidae	YSL			6	6	399			15.0	15.0	561.6	2,126			31,955	31,955	
	12-May-05	Common carp/Goldfish	undetermined			2	2	399			5.0	5.0	561.6	2,126			10,652	10,652	
	12-May-05	Cyprinidae	YSL			3	3	399			7.5	7.5	561.6	2,126			15,977	15,977	
	12-May-05	Morone spp.	YSL			2	2	399			5.0	5.0	561.6	2,126			10,652	10,652	
	12-May-05	Percidae	YSL			1	1	399			2.5	2.5	561.6	2,126			5,326	5,326	
	12-May-05	Unidentifiable	undetermined			46	46	399			115.2	115.2	561.6	2,126			244,985	244,985	
	12-May-05	Walleye	PYSL			2		399			5.0		561.6	2,126			10,652	10,652	
	12-May-05	Yellow perch	YSL			1	1	399			2.5	2.5	561.6	2,126			5,326	5,326	
1	12-May-05	DAILY TOTAL		0	2	66	68	399	0.0	5.0	165.3	170.4	561.6	2,126	0	10,652	351,500	362,151	
	16-May-05	Rainbow smelt/Clupeidae	undetermined			5	88	93	350		14.3	251.8	266.1	561.6	2,126		30,410	535,211	565,620
	16-May-05	Rainbow smelt/Clupeidae	YSL			18	158	176	350		51.5	452.0	503.5	561.6	2,126		109,475	960,946	1,070,421
	16-May-05	Burbot	undetermined			3	3	350			8.6	8.6	561.6	2,126			18,246	18,246	
	16-May-05	Burbot	YSL			1	1	350			2.9	2.9	561.6	2,126			6,082	6,082	
	16-May-05	Centrarchidae	YSL			1		350			2.9		561.6	2,126			6,082	6,082	
	16-May-05	Cyprinidae	YSL			2		350			5.7		561.6	2,126			12,164	12,164	
	16-May-05	Morone spp.	PYSL			1		350			2.9		561.6	2,126			6,082	6,082	
	16-May-05	Morone spp.	undetermined			1	9	10	350		2.9	25.7	28.6	561.6	2,126		6,082	54,737	60,819
	16-May-05	Morone spp.	YSL			71	87	158	350		203.1	248.9	452.0	561.6	2,126		431,818	529,129	960,946
	16-May-05	Unidentifiable	undetermined			36	85	121	350		103.0	243.2	346.2	561.6	2,126		218,950	516,965	735,915
	16-May-05	Unidentifiable	YSL			1		350			2.9		561.6	2,126			6,082	6,082	
2	16-May-05	DAILY TOTAL		0	136	431	567	350	0.0	389.1	1,233.0	1,622.1	561.6	2,126	0	827,144	2,621,315	3,448,459	
	17-May-05	Rainbow smelt/Clupeidae	undetermined			1,276	36	1,312	491		2,598.2	73.3	2,671.5	561.6	2,126		5,523,454	155,834	5,679,289
	17-May-05	Rainbow smelt/Clupeidae	YSL			1,404	20	1,424	491		2,858.8	40.7	2,899.6	561.6	2,126		6,077,531	86,575	6,164,106
	17-May-05	Catostomidae	YSL			16		16	491		32.6		32.6	561.6	2,126		69,260	69,260	
	17-May-05	Cyprinidae	PYSL			16		16	491		32.6		32.6	561.6	2,126		69,260	69,260	
	17-May-05	Morone spp.	PYSL			132		132	491		268.8		268.8	561.6	2,126		571,392	571,392	
	17-May-05	Morone spp.	undetermined			28		28	491		57.0		57.0	561.6	2,126		121,204	121,204	
	17-May-05	Morone spp.	YSL			2,100	88	2,188	491		4,276.0	179.2	4,455.2	561.6	2,126		9,090,325	380,928	9,471,253
	17-May-05	Percidae	YSL			20		20	491		40.7		40.7	561.6	2,126		86,575	86,575	
	17-May-05	Unidentifiable	undetermined			1,072	44	1,116	491		2,182.8	89.6	2,272.4	561.6	2,126		4,640,394	190,464	4,830,858
	17-May-05	Walleye	PYSL			168	24	192	491		342.1	48.9	391.0	561.6	2,126		727,226	103,889	831,115
	17-May-05	Walleye	undetermined			16	36	52	491		32.6	73.3	105.9	561.6	2,126		69,260	155,834	225,094
	17-May-05	Walleye	YSL			8		8	491		16.3		16.3	561.6	2,126		34,630	34,630	
3	17-May-05	DAILY TOTAL		0	6,256	248	6,504	491	0.0	12,738.5	505.0	13,243.5	561.6	2,126	0	27,080,510	1,073,524	28,154,034	

Individual estimates may not add to totals due to rounding.

**APPENDIX 5 (cont'd)**  
**Estimated Daily Entrainment of Larval and Entrainable Juvenile Fish at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Event No.	Date	Species	Life Stage	Bayshore: Larvae/Juveniles Collected				Volume Filtered (m³)	Larvae/Juveniles per 1,000 m³				Flow MGD	Flow 1000 m³	Bayshore: Larvae/Juveniles per Day				
				Live	Recently Dead	Long Dead	Total		Live	Recently Dead	Long Dead	Total			Live	Recently Dead	Long Dead	Total	
	23-May-05	Rainbow smelt/Clupeidae	PYSL		56		56	458		122.4		122.4	561.6	2,126		260,103		260,103	
	23-May-05	Rainbow smelt/Clupeidae	undetermined		24	5	29	458		52.4	10.9	63.4	561.6	2,126		111,473	23,224	134,696	
	23-May-05	Rainbow smelt/Clupeidae	YSL		26	16	42	458		56.8	35.0	91.8	561.6	2,126		120,762	74,315	195,078	
	23-May-05	Catostomidae	PYSL	12	5		17	458	26.3	10.9		37.2	561.6	2,126	55,960	23,224		79,184	
	23-May-05	Catostomidae	YSL		2		2	458		4.4		4.4	561.6	2,126			9,289		9,289
	23-May-05	Cyprinidae	PYSL		7		7	458		15.3		15.3	561.6	2,126			32,513		32,513
	23-May-05	Rainbow smelt/Clupeidae	PYSL		1		1	458		2.2		2.2	561.6	2,126			4,645		4,645
	23-May-05	Rainbow smelt/Clupeidae	YSL		2		2	458		4.4		4.4	561.6	2,126			9,289		9,289
	23-May-05	Logperch	PYSL		3		3	458		6.6		6.6	561.6	2,126			13,934		13,934
	23-May-05	Morone spp.	PYSL		15		15	458		32.8		32.8	561.6	2,126			69,671		69,671
	23-May-05	Morone spp.	undetermined		16		16	458		35.0		35.0	561.6	2,126			74,315		74,315
	23-May-05	Morone spp.	YSL		27	1	28	458		59.1	2.2	61.3	561.6	2,126			125,631	4,645	130,276
	23-May-05	Unidentifiable	undetermined		64	28	92	458		140.0	61.2	201.2	561.6	2,126			297,709	130,052	427,760
	23-May-05	Walleye	PYSL		18	1	19	458		39.3	2.2	41.5	561.6	2,126			83,605	4,645	88,249
	23-May-05	Walleye	undetermined		4		4	458		8.7		8.7	561.6	2,126			18,579		18,579
4	23-May-05	DAILY TOTAL		12	270	51	333	458	26.3	590.2	111.4	728.0	561.6	2,126	55,960	1,254,741	236,880	1,547,582	
	27-May-05	Rainbow smelt/Clupeidae	PYSL		18	39	57	465		38.7	83.8	122.5	745.9	2,824			109,202	236,604	345,805
	27-May-05	Rainbow smelt/Clupeidae	undetermined		10	35	45	465		21.5	75.2	96.7	745.9	2,824			60,668	212,337	273,004
	27-May-05	Rainbow smelt/Clupeidae	YSL		87	110	197	465		186.9	236.4	423.3	745.9	2,824			527,808	667,343	1,195,151
	27-May-05	Logperch	PYSL		3		3	465		6.4		6.4	745.9	2,824			18,200		18,200
	27-May-05	Morone spp.	PYSL		1		1	465		2.1		2.1	745.9	2,824			6,067		6,067
	27-May-05	Morone spp.	undetermined		1		1	465		2.1		2.1	745.9	2,824			6,067		6,067
	27-May-05	Morone spp.	YSL		13	11	24	465		27.9	23.6	51.6	745.9	2,824			78,868	66,734	145,602
	27-May-05	Unidentifiable	undetermined		13	11	24	465		27.9	23.6	51.6	745.9	2,824			78,868	66,734	145,602
5	27-May-05	DAILY TOTAL		0	146	206	352	465	0.0	313.7	442.6	756.3	745.9	2,824	0	885,747	1,249,752	2,135,499	
	2-Jun-05	Rainbow smelt/Clupeidae	PYSL			4	4	378			10.6	10.6	745.9	2,824			0	29,903	29,903
	2-Jun-05	Rainbow smelt/Clupeidae	PYSL		504	276	780	378		1,334.4	730.8	2,065.2	745.9	2,824			3,767,796	2,063,317	5,831,114
	2-Jun-05	Rainbow smelt/Clupeidae	undetermined		144	136	280	378		381.3	360.1	741.3	745.9	2,824			1,076,513	1,016,707	2,093,220
	2-Jun-05	Rainbow smelt/Clupeidae	YSL		36	28	64	378		95.3	74.1	169.5	745.9	2,824			269,128	209,322	478,450
	2-Jun-05	Rainbow smelt/Clupeidae	PYSL		224	28	252	378		593.1	74.1	667.2	745.9	2,824			1,674,576	209,322	1,883,898
	2-Jun-05	Rainbow smelt/Clupeidae	undetermined		8		8	378		21.2		21.2	745.9	2,824			59,806		59,806
	2-Jun-05	Rainbow smelt/Clupeidae	YSL		8		8	378		21.2		21.2	745.9	2,824			59,806		59,806
	2-Jun-05	Logperch	PYSL		94	28	122	378		248.9	74.1	323.0	745.9	2,824			702,724	209,322	912,046
	2-Jun-05	Logperch	YSL		28		28	378		74.1	0.0	74.1	745.9	2,824			209,322		209,322
	2-Jun-05	Morone spp.	PYSL		408	166	574	378		1,080.3	439.5	1,519.8	745.9	2,824			3,050,121	1,240,981	4,291,102
	2-Jun-05	Morone spp.	undetermined		48	32	80	378		127.1	84.7	211.8	745.9	2,824			358,838	239,225	598,063
	2-Jun-05	Morone spp.	YSL		40		40	378		105.9		105.9	745.9	2,824			299,031		299,031
	2-Jun-05	Notropis spp.	PYSL		16		16	378		42.4		42.4	745.9	2,824			119,613		119,613
	2-Jun-05	Round goby	JUV		8		8	378		21.2		21.2	745.9	2,824			59,806		59,806
	2-Jun-05	Unidentifiable	undetermined		150	232	382	378		397.2	614.3	1,011.4	745.9	2,824			1,121,368	1,734,383	2,855,751
	2-Jun-05	Yellow perch	PYSL		24		24	378		63.5		63.5	745.9	2,824			179,419		179,419
	2-Jun-05	Yellow perch	YSL		12		12	378		31.8		31.8	745.9	2,824			89,709		89,709
6	2-Jun-05	DAILY TOTAL		0	1,752	930	2,682	378	0.0	4,638.7	2,462.3	7,101.1	745.9	2,824	0	13,097,578	6,952,482	20,050,060	

Individual estimates may not add to totals due to rounding.

**APPENDIX 5 (cont'd)**  
**Estimated Daily Entrainment of Larval and Entrainable Juvenile Fish at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Event No.	Date	Species	Life Stage	Bayshore: Larvae/Juveniles Collected				Volume Filtered (m³)	Larvae/Juveniles per 1,000 m³				Flow MGD	Flow 1000 m³	Bayshore: Larvae/Juveniles per Day			
				Live	Recently Dead	Long Dead	Total		Live	Recently Dead	Long Dead	Total			Live	Recently Dead	Long Dead	Total
	3-Jun-05	Rainbow smelt/Clupeidae	PYSL		12		12	376		31.9		31.9	745.9	2,824		90,007		90,007
	3-Jun-05	Rainbow smelt/Clupeidae	PYSL		608	8	616	376		1,615.1	21.3	1,636.4	745.9	2,824		4,560,371	60,005	4,620,376
	3-Jun-05	Rainbow smelt/Clupeidae	undetermined		100	8	108	376		265.6	21.3	286.9	745.9	2,824		750,061	60,005	810,066
	3-Jun-05	Rainbow smelt/Clupeidae	YSL		8		8	376		21.3		21.3	745.9	2,824		60,005		60,005
	3-Jun-05	Cyprinidae	PYSL		4		4	376		10.6		10.6	745.9	2,824		30,002		30,002
	3-Jun-05	Freshwater drum	PYSL		8		8	376		21.3		21.3	745.9	2,824		60,005		60,005
	3-Jun-05	Rainbow smelt/Clupeidae	PYSL		308		308	376		818.2		818.2	745.9	2,824		2,310,188		2,310,188
	3-Jun-05	Logperch	PYSL		16	4	20	376		42.5	10.6	53.1	745.9	2,824		120,010	30,002	150,012
	3-Jun-05	Logperch	YSL		4		4	376		10.6		10.6	745.9	2,824		30,002		30,002
	3-Jun-05	Morone spp.	PYSL	4	244	8	256	376	10.6	648.2	21.3	680.1	745.9	2,824	30,002	1,830,149	60,005	1,920,156
	3-Jun-05	Morone spp.	undetermined		16		16	376		42.5		42.5	745.9	2,824		120,010		120,010
	3-Jun-05	Morone spp.	YSL		16		16	376		42.5		42.5	745.9	2,824		120,010		120,010
	3-Jun-05	Pomoxis spp.	PYSL		8		8	376		21.3		21.3	745.9	2,824		60,005		60,005
	3-Jun-05	Unidentifiable	undetermined		176	36	212	376		467.5	95.6	563.2	745.9	2,824		1,320,107	270,022	1,590,129
	3-Jun-05	Walleye	JUV		4		4	376		10.6		10.6	745.9	2,824		30,002		30,002
	3-Jun-05	Walleye	PYSL		20	4	24	376		53.1	10.6	63.8	745.9	2,824		150,012	30,002	180,015
	3-Jun-05	Walleye	YSL		4		4	376		10.6		10.6	745.9	2,824		30,002		30,002
	3-Jun-05	Yellow perch	PYSL		12		12	376		31.9		31.9	745.9	2,824		90,007		90,007
7	<b>3-Jun-05</b>	<b>DAILY TOTAL</b>		<b>4</b>	<b>1,568</b>	<b>68</b>	<b>1,640</b>	<b>376</b>	<b>10.6</b>	<b>4,165.3</b>	<b>180.6</b>	<b>4,356.6</b>	<b>745.9</b>	<b>2,824</b>	<b>30,002</b>	<b>11,760,957</b>	<b>510,042</b>	<b>12,301,001</b>
	6-Jun-05	Rainbow smelt/Clupeidae	JUV		4		4	413		9.7		9.7	745.9	2,824		27,319		27,319
	6-Jun-05	Rainbow smelt/Clupeidae	PYSL		548		548	413		1,325.6		1,325.6	745.9	2,824		3,742,760		3,742,760
	6-Jun-05	Rainbow smelt/Clupeidae	undetermined		60		60	413		145.1		145.1	745.9	2,824		409,791		409,791
	6-Jun-05	Rainbow smelt/Clupeidae	YSL		96		96	413		232.2		232.2	745.9	2,824		655,666		655,666
	6-Jun-05	Cyprinidae	YSL		8		8	413		19.4		19.4	745.9	2,824		54,639		54,639
	6-Jun-05	Freshwater drum	PYSL		48		48	413		116.1		116.1	745.9	2,824		327,833		327,833
	6-Jun-05	Rainbow smelt/Clupeidae	PYSL		612		612	413		1,480.4		1,480.4	745.9	2,824		4,179,871		4,179,871
	6-Jun-05	Rainbow smelt/Clupeidae	undetermined		12		12	413		29.0		29.0	745.9	2,824		81,958		81,958
	6-Jun-05	Rainbow smelt/Clupeidae	YSL		68		68	413		164.5		164.5	745.9	2,824		464,430		464,430
	6-Jun-05	Logperch	PYSL		40		40	413		96.8		96.8	745.9	2,824		273,194		273,194
	6-Jun-05	Logperch	YSL		8		8	413		19.4		19.4	745.9	2,824		54,639		54,639
	6-Jun-05	Morone spp.	PYSL		132		132	413		319.3		319.3	745.9	2,824		901,541		901,541
	6-Jun-05	Morone spp.	undetermined		24		24	413		58.1		58.1	745.9	2,824		163,916		163,916
	6-Jun-05	Morone spp.	YSL		4		4	413		9.7		9.7	745.9	2,824		27,319		27,319
	6-Jun-05	Unidentifiable	undetermined		56	8	64	413		135.5	19.4	154.8	745.9	2,824		382,472	54,639	437,111
	6-Jun-05	Walleye	JUV	4	16	8	28	413	9.7	38.7	19.4	67.7	745.9	2,824	27,319	109,278	54,639	191,236
	6-Jun-05	Walleye	PYSL		8		8	413		19.4		19.4	745.9	2,824		54,639		54,639
8	<b>6-Jun-05</b>	<b>DAILY TOTAL</b>		<b>4</b>	<b>1,752</b>	<b>16</b>	<b>1,772</b>	<b>413</b>	<b>9.7</b>	<b>4,237.9</b>	<b>38.7</b>	<b>4,286.3</b>	<b>745.9</b>	<b>2,824</b>	<b>27,319</b>	<b>11,965,904</b>	<b>109,278</b>	<b>12,102,501</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 5 (cont'd)**  
**Estimated Daily Entrainment of Larval and Entrainable Juvenile Fish at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Event No.	Date	Species	Life Stage	Bayshore: Larvae/Juveniles Collected				Volume Filtered (m³)	Larvae/Juveniles per 1,000 m³				Flow MGD	Flow 1000 m³	Bayshore: Larvae/Juveniles per Day			
				Live	Recently Dead	Long Dead	Total		Live	Recently Dead	Long Dead	Total			Live	Recently Dead	Long Dead	Total
	7-Jun-05	Rainbow smelt/Clupeidae	PYSL		4,432	3,272	7,704	413		10,720.6	7,914.7	18,635.3	745.9	2,824		30,269,912	22,347,282	52,617,194
	7-Jun-05	Rainbow smelt/Clupeidae	undetermined		760	1,280	2,040	413		1,838.4	3,096.2	4,934.6	745.9	2,824		5,190,689	8,742,213	13,932,902
	7-Jun-05	Rainbow smelt/Clupeidae	YSL		432	596	1,028	413		1,045.0	1,441.7	2,486.6	745.9	2,824		2,950,497	4,070,593	7,021,090
	7-Jun-05	Cyprinidae	PYSL			36	36	413			87.1	87.1	745.9	2,824			245,875	245,875
	7-Jun-05	Cyprinidae	YSL			64	64	413			154.8	154.8	745.9	2,824			437,111	437,111
	7-Jun-05	Rainbow smelt/Clupeidae	JUV		32		32	413		77.4		77.4	745.9	2,824		218,555	218,555	
	7-Jun-05	Rainbow smelt/Clupeidae	PYSL		592	896	1,488	413		1,432.0	2,167.3	3,599.3	745.9	2,824		4,043,273	6,119,549	10,162,822
	7-Jun-05	Rainbow smelt/Clupeidae	undetermined		32		32	413		77.4		77.4	745.9	2,824		218,555	218,555	
	7-Jun-05	Rainbow smelt/Clupeidae	YSL		96	96	192	413		232.2	232.2	464.4	745.9	2,824		655,666	655,666	1,311,332
	7-Jun-05	Logperch	JUV		64		64	413		154.8		154.8	745.9	2,824		437,111	437,111	
	7-Jun-05	Logperch	PYSL		112		112	413		270.9		270.9	745.9	2,824		764,944	764,944	
	7-Jun-05	Logperch	undetermined		64		64	413		154.8		154.8	745.9	2,824		437,111	437,111	
	7-Jun-05	Morone spp.	PYSL		324	48	372	413		783.7	116.1	899.8	745.9	2,824		2,212,873	327,833	2,540,706
	7-Jun-05	Morone spp.	undetermined			32	32	413			77.4	77.4	745.9	2,824			218,555	218,555
	7-Jun-05	Trout-perch	PYSL		32		32	413		77.4		77.4	745.9	2,824		218,555	218,555	
	7-Jun-05	Unidentifiable	undetermined		384	500	884	413		928.9	1,209.5	2,138.3	745.9	2,824		2,622,664	3,414,927	6,037,591
	7-Jun-05	White bass	PYSL			64	64	413			154.8	154.8	745.9	2,824			437,111	437,111
9	7-Jun-05	DAILY TOTAL		0	7,356	6,884	14,240	413	0.0	17,793.5	16,651.8	34,445.2	745.9	2,824	0	50,240,405	47,016,714	97,257,118
	13-Jun-05	Rainbow smelt/Clupeidae	PYSL		3,700		3,700	459		8,067.7		8,067.7	745.9	2,824		22,779,325	22,779,325	
	13-Jun-05	Cyprinidae	PYSL		128		128	459		279.1		279.1	745.9	2,824		788,042	788,042	
	13-Jun-05	Freshwater drum	PYSL		49,143	2,032	51,175	459		107,153.0	4,430.9	111,583.9	745.9	2,824		302,549,728	12,510,671	315,060,399
	13-Jun-05	Freshwater drum	undetermined		384		384	459		837.3		837.3	745.9	2,824		2,364,126	2,364,126	
	13-Jun-05	Freshwater drum	YSL		128		128	459		279.1		279.1	745.9	2,824		788,042	788,042	
	13-Jun-05	Common carp/Goldfish	YSL		64		64	459		139.5		139.5	745.9	2,824		394,021	394,021	
	13-Jun-05	Unidentifiable	undetermined		6,804	13,837	20,641	459		14,836.3	30,170.3	45,006.6	745.9	2,824		41,890,865	85,186,684	127,077,548
	13-Jun-05	White bass	PYSL		748		748	459		1,631.1		1,631.1	745.9	2,824		4,605,421	4,605,421	
	13-Jun-05	White sucker	PYSL		1,536		1,536	459		3,349.4		3,349.4	745.9	2,824		9,457,109	9,457,109	
10	13-Jun-05	DAILY TOTAL		0	62,635	15,869	78,504	459	0.0	136,572.6	34,601.1	171,173.7	745.9	2,824	0	385,616,679	97,697,355	483,314,033
	17-Jun-05	Rainbow smelt/Clupeidae	PYSL		44		44	457		96.3		96.3	745.9	2,824		271,796	271,796	
	17-Jun-05	Rainbow smelt/Clupeidae	YSL		16		16	457		35.0		35.0	745.9	2,824		98,835	98,835	
	17-Jun-05	Freshwater drum	PYSL	2	1,086		1,088	457	4.4	2,375.9		2,380.3	745.9	2,824	12,354	6,708,424	6,720,778	
	17-Jun-05	Freshwater drum	undetermined		54		54	457		118.1		118.1	745.9	2,824		333,568	333,568	
	17-Jun-05	Logperch	undetermined		2		2	457		4.4		4.4	745.9	2,824		12,354	12,354	
	17-Jun-05	Unidentifiable	undetermined		480	40	520	457		1,050.1	87.5	1,137.6	745.9	2,824		2,965,049	247,087	3,212,137
	17-Jun-05	White bass	PYSL		20		20	457		43.8		43.8	745.9	2,824		123,544	123,544	
	17-Jun-05	White sucker	PYSL		20		20	457		43.8		43.8	745.9	2,824		123,544	123,544	
	17-Jun-05	White sucker	YSL		12		12	457		26.3		26.3	745.9	2,824		74,126	74,126	
11	17-Jun-05	DAILY TOTAL		2	1,734	40	1,776	457	4.4	3,793.6	87.5	3,885.4	745.9	2,824	12,354	10,711,240	247,087	10,970,682

Individual estimates may not add to totals due to rounding.

**APPENDIX 5 (cont'd)**  
**Estimated Daily Entrainment of Larval and Entrainable Juvenile Fish at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Event No.	Date	Species	Life Stage	Bayshore: Larvae/Juveniles Collected				Volume Filtered (m³)	Larvae/Juveniles per 1,000 m³				Flow MGD	Flow 1000 m³	Bayshore: Larvae/Juveniles per Day				
				Live	Recently Dead	Long Dead	Total		Live	Recently Dead	Long Dead	Total			Live	Recently Dead	Long Dead	Total	
	23-Jun-05	Rainbow smelt/Clupeidae	JUV		8		8	486		16.5		16.5	745.9	2,824		46,495		46,495	
	23-Jun-05	Rainbow smelt/Clupeidae	PYSL		10	1	11	486		20.6	2.1	22.6	745.9	2,824		58,119	5,812	63,931	
	23-Jun-05	Rainbow smelt/Clupeidae	undetermined		2		2	486		4.1		4.1	745.9	2,824		11,624		11,624	
	23-Jun-05	Rainbow smelt/Clupeidae	JUV		20	1	21	486		41.2	2.1	43.2	745.9	2,824		116,238	5,812	122,050	
	23-Jun-05	Rainbow smelt/Clupeidae	PYSL		8	113	121	486		16.5	232.6	249.1	745.9	2,824		46,495	656,743	703,238	
	23-Jun-05	Rainbow smelt/Clupeidae	undetermined		3	18	21	486		6.2	37.1	43.2	745.9	2,824		17,436	104,614	122,050	
	23-Jun-05	Common carp/Goldfish	PYSL		48	48	486			98.8	98.8	745.9	2,824		278,970		278,970		
	23-Jun-05	Cyprinidae	PYSL		50	50	486			102.9	102.9	745.9	2,824		290,594		290,594		
	23-Jun-05	Cyprinidae	undetermined			24	24	486			49.4	49.4	745.9	2,824			139,485		139,485
	23-Jun-05	Cyprinidae	YSL			16	16	486			32.9	32.9	745.9	2,824			92,990		92,990
	23-Jun-05	Emerald shiner	JUV		5	16	21	486		10.3	32.9	43.2	745.9	2,824		29,059	92,990	122,050	
	23-Jun-05	Emerald shiner	PYSL		119	251	370	486		244.9	516.7	761.6	745.9	2,824		691,614	1,458,783	2,150,397	
	23-Jun-05	Emerald shiner	undetermined		5	275	280	486		10.3	566.1	576.3	745.9	2,824		29,059	1,598,268	1,627,328	
	23-Jun-05	Rainbow smelt/Clupeidae	JUV		102	19	121	486		210.0	39.1	249.1	745.9	2,824		592,812	110,426	703,238	
	23-Jun-05	Rainbow smelt/Clupeidae	PYSL		15	59	74	486		30.9	121.4	152.3	745.9	2,824		87,178	342,901	430,079	
	23-Jun-05	Rainbow smelt/Clupeidae	undetermined		8	19	27	486		16.5	39.1	55.6	745.9	2,824		46,495	110,426	156,921	
	23-Jun-05	Morone spp.	PYSL		63	34	97	486		129.7	70.0	199.7	745.9	2,824		366,149	197,604	563,753	
	23-Jun-05	Morone spp.	undetermined		6	18	24	486		12.4	37.1	49.4	745.9	2,824		34,871	104,614	139,485	
	23-Jun-05	Notropis spp.	PYSL		9	97	106	486		18.5	199.7	218.2	745.9	2,824		52,307	563,753	616,060	
	23-Jun-05	Notropis spp.	undetermined			98	98	486			201.7	201.7	745.9	2,824		0	569,565	569,565	
	23-Jun-05	Round goby	JUV	2	4	8	14	486	4.1	8.2	16.5	28.8	745.9	2,824	11,624	23,248	46,495	81,366	
	23-Jun-05	Spottail shiner	PYSL			1	1	486			2.1	2.1	745.9	2,824		0	5,812	5,812	
	23-Jun-05	Unidentifiable	undetermined		10	105	115	486		20.6	216.1	236.7	745.9	2,824		58,119	610,248	668,367	
	23-Jun-05	White bass	JUV		34		34	486		70.0		70.0	745.9	2,824			197,604		197,604
	23-Jun-05	White bass	PYSL		112	4	116	486		230.5	8.2	238.8	745.9	2,824		650,931	23,248	674,179	
	23-Jun-05	White bass	undetermined		1		1	486		2.1		2.1	745.9	2,824			5,812		5,812
	23-Jun-05	White perch	PYSL		27	1	28	486		55.6	2.1	57.6	745.9	2,824		156,921	5,812	162,733	
12	23-Jun-05	DAILY TOTAL		2	571	1,276	1,849	486	4.1	1,175.3	2,626.5	3,805.9	745.9	2,824	11,624	3,318,586	7,415,965	10,746,175	
	24-Jun-05	Rainbow smelt/Clupeidae	PYSL		44	5	49	486		90.6	10.3	100.9	745.9	2,824		255,723	29,059	284,782	
	24-Jun-05	Rainbow smelt/Clupeidae	undetermined		3		3	486		6.2		6.2	745.9	2,824			17,436		17,436
	24-Jun-05	Cyprinidae	PYSL			1	1	486			2.1	2.1	745.9	2,824			5,812	5,812	
	24-Jun-05	Cyprinidae	undetermined		2		2	486		4.1		4.1	745.9	2,824			11,624		11,624
	24-Jun-05	Emerald shiner	PYSL		9		9	486		18.5		18.5	745.9	2,824		52,307		52,307	
	24-Jun-05	Emerald shiner	undetermined		2		2	486		4.1		4.1	745.9	2,824			11,624		11,624
	24-Jun-05	Rainbow smelt/Clupeidae	JUV		17		17	486		35.0		35.0	745.9	2,824			98,802		98,802
	24-Jun-05	Rainbow smelt/Clupeidae	PYSL		10	2	12	486		20.6	4.1	24.7	745.9	2,824		58,119	11,624	69,743	
	24-Jun-05	Rainbow smelt/Clupeidae	undetermined		6	1	7	486		12.4	2.1	14.4	745.9	2,824		34,871	5,812	40,683	
	24-Jun-05	Lepomis spp.	PYSL		1		1	486		2.1		2.1	745.9	2,824			5,812		5,812
	24-Jun-05	Logperch	JUV		1		1	486		2.1		2.1	745.9	2,824			5,812		5,812
	24-Jun-05	Morone spp.	PYSL		1		1	486		2.1		2.1	745.9	2,824			5,812		5,812
	24-Jun-05	Morone spp.	undetermined			2	2	486			4.1	4.1	745.9	2,824			11,624		11,624
	24-Jun-05	Notropis spp.	PYSL		8		8	486		16.5		16.5	745.9	2,824			46,495		46,495
	24-Jun-05	Notropis spp.	undetermined		3		3	486		6.2		6.2	745.9	2,824			17,436		17,436
	24-Jun-05	Unidentifiable	undetermined		7	2	9	486		14.4	4.1	18.5	745.9	2,824		40,683	11,624	52,307	
	24-Jun-05	White bass	JUV		3		3	486		6.2		6.2	745.9	2,824			17,436		17,436
	24-Jun-05	White perch	JUV		2		2	486		4.1		4.1	745.9	2,824			11,624		11,624
	24-Jun-05	Yellow perch	YSL		1		1	486		2.1		2.1	745.9	2,824			5,812		5,812
13	24-Jun-05	DAILY TOTAL		0	120	13	133	486	0.0	247.0	26.8	273.8	745.9	2,824	0	697,426	75,555	772,981	

Individual estimates may not add to totals due to rounding.

**APPENDIX 5 (cont'd)**  
**Estimated Daily Entrainment of Larval and Entrainable Juvenile Fish at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Event No.	Date	Species	Life Stage	Bayshore: Larvae/Juveniles Collected				Volume Filtered (m³)	Larvae/Juveniles per 1,000 m³				Flow MGD	Flow 1000 m³	Bayshore: Larvae/Juveniles per Day			
				Live	Recently Dead	Long Dead	Total		Live	Recently Dead	Long Dead	Total			Live	Recently Dead	Long Dead	Total
	27-Jun-05	Rainbow smelt/Clupeidae	PYSL		16	2	18	389		41.1	5.1	46.2	745.9	2,824		116,031	14,504	130,534
	27-Jun-05	Rainbow smelt/Clupeidae	undetermined		4		4	389		10.3		10.3	745.9	2,824		29,008		29,008
	27-Jun-05	Rainbow smelt/Clupeidae	YSL		8		8	389		20.5		20.5	745.9	2,824		58,015		58,015
	27-Jun-05	Cyprinidae	PYSL		5		5	389		12.8		12.8	745.9	2,824		36,260		36,260
	27-Jun-05	Cyprinidae	YSL		1		1	389		2.6		2.6	745.9	2,824		7,252		7,252
	27-Jun-05	Emerald shiner	PYSL		32	1	33	389		82.2	2.6	84.8	745.9	2,824		232,061	7,252	239,313
	27-Jun-05	Emerald shiner	undetermined		9		9	389		23.1		23.1	745.9	2,824		65,267		65,267
	27-Jun-05	Rainbow smelt/Clupeidae	PYSL		4		4	389		10.3		10.3	745.9	2,824		29,008		29,008
	27-Jun-05	Rainbow smelt/Clupeidae	YSL		2		2	389		5.1		5.1	745.9	2,824		14,504		14,504
	27-Jun-05	Notropis spp.	PYSL		8		8	389		20.5		20.5	745.9	2,824		58,015		58,015
	27-Jun-05	Notropis spp.	undetermined		2		2	389		5.1		5.1	745.9	2,824		14,504		14,504
	27-Jun-05	Notropis spp.	YSL		4		4	389		10.3		10.3	745.9	2,824		29,008		29,008
	27-Jun-05	Spottail shiner	YSL		1		1	389		2.6		2.6	745.9	2,824		7,252		7,252
	27-Jun-05	Unidentifiable	undetermined		7	6	13	389		18.0	15.4	33.4	745.9	2,824		50,763	43,511	94,275
14	27-Jun-05	DAILY TOTAL		0	103	9	112	389	0.0	264.5	23.1	287.7	745.9	2,824	0	746,946	65,267	812,214
	28-Jun-05	Rainbow smelt/Clupeidae	PYSL		8		8	487		16.4		16.4	745.9	2,824		46,413		46,413
	28-Jun-05	Rainbow smelt/Clupeidae	undetermined		8		8	487		16.4		16.4	745.9	2,824		46,413		46,413
	28-Jun-05	Cyprinidae	PYSL		1		1	487		2.1		2.1	745.9	2,824		5,802		5,802
	28-Jun-05	Cyprinidae	undetermined		33		33	487		67.8		67.8	745.9	2,824		191,453		191,453
	28-Jun-05	Emerald shiner	JUV		180		180	487		369.9		369.9	745.9	2,824		1,044,291		1,044,291
	28-Jun-05	Emerald shiner	PYSL		147		147	487		302.0		302.0	745.9	2,824		852,837		852,837
	28-Jun-05	Emerald shiner	undetermined		216		216	487		443.8		443.8	745.9	2,824		1,253,149		1,253,149
	28-Jun-05	Emerald shiner	YSL		4		4	487		8.2		8.2	745.9	2,824		23,206		23,206
	28-Jun-05	Freshwater drum	JUV		8		8	487		16.4		16.4	745.9	2,824		46,413		46,413
	28-Jun-05	Freshwater drum	PYSL		20		20	487		41.1		41.1	745.9	2,824		116,032		116,032
	28-Jun-05	Rainbow smelt/Clupeidae	JUV		38		38	487		78.1		78.1	745.9	2,824		220,461		220,461
	28-Jun-05	Rainbow smelt/Clupeidae	undetermined		11		11	487		22.6		22.6	745.9	2,824		63,818		63,818
	28-Jun-05	Logperch	YSL		4		4	487		8.2		8.2	745.9	2,824		23,206		23,206
	28-Jun-05	Morone spp.	PYSL		77		77	487		158.2		158.2	745.9	2,824		446,724		446,724
	28-Jun-05	Morone spp.	undetermined		8		8	487		16.4		16.4	745.9	2,824		46,413		46,413
	28-Jun-05	Notropis spp.	JUV		1		1	487		2.1		2.1	745.9	2,824		5,802		5,802
	28-Jun-05	Notropis spp.	PYSL		16		16	487		32.9		32.9	745.9	2,824		92,826		92,826
	28-Jun-05	Notropis spp.	undetermined		1		1	487		2.1		2.1	745.9	2,824		5,802		5,802
	28-Jun-05	Round goby	JUV		73		73	487		150.0		150.0	745.9	2,824		423,518		423,518
	28-Jun-05	Spottail shiner	PYSL		1		1	487		2.1		2.1	745.9	2,824		5,802		5,802
	28-Jun-05	Unidentifiable	undetermined		13	2	15	487		26.7	4.1	30.8	745.9	2,824		75,421	11,603	87,024
	28-Jun-05	White bass	JUV		20		20	487		41.1		41.1	745.9	2,824		116,032		116,032
	28-Jun-05	White bass	PYSL		16		16	487		32.9		32.9	745.9	2,824		92,826		92,826
15	28-Jun-05	DAILY TOTAL		0	904	2	906	487	0.0	1,857.5	4.1	1,861.6	745.9	2,824	0	5,244,660	11,603	5,256,263

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**APPENDIX 5 (cont'd)**  
**Estimated Daily Entrainment of Larval and Entrainable Juvenile Fish at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Event No.	Date	Species	Life Stage	Bayshore: Larvae/Juveniles Collected				Volume Filtered (m³)	Larvae/Juveniles per 1,000 m³				Flow MGD	Flow 1000 m³	Bayshore: Larvae/Juveniles per Day			
				Live	Recently Dead	Long Dead	Total		Live	Recently Dead	Long Dead	Total			Live	Recently Dead	Long Dead	Total
	7-Jul-05	Rainbow smelt/Clupeidae	PYSL		4		4	479		8.4		8.4	745.9	2,824		23,590		23,590
	7-Jul-05	Rainbow smelt/Clupeidae	undetermined		1		1	479		2.1		2.1	745.9	2,824		5,897		5,897
	7-Jul-05	Channel catfish	PYSL	2			2	479	4.2			4.2	745.9	2,824	11,795	0		11,795
	7-Jul-05	Common carp/Goldfish	undetermined		1		1	479		2.1		2.1	745.9	2,824		5,897		5,897
	7-Jul-05	Common carp/Goldfish	YSL		1		1	479		2.1		2.1	745.9	2,824		5,897		5,897
	7-Jul-05	Cyprinidae	YSL		1		1	479		2.1		2.1	745.9	2,824		5,897		5,897
	7-Jul-05	Emerald shiner	JUV		1		1	479		2.1		2.1	745.9	2,824		5,897		5,897
	7-Jul-05	Emerald shiner	PYSL		1		1	479		2.1		2.1	745.9	2,824		5,897		5,897
	7-Jul-05	Emerald shiner	undetermined		2		2	479		4.2		4.2	745.9	2,824		11,795		11,795
	7-Jul-05	Freshwater drum	PYSL		1		1	479		2.1		2.1	745.9	2,824		5,897		5,897
	7-Jul-05	Rainbow smelt/Clupeidae	JUV		1		1	479		2.1		2.1	745.9	2,824		5,897		5,897
	7-Jul-05	Rainbow smelt/Clupeidae	PYSL		9		9	479		18.8		18.8	745.9	2,824		53,077		53,077
	7-Jul-05	Rainbow smelt/Clupeidae	undetermined		3		3	479		6.3		6.3	745.9	2,824		17,692		17,692
	7-Jul-05	Morone spp.	PYSL		1		1	479		2.1		2.1	745.9	2,824		5,897		5,897
	7-Jul-05	Round goby	JUV	4	13		17	479	8.4	27.2		35.5	745.9	2,824	23,590	76,667		100,257
	7-Jul-05	Unidentifiable	undetermined		2		2	479		4.2		4.2	745.9	2,824		11,795		11,795
	7-Jul-05	White bass	PYSL		1		1	479		2.1		2.1	745.9	2,824		5,897		5,897
	7-Jul-05	White perch	JUV		1		1	479		2.1		2.1	745.9	2,824		5,897		5,897
	7-Jul-05	White perch	PYSL		1		1	479		2.1		2.1	745.9	2,824		5,897		5,897
	7-Jul-05	Yellow perch	PYSL		2		2	479		4.2		4.2	745.9	2,824		11,795		11,795
16	7-Jul-05	DAILY TOTAL		6	47	0	53	479	12.5	98.2	0.0	110.7	745.9	2,824	35,385	277,181	0	312,566
	8-Jul-05	Rainbow smelt/Clupeidae	PYSL		1		1	474		2.1		2.1	745.9	2,824		5,957		5,957
	9-Jul-05	Rainbow smelt/Clupeidae	undetermined		2		2	474		4.2		4.2	745.9	2,824		11,914		11,914
	10-Jul-05	Emerald shiner	JUV		1		1	474		2.1		2.1	745.9	2,824		5,957		5,957
	11-Jul-05	Emerald shiner	YSL		1		1	474		2.1		2.1	745.9	2,824		5,957		5,957
	12-Jul-05	Freshwater drum	PYSL		1		1	474		2.1		2.1	745.9	2,824		5,957		5,957
	13-Jul-05	Rainbow smelt/Clupeidae	PYSL		2		2	474		4.2		4.2	745.9	2,824		11,914		11,914
	14-Jul-05	Morone spp.	PYSL			1	1	474			2.1	2.1	745.9	2,824			5,957	5,957
	15-Jul-05	Unidentifiable	undetermined		2	2	4	474		4.2	4.2	8.4	745.9	2,824		11,914	11,914	23,828
17	8-Jul-05	DAILY TOTAL		0	10	3	13	474	0.0	21.1	6.3	27.4	745.9	2,824	0	59,569	17,871	77,440
	11-Jul-05	Common carp/Goldfish	YSL		1		1	281		3.6		3.6	745.9	2,824		10,045		10,045
	12-Jul-05	Emerald shiner	JUV		4		4	281		14.2		14.2	745.9	2,824		40,180		40,180
	13-Jul-05	Emerald shiner	undetermined		1		1	281		3.6		3.6	745.9	2,824		10,045		10,045
	14-Jul-05	Round goby	JUV		1		1	281		3.6		3.6	745.9	2,824		10,045		10,045
	15-Jul-05	White bass	JUV		2		2	281		7.1		7.1	745.9	2,824		20,090		20,090
18	11-Jul-05	DAILY TOTAL		0	9	0	9	281	0.0	32.0	0.0	32.0	745.9	2,824	0	90,404	0	90,404

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**APPENDIX 5 (cont'd)**  
**Estimated Daily Entrainment of Larval and Entrainable Juvenile Fish at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Event No.	Date	Species	Life Stage	Bayshore: Larvae/Juveniles Collected				Volume Filtered (m³)	Larvae/Juveniles per 1,000 m³				Flow MGD	Flow 1000 m³	Bayshore: Larvae/Juveniles per Day			
				Live	Recently Dead	Long Dead	Total		Live	Recently Dead	Long Dead	Total			Live	Recently Dead	Long Dead	Total
	12-Jul-05	Emerald shiner	JUV		1		1	465		2.1		2.1	745.9	2,824		6,067		6,067
	13-Jul-05	Emerald shiner	undetermined		1		1	465		2.1		2.1	745.9	2,824		6,067		6,067
	14-Jul-05	Morone spp.	PYSL		1	1	2	465		2.1	2.1	4.3	745.9	2,824		6,067	6,067	12,135
	15-Jul-05	White bass	JUV	1			1	465	2.1			2.1	745.9	2,824	6,067		6,067	
19	12-Jul-05	DAILY TOTAL		1	3	1	5	465	2.1	6.4	2.1	10.7	745.9	2,824	6,067	18,202	6,067	30,337
	21-Jul-05	Unidentifiable	undetermined			1	1	486			2.1	2.1	745.9	2,824		5,809	5,809	
20	21-Jul-05	DAILY TOTAL		0	0	1	1	486	0.0	0.0	2.1	2.1	745.9	2,824	0	0	5,809	5,809
	22-Jul-05	Bluntnose minnow	JUV	1			1	486	2.1	0.0		2.1	745.9	2,824	5,809			5,809
	23-Jul-05	Channel catfish	PYSL		1		1	486			2.1		745.9	2,824		5,809		5,809
	24-Jul-05	Mottled sculpin	JUV	1			1	486	2.1			2.1	745.9	2,824	5,809			5,809
	25-Jul-05	Round goby	JUV		1		1	486		2.1		2.1	745.9	2,824		5,809		5,809
	26-Jul-05	Spottail shiner	undetermined		1		1	486		2.1		2.1	745.9	2,824		5,809		5,809
21	22-Jul-05	DAILY TOTAL		2	3	0	5	486	4.1	6.2	0.0	10.3	745.9	2,824	11,619	17,428	0	29,047
	28-Jul-05	Freshwater drum	PYSL			2	2	525			3.8	3.8	561.6	2,126		8,100	8,100	
	29-Jul-05	Yellow perch	YSL			1	1	525			1.9	1.9	561.6	2,126		4,050	4,050	
22	28-Jul-05	DAILY TOTAL		0	0	3	3	525	0.0	0.0	5.7	5.7	561.6	2,126	0	0	12,151	12,151
	29-Jul-05	Emerald shiner	undetermined		1		1	521		1.9		1.9	561.6	2,126		4,077		4,077
	30-Jul-05	Freshwater drum	JUV		1		1	521		1.9		1.9	561.6	2,126		4,077		4,077
	31-Jul-05	Round goby	JUV		1		1	521		1.9		1.9	561.6	2,126		4,077		4,077
23	29-Jul-05	DAILY TOTAL		0	3	0	3	521	0.0	5.8	0.0	5.8	561.6	2,126	0	12,232	0	12,232
	1-Aug-05	Lepomis spp.	PYSL		4		4	487		8.2		8.2	745.9	2,824		23,206		23,206
	2-Aug-05	Yellow perch	PYSL			1	1	487			2.1	2.1	745.9	2,824		5,802	5,802	
24	1-Aug-05	DAILY TOTAL		0	4	1	5	487	0.0	8.2	2.1	10.3	745.9	2,824	0	23,206	5,802	29,008
	2-Aug-05	Emerald shiner	JUV		1		1	487		2.1		2.1	745.9	2,824		5,802		5,802
	3-Aug-05	Rainbow smelt/Clupeidae	JUV		1		1	487		2.1		2.1	745.9	2,824		5,802		5,802
	4-Aug-05	Lepomis spp.	PYSL		4		4	487		8.2		8.2	745.9	2,824		23,206		23,206
	5-Aug-05	Unidentifiable	undetermined		1		1	487		2.1		2.1	745.9	2,824		5,802		5,802
	6-Aug-05	Yellow perch	undetermined			1	1	487			2.1	2.1	745.9	2,824		5,802		5,802
25	2-Aug-05	DAILY TOTAL		0	7	1	8	487	0.0	14.4	2.1	16.4	745.9	2,824	0	40,611	5,802	46,413
	9-Aug-05	Emerald shiner	JUV		1		1	439		2.3		2.3	745.9	2,824		6,439		6,439
	10-Aug-05	Freshwater drum	PYSL		1		1	439		2.3		2.3	745.9	2,824		6,439		6,439
	11-Aug-05	Unidentifiable	undetermined			1	1	439			2.3	2.3	745.9	2,824		6,439	6,439	
26	9-Aug-05	DAILY TOTAL		0	2	1	3	439	0.0	4.6	2.3	6.8	745.9	2,824	0	12,878	6,439	19,316

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**APPENDIX 5 (cont'd)**  
**Estimated Daily Entrainment of Larval and Entrainable Juvenile Fish at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Event No.	Date	Species	Life Stage	Bayshore: Larvae/Juveniles Collected				Volume Filtered (m³)	Larvae/Juveniles per 1,000 m³				Flow MGD	Flow 1000 m³	Bayshore: Larvae/Juveniles per Day			
				Live	Recently Dead	Long Dead	Total		Live	Recently Dead	Long Dead	Total			Live	Recently Dead	Long Dead	Total
27	12-Aug-05	DAILY TOTAL		0	0	0	0	219	0.0	0.0	0.0	0.0	745.9	2,824	0	0	0	0
	15-Aug-05	Emerald shiner	JUV		1		1	454		2.2		2.2	561.6	2,126			4,680	4,680
28	15-Aug-05	DAILY TOTAL		0	1	0	1	454	0.0	2.2	0.0	2.2	561.6	2,126	0	4,680	0	4,680
29	18-Aug-05	DAILY TOTAL		0	0	0	0	NA	NA	NA	NA	NA	561.6	2,126	NA	NA	NA	NA
30	2-Sep-05	DAILY TOTAL		0	0	0	0	524	0.0	0.0	0.0	0.0	745.9	2,824	0	0	0	0
	11-Sep-05	Emerald shiner	JUV		1		1	456		2.2		2.2	745.9	2,824		6,190		6,190
31	11-Sep-05	DAILY TOTAL		0	1	0	1	456	0.0	2.2	0.0	2.2	745.9	2,824	0	6,190	0	6,190
32	19-Mar-06	DAILY TOTAL		0	0	0	0	491	0.0	0.0	0.0	0.0	745.9	2,824	0	0	0	0
33	25-Mar-06	DAILY TOTAL		0	0	0	0	483	0.0	0.0	0.0	0.0	745.9	2,824	0	0	0	0
34	26-Mar-06	DAILY TOTAL		0	0	0	0	460	0.0	0.0	0.0	0.0	745.9	2,824	0	0	0	0
35	31-Mar-06	DAILY TOTAL		0	0	0	0	488	0.0	0.0	0.0	0.0	745.9	2,824	0	0	0	0
36	3-Apr-06	DAILY TOTAL		0	0	0	0	463	0.0	0.0	0.0	0.0	745.9	2,824	0	0	0	0
37	7-Apr-06	DAILY TOTAL		0	0	0	0	489	0.0	0.0	0.0	0.0	745.9	2,824	0	0	0	0
	9-Apr-06	Lake whitefish	PYSL	1			1	509	2.0			2.0	745.9	2,824	5,550			5,550
38	9-Apr-06	DAILY TOTAL		1	0	0	1	509	2.0	0.0	0.0	2.0	745.9	2,824	5,550	0	0	5,550
39	14-Apr-06	DAILY TOTAL		0	0	0	0	458	0.0	0.0	0.0	0.0	745.9	2,824	0	0	0	0
40	17-Apr-06	DAILY TOTAL		0	0	0	0	488	0.0	0.0	0.0	0.0	745.9	2,824	0	0	0	0
	20-Apr-06	Rainbow smelt/Clupeidae	PYSL		1		1	489		2.0		2.0	745.9	2,824		5,771		5,771
	20-Apr-06	Logperch	PYSL		25		25	489		51.1		51.1	745.9	2,824		144,264		144,264
	20-Apr-06	Logperch	undetermined		1		1	489		2.0		2.0	745.9	2,824		5,771		5,771
	20-Apr-06	Logperch	YSL		14		14	489		28.6		28.6	745.9	2,824		80,788		80,788
	20-Apr-06	Percidae	PYSL		5		5	489		10.2		10.2	745.9	2,824		28,853		28,853
	20-Apr-06	Percidae	YSL		1		1	489		2.0		2.0	745.9	2,824		5,771		5,771
	20-Apr-06	Unidentifiable	undetermined		17		17	489		34.7		34.7	745.9	2,824		98,099		98,099
	20-Apr-06	Walleye	PYSL		3		3	489		6.1		6.1	745.9	2,824		17,312		17,312
	20-Apr-06	Walleye/Yellow perch	PYSL	2	17		19	489	4.1	34.7		38.8	745.9	2,824	11,541	98,099		109,640
	20-Apr-06	Walleye/Yellow perch	YSL		4		4	489		8.2		8.2	745.9	2,824		23,082		23,082
	20-Apr-06	Yellow perch	PYSL		19		19	489		38.8		38.8	745.9	2,824		109,640		109,640
	20-Apr-06	Yellow perch	YSL		5		5	489		10.2		10.2	745.9	2,824		28,853		28,853
41	20-Apr-06	DAILY TOTAL		2	112	0	114	489	4.1	228.9	0.0	233.0	745.9	2,824	11,541	646,302	0	657,843

Individual estimates may not add to totals due to rounding.

**APPENDIX 5 (cont'd)**  
**Estimated Daily Entrainment of Larval and Entrainable Juvenile Fish at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Event No.	Date	Species	Life Stage	Bayshore: Larvae/Juveniles Collected				Volume Filtered (m³)	Larvae/Juveniles per 1,000 m³				Flow MGD	Flow 1000 m³	Bayshore: Larvae/Juveniles per Day			
				Live	Recently Dead	Long Dead	Total		Live	Recently Dead	Long Dead	Total			Live	Recently Dead	Long Dead	Total
	24-Apr-06	Rainbow smelt/Clupeidae	PYSL		1		1	446		2.2		2.2	745.9	2,824		6,338		6,338
	25-Apr-06	Grass pickerel	PYSL		1		1	446		2.2		2.2	745.9	2,824		6,338		6,338
	26-Apr-06	Logperch	PYSL		33		33	446		74.1		74.1	745.9	2,824		209,146		209,146
	27-Apr-06	Logperch	YSL		4		4	446		9.0		9.0	745.9	2,824		25,351		25,351
	28-Apr-06	Percidae	PYSL		31		31	446		69.6		69.6	745.9	2,824		196,470		196,470
	29-Apr-06	Percidae	undetermined		4		4	446		9.0		9.0	745.9	2,824		25,351		25,351
	30-Apr-06	Percidae	YSL		7		7	446		15.7		15.7	745.9	2,824		44,364		44,364
	1-May-06	Unidentifiable	undetermined		2		2	446		4.5		4.5	745.9	2,824		12,675		12,675
	2-May-06	Unidentifiable	YSL		1		1	446		2.2		2.2	745.9	2,824		6,338		6,338
	3-May-06	Walleye	PYSL		25		25	446		56.1		56.1	745.9	2,824		158,444		158,444
	4-May-06	Walleye/Yellow perch	PYSL		5		5	446		11.2		11.2	745.9	2,824		31,689		31,689
	5-May-06	Yellow perch	PYSL		12		12	446		26.9		26.9	745.9	2,824		76,053		76,053
	6-May-06	Yellow perch	YSL		3		3	446		6.7		6.7	745.9	2,824		19,013		19,013
42	24-Apr-06	DAILY TOTAL		0	129	0	129	446	0.0	289.6	0.0	289.6	745.9	2,824	0	817,569	0	817,569
	26-Apr-06	Grass pickerel	PYSL		1		1	491		2.0		2.0	745.9	2,824		5,750		5,750
	26-Apr-06	Logperch	PYSL		25		25	491		50.9		50.9	745.9	2,824		143,744		143,744
	26-Apr-06	Logperch	undetermined		1		1	491		2.0		2.0	745.9	2,824		5,750		5,750
	26-Apr-06	Logperch	YSL		2		2	491		4.1		4.1	745.9	2,824		11,500		11,500
	26-Apr-06	Percidae	PYSL		19		19	491		38.7		38.7	745.9	2,824		109,245		109,245
	26-Apr-06	Percidae	undetermined		1		1	491		2.0		2.0	745.9	2,824		5,750		5,750
	26-Apr-06	Percidae	YSL		8		8	491		16.3		16.3	745.9	2,824		45,998		45,998
	26-Apr-06	Unidentifiable	PYSL		7		7	491		14.3		14.3	745.9	2,824		40,248		40,248
	26-Apr-06	Unidentifiable	undetermined		6		6	491		12.2		12.2	745.9	2,824		34,499		34,499
	26-Apr-06	Unidentifiable	YSL		2		2	491		4.1		4.1	745.9	2,824		11,500		11,500
	26-Apr-06	Walleye	PYSL		40		40	491		81.5		81.5	745.9	2,824		229,990		229,990
	26-Apr-06	Walleye	YSL		1		1	491		2.0		2.0	745.9	2,824		5,750		5,750
43	26-Apr-06	DAILY TOTAL		0	113	0	113	491	0.0	230.1	0.0	230.1	745.9	2,824	0	649,722	0	649,722
	4-May-06	Rainbow smelt/Clupeidae	undetermined		4		4	484		8.3		8.3	745.9	2,824		23,321		23,321
	4-May-06	Rainbow smelt/Clupeidae	YSL		20		20	484		41.3		41.3	745.9	2,824		116,603		116,603
	4-May-06	Rainbow smelt/Clupeidae	YSL		1		1	484		2.1		2.1	745.9	2,824		5,830		5,830
	4-May-06	Logperch	PYSL		47	2	49	484		97.0	4.1	101.2	745.9	2,824		274,016	11,660	285,676
	4-May-06	Logperch	undetermined		4		4	484		8.3		8.3	745.9	2,824		23,321		23,321
	4-May-06	Logperch	YSL		1		1	484		2.1		2.1	745.9	2,824		5,830		5,830
	4-May-06	Morone spp.	YSL		12	1	13	484		24.8	2.1	26.8	745.9	2,824		69,962	5,830	75,792
	4-May-06	Percidae	undetermined		2	1	3	484		4.1	2.1	6.2	745.9	2,824		11,660	5,830	17,490
	4-May-06	Percidae	YSL		2	2	4	484		4.1	4.1	8.3	745.9	2,824		11,660	11,660	23,321
	4-May-06	Unidentifiable	undetermined		10	10	20	484		20.6	20.6	41.3	745.9	2,824		58,301	58,301	116,603
	4-May-06	Walleye	PYSL		21	1	22	484		43.4	2.1	45.4	745.9	2,824		122,433	5,830	128,263
	4-May-06	Walleye	undetermined			1	1	484			2.1	2.1	745.9	2,824		5,830	5,830	5,830
44	4-May-06	DAILY TOTAL		0	124	18	142	484	0.0	256.0	37.2	293.2	745.9	2,824	0	722,936	104,942	827,878

Individual estimates may not add to totals due to rounding.

**APPENDIX 5 (cont'd)**  
**Estimated Daily Entrainment of Larval and Entrainable Juvenile Fish at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Event No.	Date	Species	Life Stage	Bayshore: Larvae/Juveniles Collected				Volume Filtered (m³)	Larvae/Juveniles per 1,000 m³				Flow MGD	Flow 1000 m³	Bayshore: Larvae/Juveniles per Day			
				Live	Recently Dead	Long Dead	Total		Live	Recently Dead	Long Dead	Total			Live	Recently Dead	Long Dead	Total
	6-May-06	Rainbow smelt/Clupeidae	PYSL		2	2	4	471		4.2	4.2	8.5	745.9	2,824		11,986	11,986	23,973
	6-May-06	Rainbow smelt/Clupeidae	undetermined		2		2	471		4.2		4.2	745.9	2,824		11,986		11,986
	6-May-06	Rainbow smelt/Clupeidae	YSL		10	2	12	471		21.2	4.2	25.5	745.9	2,824		59,932	11,986	71,919
	6-May-06	Logperch	PYSL	56	5	61	471		118.9	10.6	129.5	745.9	2,824		335,621	29,966	365,587	
	6-May-06	Logperch	undetermined	11	3	14	471		23.3	6.4	29.7	745.9	2,824		65,926	17,980	83,905	
	6-May-06	Logperch	YSL	3		3	471		6.4		6.4	745.9	2,824		17,980		17,980	
	6-May-06	Morone spp.	PYSL	13	2	15	471		27.6	4.2	31.8	745.9	2,824		77,912	11,986	89,898	
	6-May-06	Morone spp.	undetermined	1		1	471		2.1		2.1	745.9	2,824		5,993		5,993	
	6-May-06	Morone spp.	YSL	10	6	16	471		21.2	12.7	34.0	745.9	2,824		59,932	35,959	95,892	
	6-May-06	Unidentifiable	undetermined	12	7	19	471		25.5	14.9	40.3	745.9	2,824		71,919	41,953	113,871	
	6-May-06	Walleye	PYSL	11	1	12	471		23.3	2.1	25.5	745.9	2,824		65,926	5,993	71,919	
	6-May-06	Walleye	undetermined	6	2	8	471		12.7	4.2	17.0	745.9	2,824		35,959	11,986	47,946	
	6-May-06	White sucker	PYSL	6		6	471		12.7		12.7	745.9	2,824		35,959		35,959	
	6-May-06	White sucker	undetermined	3		3	471		6.4		6.4	745.9	2,824		17,980		17,980	
	6-May-06	White sucker	YSL	1		1	471		2.1		2.1	745.9	2,824		5,993		5,993	
45	6-May-06	DAILY TOTAL		0	147	30	177	471	0.0	312.0	63.7	375.7	745.9	2,824	0	881,005	179,797	1,060,801
	8-May-06	Rainbow smelt/Clupeidae	PYSL		16		16	473		33.8		33.8	745.9	2,824		95,436		95,436
	8-May-06	Rainbow smelt/Clupeidae	undetermined		4		4	473		8.5		8.5	745.9	2,824		23,859		23,859
	8-May-06	Rainbow smelt/Clupeidae	YSL	8		8	473		16.9		16.9	745.9	2,824		47,718		47,718	
	8-May-06	Catostomidae	PYSL	4		4	473		8.5		8.5	745.9	2,824		23,859		23,859	
	8-May-06	Grass pickerel	undetermined		4	4	473			8.5	8.5	745.9	2,824			23,859		23,859
	8-May-06	Logperch	PYSL	311	40	351	473		657.0	84.5	741.5	745.9	2,824		1,855,035	238,590	2,093,624	
	8-May-06	Logperch	undetermined	32	8	40	473		67.6	16.9	84.5	745.9	2,824		190,872	47,718	238,590	
	8-May-06	Logperch	YSL	17	12	29	473		35.9	25.4	61.3	745.9	2,824		101,401	71,577	172,978	
	8-May-06	Morone spp.	undetermined	39	4	43	473		82.4	8.5	90.8	745.9	2,824		232,625	23,859	256,484	
	8-May-06	Morone spp.	YSL	133		133	473		281.0		281.0	745.9	2,824		793,311		793,311	
	8-May-06	Percidae	undetermined		4		473			8.5		8.5	745.9	2,824		23,859		23,859
	8-May-06	Unidentifiable	undetermined	210	28	238	473		443.6	59.2	502.8	745.9	2,824		1,252,596	167,013	1,419,609	
	8-May-06	Walleye	PYSL	8		8	473		16.9		16.9	745.9	2,824		47,718		47,718	
	8-May-06	Yellow perch	PYSL	31		31	473		65.5		65.5	745.9	2,824		184,907		184,907	
	8-May-06	Yellow perch	undetermined	8		8	473		16.9		16.9	745.9	2,824		47,718		47,718	
46	8-May-06	DAILY TOTAL		0	825	96	921	473	0.0	1,742.8	202.8	1,945.6	745.9	2,824	0	4,920,912	572,615	5,493,527
	12-May-06	Rainbow smelt/Clupeidae	PYSL		8		8	469		17.1		17.1	745.9	2,824		48,194		48,194
	12-May-06	Rainbow smelt/Clupeidae	undetermined		904		904	469		1,928.8		1,928.8	745.9	2,824		5,445,969		5,445,969
	12-May-06	Rainbow smelt/Clupeidae	YSL		1,788		1,788	469		3,814.9		3,814.9	745.9	2,824		10,771,451		10,771,451
	12-May-06	Logperch	PYSL	272		272	469		580.3		580.3	745.9	2,824		1,638,610		1,638,610	
	12-May-06	Logperch	undetermined		48		48	469		102.4		102.4	745.9	2,824		289,166		289,166
	12-May-06	Logperch	YSL	64		64	469		136.6		136.6	745.9	2,824		385,555		385,555	
	12-May-06	Morone spp.	PYSL		84		84	469		179.2		179.2	745.9	2,824		506,041		506,041
	12-May-06	Morone spp.	undetermined		84		84	469		179.2		179.2	745.9	2,824		506,041		506,041
	12-May-06	Morone spp.	YSL		2,180		2,180	469		4,651.3		4,651.3	745.9	2,824		13,132,977		13,132,977
	12-May-06	Unidentifiable	undetermined		432		432	469		921.7		921.7	745.9	2,824		2,602,498		2,602,498
	12-May-06	Walleye	PYSL		20		20	469		42.7		42.7	745.9	2,824		120,486		120,486
47	12-May-06	DAILY TOTAL		0	5,884	0	5,884	469	0.0	12,554.1	0.0	12,554.1	745.9	2,824	0	35,446,990	0	35,446,990
		TOTAL			36	92,729	26,264	119,029							207,423	568,107,192	166,551,612	734,866,227

Individual estimates may not add to totals due to rounding.

**APPENDIX 6**  
**Estimated Monthly Entrainment of Larval Fish at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Species	Life Stage	Bayshore: Larvae per Month			
		Alive	Recently Dead	Long Dead	Total
Burbot	undetermined	0	0	126,385	126,385
Burbot	YSL	0	0	42,128	42,128
Catostomidae	PYSL	387,624	160,864	0	548,489
Catostomidae	YSL	0	544,092	0	544,092
Centrarchidae	YSL	0	42,128	0	42,128
Rainbow smelt/Clupeidae	PYSL	0	2,590,267	1,675,791	4,266,058
Rainbow smelt/Clupeidae	undetermined	0	39,662,767	6,565,947	46,228,714
Rainbow smelt/Clupeidae	YSL	0	47,412,871	12,614,591	60,027,463
Common carp/Goldfish	undetermined	0	0	73,781	73,781
Cyprinidae	PYSL	0	704,956	0	704,956
Cyprinidae	YSL	0	84,256	110,671	194,927
Logperch	PYSL	0	222,588	0	222,588
Morone spp.	PYSL	0	4,524,649	0	4,524,649
Morone spp.	undetermined	0	1,438,472	379,154	1,817,626
Morone spp.	YSL	0	67,374,290	6,871,967	74,246,257
Percidae	YSL	0	599,683	36,890	636,573
Unidentifiable	undetermined	0	36,268,064	7,960,249	44,228,313
Unidentifiable	YSL	0	42,128	0	42,128
Walleye	PYSL	0	5,690,225	751,792	6,442,017
Walleye	undetermined	0	608,437	1,079,429	1,687,866
Walleye	YSL	0	239,873	0	239,873
Yellow perch	YSL	0	0	36,890	36,890
<b>MAY 2005</b>		<b>387,624</b>	<b>208,210,609</b>	<b>38,325,666</b>	<b>246,923,900</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 6 (cont'd)**  
**Estimated Monthly Entrainment of Larval Fish at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Species	Life Stage	Bayshore: Larvae per Month			
		Alive	Recently Dead	Long Dead	Total
Rainbow smelt/Clupeidae	PYSL	0	235,160,883	95,670,063	330,830,946
Rainbow smelt/Clupeidae	undetermined	0	24,163,422	30,119,329	54,282,751
Rainbow smelt/Clupeidae	YSL	0	15,859,657	14,806,743	30,666,400
Common carp/Goldfish	PYSL	0	0	836,911	836,911
Common carp/Goldfish	YSL	0	1,182,063	0	1,182,063
Cyprinidae	PYSL	0	2,580,317	1,626,843	4,207,159
Cyprinidae	undetermined	0	609,231	418,456	1,027,687
Cyprinidae	YSL	0	185,672	1,590,302	1,775,975
Emerald shiner	PYSL	0	5,486,459	4,398,105	9,884,564
Emerald shiner	undetermined	0	4,077,297	4,794,805	8,872,102
Emerald shiner	YSL	0	69,619	0	69,619
Freshwater drum	PYSL	37,063	929,286,067	37,532,013	966,855,143
Freshwater drum	undetermined	0	8,093,082	0	8,093,082
Freshwater drum	YSL	0	2,364,126	0	2,364,126
Lepomis spp.	PYSL	0	17,436	0	17,436
Logperch	PYSL	0	5,582,614	717,973	6,300,588
Logperch	undetermined	0	1,348,395	0	1,348,395
Logperch	YSL	0	951,509	0	951,509
Morone spp.	PYSL	90,007	26,440,105	5,479,268	32,009,380
Morone spp.	undetermined	0	2,172,145	1,722,055	3,894,199
Morone spp.	YSL	0	1,339,082	0	1,339,082
Notropis spp.	PYSL	0	1,107,767	1,691,258	2,799,026
Notropis spp.	undetermined	0	113,223	1,708,694	1,821,917
Notropis spp.	YSL	0	87,023	0	87,023
Pomoxis spp.	PYSL	0	180,015	0	180,015
Spottail shiner	PYSL	0	17,405	17,436	34,840
Spottail shiner	YSL	0	21,756	0	21,756
Trout-perch	PYSL	0	655,666	0	655,666
Unidentifiable	undetermined	0	151,582,534	274,754,183	426,336,716
Walleye	PYSL	0	613,953	90,007	703,960
Walleye	YSL	0	90,007	0	90,007
White bass	PYSL	0	16,418,165	1,381,075	17,799,239
White bass	undetermined	0	17,436	0	17,436
White perch	PYSL	0	470,763	17,436	488,198
White sucker	PYSL	0	28,741,959	0	28,741,959
White sucker	YSL	0	222,379	0	222,379
Yellow perch	PYSL	0	972,195	0	972,195
Yellow perch	YSL	0	286,564	0	286,564
<b>JUNE 2005</b>		<b>127,070</b>	<b>1,468,567,991</b>	<b>479,372,954</b>	<b>1,948,068,015</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 6 (cont'd)**

**Estimated Monthly Entrainment of Larval Fish at Bay Shore Power Plant  
(May 2005 – May 2006)**

Species	Life Stage	Bayshore: Larvae per Month			
		Alive	Recently Dead	Long Dead	Total
Channel catfish	PYSL	47,161	23,228	0	70,390
Rainbow smelt/Clupeidae	PYSL	0	378,005	0	378,005
Rainbow smelt/Clupeidae	undetermined	0	141,960	0	141,960
Common carp/Goldfish	undetermined	0	23,581	0	23,581
Common carp/Goldfish	YSL	0	63,745	0	63,745
Cyprinidae	YSL	0	23,581	0	23,581
Emerald shiner	PYSL	0	23,581	0	23,581
Emerald shiner	undetermined	0	127,889	0	127,889
Emerald shiner	YSL	0	23,819	0	23,819
Freshwater drum	PYSL	0	47,399	32,389	79,788
Morone spp.	PYSL	0	47,841	48,079	95,920
Spottail shiner	undetermined	0	23,228	0	23,228
Unidentifiable	undetermined	0	94,798	70,865	165,664
White bass	PYSL	0	23,581	0	23,581
White perch	PYSL	0	23,581	0	23,581
Yellow perch	PYSL	0	47,161	0	47,161
Yellow perch	YSL	0	0	16,195	16,195
<b>JULY 2005</b>		<b>47,161</b>	<b>1,136,977</b>	<b>167,528</b>	<b>1,351,666</b>
Freshwater drum	PYSL	0	34,772	0	34,772
Lepomis spp.	PYSL	0	250,649	0	250,649
Unidentifiable	undetermined	0	31,331	34,772	66,103
Yellow perch	PYSL	0	0	31,331	31,331
Yellow perch	undetermined	0	0	31,331	31,331
<b>AUGUST 2005</b>		<b>0</b>	<b>316,752</b>	<b>97,434</b>	<b>414,186</b>
<b>SEPTEMBER 2005</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Rainbow smelt/Clupeidae	PYSL	0	45,406	0	45,406
Grass pickerel	PYSL	0	45,328	0	45,328
Lake whitefish	PYSL	20,814	0	0	20,814
Logperch	PYSL	0	1,864,324	0	1,864,324
Logperch	undetermined	0	43,201	0	43,201
Logperch	YSL	0	441,143	0	441,143
Percidae	PYSL	0	1,254,631	0	1,254,631
Percidae	undetermined	0	116,628	0	116,628
Percidae	YSL	0	360,498	0	360,498
Unidentifiable	PYSL	0	150,931	0	150,931
Unidentifiable	undetermined	0	544,775	0	544,775
Unidentifiable	YSL	0	66,890	0	66,890
Walleye	PYSL	0	1,521,545	0	1,521,545
Walleye	YSL	0	21,562	0	21,562
Walleye/Yellow perch	PYSL	43,279	486,705	0	529,984
Walleye/Yellow perch	YSL	0	86,558	0	86,558
Yellow perch	PYSL	0	696,350	0	696,350
Yellow perch	YSL	0	179,497	0	179,497
<b>APRIL 2006</b>		<b>64,093</b>	<b>7,925,973</b>	<b>0</b>	<b>7,990,066</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 6 (cont'd)**  
**Estimated Monthly Entrainment of Larval Fish at Bay Shore Power Plant**  
**(May 2005 – May 2006)**

Species	Life Stage	Bayshore: Larvae per Month			
		Alive	Recently Dead	Long Dead	Total
Catostomidae	PYSL	0	184,907	0	184,907
Rainbow smelt/Clupeidae	PYSL	0	1,206,030	92,895	1,298,925
Rainbow smelt/Clupeidae	undetermined	0	42,664,792	0	42,664,792
Rainbow smelt/Clupeidae	YSL	0	85,261,888	92,895	85,354,783
Grass pickerel	undetermined	0	0	184,907	184,907
Logperch	PYSL	0	31,800,431	2,171,675	33,972,106
Logperch	undetermined	0	4,411,953	509,157	4,921,109
Logperch	YSL	0	3,958,434	554,721	4,513,155
Morone spp.	PYSL	0	4,525,638	92,895	4,618,533
Morone spp.	undetermined	0	5,771,111	184,907	5,956,018
Morone spp.	YSL	0	108,935,408	323,869	109,259,277
Percidae	undetermined	0	275,274	45,183	320,457
Percidae	YSL	0	90,367	90,367	180,734
Unidentifiable	undetermined	0	30,886,184	2,071,316	32,957,500
Walleye	PYSL	0	2,763,356	91,631	2,854,987
Walleye	undetermined	0	278,685	138,079	416,764
White sucker	PYSL	0	278,685	0	278,685
White sucker	undetermined	0	139,343	0	139,343
White sucker	YSL	0	46,448	0	46,448
Yellow perch	PYSL	0	1,433,029	0	1,433,029
Yellow perch	undetermined	0	369,814	0	369,814
<b>MAY 2006</b>		<b>0</b>	<b>325,281,777</b>	<b>6,644,496</b>	<b>331,926,273</b>
<b>TOTAL</b>		<b>625,949</b>	<b>2,011,440,078</b>	<b>524,608,078</b>	<b>2,536,674,106</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 7**  
**Estimated Monthly Entrainment of Entrainable Juvenile Fish at**  
**Bay Shore Power Plant (May 2005 – May 2006)**

Species	Life Stage	Bayshore: Juveniles per Month			
		Alive	Recently Dead	Long Dead	Total
Rainbow smelt/Clupeidae	JUV	0	3,962,049	348,713	4,310,763
Emerald shiner	JUV	0	3,220,050	278,970	3,499,021
Freshwater drum	JUV	0	139,239	0	139,239
Logperch	JUV	0	1,328,768	0	1,328,768
Notropis spp.	JUV	0	17,405	0	17,405
Round goby	JUV	34,871	1,519,715	139,485	1,694,072
Walleye	JUV	81,958	417,840	163,916	663,715
White bass	JUV	0	993,216	0	993,216
<b>JUNE 2005</b>		<b>116,830</b>	<b>11,598,282</b>	<b>931,085</b>	<b>12,646,197</b>
White perch	JUV	0	34,871	0	34,871
Bluntnose minnow	JUV	23,228	0	0	23,228
Rainbow smelt/Clupeidae	JUV	0	23,581	0	23,581
Emerald shiner	JUV	0	232,316	0	232,316
Freshwater drum	JUV	0	16,303	0	16,303
Mottled sculpin	JUV	23,228	0	0	23,228
Round goby	JUV	94,323	386,245	0	480,568
White bass	JUV	24,260	80,328	0	104,588
White perch	JUV	0	23,581	0	23,581
<b>JULY 2005</b>		<b>165,040</b>	<b>797,225</b>	<b>0</b>	<b>962,265</b>
Rainbow smelt/Clupeidae	JUV	0	31,331	0	31,331
Emerald shiner	JUV	0	91,377	0	91,377
<b>AUGUST 2005</b>		<b>0</b>	<b>122,709</b>	<b>0</b>	<b>122,709</b>
Emerald shiner	JUV	0	92,851	0	92,851
<b>SEPT 2005</b>		<b>0</b>	<b>92,851</b>	<b>0</b>	<b>92,851</b>
<b>TOTAL</b>		<b>281,869</b>	<b>12,611,067</b>	<b>931,085</b>	<b>13,824,022</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 8**  
**Diel Distribution of Larval and Entrainable Juvenile Fish Entrained at**  
**Bay Shore Power Plant (May 2005 – May 2006)**

Date	Total Larvae/Juveniles		Sample Volume		Mean Density (No. per 1,000 m <sup>3</sup> )	
	Day	Night	Day m <sup>3</sup>	Night m <sup>3</sup>	Day	Night
5/12/2005	68		399		170	
5/16/2005	567		350		1,622	
5/17/2005		6504		491		13,243
5/23/2005		333		458		728
5/27/2005	352		465		756	
<b>MAY 2005</b>	<b>987</b>	<b>6837</b>	<b>1214</b>	<b>949</b>	<b>813</b>	<b>7,206</b>
6/2/2005		2682		378		7,101
6/3/2005	1640		376		4,357	
6/6/2005	1772		413		4,286	
6/7/2005		14240		413		34,445
6/13/2005		78504		459		171,174
6/17/2005	1776		457		3,885	
6/23/2005		1849		486		3,806
6/24/2005	133		486		274	
6/27/2005	112		389		288	
6/28/2005		906		487		1,862
<b>JUN 2005</b>	<b>5433</b>	<b>98181</b>	<b>2122</b>	<b>2222</b>	<b>2,560</b>	<b>44,181</b>
7/7/2005		53		479		111
7/8/2005	13		474		27	
7/11/2005		9		281		32
7/12/2005	5		465		11	
7/21/2005	1		486		2	
7/22/2005		5		486		10
7/28/2005	3		525		6	
7/29/2005		3		521		6
<b>JUL 2005</b>	<b>22</b>	<b>70</b>	<b>1950</b>	<b>1767</b>	<b>11</b>	<b>40</b>
8/1/2005	5		487		10	
8/2/2005		8		487		16
8/9/2005	3		439		7	
8/12/2005				219		
8/15/2005	1		454		2	
8/18/2005				N/A		
<b>AUG 2005</b>	<b>9</b>	<b>8</b>	<b>1379</b>	<b>706</b>	<b>7</b>	<b>11</b>
9/2/2005	1		524		2	
9/11/2005				456		0
<b>SEP 2005</b>	<b>1</b>	<b>0</b>	<b>524</b>	<b>456</b>	<b>2</b>	<b>0</b>
3/19/2006			491		0	
3/25/2006				483		0
3/26/2006			460		0	
3/31/2006				488		0
<b>MAR 2006</b>	<b>2</b>	<b>0</b>	<b>1475</b>	<b>971</b>	<b>1</b>	<b>0</b>
4/3/2006			463		0	
4/7/2006				489		0
4/9/2006	1		509		2	
4/14/2006				458		0
4/17/2006				488		0
4/20/2006	114		489		233	
4/24/2006		129				
4/26/2006	113		491		230	
<b>APR 2006</b>	<b>228</b>	<b>129</b>	<b>1952</b>	<b>1435</b>	<b>117</b>	<b>90</b>
5/4/2006	142		484		293	
5/6/2006		177		471		376
5/8/2006		921		473		1,946
5/12/2006	5884		469		12,554	
<b>MAY 2006</b>	<b>6026</b>	<b>1098</b>	<b>953</b>	<b>944</b>	<b>6,323</b>	<b>1,163</b>

**APPENDIX 9**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	12-May-05	Channel catfish	YOY(<150mm)		2	1		3	0.008	1.00	6	36.00		72	36		108	0.288	
	12-May-05	Emerald shiner			46	284		330	0.670	1.00	6	36.00		1,656	10,224		11,880	24.120	
	12-May-05	Freshwater drum	Adult		1			1	0.296	1.00	6	36.00		36			36	10.656	
	12-May-05	Freshwater drum	YOY(<200mm)		4	13		17	0.222	1.00	6	36.00		144	468		612	7.992	
	12-May-05	Gizzard shad	Adult		1			1	0.244	1.00	6	36.00		36			36	8.784	
	12-May-05	Round goby			2			2	0.004	1.00	6	36.00		72			72	0.144	
	12-May-05	Spottail shiner				43		43	0.046	1.00	6	36.00			1,548		1,548	1.656	
	12-May-05	Trout-perch			3	13		16	0.096	1.00	6	36.00		108	468		576	3.456	
	12-May-05	Walleye	Adult			1		1	0.344	1.00	6	36.00		36			36	12.384	
	12-May-05	White bass	Adult		3	2		5	0.908	1.00	6	36.00		108	72		180	32.688	
	12-May-05	White bass	YOY(<150mm)		2			2	0.008	1.00	6	36.00		72			72	0.288	
	12-May-05	Yellow perch	Adult		1			1	0.072	1.00	6	36.00		36			36	2.592	
<b>1</b>	<b>12-May-05</b>	<b>Daily Total</b>		<b>0</b>	<b>65</b>	<b>357</b>	<b>0</b>	<b>422</b>	<b>2.918</b>	<b>1.00</b>	<b>6</b>	<b>36.00</b>	<b>0</b>	<b>2,340</b>	<b>12,852</b>	<b>0</b>	<b>15,192</b>	<b>105.048</b>	
	16-May-05	Channel catfish	YOY(<150mm)			1		1	0.001	1.02	6	35.29		35			35	0.035	
	16-May-05	Emerald shiner			46	42		88	0.192	1.02	6	35.29		1,624	1,482		3,106	6.776	
	16-May-05	Freshwater drum	Adult		1	1		2	0.518	1.02	6	35.29		35	35		71	18.282	
	16-May-05	Freshwater drum	YOY(<200mm)		1	6		7	0.116	1.02	6	35.29		35	212		247	4.094	
	16-May-05	Gizzard shad	Adult			1		1	0.378	1.02	6	35.29		35			35	13.341	
	16-May-05	Silver chub			2			2	0.104	1.02	6	35.29		71			71	3.671	
	16-May-05	Spottail shiner			4	1		5	0.048	1.02	6	35.29		141	35		176	1.694	
	16-May-05	Trout-perch			3	2		5	0.030	1.02	6	35.29		106	71		176	1.059	
	16-May-05	White perch	Adult		19	13		32	4.122	1.02	6	35.29		671	459		1,129	145.482	
	16-May-05	Yellow perch	Adult		2			2	0.096	1.02	6	35.29		71			71	3.388	
	16-May-05	Yellow perch	YOY(<150mm)			1		1	0.008	1.02	6	35.29		35			35	0.282	
<b>2</b>	<b>16-May-05</b>	<b>Daily Total</b>		<b>0</b>	<b>78</b>	<b>68</b>	<b>0</b>	<b>146</b>	<b>5.613</b>	<b>1.02</b>	<b>6</b>	<b>35.29</b>	<b>0</b>	<b>2,753</b>	<b>2,400</b>	<b>0</b>	<b>5,153</b>	<b>198.106</b>	
	17-May-05	Bluegill	YOY(<100mm)			1		1	0.002	1.00	6	36.00		36			36	0.072	
	17-May-05	Emerald shiner			132	20	2	154	0.295	1.00	6	36.00		4,752	720	72	5,544	10.620	
	17-May-05	Freshwater drum	Adult		1			1	0.056	1.00	6	36.00		36			36	2.016	
	17-May-05	Freshwater drum	YOY(<200mm)		12	4		16	0.226	1.00	6	36.00		432	144		576	8.136	
	17-May-05	Round goby			16	1		17	0.032	1.00	6	36.00		576	36		612	1.152	
	17-May-05	Spottail shiner			1			1	0.006	1.00	6	36.00		36			36	0.216	
	17-May-05	Trout-perch			51			51	0.322	1.00	6	36.00		1,836			1,836	11.592	
	17-May-05	Walleye	Adult				1	1	1.016	1.00	6	36.00				36	36	36.576	
	17-May-05	White perch	Adult		52		2	54	6.829	1.00	6	36.00		1,872		72	1,944	245.844	
<b>3</b>	<b>17-May-05</b>	<b>Daily Total</b>		<b>0</b>	<b>266</b>	<b>25</b>	<b>5</b>	<b>296</b>	<b>8.784</b>	<b>1.00</b>	<b>6</b>	<b>36.00</b>	<b>0</b>	<b>9,576</b>	<b>900</b>	<b>180</b>	<b>10,656</b>	<b>316.224</b>	
	23-May-05	Bluntnose minnow				1			1	0.002	1.00	6	36.00		36			36	0.072
	23-May-05	Channel catfish	YOY(<150mm)		1			1	0.002	1.00	6	36.00		36			36	0.072	
	23-May-05	Emerald shiner			1,344	7		1,351	5.336	1.00	6	36.00		48,384	252		48,636	192.096	
	23-May-05	Freshwater drum	Adult		8	2		10	2.816	1.00	6	36.00		288	72		360	101.376	
	23-May-05	Freshwater drum	YOY(<200mm)		22			22	0.370	1.00	6	36.00		792			792	13.320	
	23-May-05	Gizzard shad	Adult		4			4	1.376	1.00	6	36.00		144			144	49.536	
	23-May-05	Gizzard shad	YOY(<200mm)		1			1	0.010	1.00	6	36.00		36			36	0.360	
	23-May-05	Goldfish			1			1	0.050	1.00	6	36.00		36			36	1.800	
	23-May-05	Pumpkinseed			1			1	0.031	1.00	6	36.00		36			36	1.116	
	23-May-05	Round goby			4			4	0.021	1.00	6	36.00		144			144	0.756	
	23-May-05	Stonecat madtom			1			1	0.024	1.00	6	36.00		36			36	0.864	
	23-May-05	Trout-perch			37	10		47	0.280	1.00	6	36.00		1,332	360		1,692	10.080	
	23-May-05	White perch	Adult		79			79	10.310	1.00	6	36.00		2,844			2,844	371.160	
	23-May-05	Yellow perch	Adult		1			1	0.038	1.00	6	36.00		36			36	1.368	
<b>4</b>	<b>23-May-05</b>	<b>Daily Total</b>		<b>0</b>	<b>1,505</b>	<b>19</b>	<b>0</b>	<b>1,524</b>	<b>20.666</b>	<b>1.00</b>	<b>6</b>	<b>36.00</b>	<b>0</b>	<b>54,180</b>	<b>684</b>	<b>0</b>	<b>54,864</b>	<b>743.976</b>	

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected								Bayshore: Estimated 24-Hour Impingement							
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	Duration (h)	Active Screens	Conversion Factor	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
	27-May-05	Emerald shiner			6	103		109	0.286	1.00	6	36.00		216	3,708		3,924	10.296
	27-May-05	Freshwater drum	Adult		2	2		4	1.025	1.00	6	36.00		72	72		144	36.900
	27-May-05	Freshwater drum	YOY(<200mm)		1	3		4	0.154	1.00	6	36.00		36	108		144	5.544
	27-May-05	Gizzard shad	Adult			1		1	0.266	1.00	6	36.00		36			36	9.576
	27-May-05	Pumpkinseed			1			1	0.040	1.00	6	36.00		36			36	1.440
	27-May-05	Round goby				9		9	0.014	1.00	6	36.00		324			324	0.504
	27-May-05	Spottail shiner				16		16	0.024	1.00	6	36.00		576			576	0.864
	27-May-05	Trout-perch				6		6	0.032	1.00	6	36.00		216			216	1.152
	27-May-05	White bass	Adult		1			1	0.348	1.00	6	36.00		36			36	12.528
	27-May-05	White perch	Adult		22	50		72	9.663	1.00	6	36.00		792	1,800		2,592	347.868
	27-May-05	White perch	YOY(<150mm)			3		3	0.030	1.00	6	36.00		108			108	1.080
	27-May-05	Yellow perch	Adult			1		1	0.074	1.00	6	36.00		36			36	2.664
5	27-May-05	Daily Total		0	34	193	0	227	11.956	1.00	6	36.00	0	1,224	6,948	0	8,172	430.416
	2-Jun-05	Channel catfish	YOY(<150mm)			1		1	0.008	0.88	6	40.91		41			41	0.327
	2-Jun-05	Emerald shiner			1,904	785	844	3,533	11.153	0.88	6	40.91		77,891	32,114	34,527	144,532	456.259
	2-Jun-05	Freshwater drum	Adult			1		1	0.128	0.88	6	40.91		41			41	5.236
	2-Jun-05	Freshwater drum	YOY(<200mm)		7	2		9	0.154	0.88	6	40.91		286	82		368	6.300
	2-Jun-05	Gizzard shad	Adult		1		1	2	0.612	0.88	6	40.91		41			41	25.036
	2-Jun-05	Round goby			8	4		12	0.032	0.88	6	40.91		327	164		491	1.309
	2-Jun-05	Silver chub				1		1	0.080	0.88	6	40.91		41			41	3.273
	2-Jun-05	Trout-perch			9	2		11	0.074	0.88	6	40.91		368	82		450	3.027
	2-Jun-05	Walleye	Adult		1			1	0.664	0.88	6	40.91		41			41	27.164
	2-Jun-05	White perch	Adult		11	2		13	1.407	0.88	6	40.91		450	82		532	57.559
6	2-Jun-05	Daily Total		0	1,941	798	845	3,584	14.312	0.88	6	40.91	0	79,405	32,645	34,568	146,618	585.491
	3-Jun-05	Emerald shiner			132	36		168	0.659	1.00	6	36.00		4,752	1,296		6,048	23.724
	3-Jun-05	Freshwater drum	Adult		1	1		2	0.378	1.00	6	36.00		36	36		72	13.608
	3-Jun-05	Round goby			4	1		5	0.016	1.00	6	36.00		144	36		180	0.576
	3-Jun-05	Spottail shiner			1	1		2	0.002	1.00	6	36.00		36	36		72	0.072
	3-Jun-05	Trout-perch			5			5	0.025	1.00	6	36.00		180			180	0.900
	3-Jun-05	White perch	Adult		11	1		12	1.273	1.00	6	36.00		396	36		432	45.828
	3-Jun-05	Yellow perch	Adult		1			1	0.060	1.00	6	36.00		36			36	2.160
	3-Jun-05	Yellow perch	YOY(<150mm)		2			2	0.020	1.00	6	36.00		72			72	0.720
7	3-Jun-05	Daily Total		0	157	40	0	197	2.433	1.00	6	36.00	0	5,652	1,440	0	7,092	87.588
	6-Jun-05	Emerald shiner			27	102		129	0.313	1.00	6	36.00		972	3,672		4,644	11.268
	6-Jun-05	Freshwater drum	Adult		3	3	1	7	1.739	1.00	6	36.00		108	108	36	252	62.604
	6-Jun-05	Round goby			1	3		4	0.016	1.00	6	36.00		36	108		144	0.576
	6-Jun-05	Silver chub			1	2		3	0.178	1.00	6	36.00		36	72		108	6.408
	6-Jun-05	Spottail shiner				12		12	0.032	1.00	6	36.00		432			432	1.152
	6-Jun-05	Trout-perch			3		3	3	0.023	1.00	6	36.00		108			108	0.828
	6-Jun-05	Walleye	Adult		2			2	0.430	1.00	6	36.00		72			72	15.480
	6-Jun-05	Walleye	YOY(<200mm)			1		1	0.001	1.00	6	36.00		36			36	0.036
	6-Jun-05	White perch	Adult		2	8		10	1.310	1.00	6	36.00		72	288		360	47.160
	6-Jun-05	Yellow perch	Adult		1			1	0.056	1.00	6	36.00		36			36	2.016
8	6-Jun-05	Daily Total		0	35	136	1	172	4.098	1.00	6	36.00	0	1,260	4,896	36	6,192	147.528

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected								Bayshore: Estimated 24-Hour Impingement							
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	Duration (h)	Active Screens	Conversion Factor	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
	7-Jun-05	Bluegill	YOY(<100mm)			2		2	0.014	1.00	6	36.00			72		72	0.504
	7-Jun-05	Bluntnose minnow				1		1	0.002	1.00	6	36.00			36		36	0.072
	7-Jun-05	Channel catfish	Adult		1			1	0.150	1.00	6	36.00			36		36	5.400
	7-Jun-05	Channel catfish	YOY(<150mm)		5			5	0.015	1.00	6	36.00			180		180	0.540
	7-Jun-05	Emerald shiner		698	73	6		777	1.617	1.00	6	36.00		25,128	2,628	216	27,972	58.212
	7-Jun-05	Fathead minnow			1			1	0.001	1.00	6	36.00			36		36	0.036
	7-Jun-05	Freshwater drum	Adult		20	1	1	22	4.626	1.00	6	36.00		720	36	36	792	166.536
	7-Jun-05	Freshwater drum	YOY(<200mm)		22	5	1	28	3.624	1.00	6	36.00		792	180	36	1,008	130.464
	7-Jun-05	Golden shiner			1			1	0.032	1.00	6	36.00			36		36	1.152
	7-Jun-05	Orangespotted sunfish			1			1	0.001	1.00	6	36.00			36		36	0.036
	7-Jun-05	Round goby			76	2		78	0.148	1.00	6	36.00		2,736	72		2,808	5.328
	7-Jun-05	Silver chub			3			3	0.216	1.00	6	36.00		108			108	7.776
	7-Jun-05	Spottail shiner			2			2	0.015	1.00	6	36.00		72			72	0.540
	7-Jun-05	Trout-perch			44	8		52	0.304	1.00	6	36.00		1,584	288		1,872	10.944
	7-Jun-05	Walleye	Adult		4			4	1.206	1.00	6	36.00		144			144	43.416
	7-Jun-05	Walleye	YOY(<200mm)		5			5	0.002	1.00	6	36.00		180			180	0.072
	7-Jun-05	White bass	Adult		1			1	0.134	1.00	6	36.00		36			36	4.824
	7-Jun-05	White perch	Adult		2	2	1	5	0.604	1.00	6	36.00		72	72	36	180	21.744
	7-Jun-05	Yellow perch	YOY(<150mm)		1			1	0.012	1.00	6	36.00		36			36	0.432
<b>9</b>	<b>7-Jun-05</b>	<b>Daily Total</b>		<b>0</b>	<b>886</b>	<b>95</b>	<b>9</b>	<b>990</b>	<b>12.723</b>	<b>1.00</b>	<b>6</b>	<b>36.00</b>	<b>0</b>	<b>31,896</b>	<b>3,420</b>	<b>324</b>	<b>35,640</b>	<b>458.028</b>
	13-Jun-05	Bluegill	YOY(<100mm)		1			1	0.002	1.00	7	30.86		31			31	0.062
	13-Jun-05	Bluntnose minnow			1			1	0.001	1.00	7	30.86		31			31	0.031
	13-Jun-05	Channel catfish	Adult		2			2	0.322	1.00	7	30.86		62			62	9.936
	13-Jun-05	Channel catfish	YOY(<150mm)		10	1		11	0.075	1.00	7	30.86		309		31	339	2.314
	13-Jun-05	Emerald shiner		238	8	1	247	0.446	1.00	7	30.86		7,344	247	31	7,622	13.762	
	13-Jun-05	Freshwater drum	Adult		12	1		13	1.910	1.00	7	30.86		370	31		401	58.937
	13-Jun-05	Freshwater drum	YOY(<200mm)		29	5		34	0.522	1.00	7	30.86		895	154		1,049	16.107
	13-Jun-05	Logperch			4			4	0.004	1.00	7	30.86		123			123	0.123
	13-Jun-05	Pumpkinseed			1			1	0.010	1.00	7	30.86		31			31	0.309
	13-Jun-05	Round goby			54	4	1	59	0.089	1.00	7	30.86		1,666	123	31	1,821	2.746
	13-Jun-05	Spottail shiner			1			1	0.010	1.00	7	30.86		31			31	0.309
	13-Jun-05	Trout-perch			7	3		10	0.051	1.00	7	30.86		216	93		309	1.574
	13-Jun-05	Walleye	Adult		2			2	0.480	1.00	7	30.86		62			62	14.811
	13-Jun-05	Walleye	YOY(<200mm)		150	1		151	0.078	1.00	7	30.86		4,629	31		4,659	2.407
	13-Jun-05	White perch	Adult		2			2	0.162	1.00	7	30.86		62			62	4.999
	13-Jun-05	Yellow perch	Adult		1			1	0.066	1.00	7	30.86		31			31	2.037
<b>10</b>	<b>13-Jun-05</b>	<b>Daily Total</b>		<b>0</b>	<b>514</b>	<b>23</b>	<b>3</b>	<b>540</b>	<b>4.228</b>	<b>1.00</b>	<b>7</b>	<b>30.86</b>	<b>0</b>	<b>15,861</b>	<b>710</b>	<b>93</b>	<b>16,663</b>	<b>130.464</b>
	17-Jun-05	Emerald shiner			24			24	0.048	1.00	7	30.86		741			741	1.481
	17-Jun-05	Freshwater drum	Adult		2			2	0.818	1.00	7	30.86		62			62	25.241
	17-Jun-05	Freshwater drum	YOY(<200mm)		2			2	0.032	1.00	7	30.86		62			62	0.987
	17-Jun-05	Logperch			2	1		3	0.003	1.00	7	30.86		62	31		93	0.093
	17-Jun-05	Rainbow trout			1			1	0.084	1.00	7	30.86		31			31	2.592
	17-Jun-05	Round goby			12			12	0.025	1.00	7	30.86		370			370	0.771
	17-Jun-05	Spotfin shiner				1		1	0.001	1.00	7	30.86			31		31	0.031
	17-Jun-05	Spottail shiner			3			3	0.003	1.00	7	30.86		93			93	0.093
	17-Jun-05	Steelhead trout			1			1	0.084	1.00	7	30.86		31			31	2.592
	17-Jun-05	Trout-perch			6			6	0.030	1.00	7	30.86		185			185	0.926
	17-Jun-05	Walleye	YOY(<200mm)		238	2		240	0.094	1.00	7	30.86		7,344	62		7,406	2.901
	17-Jun-05	White bass	Adult		2			2	0.244	1.00	7	30.86		62			62	7.529
	17-Jun-05	White bass	YOY(<150mm)		33	1	0	34	0.007	1.00	7	30.86		1,025	19	0	1,044	0.209
	17-Jun-05	White perch	Adult		2			2	0.184	1.00	7	30.86		62			62	5.678
	17-Jun-05	White perch	YOY(<150mm)		21	0	0	21	0.004	1.00	7	30.86		642	12	0	653	0.131
	17-Jun-05	Yellow perch	YOY(<150mm)		1			1	0.001	1.00	7	30.86		31			31	0.031
<b>11</b>	<b>17-Jun-05</b>	<b>Daily Total</b>		<b>0</b>	<b>350</b>	<b>4</b>	<b>1</b>	<b>355</b>	<b>1.662</b>	<b>1.00</b>	<b>7</b>	<b>30.86</b>	<b>0</b>	<b>10,800</b>	<b>123</b>	<b>31</b>	<b>10,954</b>	<b>51.285</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected								Bayshore: Estimated 24-Hour Impingement								
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	Duration (h)	Active Screens	Conversion Factor	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	23-Jun-05	Channel catfish	Adult		3			3	0.392	1.02	7	30.25		91			91	11.859	
	23-Jun-05	Channel catfish	YOY(<150mm)		1			1	0.004	1.02	7	30.25		30			30	0.121	
	23-Jun-05	Common carp	YOY(<150mm)		41	1		42	0.021	1.02	7	30.25		1,240	30		1,271	0.635	
	23-Jun-05	Emerald shiner			235	58	37	330	0.536	1.02	7	30.25		7,109	1,755	1,119	9,983	16.215	
	23-Jun-05	Freshwater drum	YOY(<200mm)		2			2	0.040	1.02	7	30.25		61			61	1.210	
	23-Jun-05	Gizzard shad	YOY(<200mm)		5	2		7	0.007	1.02	7	30.25		151	61		212	0.212	
	23-Jun-05	Largemouth bass	YOY(<150mm)		1			1	0.001	1.02	7	30.25		30			30	0.030	
	23-Jun-05	Logperch			2		1	3	0.003	1.02	7	30.25		61			30	0.091	
	23-Jun-05	Redhorse			2			2	0.002	1.02	7	30.25		61			61	0.061	
	23-Jun-05	Round goby			16	2		18	0.043	1.02	7	30.25		484	61		545	1.301	
	23-Jun-05	Spottail shiner			6			6	0.011	1.02	7	30.25		182			182	0.333	
	23-Jun-05	Trout-perch			5			5	0.010	1.02	7	30.25		151			151	0.303	
	23-Jun-05	Walleye	YOY(<200mm)		131	1		132	0.112	1.02	7	30.25		3,963	30		3,993	3.388	
	23-Jun-05	White bass	Adult		5			5	0.400	1.02	7	30.25		151			151	12.101	
	23-Jun-05	White bass	YOY(<150mm)		1,052	51		1,103	0.346	1.02	7	30.25		31,833	1,544		33,377	10.475	
	23-Jun-05	White perch	YOY(<150mm)		659	32		691	0.217	1.02	7	30.25		19,928	967		20,895	6.557	
	23-Jun-05	Yellow perch	Adult		1			1	0.110	1.02	7	30.25		30			30	3.328	
12	23-Jun-05	Daily Total		0	2,167	147	38	2,352	2.255	1.02	7	30.25	0	65,556	4,447	1,150	71,153	68.218	
	24-Jun-05	Emerald shiner			6	11	2	19	0.028	1.00	7	30.86		185	339	62	586	0.864	
	24-Jun-05	Round goby			1		1	1	0.004	1.00	7	30.86		31			31	0.123	
	24-Jun-05	Trout-perch			1			1	0.006	1.00	7	30.86		31			31	0.185	
	24-Jun-05	Walleye	YOY(<200mm)		19	11	2	32	0.032	1.00	7	30.86		586	339	62	987	0.987	
	24-Jun-05	White bass	YOY(<150mm)		192			192	0.000	1.00	7	30.86		5,940			5,940	0.000	
	24-Jun-05	White perch	Adult		1			1	0.106	1.00	7	30.86		31			31	3.271	
	24-Jun-05	White perch	YOY(<150mm)		121	1		122	0.000	1.00	7	30.86		3,718	31		3,749	0.000	
	24-Jun-05	Yellow perch	Adult		1			1	0.094	1.00	7	30.86		31			31	2.901	
13	24-Jun-05	Daily Total		0	339	26	4	369	0.270	1.00	7	30.86	0	10,461	802	123	11,386	8.331	
	27-Jun-05	Emerald shiner			4	2		6	0.009	1.00	6	36.00		144	72		216	0.324	
	27-Jun-05	Freshwater drum	Adult		1			1	0.090	1.00	6	36.00		36			36	3.240	
	27-Jun-05	Freshwater drum	YOY(<200mm)		1			1	0.054	1.00	6	36.00		36			36	1.944	
	27-Jun-05	Round goby			3			3	0.010	1.00	6	36.00		108			108	0.360	
	27-Jun-05	Spottail shiner			1			1	0.001	1.00	6	36.00		36			36	0.036	
	27-Jun-05	Trout-perch			1			1	0.001	1.00	6	36.00		36			36	0.036	
	27-Jun-05	Walleye	Adult		1			1	0.212	1.00	6	36.00		36			36	7.632	
	27-Jun-05	Walleye	YOY(<200mm)		2	6		8	0.010	1.00	6	36.00		72	216		288	0.360	
	27-Jun-05	White bass	YOY(<150mm)		79			79	0.030	1.00	6	36.00		2,856			2,856	1.063	
	27-Jun-05	White perch	Adult		1	1		2	0.236	1.00	6	36.00		36	36		72	8.496	
	27-Jun-05	White perch	YOY(<150mm)		51			51	0.068	1.00	6	36.00		1,824			1,824	2.465	
14	27-Jun-05	Daily Total		0	142	12	0	154	0.721	1.00	6	36.00	0	5,112	432	0	5,544	25.956	
	28-Jun-05	Channel catfish	YOY(<150mm)		16		1	17	0.117	1.00	6	36.00		576			36	612	4.212
	28-Jun-05	Common carp	YOY(<150mm)		1			1	0.001	1.00	6	36.00		36			36	0.036	
	28-Jun-05	Emerald shiner			98	7		105	0.178	1.00	6	36.00		3,528	252		3,780	6.408	
	28-Jun-05	Freshwater drum	YOY(<200mm)		1			1	0.022	1.00	6	36.00		36			36	0.792	
	28-Jun-05	Gizzard shad	YOY(<200mm)		606			606	0.159	1.00	6	36.00		21,816			21,816	5.724	
	28-Jun-05	Largemouth bass	YOY(<150mm)		2			2	0.002	1.00	6	36.00		72			72	0.072	
	28-Jun-05	Logperch			3			3	0.003	1.00	6	36.00		108			108	0.108	
	28-Jun-05	Round goby			2			2	0.002	1.00	6	36.00		72			72	0.072	
	28-Jun-05	Spoffin shiner			2			2	0.002	1.00	6	36.00		72			72	0.072	
	28-Jun-05	Spottail shiner			22			22	0.006	1.00	6	36.00		792			792	0.216	
	28-Jun-05	Trout-perch			17			17	0.062	1.00	6	36.00		612			612	2.232	
	28-Jun-05	Walleye	YOY(<200mm)		129	2		131	0.123	1.00	6	36.00		4,644	72		4,716	4.428	
	28-Jun-05	White bass	YOY(<150mm)		817	1		817	0.362	1.00	6	36.00		29,402	22		29,424	13.040	
	28-Jun-05	White perch	Adult		1			1	0.048	1.00	6	36.00		36			36	1.728	
	28-Jun-05	White perch	YOY(<150mm)		511	0		512	0.227	1.00	6	36.00		18,406	14		18,420	8.164	
	28-Jun-05	Yellow perch	YOY(<150mm)		1			1	0.074	1.00	6	36.00		36			36	2.664	
15	28-Jun-05	Daily Total		0	2,228	11	1	2,240	1.388	1.00	6	36.00	0	80,208	396	36	80,640	49.968	

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	7-Jul-05	Bigmouth buffalo			1			1	0.001	1.00	7	30.86		31			31	0.031	
	7-Jul-05	Brown bullhead			1			1	0.002	1.00	7	30.86		31			31	0.062	
	7-Jul-05	Channel catfish	Adult		4			4	0.056	1.00	7	30.86		123			123	1.728	
	7-Jul-05	Channel catfish	YOY(<150mm)		6			6	0.006	1.00	7	30.86		185			185	0.185	
	7-Jul-05	Common carp	YOY(<150mm)		8	1		9	0.010	1.00	7	30.86		247	31		278	0.309	
	7-Jul-05	Emerald shiner			242	13		255	0.483	1.00	7	30.86		7,467	401		7,869	14.904	
	7-Jul-05	Freshwater drum	Adult		3			3	0.170	1.00	7	30.86		93			93	5.246	
	7-Jul-05	Freshwater drum	YOY(<200mm)		1			1	0.001	1.00	7	30.86		31			31	0.031	
	7-Jul-05	Gizzard shad	YOY(<200mm)		792	18		810	0.370	1.00	7	30.86		24,439	555		24,994	11.417	
	7-Jul-05	Largemouth bass	YOY(<150mm)		1			1	0.001	1.00	7	30.86		31			31	0.031	
	7-Jul-05	Logperch			2			2	0.002	1.00	7	30.86		62			62	0.062	
	7-Jul-05	Round goby			13			13	0.021	1.00	7	30.86		401			401	0.648	
	7-Jul-05	Spottail shiner			214	14		228	0.297	1.00	7	30.86		6,603	432		7,035	9.165	
	7-Jul-05	Trout-perch			3	1		4	0.008	1.00	7	30.86		93	31		123	0.247	
	7-Jul-05	Walleye	YOY(<200mm)		12	1		13	0.038	1.00	7	30.86		370	31		401	1.173	
	7-Jul-05	White bass	Adult			1		1	0.232	1.00	7	30.86		31			31	7.159	
	7-Jul-05	White bass	YOY(<150mm)		2,981	58		3,039	1.038	1.00	7	30.86		91,985	1,790		93,775	32.030	
	7-Jul-05	White perch	Adult		4	1		5	0.538	1.00	7	30.86		123	31		154	16.601	
	7-Jul-05	White perch	YOY(<150mm)		4,156	80		4,236	1.448	1.00	7	30.86		128,242	2,469		130,711	44.681	
16	7-Jul-05	Daily Total		0	8,444	188	0	8,632	4.722	1.00	7	30.86	0	260,558	5,801	0	266,359	145.707	
	8-Jul-05	Channel catfish	YOY(<150mm)		2	3		5	0.020	1.00	7	30.86		62	93		154	0.617	
	8-Jul-05	Common carp	YOY(<150mm)			5		5	0.003	1.00	7	30.86			154		154	0.093	
	8-Jul-05	Emerald shiner			3	13		16	0.034	1.00	7	30.86		93	401		494	1.049	
	8-Jul-05	Gizzard shad	YOY(<200mm)			46		46	0.030	1.00	7	30.86			1,419		1,419	0.926	
	8-Jul-05	Logperch			1	1		2	0.003	1.00	7	30.86		31	31		62	0.093	
	8-Jul-05	Orangespotted sunfish				1		1	0.006	1.00	7	30.86			31		31	0.185	
	8-Jul-05	Round goby			1			1	0.003	1.00	7	30.86		31			31	0.093	
	8-Jul-05	Spottail shiner				34		34	0.023	1.00	7	30.86			1,049		1,049	0.710	
	8-Jul-05	Trout-perch			2	1		3	0.008	1.00	7	30.86		62	31		93	0.247	
	8-Jul-05	Walleye	YOY(<200mm)		1	2		3	0.009	1.00	7	30.86		31	62		93	0.278	
	8-Jul-05	White bass	YOY(<150mm)		1	173		174	0.074	1.00	7	30.86		31	5,338		5,369	2.283	
	8-Jul-05	White crappie	YOY(<150mm)			1		1	0.001	1.00	7	30.86			31		31	0.015	
	8-Jul-05	White perch	Adult			1		1	0.134	1.00	7	30.86			31		31	4.135	
	8-Jul-05	White perch	YOY(<150mm)		3	238		241	0.125	1.00	7	30.86		93	7,344		7,437	3.857	
17	8-Jul-05	Daily Total		0	14	519	0	533	0.473	1.00	7	30.86	0	432	16,015	0	16,447	14.580	
	11-Jul-05	Bluntnose minnow				12		12	0.012	1.00	6	36.00					432	0.432	
	11-Jul-05	Channel catfish	Adult		2			2	0.580	1.00	6	36.00			72		72	20.880	
	11-Jul-05	Channel catfish	YOY(<150mm)		42			42	0.092	1.00	6	36.00			1,512		1,512	3.312	
	11-Jul-05	Emerald shiner			53			53	0.092	1.00	6	36.00			1,908		1,908	3.312	
	11-Jul-05	Freshwater drum	YOY(<200mm)		38			38	0.032	1.00	6	36.00			1,368		1,368	1.152	
	11-Jul-05	Gizzard shad	YOY(<200mm)		5,404			5,404	3.388	1.00	6	36.00			194,544		194,544	121.968	
	11-Jul-05	Largemouth bass	YOY(<150mm)		1			1	0.001	1.00	6	36.00			36		36	0.036	
	11-Jul-05	Logperch			13			13	0.024	1.00	6	36.00			468		468	0.864	
	11-Jul-05	Round goby			35	2		37	0.078	1.00	6	36.00			1,260	72	1,332	2.808	
	11-Jul-05	Silver chub			12			12	0.012	1.00	6	36.00			432		432	0.432	
	11-Jul-05	Spottail shiner			79			79	0.079	1.00	6	36.00					2,844	2.844	
	11-Jul-05	Trout-perch			1	1		2	0.010	1.00	6	36.00			36	36	72	0.360	
	11-Jul-05	Walleye	YOY(<200mm)		3			3	0.010	1.00	6	36.00			108		108	0.360	
	11-Jul-05	White bass	YOY(<150mm)		5,723			5,723	2.797	1.00	6	36.00			206,028		206,028	100.692	
	11-Jul-05	White perch	Adult		8			8	1.019	1.00	6	36.00			288		288	36.684	
	11-Jul-05	White perch	YOY(<150mm)		2,319			2,319	1.138	1.00	6	36.00			83,484		83,484	40.968	
18	11-Jul-05	Daily Total		0	13,745	3	0	13,748	9.364	1.00	6	36.00	0	494,820	108	0	494,928	337.104	

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**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	12-Jul-05	Bluegill	Adult		1			1	0.020	1.00	7	30.86		31			31	0.617	
	12-Jul-05	Channel catfish	YOY(<150mm)		6			6	0.006	1.00	7	30.86		185			185	0.185	
	12-Jul-05	Common carp	YOY(<150mm)		3			3	0.003	1.00	7	30.86		93			93	0.093	
	12-Jul-05	Emerald shiner			4			4	0.007	1.00	7	30.86		123			123	0.216	
	12-Jul-05	Freshwater drum	YOY(<200mm)		10			10	0.033	1.00	7	30.86		309			309	1.018	
	12-Jul-05	Gizzard shad	YOY(<200mm)		133	7		140	0.107	1.00	7	30.86		4,104	216	4,320	3,302		
	12-Jul-05	Green sunfish			1			1	0.001	1.00	7	30.86		31			31	0.031	
	12-Jul-05	Logperch				1		1	0.002	1.00	7	30.86			31		31	0.062	
	12-Jul-05	Round goby			5			5	0.011	1.00	7	30.86		154			154	0.339	
	12-Jul-05	Spottail shiner			15	1		16	0.025	1.00	7	30.86		463	31		494	0.771	
	12-Jul-05	White bass	YOY(<150mm)		189			189	0.099	1.00	7	30.86		5,832			5,832	3.055	
	12-Jul-05	White perch	Adult		2			2	0.196	1.00	7	30.86		62			62	6.048	
	12-Jul-05	White perch	YOY(<150mm)		410			410	0.216	1.00	7	30.86		12,651			12,651	6.665	
19	12-Jul-05	Daily Total		0	779	9	0	788	0.726	1.00	7	30.86	0	24,038	278	0	24,315	22.402	
	21-Jul-05	Channel catfish	Adult		1			1	0.138	1.00	7	30.86		31			31	4.258	
	21-Jul-05	Channel catfish	YOY(<150mm)		3	1		4	0.004	1.00	7	30.86		93	31		123	0.123	
	21-Jul-05	Emerald shiner			1	1		2	0.003	1.00	7	30.86		31	31		62	0.093	
	21-Jul-05	Fathead minnow			5			5	0.005	1.00	7	30.86		154			154	0.154	
	21-Jul-05	Freshwater drum	YOY(<200mm)		4			4	0.015	1.00	7	30.86		123			123	0.463	
	21-Jul-05	Gizzard shad	YOY(<200mm)		358	3		361	0.542	1.00	7	30.86		11,047	93		11,139	16.725	
	21-Jul-05	Logperch			6			6	0.008	1.00	7	30.86		185			185	0.247	
	21-Jul-05	Round goby			2	1		3	0.006	1.00	7	30.86		62	31		93	0.185	
	21-Jul-05	Silver chub			1			1	0.058	1.00	7	30.86		31			31	1.790	
	21-Jul-05	Spottail shiner			6	1		7	0.010	1.00	7	30.86		185	31		216	0.309	
	21-Jul-05	Walleye	Adult		1			1	0.102	1.00	7	30.86		31			31	3.147	
	21-Jul-05	White bass	YOY(<150mm)		75			75	0.081	1.00	7	30.86		2,314			2,314	2.499	
	21-Jul-05	White perch	Adult			1		1	0.066	1.00	7	30.86			31		31	2.037	
	21-Jul-05	White perch	YOY(<150mm)		174	6		180	0.211	1.00	7	30.86		5,369	185		5,554	6.511	
20	21-Jul-05	Daily Total		0	637	14	0	651	1.249	1.00	7	30.86	0	19,656	432	0	20,088	38.541	
	22-Jul-05	Channel catfish	Adult		1	1		2	0.096	1.00	7	30.86		31	31		62	2.962	
	22-Jul-05	Channel catfish	YOY(<150mm)		1			1	0.001	1.00	7	30.86			31		31	0.031	
	22-Jul-05	Emerald shiner			9			9	0.013	1.00	7	30.86		278			278	0.401	
	22-Jul-05	Freshwater drum	YOY(<200mm)		1	1		2	0.002	1.00	7	30.86		31	31		62	0.062	
	22-Jul-05	Gizzard shad	YOY(<200mm)		821			821	1.294	1.00	7	30.86		25,334			25,334	39.929	
	22-Jul-05	Logperch			8			8	0.010	1.00	7	30.86		247			247	0.309	
	22-Jul-05	Round goby			39	12		51	0.093	1.00	7	30.86		1,203	370		1,574	2.870	
	22-Jul-05	Spottail shiner			54	3	1	58	0.080	1.00	7	30.86		1,666	93	31	1,790	2.469	
	22-Jul-05	Trout-perch			7			7	0.017	1.00	7	30.86		216			216	0.525	
	22-Jul-05	White bass	YOY(<150mm)		3	310		313	0.445	1.00	7	30.86		93	9,566		9,658	13.731	
	22-Jul-05	White perch	Adult		2			2	0.148	1.00	7	30.86		62			62	4.567	
	22-Jul-05	White perch	YOY(<150mm)		6	743	1	750	1.069	1.00	7	30.86		185	22,927	31	23,143	32.986	
21	22-Jul-05	Daily Total		0	952	1,070	2	2,024	3.268	1.00	7	30.86	0	29,376	33,017	62	62,455	100.841	

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**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	28-Jul-05	Channel catfish	Adult		2			2	0.074	1.08	7	28.49		57			57	2.108	
	28-Jul-05	Channel catfish	YOY(<150mm)		1			1	0.002	1.08	7	28.49		28			28	0.057	
	28-Jul-05	Freshwater drum	YOY(<200mm)		2			2	0.004	1.08	7	28.49		57			57	0.114	
	28-Jul-05	Gizzard shad	YOY(<200mm)		26	5		31	0.043	1.08	7	28.49		741	142		883	1.225	
	28-Jul-05	Largemouth bass	YOY(<150mm)		1			1	0.008	1.08	7	28.49		28			28	0.228	
	28-Jul-05	Logperch			6	2		8	0.010	1.08	7	28.49		171	57		228	0.285	
	28-Jul-05	Round goby			5			5	0.017	1.08	7	28.49		142			142	0.484	
	28-Jul-05	Spottail shiner			5			5	0.009	1.08	7	28.49		142			142	0.256	
	28-Jul-05	White bass	YOY(<150mm)		12			12	0.025	1.08	7	28.49		342			342	0.712	
	28-Jul-05	White crappie	YOY(<150mm)		1			1	0.001	1.08	7	28.49		28			28	0.028	
	28-Jul-05	White perch	YOY(<150mm)		59	1		60	0.099	1.08	7	28.49		1,681	28		1,710	2.821	
	28-Jul-05	Yellow perch	Adult		2			2	0.166	1.08	7	28.49		57			57	4.730	
22	28-Jul-05	Daily Total		0	122	8	0	130	0.458	1.08	7	28.49	0	3,476	228	0	3,704	13.049	
	29-Jul-05	Channel catfish	Adult		1			1	0.024	1.00	7	30.86		31			31	0.741	
	29-Jul-05	Channel catfish	YOY(<150mm)		5			5	0.005	1.00	7	30.86		154			154	0.154	
	29-Jul-05	Freshwater drum	YOY(<200mm)		21			21	0.037	1.00	7	30.86		648			648	1.142	
	29-Jul-05	Gizzard shad	YOY(<200mm)		34			34	0.032	1.00	7	30.86		1,049			1,049	0.987	
	29-Jul-05	Logperch			52			52	0.029	1.00	7	30.86		1,605			1,605	0.895	
	29-Jul-05	Round goby			16			16	0.040	1.00	7	30.86		494			494	1.234	
	29-Jul-05	Spottail shiner			91	3		94	0.120	1.00	7	30.86		2,808	93		2,901	3.703	
	29-Jul-05	Walleye	Adult		1			1	0.383	1.00	7	30.86		31			31	11.818	
	29-Jul-05	White bass	YOY(<150mm)		60			60	0.108	1.00	7	30.86		1,851			1,851	3.333	
	29-Jul-05	White perch	YOY(<150mm)		539			539	0.937	1.00	7	30.86		16,632			16,632	28.913	
	29-Jul-05	Yellow bullhead			1			1	0.001	1.00	7	30.86		31			31	0.031	
	29-Jul-05	Yellow perch	Adult		1			1	0.046	1.00	7	30.86		31			31	1.419	
23	29-Jul-05	Daily Total		0	822	3	0	825	1.762	1.00	7	30.86	0	25,365	93	0	25,457	54.370	
	1-Aug-05	Emerald shiner			3			3	0.004	1.00	7	30.86		93			93	0.123	
	1-Aug-05	Freshwater drum	Adult		1			1	0.056	1.00	7	30.86		31			31	1.728	
	1-Aug-05	Freshwater drum	YOY(<200mm)		11			11	0.051	1.00	7	30.86		339			339	1.574	
	1-Aug-05	Gizzard shad	YOY(<200mm)		61	3	1	65	0.119	1.00	7	30.86		1,882	93	31	2,006	3.672	
	1-Aug-05	Golden shiner			1			1	0.001	1.00	7	30.86		31			31	0.031	
	1-Aug-05	Logperch			9	2		11	0.011	1.00	7	30.86		278	62		339	0.339	
	1-Aug-05	Round goby			7			7	0.016	1.00	7	30.86		216			216	0.494	
	1-Aug-05	Spottail shiner			66	3		69	0.070	1.00	7	30.86		2,037	93		2,129	2.160	
	1-Aug-05	White bass	YOY(<150mm)		11			11	0.011	1.00	7	30.86		339			339	0.339	
	1-Aug-05	White perch	YOY(<150mm)		39	1		40	0.054	1.00	7	30.86		1,203	31		1,234	1.666	
24	1-Aug-05	Daily Total		0	209	9	1	219	0.393	1.00	7	30.86	0	6,449	278	31	6,758	12.127	
	2-Aug-05	Channel catfish	YOY(<150mm)		23	2		25	0.071	1.00	5	43.20		994	86		1,080	3.067	
	2-Aug-05	Emerald shiner			5	3		8	0.006	1.00	5	43.20		216	130		346	0.259	
	2-Aug-05	Freshwater drum	YOY(<200mm)		66	4		70	0.156	1.00	5	43.20		2,851	173		3,024	6.739	
	2-Aug-05	Gizzard shad	YOY(<200mm)		35	9		44	0.083	1.00	5	43.20		1,512	389		1,901	3.586	
	2-Aug-05	Logperch			92	10		102	0.030	1.00	5	43.20		3,974	432		4,406	1.296	
	2-Aug-05	Quillback			1			1	0.009	1.00	5	43.20		43			43	0.389	
	2-Aug-05	Round goby			50	5		55	0.030	1.00	5	43.20		2,160	216		2,376	1.296	
	2-Aug-05	Silver chub			6			6	0.004	1.00	5	43.20		259			259	0.173	
	2-Aug-05	Spottail shiner			336	7		343	0.316	1.00	5	43.20		14,515	302		14,818	13.651	
	2-Aug-05	Trout-perch			27	4		31	0.042	1.00	5	43.20		1,166	173		1,339	1.814	
	2-Aug-05	White bass	YOY(<150mm)		114			114	0.213	1.00	5	43.20		4,925			4,925	9.202	
	2-Aug-05	White perch	YOY(<150mm)		674	5		679	1.346	1.00	5	43.20		29,117	216		29,333	58.147	
	2-Aug-05	Yellow perch	Adult		2			2	0.198	1.00	5	43.20		86			86	8.554	
25	2-Aug-05	Daily Total		0	1,431	49	0	1,480	2.504	1.00	5	43.20	0	61,819	2,117	0	63,936	108.173	

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**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	9-Aug-05	Brook silverside			10	1		11	0.011	1.00	5	43.20		432	43		475	0.475	
	9-Aug-05	Channel catfish	YOY(<150mm)		3			3	0.005	1.00	5	43.20		130			130	0.216	
	9-Aug-05	Emerald shiner			3			3	0.003	1.00	5	43.20		130			130	0.130	
	9-Aug-05	Freshwater drum	YOY(<200mm)		17			17	0.119	1.00	5	43.20		734			734	5.141	
	9-Aug-05	Gizzard shad	YOY(<200mm)		32	4	1	37	0.131	1.00	5	43.20		1,382	173	43	1,598	5.659	
	9-Aug-05	Logperch			5			5	0.008	1.00	5	43.20		216			216	0.346	
	9-Aug-05	Round goby			9	1		10	0.019	1.00	5	43.20		389	43		432	0.821	
	9-Aug-05	Spottail shiner			16	4	2	22	0.012	1.00	5	43.20		691	173	86	950	0.518	
	9-Aug-05	Stonecat madtom			1			1	0.003	1.00	5	43.20		43			43	0.130	
	9-Aug-05	Trout-perch			1			1	0.001	1.00	5	43.20		43			43	0.043	
	9-Aug-05	White bass	YOY(<150mm)		4			4	0.010	1.00	5	43.20		173			173	0.432	
	9-Aug-05	White perch	YOY(<150mm)		56		2	58	0.146	1.00	5	43.20		2,419			86	2,506	6.307
	9-Aug-05	Yellow perch	Adult		1			1	0.075	1.00	5	43.20		43			43	3.240	
26	9-Aug-05	Daily Total			0	158	10	5	173	0.543	1.00	5	43.20	0	6,826	432	216	7,474	23.458
	12-Aug-05	Brook silverside			10	1		11	0.011	1.00	5	43.20		432	43		475	0.475	
	12-Aug-05	Channel catfish	YOY(<150mm)		9			9	0.040	1.00	5	43.20		389			389	1.728	
	12-Aug-05	Channel darter			2			2	0.002	1.00	5	43.20		86			86	0.086	
	12-Aug-05	Emerald shiner			172	1		173	0.108	1.00	5	43.20		7,430	43		7,474	4.666	
	12-Aug-05	Freshwater drum	YOY(<200mm)		108			108	0.613	1.00	5	43.20		4,666			4,666	26.482	
	12-Aug-05	Gizzard shad	YOY(<200mm)		315			315	1.134	1.00	5	43.20		13,608			13,608	48.989	
	12-Aug-05	Logperch			6			6	0.005	1.00	5	43.20		259			259	0.216	
	12-Aug-05	Round goby			35			35	0.036	1.00	5	43.20		1,512			1,512	1.555	
	12-Aug-05	Silver chub			16			16	0.016	1.00	5	43.20		691			691	0.691	
	12-Aug-05	Spottail shiner			46			46	0.047	1.00	5	43.20		1,987			1,987	2.030	
	12-Aug-05	Trout-perch			47			47	0.053	1.00	5	43.20		2,030			2,030	2.290	
	12-Aug-05	White bass	YOY(<150mm)		57			57	0.072	1.00	5	43.20		2,462			2,462	3.110	
	12-Aug-05	White perch	Adult		1			1	0.091	1.00	5	43.20		43			43	3.931	
	12-Aug-05	White perch	YOY(<150mm)		798	1		799	1.855	1.00	5	43.20		34,474	43		34,517	80.136	
	12-Aug-05	Yellow perch	Adult		1			1	0.141	1.00	5	43.20		43			43	6.091	
27	12-Aug-05	Daily Total			0	1,623	3	0	1,626	4.224	1.00	5	43.20	0	70,114	130	0	70,243	182.477
	15-Aug-05	Bluegill	YOY(<100mm)		3	1		4	0.002	1.03	7	29.87		90	30		119	0.060	
	15-Aug-05	Channel catfish	YOY(<150mm)		5			5	0.005	1.03	7	29.87		149			149	0.149	
	15-Aug-05	Emerald shiner			24			24	0.018	1.03	7	29.87		717			717	0.538	
	15-Aug-05	Freshwater drum	YOY(<200mm)		35	4		39	0.278	1.03	7	29.87		1,045	119		1,165	8.304	
	15-Aug-05	Gizzard shad	YOY(<200mm)		428	27		455	1.619	1.03	7	29.87		12,785	807		13,591	48.362	
	15-Aug-05	Logperch			7			7	0.006	1.03	7	29.87		209			209	0.179	
	15-Aug-05	Round goby			2			2	0.001	1.03	7	29.87		60			60	0.030	
	15-Aug-05	Spottail shiner			70	13	2	85	0.056	1.03	7	29.87		2,091	388	60	2,539	1.673	
	15-Aug-05	Trout-perch			18	4		22	0.018	1.03	7	29.87		538	119		657	0.538	
	15-Aug-05	Walleye	Adult		1			1	0.338	1.03	7	29.87		30			30	10.097	
	15-Aug-05	White bass	YOY(<150mm)		6			6	0.028	1.03	7	29.87		179			179	0.836	
	15-Aug-05	White perch	YOY(<150mm)		395			395	0.894	1.03	7	29.87		11,799			11,799	26.705	
	15-Aug-05	Yellow perch	Adult		1			1	0.153	1.03	7	29.87		30			30	4.570	
28	15-Aug-05	Daily Total			0	995	49	2	1,046	3.416	1.03	7	29.87	0	29,722	1,464	60	31,245	102.041

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	18-Aug-05	Brook silverside			18			18	0.015	1.00	7	30.86		555			555	0.463	
	18-Aug-05	Channel catfish	Adult		1			1	0.022	1.00	7	30.86		31			31	0.679	
	18-Aug-05	Channel catfish	YOY(<150mm)		12			12	0.018	1.00	7	30.86		370			370	0.555	
	18-Aug-05	Freshwater drum	YOY(<200mm)		39	1		40	0.304	1.00	7	30.86		1,203	31		1,234	9.381	
	18-Aug-05	Gizzard shad	YOY(<200mm)		76	5		81	0.147	1.00	7	30.86		2,345	154		2,499	4.536	
	18-Aug-05	Largemouth bass	YOY(<150mm)		1			1	0.015	1.00	7	30.86		31			31	0.463	
	18-Aug-05	Logperch			13			13	0.007	1.00	7	30.86		401			401	0.216	
	18-Aug-05	Pumpkinseed			1			1	0.069	1.00	7	30.86		31			31	2.129	
	18-Aug-05	Round goby			41	2		43	0.054	1.00	7	30.86		1,265	62		1,327	1.666	
	18-Aug-05	Spottail shiner			61	1		62	0.045	1.00	7	30.86		1,882	31		1,913	1.389	
	18-Aug-05	Trout-perch			5			5	0.003	1.00	7	30.86		154			154	0.093	
	18-Aug-05	White bass	YOY(<150mm)		30			30	0.096	1.00	7	30.86		926			926	2.962	
	18-Aug-05	White perch	YOY(<150mm)		657			657	2.038	1.00	7	30.86		20,273			20,273	62.887	
<b>29</b>	<b>18-Aug-05</b>	<b>Daily Total</b>		<b>0</b>	<b>955</b>	<b>9</b>	<b>0</b>	<b>964</b>	<b>2.833</b>	<b>1.00</b>	<b>7</b>	<b>30.86</b>	<b>0</b>	<b>29,469</b>	<b>278</b>	<b>0</b>	<b>29,746</b>	<b>87.418</b>	
	22-Aug-05	Channel catfish	YOY(<150mm)			1		1	0.001	1.00	5	43.20			43			43	0.043
	22-Aug-05	Emerald shiner			1			1	0.001	1.00	5	43.20			43			43	0.043
	22-Aug-05	Freshwater drum	YOY(<200mm)		41			41	0.385	1.00	5	43.20		1,771			1,771	16.632	
	22-Aug-05	Gizzard shad	YOY(<200mm)		20			20	0.063	1.00	5	43.20		864			864	2.722	
	22-Aug-05	Lepomis spp.				1		1	0.001	1.00	5	43.20			43			43	0.043
	22-Aug-05	Logperch			2			2	0.005	1.00	5	43.20		86			86	0.216	
	22-Aug-05	Round goby			2			2	0.014	1.00	5	43.20		86			86	0.605	
	22-Aug-05	Spottail shiner			16			16	0.019	1.00	5	43.20		691			691	0.821	
	22-Aug-05	Trout-perch			2			2	0.005	1.00	5	43.20		86			86	0.216	
	22-Aug-05	White bass	YOY(<150mm)		2			2	0.003	1.00	5	43.20		86			86	0.130	
	22-Aug-05	White perch	YOY(<150mm)		44	1		45	0.106	1.00	5	43.20		1,901	43		1,944	4.579	
<b>30</b>	<b>22-Aug-05</b>	<b>Daily Total</b>		<b>0</b>	<b>130</b>	<b>3</b>	<b>0</b>	<b>133</b>	<b>0.603</b>	<b>1.00</b>	<b>5</b>	<b>43.20</b>	<b>0</b>	<b>5,616</b>	<b>130</b>	<b>0</b>	<b>5,746</b>	<b>26.050</b>	
	23-Aug-05	Bluegill	YOY(<100mm)		2			2	0.002	1.00	5	43.20		86			86	0.086	
	23-Aug-05	Brook silverside			27			27	0.027	1.00	5	43.20		1,166			1,166	1.166	
	23-Aug-05	Channel catfish	Adult		2			2	0.069	1.00	5	43.20		86			86	2.981	
	23-Aug-05	Channel catfish	YOY(<150mm)		18			18	0.075	1.00	5	43.20		778			778	3.240	
	23-Aug-05	Emerald shiner			43	2		45	0.046	1.00	5	43.20		1,858	86		1,944	1.987	
	23-Aug-05	Freshwater drum	YOY(<200mm)		158	2		160	2.428	1.00	5	43.20		6,826	86		6,912	104.890	
	23-Aug-05	Gizzard shad	YOY(<200mm)		269	1		270	0.648	1.00	5	43.20		11,621	43		11,664	27.994	
	23-Aug-05	Logperch			5			5	0.007	1.00	5	43.20		216			216	0.302	
	23-Aug-05	Pumpkinseed			1			1	0.003	1.00	5	43.20		43			43	0.130	
	23-Aug-05	Round goby			48	2		50	0.086	1.00	5	43.20		2,074	86		2,160	3.715	
	23-Aug-05	Silver chub			3			3	0.004	1.00	5	43.20		130			130	0.173	
	23-Aug-05	Spottail shiner			99	1		100	0.115	1.00	5	43.20		4,277	43		4,320	4.968	
	23-Aug-05	Trout-perch			21			21	0.021	1.00	5	43.20		907			907	0.907	
	23-Aug-05	Western banded killifish			1			1	0.001	1.00	5	43.20		43			43	0.043	
	23-Aug-05	White bass	YOY(<150mm)		56			56	0.145	1.00	5	43.20		2,419			2,419	6.264	
	23-Aug-05	White perch	YOY(<150mm)		688			688	2.515	1.00	5	43.20		29,722			29,722	108.648	
	23-Aug-05	Yellow perch	Adult		1			1	0.154	1.00	5	43.20		43			43	6.653	
<b>31</b>	<b>23-Aug-05</b>	<b>Daily Total</b>		<b>0</b>	<b>1,442</b>	<b>8</b>	<b>0</b>	<b>1,450</b>	<b>6.346</b>	<b>1.00</b>	<b>5</b>	<b>43.20</b>	<b>0</b>	<b>62,294</b>	<b>346</b>	<b>0</b>	<b>62,640</b>	<b>274.147</b>	

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	1-Sep-05	Channel catfish YOY(<150mm)		6			1	7	0.016	1.00	7	30.86		185		31	216	0.494	
	1-Sep-05	Emerald shiner			27			27	0.031	1.00	7	30.86		833			833	0.957	
	1-Sep-05	Freshwater drum YOY(<200mm)		67				67	0.955	1.00	7	30.86		2,067			2,067	29.469	
	1-Sep-05	Gizzard shad YOY(<200mm)		410				410	2.091	1.00	7	30.86		12,651			12,651	64.522	
	1-Sep-05	Logperch			4			4	0.004	1.00	7	30.86		123			123	0.123	
	1-Sep-05	Pumpkinseed			1			1	0.066	1.00	7	30.86		31			31	2.037	
	1-Sep-05	Round goby				7		7	0.010	1.00	7	30.86		216			216	0.309	
	1-Sep-05	Spottail shiner				57		57	0.066	1.00	7	30.86		1,759			1,759	2.037	
	1-Sep-05	TROUT-perch				7		7	0.011	1.00	7	30.86		216			216	0.339	
	1-Sep-05	White bass YOY(<150mm)			7			7	0.034	1.00	7	30.86		216			216	1.049	
	1-Sep-05	White perch YOY(<150mm)			211				211	0.743	1.00	7	30.86		6,511			6,511	22.927
	1-Sep-05	Yellow perch Adult			1			1	0.076	1.00	7	30.86		31			31	2.345	
	1-Sep-05	Yellow perch YOY(<150mm)			1			1	0.002	1.00	7	30.86		31			31	0.062	
32	1-Sep-05	Daily Total		0	806		1	807	4.105	1.00	7	30.86	0	24,871		31	24,902	126.669	
	2-Sep-05	Channel catfish YOY(<150mm)				14		14	0.082	0.92	4	58.89		824			824	4.829	
	2-Sep-05	Emerald shiner				11		11	0.014	0.92	4	58.89		648			648	0.824	
	2-Sep-05	Freshwater drum Adult				1		1	0.097	0.92	4	58.89		59			59	5.712	
	2-Sep-05	Freshwater drum YOY(<200mm)				32		32	0.417	0.92	4	58.89		1,884			1,884	24.556	
	2-Sep-05	Gizzard shad Adult				1		1	0.015	0.92	4	58.89		59			59	0.883	
	2-Sep-05	Gizzard shad YOY(<200mm)	0	0	74	0	74	0.438	0.92	4	58.89	0	4,358	0	4,358	25.793			
	2-Sep-05	Logperch				2		2	0.004	0.92	4	58.89		118			118	0.236	
	2-Sep-05	Round goby				9		9	0.011	0.92	4	58.89		530			530	0.648	
	2-Sep-05	Spottail shiner				23		23	0.036	0.92	4	58.89		1,354			1,354	2.120	
	2-Sep-05	TROUT-perch				7		7	0.014	0.92	4	58.89		412			412	0.824	
	2-Sep-05	White bass YOY(<150mm)			21		21	0.083	0.92	4	58.89		1,237			1,237	4.888		
	2-Sep-05	White perch YOY(<150mm)			321		321	1.866	0.92	4	58.89		18,903			18,903	109.884		
33	2-Sep-05	Daily Total		0	0	516	0	516	3.077	0.92	4	58.89	0	0	30,386	0	30,386	181.197	
	5-Sep-05	Channel catfish YOY(<150mm)		12				12	0.029	1.00	6	36.00		432			432	1.044	
	5-Sep-05	Emerald shiner			59			59	0.056	1.00	6	36.00		2,124			2,124	2.016	
	5-Sep-05	Fathead minnow			1			1	0.001	1.00	6	36.00		36			36	0.036	
	5-Sep-05	Freshwater drum Adult			1			1	0.071	1.00	6	36.00		36			36	2.556	
	5-Sep-05	Freshwater drum YOY(<200mm)		18	1			19	0.158	1.00	6	36.00		648	36	684	5.688		
	5-Sep-05	Gizzard shad YOY(<200mm)		40	1			41	0.287	1.00	6	36.00		1,440	36	1,476	10.332		
	5-Sep-05	Round goby			33			33	0.049	1.00	6	36.00		1,188			1,188	1.764	
	5-Sep-05	Smallmouth bass YOY(<100mm)		1				1	0.017	1.00	6	36.00		36			36	0.612	
	5-Sep-05	Spottail shiner			30			30	0.058	1.00	6	36.00		1,080			1,080	2.088	
	5-Sep-05	TROUT-perch			13			13	0.015	1.00	6	36.00		468			468	0.540	
	5-Sep-05	White bass YOY(<150mm)		16	2	1		19	0.099	1.00	6	36.00		576	72	36	684	3.564	
	5-Sep-05	White perch YOY(<150mm)		388				388	1.470	1.00	6	36.00		13,968			13,968	52.920	
34	5-Sep-05	Daily Total		0	612	4	1	617	2.310	1.00	6	36.00	0	22,032	144	36	22,212	83.160	
	6-Sep-05	Freshwater drum YOY(<200mm)			7			7	0.088	1.00	4	54.00		378			378	4.752	
	6-Sep-05	Gizzard shad YOY(<200mm)			14	1		15	0.093	1.00	4	54.00		756	54		810	5.022	
	6-Sep-05	Logperch			2			2	0.007	1.00	4	54.00		108			108	0.378	
	6-Sep-05	Round goby			3	4		7	0.008	1.00	4	54.00		162	216		378	0.432	
	6-Sep-05	Spottail shiner			8			8	0.011	1.00	4	54.00		432			432	0.594	
	6-Sep-05	White bass YOY(<150mm)			3			3	0.007	1.00	4	54.00		162			162	0.378	
	6-Sep-05	White perch YOY(<150mm)			24	1		25	0.107	1.00	4	54.00		1,296	54		1,350	5.778	
35	6-Sep-05	Daily Total		0	61	6	0	67	0.321	1.00	4	54.00	0	3,294	324	0	3,618	17.334	

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**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	11-Sep-05	Channel catfish YOY(<150mm)				3		3	0.006	1.00	4	54.00			162		162	0.324	
	11-Sep-05	Emerald shiner				6		6	0.006	1.00	4	54.00			324		324	0.324	
	11-Sep-05	Fathead minnow			1			1	0.001	1.00	4	54.00			54		54	0.054	
	11-Sep-05	Freshwater drum YOY(<200mm)			1	5		6	0.097	1.00	4	54.00			54	270	324	5.238	
	11-Sep-05	Gizzard shad YOY(<200mm)				33		33	0.147	1.00	4	54.00			1,782		1,782	7.938	
	11-Sep-05	Largemouth bass YOY(<150mm)			1			1	0.006	1.00	4	54.00			54		54	0.324	
	11-Sep-05	Logperch				3		3	0.013	1.00	4	54.00			162		162	0.702	
	11-Sep-05	Round goby				1		1	0.001	1.00	4	54.00			54		54	0.054	
	11-Sep-05	Silver chub				1		1	0.001	1.00	4	54.00			54		54	0.054	
	11-Sep-05	Spottail shiner				14		14	0.039	1.00	4	54.00			756		756	2.106	
	11-Sep-05	Tadpole madtom			1	1		2	0.002	1.00	4	54.00			54	54	108	0.108	
	11-Sep-05	Trout-perch				5		5	0.013	1.00	4	54.00			270		270	0.702	
	11-Sep-05	White bass YOY(<150mm)			2	1		3	0.023	1.00	4	54.00			108	54	162	1.242	
	11-Sep-05	White perch YOY(<150mm)				69		69	0.319	1.00	4	54.00			3,726		3,726	17.226	
36	11-Sep-05	Daily Total			0	9	139	0	148	0.674	1.00	4	54.00	0	486	7,506	0	7,992	36.396
	17-Sep-05	Channel catfish Adult			1	1		2	0.100	1.00	4	54.00			54	54	108	5.400	
	17-Sep-05	Channel catfish YOY(<150mm)			4	7		11	0.076	1.00	4	54.00			216	378	594	4.104	
	17-Sep-05	Emerald shiner				64		64	0.083	1.00	4	54.00			3,456		3,456	4.482	
	17-Sep-05	Freshwater drum YOY(<200mm)				20		20	0.313	1.00	4	54.00			1,080		1,080	16.902	
	17-Sep-05	Gizzard shad YOY(<200mm)				1,819		1,819	0.640	1.00	4	54.00			98,226		98,226	466.560	
	17-Sep-05	Round goby				4		4	0.016	1.00	4	54.00			216		216	0.864	
	17-Sep-05	Silver chub				3		3	0.003	1.00	4	54.00			162	162	0.162		
	17-Sep-05	Spottail shiner				9		9	0.038	1.00	4	54.00			486		486	2.052	
	17-Sep-05	Tadpole madtom				1		1	0.003	1.00	4	54.00			54		54	0.162	
	17-Sep-05	Trout-perch				8		8	0.019	1.00	4	54.00			432		432	1.026	
	17-Sep-05	Walleye YOY(<200mm)				1		1	0.035	1.00	4	54.00			54		54	1.890	
	17-Sep-05	White bass YOY(<150mm)				16		16	0.098	1.00	4	54.00			864		864	5.292	
	17-Sep-05	White perch YOY(<150mm)				311		311	1.713	1.00	4	54.00			16,794		16,794	92.502	
	17-Sep-05	Yellow perch Adult			1			1	0.090	1.00	4	54.00		54		54	4.860		
37	17-Sep-05	Daily Total			0	6	2,264	0	2,270	11.227	1.00	4	54.00	0	324	122,256	0	122,580	606.258
	22-Sep-05	Bluegill YOY(<100mm)			1			1	0.002	1.00	4	54.00			54		54	0.108	
	22-Sep-05	Emerald shiner			2	1		3	0.003	1.00	4	54.00			108	54	162	0.162	
	22-Sep-05	Freshwater drum Adult			1			1	0.084	1.00	4	54.00			54		54	4.536	
	22-Sep-05	Freshwater drum YOY(<200mm)			4	1		5	0.069	1.00	4	54.00			216	54	270	3.726	
	22-Sep-05	Gizzard shad YOY(<200mm)			51			51	0.187	1.00	4	54.00			2,754		2,754	10.098	
	22-Sep-05	Logperch			1			1	0.003	1.00	4	54.00			54		54	0.162	
	22-Sep-05	Orangespotted sunfish			1			1	0.016	1.00	4	54.00			54		54	0.864	
	22-Sep-05	Pumpkinseed				4		4	0.077	1.00	4	54.00			216		216	4.158	
	22-Sep-05	Round goby			2			2	0.009	1.00	4	54.00			108		108	0.486	
	22-Sep-05	Smallmouth bass YOY(<100mm)			2			2	0.047	1.00	4	54.00			108		108	2.538	
	22-Sep-05	Spottail shiner			7			7	0.013	1.00	4	54.00			378		378	0.702	
	22-Sep-05	White bass YOY(<150mm)			3			3	0.018	1.00	4	54.00			162		162	0.972	
	22-Sep-05	White perch YOY(<150mm)			25			25	0.118	1.00	4	54.00			1,350		1,350	6.372	
38	22-Sep-05	Daily Total			0	104	2	0	106	0.646	1.00	4	54.00	0	5,616	108	0	5,724	34.884

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	23-Sep-05	Channel catfish	YOY(<150mm)			3		3	0.016	1.00	6	36.00			108		108	0.576	
	23-Sep-05	Common carp	Adult			1		1	0.027	1.00	6	36.00			36		36	0.972	
	23-Sep-05	Emerald shiner				175		175	0.185	1.00	6	36.00			6,300		6,300	6.660	
	23-Sep-05	Freshwater drum	YOY(<200mm)			11		11	0.143	1.00	6	36.00			396		396	5.148	
	23-Sep-05	Gizzard shad	YOY(<200mm)			298		298	1.810	1.00	6	36.00			10,728		10,728	65.160	
	23-Sep-05	Largemouth bass	YOY(<150mm)			1		1	0.011	1.00	6	36.00			36		36	0.396	
	23-Sep-05	Round goby				2		2	0.016	1.00	6	36.00			72		72	0.576	
	23-Sep-05	Silver chub				1		1	0.014	1.00	6	36.00			36		36	0.504	
	23-Sep-05	Spotfin shiner				4		4	0.013	1.00	6	36.00			144		144	0.468	
	23-Sep-05	Spottail shiner				21		21	0.051	1.00	6	36.00			756		756	1.836	
	23-Sep-05	Trout-perch				15		15	0.028	1.00	6	36.00			540		540	1.008	
	23-Sep-05	White perch	YOY(<150mm)			1,451		1,451	5.482	1.00	6	36.00			52,236		52,236	197.352	
	23-Sep-05	Yellow perch	Adult			1		1	0.123	1.00	6	36.00			36		36	4.428	
39	23-Sep-05	Daily Total		0	1	1,983	0	1,984	7.919	1.00	6	36.00	0	36	71,388	0	71,424	285.084	
	25-Sep-05	Channel catfish	Adult			1		1	0.037	1.00	5	43.20			43		43	1.598	
	25-Sep-05	Channel catfish	YOY(<150mm)			14	1	15	0.210	1.00	5	43.20			605	43	648	9.072	
	25-Sep-05	Emerald shiner				16	730	746	1.558	1.00	5	43.20			691	31,536	32,227	67.306	
	25-Sep-05	Freshwater drum	Adult			1		1	0.079	1.00	5	43.20			43		43	3.413	
	25-Sep-05	Freshwater drum	YOY(<200mm)			1	3	4	0.063	1.00	5	43.20			43	130	173	2.722	
	25-Sep-05	Gizzard shad	YOY(<200mm)			12	348	360	2.288	1.00	5	43.20			518	15,034	15,552	98.842	
	25-Sep-05	Round goby				2		2	0.012	1.00	5	43.20			86		86	0.518	
	25-Sep-05	Silver chub				2		2	0.018	1.00	5	43.20			86		86	0.778	
	25-Sep-05	Spottail shiner				2		2	0.004	1.00	5	43.20			86		86	0.173	
	25-Sep-05	Trout-perch				12		12	0.042	1.00	5	43.20			518		518	1.814	
	25-Sep-05	Walleye	YOY(<200mm)			1		1	0.063	1.00	5	43.20			43		43	2.722	
	25-Sep-05	White bass	YOY(<150mm)			18		18	0.146	1.00	5	43.20			778		778	6.307	
	25-Sep-05	White perch	YOY(<150mm)			10	526	536	2.418	1.00	5	43.20			432	22,723	23,155	104.458	
	25-Sep-05	Yellow perch	Adult			1		1	0.064	1.00	5	43.20			43		43	2.765	
	25-Sep-05	Yellow perch	YOY(<150mm)			1		1	0.021	1.00	5	43.20			43		43	0.907	
40	25-Sep-05	Daily Total		0	55	1,647	0	1,702	7.023	1.00	5	43.20	0	2,376	71,150	0	73,526	303.394	
	26-Sep-05	Emerald shiner				11		12	0.013	1.00	5	43.20			475		43	518	0.562
	26-Sep-05	Freshwater drum	Adult			1		1	0.083	1.00	5	43.20			43		43	3.586	
	26-Sep-05	Freshwater drum	YOY(<200mm)			7		7	0.102	1.00	5	43.20			302		302	4.406	
	26-Sep-05	Gizzard shad	YOY(<200mm)			62	2	1	0.637	1.00	5	43.20			2,678	86	43	2,808	27.518
	26-Sep-05	Logperch				1		1	0.003	1.00	5	43.20			43		43	0.130	
	26-Sep-05	Spottail shiner				2		2	0.005	1.00	5	43.20			86		86	0.216	
	26-Sep-05	Walleye	YOY(<200mm)			1		1	0.053	1.00	5	43.20			43		43	2.290	
	26-Sep-05	White bass	YOY(<150mm)			6		6	0.042	1.00	5	43.20			259		259	1.814	
	26-Sep-05	White perch	YOY(<150mm)			69		72	0.304	1.00	5	43.20			2,981		130	3,110	13.133
41	26-Sep-05	Daily Total		0	160	2	5	167	1.242	1.00	5	43.20	0	6,912	86	216	7,214	53.654	
	6-Oct-05	Channel catfish	YOY(<150mm)	0	6	0	0	6	0.085	1.00	1	168.00	0	1,008	0	0	1,008	14.280	
	6-Oct-05	Emerald shiner		0	23	0	0	23	0.031	1.00	1	168.00	0	3,864	0	0	3,864	5.208	
	6-Oct-05	Freshwater drum	YOY(<200mm)	0	6	0	0	6	0.133	1.00	1	168.00	0	1,008	0	0	1,008	22.344	
	6-Oct-05	Logperch		0	36	2	0	38	0.128	1.00	1	168.00	0	6,048	336	0	6,384	21.504	
	6-Oct-05	Pumpkinseed		0	1	0	0	1	0.006	1.00	1	168.00	0	168	0	0	168	1.008	
	6-Oct-05	Smallmouth bass	YOY(<150mm)	0	7	0	0	7	0.107	1.00	1	168.00	0	1,176	0	0	1,176	17.976	
	6-Oct-05	Spottail shiner		0	2	0	0	2	0.010	1.00	1	168.00	0	336	0	0	336	1.680	
	6-Oct-05	White perch	YOY(<150mm)	0	17	1	0	18	0.107	1.00	1	168.00	0	2,856	168	0	3,024	17.976	
42	6-Oct-05	Daily Total		0	98	3	0	101	0.607	1.00	1	168.00	0	16,464	504	0	16,968	101.976	

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	7-Oct-05	Bluegill	YOY(<100mm)	0	0	1	0	1	0.001	1.00	5	33.60	0	0	34	0	34	0.034	
	7-Oct-05	Brook silverside		0	0	1	0	1	0.001	1.00	5	33.60	0	0	34	0	34	0.034	
	7-Oct-05	Channel catfish	YOY(<150mm)	0	9	7	0	16	0.108	1.00	5	33.60	0	302	235	0	538	3.629	
	7-Oct-05	Emerald shiner		0	0	1,996	1	1,997	2.208	1.00	5	33.60	0	0	67,066	34	67,099	74.189	
	7-Oct-05	Freshwater drum	YOY(<200mm)	0	2	18	0	20	0.544	1.00	5	33.60	0	67	605	0	672	18.278	
	7-Oct-05	Gizzard shad	YOY(<200mm)	0	0	219	0	219	1.334	1.00	5	33.60	0	0	7,358	0	7,358	44.822	
	7-Oct-05	Round goby		0	0	1	1	2	0.013	1.00	5	33.60	0	0	34	34	67	0.437	
	7-Oct-05	Spottail shiner		0	0	65	0	65	0.254	1.00	5	33.60	0	0	2,184	0	2,184	8.534	
	7-Oct-05	TROUT-perch		0	0	2	0	2	0.004	1.00	5	33.60	0	0	67	0	67	0.134	
	7-Oct-05	White bass	YOY(<150mm)	0	0	3	0	3	0.022	1.00	5	33.60	0	0	101	0	101	0.739	
	7-Oct-05	White perch	YOY(<150mm)	0	0	943	0	943	4.806	1.00	5	33.60	0	0	31,685	0	31,685	161.482	
43	7-Oct-05	Daily Total		0	11	3,256	2	3,269	9.295	1.00	5	33.60	0	370	109,402	67	109,838	312,312	
	9-Oct-05	Black bullhead		0	1	0	0	1	0.054	1.00	4	42.00	0	42	0	0	42	2.268	
	9-Oct-05	Channel catfish	YOY(<150mm)	0	22	1	0	23	0.213	1.00	4	42.00	0	924	42	0	966	8.946	
	9-Oct-05	Emerald shiner		0	2	1,001	5	1,008	1.312	1.00	4	42.00	0	84	42,042	210	42,336	55.104	
	9-Oct-05	Freshwater drum	Adult	0	2	20	1	23	0.572	1.00	4	42.00	0	84	840	42	966	24.024	
	9-Oct-05	Freshwater drum	YOY(<200mm)	0	3	5	0	8	0.199	1.00	4	42.00	0	126	210	0	336	8.358	
	9-Oct-05	Gizzard shad	YOY(<200mm)	0	5	331	0	336	2.158	1.00	4	42.00	0	210	13,902	0	14,112	90.636	
	9-Oct-05	Largemouth bass	YOY(<150mm)	0	1	0	0	1	0.008	1.00	4	42.00	0	42	0	0	42	0.336	
	9-Oct-05	Smallmouth bass	YOY(<150mm)	0	0	1	0	1	0.005	1.00	4	42.00	0	0	42	0	42	0.210	
	9-Oct-05	Spottail shiner		0	0	16	3	19	0.068	1.00	4	42.00	0	672	126	798	2,856		
	9-Oct-05	TROUT-perch		0	0	2	0	2	0.007	1.00	4	42.00	0	0	84	0	84	0.294	
	9-Oct-05	White bass	YOY(<150mm)	0	1	0	0	1	0.004	1.00	4	42.00	0	42	0	0	42	0.168	
	9-Oct-05	White perch	Adult	0	0	1	0	1	0.080	1.00	4	42.00	0	0	42	0	42	3.360	
	9-Oct-05	White perch	YOY(<150mm)	0	28	2,480	0	2,508	12.506	1.00	4	42.00	0	1,176	104,160	0	105,336	525,252	
	9-Oct-05	Yellow perch	Adult	0	0	1	0	1	0.136	1.00	4	42.00	0	0	42	0	42	5.712	
	9-Oct-05	Yellow perch	YOY(<150mm)	0	0	1	0	1	0.008	1.00	4	42.00	0	0	42	0	42	0.336	
44	9-Oct-05	Daily Total		0	65	3,860	9	3,934	17.330	1.00	4	42.00	0	2,730	162,120	378	165,228	727,860	
	10-Oct-05	Bluegill	YOY(<100mm)	0	3	0	0	3	0.006	1.00	6	28.00	0	84	0	0	84	0.168	
	10-Oct-05	Bluntnose minnow		0	1	0	0	1	0.002	1.00	6	28.00	0	28	0	0	28	0.056	
	10-Oct-05	Channel catfish	YOY(<150mm)	0	1	1	1	3	0.023	1.00	6	28.00	0	28	28	28	84	0.644	
	10-Oct-05	Emerald shiner		0	50	2	0	52	0.035	1.00	6	28.00	0	1,400	56	0	1,456	0.980	
	10-Oct-05	Freshwater drum	YOY(<200mm)	0	39	0	0	39	0.728	1.00	6	28.00	0	1,092	0	0	1,092	20.384	
	10-Oct-05	Gizzard shad	YOY(<200mm)	0	634	2	0	636	3.844	1.00	6	28.00	0	17,752	56	0	17,808	107.632	
	10-Oct-05	Logperch		0	1	0	0	1	0.008	1.00	6	28.00	0	28	0	0	28	0.224	
	10-Oct-05	Pumpkinseed		0	2	0	0	2	0.013	1.00	6	28.00	0	56	0	0	56	0.364	
	10-Oct-05	Quillback		0	1	0	0	1	0.002	1.00	6	28.00	0	28	0	0	28	0.056	
	10-Oct-05	Round goby		0	2	0	0	2	0.002	1.00	6	28.00	0	56	0	0	56	0.056	
	10-Oct-05	Smallmouth bass	YOY(<150mm)	0	1	0	0	1	0.015	1.00	6	28.00	0	28	0	0	28	0.420	
	10-Oct-05	Spottail shiner		0	14	0	0	14	0.045	1.00	6	28.00	0	392	0	0	392	1.260	
	10-Oct-05	White bass	YOY(<150mm)	0	4	0	0	4	0.045	1.00	6	28.00	0	112	0	0	112	1.260	
	10-Oct-05	White perch	YOY(<150mm)	0	388	0	0	388	2.056	1.00	6	28.00	0	10,864	0	0	10,864	57,568	
	10-Oct-05	Yellow perch	Adult	0	1	0	0	1	0.144	1.00	6	28.00	0	28	0	0	28	4.032	
	10-Oct-05	Yellow perch	YOY(<150mm)	0	1	0	0	1	0.003	1.00	6	28.00	0	28	0	0	28	0.084	
45	10-Oct-05	Daily Total		0	1,143	5	1	1,149	6.971	1.00	6	28.00	0	32,004	140	28	32,172	195.188	

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	16-Oct-05	Bluegill	YOY(<100mm)	0	3	6	0	9	0.010	1.00	5	33.60	0	101	202	0	302	0.336	
	16-Oct-05	Emerald shiner		0	2	28	0	30	0.027	1.00	5	33.60	0	67	941	0	1,008	0.907	
	16-Oct-05	Freshwater drum	YOY(<200mm)	0	7	6	0	13	0.322	1.00	5	33.60	0	235	202	0	437	10.819	
	16-Oct-05	Gizzard shad	YOY(<200mm)	0	227	228	0	455	5.044	1.00	5	33.60	0	7,627	7,661	0	15,288	169.478	
	16-Oct-05	Pumpkinseed		0	1	0	0	1	0.060	1.00	5	33.60	0	34	0	0	34	2.016	
	16-Oct-05	Spottail shiner		0	1	0	0	1	0.002	1.00	5	33.60	0	34	0	0	34	0.067	
	16-Oct-05	Trout-perch		0	0	1	0	1	0.002	1.00	5	33.60	0	0	34	0	34	0.067	
	16-Oct-05	White bass	Adult	0	3	1	0	4	0.214	1.00	5	33.60	0	101	34	0	134	7.190	
	16-Oct-05	White bass	YOY(<150mm)	0	3	0	0	3	0.044	1.00	5	33.60	0	101	0	0	101	1.478	
	16-Oct-05	White perch	YOY(<150mm)	0	624	329	0	953	5.815	1.00	5	33.60	0	20,966	11,054	0	32,021	195.384	
46	16-Oct-05	Daily Total		0	871	599	0	1,470	11.540	1.00	5	33.60	0	29,266	20,126	0	49,392	387.744	
	22-Oct-05	Bluegill	YOY(<100mm)	0	1	0	0	1	0.001	1.00	5	33.60	0	34	0	0	34	0.034	
	22-Oct-05	Brook silverside		0	1	0	0	1	0.001	1.00	5	33.60	0	34	0	0	34	0.034	
	22-Oct-05	Channel catfish	YOY(<150mm)	0	24	0	0	24	0.344	1.00	5	33.60	0	806	0	0	806	11.558	
	22-Oct-05	Emerald shiner		0	2,072	0	0	2,072	2.480	1.00	5	33.60	0	69,619	0	0	69,619	83.328	
	22-Oct-05	Freshwater drum	Adult	0	6	0	0	6	0.245	1.00	5	33.60	0	202	0	0	202	8.232	
	22-Oct-05	Freshwater drum	YOY(<200mm)	0	5	0	0	5	0.115	1.00	5	33.60	0	168	0	0	168	3.864	
	22-Oct-05	Gizzard shad	YOY(<200mm)	0	2,056	0	0	2,056	36.904	1.00	5	33.60	0	69,082	0	0	69,082	1,239.974	
	22-Oct-05	Round goby		0	1	0	0	1	0.001	1.00	5	33.60	0	34	0	0	34	0.034	
	22-Oct-05	Spottail shiner		0	2	0	0	2	0.010	1.00	5	33.60	0	67	0	0	67	0.336	
	22-Oct-05	Trout-perch		0	1	0	0	1	0.013	1.00	5	33.60	0	34	0	0	34	0.437	
	22-Oct-05	Walleye	Adult	0	1	0	0	1	0.731	1.00	5	33.60	0	34	0	0	34	24.562	
	22-Oct-05	White bass	YOY(<150mm)	0	5	0	0	5	0.055	1.00	5	33.60	0	168	0	0	168	1.848	
	22-Oct-05	White perch	Adult	0	8	0	0	8	0.720	1.00	5	33.60	0	269	0	0	269	24.192	
	22-Oct-05	White perch	YOY(<150mm)	0	1,400	0	0	1,400	10.720	1.00	5	33.60	0	47,040	0	0	47,040	360.192	
47	22-Oct-05	Daily Total		0	5,583	0	0	5,583	52.340	1.00	5	33.60	0	187,589	0	0	187,589	1,758.624	
	27-Oct-05	Bluegill	YOY(<100mm)	0	12	0	0	12	0.021	1.00	4	42.00	0	504	0	0	504	0.882	
	27-Oct-05	Channel catfish	YOY(<150mm)	0	1	1	0	2	0.003	1.00	4	42.00	0	42	42	0	84	0.126	
	27-Oct-05	Emerald shiner		0	205	1	2	208	0.292	1.00	4	42.00	0	8,610	42	84	8,736	12,264	
	27-Oct-05	Freshwater drum	YOY(<200mm)	0	6	1	0	7	0.144	1.00	4	42.00	0	252	42	0	294	6.048	
	27-Oct-05	Gizzard shad	YOY(<200mm)	0	407	0	0	407	3.423	1.00	4	42.00	0	17,094	0	0	17,094	143.766	
	27-Oct-05	Smallmouth bass	YOY(<150mm)	0	3	0	0	3	0.044	1.00	4	42.00	0	126	0	0	126	1.848	
	27-Oct-05	Spottail shiner		0	9	0	0	9	0.037	1.00	4	42.00	0	378	0	0	378	1.554	
	27-Oct-05	Trout-perch		0	3	0	0	3	0.009	1.00	4	42.00	0	126	0	0	126	0.378	
	27-Oct-05	White bass	Adult	0	1	0	0	1	0.142	1.00	4	42.00	0	42	0	0	42	5.964	
	27-Oct-05	White bass	YOY(<150mm)	0	1	0	0	1	0.008	1.00	4	42.00	0	42	0	0	42	0.336	
	27-Oct-05	White perch	YOY(<150mm)	0	885	0	0	885	5.029	1.00	4	42.00	0	37,170	0	0	37,170	211.218	
48	27-Oct-05	Daily Total		0	1,533	3	2	1,538	9.152	1.00	4	42.00	0	64,386	126	84	64,596	384.384	

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	28-Oct-05	Brown bullhead		0	2	0	0	2	0.067	1.00	5	33.60	0	67	0	0	67	2.251	
	28-Oct-05	Channel catfish	YOY(<150mm)	0	18	0	0	18	0.276	1.00	5	33.60	0	605	0	0	605	9,274	
	28-Oct-05	Emerald shiner		0	0	2,072	0	2,072	4.132	1.00	5	33.60	0	0	69,619	0	0	69,619	138.835
	28-Oct-05	Freshwater drum	YOY(<200mm)	0	0	48	0	48	1.664	1.00	5	33.60	0	0	1,613	0	0	1,613	55.910
	28-Oct-05	Gizzard shad	Adult	0	0	4	0	4	0.744	1.00	5	33.60	0	0	134	0	0	134	24.998
	28-Oct-05	Gizzard shad	YOY(<200mm)	0	0	912	0	912	10.232	1.00	5	33.60	0	0	30,643	0	0	30,643	343.795
	28-Oct-05	Smallmouth bass	YOY(<150mm)	0	1	0	0	1	0.006	1.00	5	33.60	0	34	0	0	34	0.202	
	28-Oct-05	Trout-perch		0	1	0	0	1	0.004	1.00	5	33.60	0	34	0	0	34	0.134	
	28-Oct-05	Walleye	Adult	0	1	0	0	1	1.423	1.00	5	33.60	0	34	0	0	34	47.813	
	28-Oct-05	Walleye	YOY(<200mm)	0	1	0	0	1	0.107	1.00	5	33.60	0	34	0	0	34	3.595	
	28-Oct-05	White bass	YOY(<150mm)	0	4	0	0	4	0.096	1.00	5	33.60	0	134	0	0	134	3.226	
	28-Oct-05	White perch	YOY(<150mm)	0	0	856	0	856	8.772	1.00	5	33.60	0	0	28,762	0	0	28,762	294.739
	28-Oct-05	White sucker		0	2	0	0	2	0.071	1.00	5	33.60	0	67	0	0	67	2.386	
49	28-Oct-05	Daily Total		0	30	3,892	0	3,922	27.594	1.00	5	33.60	0	1,008	130,771	0	131,779	927.158	
	30-Oct-05	Emerald shiner		0	8	51	0	59	0.086	0.07	5	501.49	0	4,012	25,576	0	29,588	43.128	
	30-Oct-05	Gizzard shad	YOY(<200mm)	0	628	2,788	0	3,416	33.524	0.07	5	501.49	0	314,937	1,398,161	0	1,713,099	16,812,036	
	30-Oct-05	Round goby		0	0	1	0	1	0.004	0.07	5	501.49	0	0	501	0	501	2,006	
	30-Oct-05	White perch	YOY(<150mm)	0	4	14	0	18	0.084	0.07	5	501.49	0	2,006	7,021	0	9,027	42.125	
50	30-Oct-05	Daily Total		0	640	2,854	0	3,494	33.698	0.07	5	501.50	0	320,955	1,431,260	0	1,752,215	16,899,296	
	31-Oct-05	Bluegill	YOY(<100mm)	0	1	0	0	1	0.002	0.07	5	473.24	0	473	0	0	473	0.946	
	31-Oct-05	Central stoneroller		0	1	0	0	1	0.020	0.07	5	473.24	0	473	0	0	473	9.465	
	31-Oct-05	Emerald shiner		0	2	0	0	2	0.003	0.07	5	473.24	0	946	0	0	946	1.420	
	31-Oct-05	Gizzard shad	YOY(<200mm)	0	475	189	0	664	6.800	0.07	5	473.24	0	224,789	89,442	0	314,231	3,218,028	
	31-Oct-05	Spottail shiner		0	1	0	0	1	0.006	0.07	5	473.24	0	473	0	0	473	2.839	
	31-Oct-05	White bass	YOY(<150mm)	0	1	0	0	1	0.014	0.07	5	473.24	0	473	0	0	473	6.625	
	31-Oct-05	White perch	YOY(<150mm)	0	271	39	0	310	1.718	0.07	5	473.24	0	128,248	18,456	0	146,704	813.025	
51	31-Oct-05	Daily Total		0	752	228	0	980	8.563	0.07	5	473.20	0	355,876	107,899	0	463,775	4,052,349	
	6-Nov-05	Bluegill	YOY(<100mm)	0	7	1	0	8	0.007	0.17	5	201.20	0	1,408	201	0	1,610	1,408	
	6-Nov-05	Emerald shiner		0	431	0	0	431	0.886	0.17	5	201.20	0	86,716	0	0	86,716	178,261	
	6-Nov-05	Freshwater drum	Adult	0	1	0	0	1	0.372	0.17	5	201.20	0	201	0	0	201	74.846	
	6-Nov-05	Freshwater drum	YOY(<200mm)	0	2	1	0	3	0.088	0.17	5	201.20	0	402	201	0	604	17,705	
	6-Nov-05	Gizzard shad	Adult	0	1	0	0	1	0.066	0.17	5	201.20	0	201	0	0	201	13,279	
	6-Nov-05	Gizzard shad	YOY(<200mm)	0	105	0	0	105	1.036	0.17	5	201.20	0	21,126	0	0	21,126	208,441	
	6-Nov-05	Goldfish		0	1	0	0	1	0.014	0.17	5	201.20	0	201	0	0	201	2.817	
	6-Nov-05	Rainbow smelt		0	3	0	0	3	0.003	0.17	5	201.20	0	604	0	0	604	0.604	
	6-Nov-05	Spottail shiner		0	1	0	0	1	0.002	0.17	5	201.20	0	201	0	0	201	0.402	
	6-Nov-05	White perch	YOY(<150mm)	0	250	0	0	250	1.570	0.17	5	201.20	0	50,299	0	0	50,299	315.880	
52	6-Nov-05	Daily Total		0	802	2	0	804	4.044	0.17	5	201.20	0	161,360	402	0	161,763	813.643	
	7-Nov-05	Channel catfish	YOY(<150mm)	0	2	0	0	2	0.013	0.07	5	501.49	0	1,003	0	0	1,003	6.519	
	7-Nov-05	Emerald shiner		0	1,102	102	0	1,204	2.287	0.07	5	501.49	0	552,645	51,152	0	603,797	1,146,913	
	7-Nov-05	Freshwater drum	YOY(<200mm)	0	0	3	0	3	0.022	0.07	5	501.49	0	0	1,504	0	1,504	11,033	
	7-Nov-05	Gizzard shad	YOY(<200mm)	0	98	10	0	108	1.175	0.07	5	501.49	0	49,146	5,015	0	54,161	589,254	
	7-Nov-05	Trout-perch		0	0	1	0	1	0.002	0.07	5	501.49	0	0	501	0	501	1,003	
	7-Nov-05	White bass	YOY(<150mm)	0	1	0	0	1	0.017	0.07	5	501.49	0	501	0	0	501	8,525	
	7-Nov-05	White perch	Adult	0	2	0	0	2	0.238	0.07	5	501.49	0	1,003	0	0	1,003	119.355	
	7-Nov-05	White perch	YOY(<150mm)	0	199	20	0	219	1.369	0.07	5	501.49	0	99,797	10,030	0	109,827	686,543	
53	7-Nov-05	Daily Total		0	1,404	136	0	1,540	5.123	0.07	5	501.50	0	704,096	68,203	0	772,299	2,569,146	

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**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	17-Nov-05	Bluegill	YOY(<100mm)	0	0	2	0	2	0.004	0.50	5	67.20	0	0	134	0	134	0.269	
	17-Nov-05	Brook silverside		0	0	4	0	4	0.004	0.50	5	67.20	0	0	269	0	269	0.269	
	17-Nov-05	Emerald shiner		0	7	54	1	62	0.087	0.50	5	67.20	0	470	3,629	67	4,166	5.846	
	17-Nov-05	Freshwater drum	Adult	0	0	1	0	1	0.306	0.50	5	67.20	0	0	67	0	67	20.563	
	17-Nov-05	Gizzard shad	Adult	0	1	0	0	1	0.448	0.50	5	67.20	0	67	0	0	67	30.106	
	17-Nov-05	Gizzard shad	YOY(<200mm)	0	50	162	0	212	2.368	0.50	5	67.20	0	3,360	10,886	0	14,246	159.130	
	17-Nov-05	Green sunfish		0	2	0	0	2	0.020	0.50	5	67.20	0	134	0	0	134	1.344	
	17-Nov-05	Northern redfin shiner		0	1	0	0	1	0.001	0.50	5	67.20	0	67	0	0	67	0.067	
	17-Nov-05	Rainbow smelt		0	0	1	0	1	0.001	0.50	5	67.20	0	0	67	0	67	0.067	
	17-Nov-05	Spottail shiner		0	1	2	0	3	0.025	0.50	5	67.20	0	67	134	0	202	1.680	
	17-Nov-05	Tadpole madtom		0	1	0	0	1	0.003	0.50	5	67.20	0	67	0	0	67	0.202	
	17-Nov-05	Walleye	Adult	0	2	0	0	2	2.004	0.50	5	67.20	0	134	0	0	134	134.669	
	17-Nov-05	White bass	Adult	0	1	0	0	1	0.263	0.50	5	67.20	0	67	0	0	67	17.674	
	17-Nov-05	White crappie	YOY(<150mm)	0	0	1	0	1	0.002	0.50	5	67.20	0	0	67	0	67	0.134	
	17-Nov-05	White perch	YOY(<150mm)	0	181	186	0	367	2.394	0.50	5	67.20	0	12,163	12,499	0	24,662	160.877	
	17-Nov-05	Yellow perch	YOY(<150mm)	0	0	1	0	1	0.005	0.50	5	67.20	0	67	0	0	67	0.336	
54	17-Nov-05	Daily Total		0	247	414	1	662	7.935	0.50	5	67.20	0	16,598	27,821	67	44,486	533.232	
	18-Nov-05	Channel catfish	YOY(<150mm)	0	2	0	0	2	0.022	0.33	5	101.82	0	204	0	0	204	2.240	
	18-Nov-05	Emerald shiner		0	3,280	1,347	0	4,627	11.118	0.33	5	101.82	0	333,964	137,149	0	471,113	1,132,015	
	18-Nov-05	Freshwater drum	YOY(<200mm)	0	0	1	0	1	0.004	0.33	5	101.82	0	0	102	0	102	0.407	
	18-Nov-05	Gizzard shad	Adult	0	2	0	0	2	0.184	0.33	5	101.82	0	204	0	0	204	18.735	
	18-Nov-05	Gizzard shad	YOY(<200mm)	0	64	137	0	201	1.416	0.33	5	101.82	0	6,516	13,949	0	20,465	144.175	
	18-Nov-05	Goldfish		0	0	1	0	1	0.018	0.33	5	101.82	0	0	102	0	102	1.833	
	18-Nov-05	Northern pike		0	1	0	0	1	0.624	0.33	5	101.82	0	102	0	0	102	63.535	
	18-Nov-05	Round goby		0	0	1	0	1	0.004	0.33	5	101.82	0	0	102	0	102	0.407	
	18-Nov-05	Trout-perch		0	1	0	0	1	0.004	0.33	5	101.82	0	102	0	0	102	0.407	
	18-Nov-05	Walleye	Adult	0	2	0	0	2	1.254	0.33	5	101.82	0	204	0	0	204	127.680	
	18-Nov-05	Walleye	YOY(<200mm)	0	1	0	0	1	0.050	0.33	5	101.82	0	102	0	0	102	5.091	
	18-Nov-05	White bass	Adult	0	1	0	0	1	0.312	0.33	5	101.82	0	102	0	0	102	31.767	
	18-Nov-05	White perch	YOY(<150mm)	0	344	254	8	606	3.836	0.33	5	101.82	0	35,025	25,862	815	61,702	390.575	
55	18-Nov-05	Daily Total		0	3,698	1,741	8	5,447	18.846	0.33	5	101.80	0	376,524	177,265	815	554,604	1,918,865	
	23-Nov-05	Channel catfish	YOY(<150mm)	0	1	0	0	1	0.010	0.20	4	210.00	0	210	0	0	210	2.100	
	23-Nov-05	Emerald shiner		0	228	106	67	401	0.844	0.20	4	210.00	0	47,880	22,260	14,070	84,210	177,240	
	23-Nov-05	Freshwater drum	YOY(<200mm)	0	1	0	0	1	0.012	0.20	4	210.00	0	210	0	0	210	2.520	
	23-Nov-05	Gizzard shad	Adult	0	1	0	0	1	0.082	0.20	4	210.00	0	210	0	0	210	17.220	
	23-Nov-05	Gizzard shad	YOY(<200mm)	0	319	35	0	354	3.575	0.20	4	210.00	0	66,990	7,350	0	74,340	750.750	
	23-Nov-05	Largemouth bass	YOY(<150mm)	0	2	0	0	2	0.054	0.20	4	210.00	0	420	0	0	420	11.340	
	23-Nov-05	Largemouth bass		0	1	0	0	1	0.161	0.20	4	210.00	0	210	0	0	210	33.810	
	23-Nov-05	Logperch		0	1	0	0	1	0.001	0.20	4	210.00	0	210	0	0	210	0.210	
	23-Nov-05	Spottail shiner		0	2	0	0	2	0.010	0.20	4	210.00	0	420	0	0	420	2.100	
	23-Nov-05	White perch	YOY(<150mm)	0	584	0	0	584	3.920	0.20	4	210.00	0	122,640	0	0	122,640	823.200	
56	23-Nov-05	Daily Total		0	1,140	141	67	1,348	8.669	0.20	4	210.00	0	239,400	29,610	14,070	283,080	1,820,490	
	25-Nov-05	Emerald shiner		0	81	812	0	893	1.908	0.53	4	79.25	0	6,419	64,347	0	70,766	151,200	
	25-Nov-05	Gizzard shad	Adult	0	11	6	0	17	1.626	0.53	4	79.25	0	872	475	0	1,347	128,853	
	25-Nov-05	Gizzard shad	YOY(<200mm)	0	284	780	0	1,064	14.115	0.53	4	79.25	0	22,506	61,811	0	84,317	1,118,547	
	25-Nov-05	Rainbow smelt		0	0	4	0	4	0.002	0.53	4	79.25	0	0	317	0	317	0.158	
	25-Nov-05	Walleye	Adult	0	1	0	0	1	0.740	0.53	4	79.25	0	79	0	0	79	58.642	
	25-Nov-05	White bass	Adult	0	1	0	0	1	0.804	0.53	4	79.25	0	79	0	0	79	63.713	
	25-Nov-05	White perch	Adult	0	2	1	0	3	0.148	0.53	4	79.25	0	158	79	0	238	11.728	
	25-Nov-05	Yellow perch	YOY(<150mm)	0	177	541	0	718	4.998	0.53	4	79.25	0	14,026	42,872	0	56,898	396,068	
57	25-Nov-05	Daily Total		0	557	2,144	0	2,701	24.341	0.53	4	79.20	0	44,140	169,902	0	214,042	1,928,909	

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**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	27-Nov-05	Emerald shiner		0	0	1,328	0	1,328	3.062	0.91	4	46.15	0	0	61,292	0	61,292	141,323	
	27-Nov-05	Freshwater drum	Adult	0	0	2	0	2	0.216	0.91	4	46.15	0	0	92	0	92	9,969	
	27-Nov-05	Freshwater drum	YOY(<200mm)	0	0	1	0	1	0.017	0.91	4	46.15	0	0	46	0	46	0.785	
	27-Nov-05	Gizzard shad	Adult	0	0	4	0	4	0.328	0.91	4	46.15	0	0	185	0	185	15.138	
	27-Nov-05	Gizzard shad	YOY(<200mm)	0	45	1,175	0	1,220	12.318	0.91	4	46.15	0	2,077	54,231	0	56,308	568,523	
	27-Nov-05	Rainbow smelt		0	0	11	0	11	0.011	0.91	4	46.15	0	0	508	0	508	0.508	
	27-Nov-05	White perch	YOY(<150mm)	0	18	418	0	436	2.594	0.91	4	46.15	0	831	19,292	0	20,123	119,723	
58	27-Nov-05	Daily Total		0	63	2,939	0	3,002	18.546	0.91	4	46.20	0	2,908	135,646	0	138,554	855,969	
	28-Nov-05	Emerald shiner		0	686	210	0	896	1.910	0.38	4	110.53	0	75,821	23,211	0	99,032	211,105	
	28-Nov-05	Gizzard shad	Adult	0	4	0	0	4	0.320	0.38	4	110.53	0	442	0	0	442	35,368	
	28-Nov-05	Gizzard shad	YOY(<200mm)	0	445	101	0	546	5.710	0.38	4	110.53	0	49,184	11,163	0	60,347	631,105	
	28-Nov-05	Rainbow smelt		0	0	8	0	8	0.003	0.38	4	110.53	0	0	884	0	884	0.332	
	28-Nov-05	White perch	YOY(<150mm)	0	164	21	0	185	1.104	0.38	4	110.53	0	18,126	2,321	0	20,447	122,021	
59	28-Nov-05	Daily Total		0	1,299	340	0	1,639	9.047	0.38	4	110.50	0	143,574	37,579	0	181,153	999,932	
	4-Dec-05	Bluegill	YOY(<100mm)	0	0	1	0	1	0.001	0.88	3	63.64	0	0	64	0	64	0.064	
	4-Dec-05	Brook silverside		0	0	1	0	1	0.002	0.88	3	63.64	0	0	64	0	64	0.127	
	4-Dec-05	Emerald shiner		0	0	7,596	0	7,596	13.592	0.88	3	63.64	0	0	483,382	0	483,382	864,945	
	4-Dec-05	Gizzard shad	Adult	0	0	8	0	8	0.888	0.88	3	63.64	0	0	509	0	509	56,509	
	4-Dec-05	Gizzard shad	YOY(<200mm)	0	0	588	0	588	6.312	0.88	3	63.64	0	0	37,418	0	37,418	401,673	
	4-Dec-05	Round goby		0	0	1	0	1	0.006	0.88	3	63.64	0	0	64	0	64	0.382	
	4-Dec-05	Spottail shiner		0	0	8	0	8	0.060	0.88	3	63.64	0	0	509	0	509	3,818	
	4-Dec-05	White perch	YOY(<150mm)	0	0	296	0	296	1.696	0.88	3	63.64	0	0	18,836	0	18,836	107,927	
	4-Dec-05	Yellow perch	YOY(<150mm)	0	0	1	0	1	0.018	0.88	3	63.64	0	0	64	0	64	1.145	
60	4-Dec-05	Daily Total		0	0	8,500	0	8,500	22.575	0.88	3	63.60	0	0	540,909	0	540,909	1,436,591	
	5-Dec-05	Brook silverside		0	0	1	0	1	0.002	0.67	4	62.69	0	0	63	0	63	0.125	
	5-Dec-05	Channel catfish	YOY(<150mm)	0	1	0	0	1	0.024	0.67	4	62.69	0	0	63	0	63	1.504	
	5-Dec-05	Emerald shiner		0	67	476	0	543	1.150	0.67	4	62.69	0	4,200	29,839	0	34,039	72,090	
	5-Dec-05	Freshwater drum	Adult	0	0	1	0	1	0.134	0.67	4	62.69	0	0	63	0	63	8,400	
	5-Dec-05	Gizzard shad	Adult	0	4	1	0	5	0.492	0.67	4	62.69	0	251	63	0	313	30,842	
	5-Dec-05	Gizzard shad	YOY(<200mm)	0	48	262	0	310	3.235	0.67	4	62.69	0	3,009	16,424	0	19,433	202,791	
	5-Dec-05	Spottail shiner		0	0	8	0	8	0.049	0.67	4	62.69	0	0	501	0	501	3,072	
	5-Dec-05	White crappie	YOY(<150mm)	0	1	0	0	1	0.032	0.67	4	62.69	0	63	0	0	63	2,006	
	5-Dec-05	White perch	YOY(<150mm)	0	63	188	0	251	1.478	0.67	4	62.69	0	3,949	11,785	0	15,734	92,651	
	5-Dec-05	Yellow perch	Adult	0	1	0	0	1	0.154	0.67	4	62.69	0	63	0	0	63	9,654	
61	5-Dec-05	Daily Total		0	185	937	0	1,122	6.750	0.67	4	62.70	0	11,597	58,737	0	70,334	423,134	
	21-Dec-05	Emerald shiner		0	0	94	1	95	0.248	0.20	4	210.00	0	0	19,740	210	19,950	52,080	
	21-Dec-05	Gizzard shad	Adult	0	1	3	0	4	0.296	0.20	4	210.00	0	210	630	0	840	62,160	
	21-Dec-05	Gizzard shad	YOY(<200mm)	0	0	2,889	0	2,889	36.146	0.20	4	210.00	0	0	606,690	0	606,690	7,590,660	
	21-Dec-05	Rainbow smelt		0	0	6	0	6	0.006	0.20	4	210.00	0	0	1,260	0	1,260	1,260	
	21-Dec-05	White perch	YOY(<150mm)	0	1	23	0	24	0.148	0.20	4	210.00	0	210	4,830	0	5,040	31,080	
62	21-Dec-05	Daily Total		0	2	3,015	1	3,018	36.844	0.20	4	210.00	0	420	633,150	210	633,780	7,737,240	
	5-Jan-06	Bluegill	Adult	0	0	2	0	2	0.002	1.00	3	56.00	0	0	112	0	112	0.112	
	5-Jan-06	Brook silverside		0	0	1	0	1	0.001	1.00	3	56.00	0	0	56	0	56	0.056	
	5-Jan-06	Brown bullhead		0	1	0	0	1	0.024	1.00	3	56.00	0	56	0	0	56	1,344	
	5-Jan-06	Emerald shiner		0	39	2,518	42	2,599	6.910	1.00	3	56.00	0	2,184	141,008	2,352	145,544	386,960	
	5-Jan-06	Gizzard shad	Adult	0	354	221	14	589	10.837	1.00	3	56.00	0	19,824	12,376	784	32,984	606,872	
	5-Jan-06	Spottail shiner		0	0	1	0	1	0.006	1.00	3	56.00	0	0	56	0	56	0.336	
	5-Jan-06	White crappie	Adult	0	0	1	0	1	0.002	1.00	3	56.00	0	0	56	0	56	0.112	
	5-Jan-06	White perch	Adult	0	0	12	0	12	0.068	1.00	3	56.00	0	0	672	0	672	3,808	
	5-Jan-06	Yellow perch	Adult	0	2	0	0	2	0.014	1.00	3	56.00	0	112	0	0	112	0.784	
63	5-Jan-06	Daily Total		0	396	2,756	56	3,208	17.864	1.00	3	56.00	0	22,176	154,336	3,136	179,648	1,000,384	

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	11-Jan-06	Brook silverside		0	0	1	0	1	0.002	1.00	4	42.00	0	0	42	0	42	0.084	
	11-Jan-06	Emerald shiner		0	0	1,041	0	1,041	2.436	1.00	4	42.00	0	0	43,722	0	43,722	102,312	
	11-Jan-06	Freshwater drum	Adult	0	0	1	0	1	0.348	1.00	4	42.00	0	0	42	0	42	14.616	
	11-Jan-06	Gizzard shad	Adult	0	67	509	13	589	12.594	1.00	4	42.00	0	2,814	21,378	546	24,738	528,948	
	11-Jan-06	Goldfish		0	1	0	0	1	0.012	1.00	4	42.00	0	42	0	0	42	0.504	
	11-Jan-06	Round goby		1	0	0	0	1	0.001	1.00	4	42.00	42	0	0	0	42	0.042	
	11-Jan-06	Smallmouth bass	Adult	1	0	0	0	1	0.880	1.00	4	42.00	42	0	0	0	42	36.960	
	11-Jan-06	Trout-perch		0	0	1	0	1	0.006	1.00	4	42.00	0	42	0	0	42	0.252	
	11-Jan-06	White perch	Adult	0	0	3	7	0	0.062	1.00	4	42.00	0	126	294	0	420	2.604	
64	11-Jan-06	Daily Total		2	71	1,560	13	1,646	16.341	1.00	4	42.00	84	2,982	65,520	546	69,132	686,322	
	17-Jan-06	Emerald shiner		13	36	1,523	0	1,572	2.645	0.67	4	62.69	815	2,257	95,472	0	98,543	165,806	
	17-Jan-06	Gizzard shad	Adult	0	35	662	0	697	15.697	0.67	4	62.69	0	2,194	41,499	0	43,693	983,991	
	17-Jan-06	Spottail shiner		0	0	3	0	3	0.015	0.67	4	62.69	0	0	188	0	188	0.940	
	17-Jan-06	White bass	Adult	0	1	0	0	1	0.316	0.67	4	62.69	0	63	0	0	63	19,809	
	17-Jan-06	White perch	Adult	0	2	13	0	15	0.091	0.67	4	62.69	0	125	815	0	940	5,704	
65	17-Jan-06	Daily Total		13	74	2,201	0	2,288	18.764	0.67	4	815	4,639	137,973	0	143,427	1,176,251		
	27-Jan-06	Emerald shiner		0	14	106	4	124	0.270	1.00	3	56.00	0	784	5,936	224	6,944	15,120	
	27-Jan-06	Freshwater drum	Adult	0	1	0	0	1	0.366	1.00	3	56.00	0	56	0	0	56	20,496	
	27-Jan-06	Gizzard shad	Adult	0	36	93	0	129	1.849	1.00	3	56.00	0	2,016	5,208	0	7,224	103,544	
	27-Jan-06	Goldfish		0	1	0	0	1	0.007	1.00	3	56.00	0	56	0	0	56	0.392	
	27-Jan-06	White perch	Adult	0	2	1	0	3	0.016	1.00	3	56.00	0	112	56	0	168	0.896	
66	27-Jan-06	Daily Total		0	54	200	4	258	2.508	1.00	3	56.00	0	3,024	11,200	224	14,448	140,448	
	1-Feb-06	Brown bullhead		0	1	0	0	1	0.011	1.00	4	42.00	0	42	0	0	42	0.462	
	1-Feb-06	Channel catfish	Adult	0	1	0	0	1	0.005	1.00	4	42.00	0	42	0	0	42	0.210	
	1-Feb-06	Emerald shiner		0	35	881	0	916	2.017	1.00	4	42.00	0	1,470	37,002	0	38,472	84,714	
	1-Feb-06	Freshwater drum	Adult	0	1	1	0	2	0.223	1.00	4	42.00	0	42	42	0	84	9,366	
	1-Feb-06	Gizzard shad	Adult	0	3	198	0	201	2.285	1.00	4	42.00	0	126	8,316	0	8,442	95,970	
	1-Feb-06	Logperch		0	0	1	0	1	0.001	1.00	4	42.00	0	0	42	0	42	0.042	
	1-Feb-06	Quillback		0	0	1	0	1	0.007	1.00	4	42.00	0	0	42	0	42	0.294	
	1-Feb-06	White perch	Adult	0	3	8	0	11	0.056	1.00	4	42.00	0	126	336	0	462	2,352	
67	1-Feb-06	Daily Total		0	44	1,090	0	1,134	4.605	1.00	4	42.00	0	1,848	45,780	0	47,628	193,410	
	10-Feb-06	Black bullhead		0	1	0	0	1	0.020	0.92	5	36.52	0	37	0	0	37	0.730	
	10-Feb-06	Brook silverside		0	2	0	0	2	0.002	0.92	5	36.52	0	73	0	0	73	0.073	
	10-Feb-06	Brown bullhead		0	1	0	0	1	0.025	0.92	5	36.52	0	37	0	0	37	0.913	
	10-Feb-06	Emerald shiner		0	7	138	0	145	0.316	0.92	5	36.52	0	256	5,040	0	5,296	11,541	
	10-Feb-06	Gizzard shad	Adult	0	2	129	6	137	1.323	0.92	5	36.52	0	73	4,711	219	5,003	48,318	
	10-Feb-06	Smallmouth bass	Adult	0	1	0	0	1	0.012	0.92	5	36.52	0	37	0	0	37	0.438	
	10-Feb-06	White perch	Adult	0	2	0	0	2	0.016	0.92	5	36.52	0	73	0	0	73	0.584	
68	10-Feb-06	Daily Total		0	16	267	6	289	1.714	0.92	5	36.50	0	584	9,751	219	10,555	62,598	
	14-Feb-06	Emerald shiner		51	131	2,158	0	2,340	4.416	0.67	5	50.15	2,558	6,570	108,222	0	117,349	221,459	
	14-Feb-06	Gizzard shad	Adult	0	67	279	0	346	6.440	0.67	5	50.15	0	3,360	13,992	0	17,352	322,961	
	14-Feb-06	Rainbow smelt		0	0	1	0	1	0.001	0.67	5	50.15	0	0	50	0	50	0.050	
	14-Feb-06	Spottail shiner		0	2	0	0	2	0.028	0.67	5	50.15	0	100	0	0	100	1,404	
	14-Feb-06	White perch	Adult	1	1	1	0	3	0.020	0.67	5	50.15	50	50	50	0	150	1,003	
69	14-Feb-06	Daily Total		52	201	2,439	0	2,692	10.905	0.67	5	50.10	2,608	10,080	122,314	0	135,002	546,878	
	24-Feb-06	Channel catfish	Adult	0	0	2	0	2	0.292	0.95	5	35.37	0	0	71	0	71	10,328	
	24-Feb-06	Emerald shiner		0	0	1,958	0	1,958	1.773	0.95	5	35.37	0	0	69,251	0	69,251	62,708	
	24-Feb-06	Freshwater drum	Adult	0	0	1	0	1	0.099	0.95	5	35.37	0	0	35	0	35	3,501	
	24-Feb-06	Gizzard shad	Adult	0	0	392	0	392	4.800	0.95	5	35.37	0	0	13,864	0	13,864	169,768	
	24-Feb-06	Silver chub		0	0	1	0	1	0.033	0.95	5	35.37	0	0	35	0	35	1,167	
	24-Feb-06	White perch	Adult	0	0	1	0	1	0.005	0.95	5	35.37	0	0	35	0	35	0.177	
70	24-Feb-06	Daily Total		0	0	2,355	0	2,355	7.002	0.95	5	35.40	0	0	83,293	0	83,293	247,650	

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	1-Mar-06	Emerald shiner		0	0	4,562	0	4,562	10.376	0.92	2	91.30	0	0	416,530	0	416,530	947.374	
	1-Mar-06	Gizzard shad	Adult	0	0	684	0	684	10.870	0.92	2	91.30	0	0	62,452	0	62,452	992.478	
	1-Mar-06	White perch	Adult	0	0	3	0	3	0.018	0.92	2	91.30	0	0	274	0	274	1.643	
71	1-Mar-06	Daily Total		0	0	5,249	0	5,249	21.264	0.92	2	91.30	0	0	479,257	0	479,257	1,941.496	
	7-Mar-06	Emerald shiner		0	2	437	0	439	0.784	1.00	5	33.60	0	67	14,683	0	14,750	26,342	
	7-Mar-06	Freshwater drum	Adult	0	0	1	0	1	0.016	1.00	5	33.60	0	0	34	0	34	0.538	
	7-Mar-06	Gizzard shad	Adult	0	0	157	0	157	2.738	1.00	5	33.60	0	0	5,275	0	5,275	91.997	
	7-Mar-06	Goldfish		0	0	1	0	1	0.050	1.00	5	33.60	0	0	34	0	34	1.680	
	7-Mar-06	Spottail shiner		0	0	3	0	3	0.018	1.00	5	33.60	0	0	101	0	101	0.605	
	7-Mar-06	Walleye	Adult	0	0	1	0	1	1.766	1.00	5	33.60	0	0	34	0	34	59.338	
	7-Mar-06	White perch	Adult	0	0	2	0	2	0.010	1.00	5	33.60	0	0	67	0	67	0.336	
	7-Mar-06	White sucker		0	0	1	0	1	0.802	1.00	5	33.60	0	0	34	0	34	26.947	
72	7-Mar-06	Daily Total		0	2	603	0	605	6.184	1.00	5	33.60	0	67	20,261	0	20,328	207.782	
	16-Mar-06	Bluegill	Adult	0	0	2	0	2	0.003	0.20	5	168.00	0	336	0	336	0	0.504	
	16-Mar-06	Emerald shiner		0	69	1,677	0	1,746	3.577	0.20	5	168.00	0	11,592	281,736	0	293,328	600.936	
	16-Mar-06	Gizzard shad	Adult	0	17	222	0	239	4.554	0.20	5	168.00	0	2,856	37,296	0	40,152	765.072	
	16-Mar-06	Spottail shiner		0	0	2	0	2	0.010	0.20	5	168.00	0	0	336	0	336	1.680	
	16-Mar-06	Yellow bullhead		0	1	0	0	1	0.012	0.20	5	168.00	0	168	0	0	168	2.016	
	16-Mar-06	Yellow perch	Adult	0	1	0	0	1	0.004	0.20	5	168.00	0	168	0	0	168	0.672	
73	16-Mar-06	Daily Total		0	88	1,903	0	1,991	8.160	0.20	5	168.00	0	14,784	319,704	0	334,488	1,370.880	
	19-Mar-06	Bluegill	Adult	0	0	1	1	2	0.004	0.83	4	50.60	0	51	51	51	101	0.202	
	19-Mar-06	Brook silverside		0	0	1	0	1	0.001	0.83	4	50.60	0	0	51	0	51	0.051	
	19-Mar-06	Emerald shiner		0	73	675	15	763	1.486	0.83	4	50.60	0	3,694	34,157	759	38,610	75.195	
	19-Mar-06	Freshwater drum	Adult	0	1	0	0	1	0.026	0.83	4	50.60	0	51	0	0	51	1.316	
	19-Mar-06	Gizzard shad	Adult	0	80	594	0	674	12.510	0.83	4	50.60	0	4,048	30,058	0	34,106	633.036	
	19-Mar-06	Goldfish		0	1	0	0	1	0.056	0.83	4	50.60	0	51	0	0	51	2.834	
	19-Mar-06	Northern pike		1	0	0	0	1	0.364	0.83	4	50.60	51	0	0	0	51	18.419	
	19-Mar-06	Pumpkinseed		0	1	0	0	1	0.058	0.83	4	50.60	0	51	0	0	51	2.935	
	19-Mar-06	Spottail shiner		0	3	10	0	13	0.070	0.83	4	50.60	0	152	506	0	658	3,542	
	19-Mar-06	White bass	Adult	0	1	0	0	1	0.034	0.83	4	50.60	0	51	0	0	51	1.720	
	19-Mar-06	Yellow perch	Adult	0	1	0	0	1	0.226	0.83	4	50.60	0	51	0	0	51	11.436	
74	19-Mar-06	Daily Total		1	161	1,281	16	1,459	14.835	0.83	4	50.60	51	8,147	64,822	810	73,829	750.687	
	25-Mar-06	Emerald shiner		0	1,049	3,658	0	4,707	7.170	0.30	5	112.00	0	117,488	409,696	0	527,184	803.040	
	25-Mar-06	Gizzard shad	Adult	0	59	278	0	337	5.802	0.30	5	112.00	0	6,608	31,136	0	37,744	649.824	
	25-Mar-06	Spottail shiner		0	3	1	0	4	0.024	0.30	5	112.00	0	336	112	0	448	2.688	
	25-Mar-06	TROUT-perch		0	2	0	0	2	0.026	0.30	5	112.00	0	224	0	0	224	2.912	
	25-Mar-06	Walleye	Adult	0	1	0	0	1	0.556	0.30	5	112.00	0	112	0	0	112	62.272	
	25-Mar-06	White bass	Adult	0	2	0	0	2	1.155	0.30	5	112.00	0	224	0	0	224	129.360	
	25-Mar-06	White perch	Adult	0	1	0	0	1	0.008	0.30	5	112.00	0	112	0	0	112	0.896	
75	25-Mar-06	Daily Total		0	1,117	3,937	0	5,054	14.741	0.30	5	112.00	0	125,104	440,944	0	566,048	1,650.992	
	26-Mar-06	Emerald shiner		0	678	1,157	0	1,835	3.090	1.00	5	33.60	0	22,781	38,875	0	61,656	103.824	
	26-Mar-06	Gizzard shad	Adult	0	99	239	0	338	5.114	1.00	5	33.60	0	3,326	8,030	0	11,357	171.830	
	26-Mar-06	Spottail shiner		0	0	8	0	8	0.050	1.00	5	33.60	0	0	269	0	269	1.680	
	26-Mar-06	White bass	Adult	0	0	3	0	3	0.162	1.00	5	33.60	0	0	101	0	101	5.443	
	26-Mar-06	White sucker		0	3	0	0	3	1.740	1.00	5	33.60	0	101	0	0	101	58.464	
76	26-Mar-06	Daily Total		0	780	1,407	0	2,187	10.156	1.00	5	33.60	0	26,208	47,275	0	73,483	341.242	

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	31-Mar-06	Black darter		0	1	0	0	1	0.006	0.40	5	84.00	0	84	0	0	84	0.504	
	31-Mar-06	Brook silverside		0	0	1	0	1	0.001	0.40	5	84.00	0	84	0	0	84	0.084	
	31-Mar-06	Brown bullhead		0	0	4	0	4	0.096	0.40	5	84.00	0	0	336	0	336	8.064	
	31-Mar-06	Channel catfish	Adult	0	0	1	0	1	0.002	0.40	5	84.00	0	84	0	0	84	0.168	
	31-Mar-06	Emerald shiner		0	427	1,380	0	1,807	2.896	0.40	5	84.00	0	35,868	115,920	0	151,788	243,264	
	31-Mar-06	Freshwater drum	Adult	0	0	1	0	1	0.020	0.40	5	84.00	0	84	0	0	84	1.680	
	31-Mar-06	Gizzard shad	Adult	0	0	304	0	304	4.653	0.40	5	84.00	0	0	25,536	0	25,536	390.852	
	31-Mar-06	Orangespotted sunfish		0	0	1	0	1	0.026	0.40	5	84.00	0	84	0	0	84	2.184	
	31-Mar-06	Round goby		1	0	1	0	2	0.006	0.40	5	84.00	84	0	84	0	168	0.504	
	31-Mar-06	Sand shiner		0	0	2	0	2	0.002	0.40	5	84.00	0	0	168	0	168	0.168	
	31-Mar-06	Spottail shiner		0	0	34	0	34	0.232	0.40	5	84.00	0	0	2,856	0	2,856	19.488	
	31-Mar-06	Tadpole madtom		0	1	0	0	1	0.006	0.40	5	84.00	0	84	0	0	84	0.504	
	31-Mar-06	Trout-perch		0	2	50	0	52	0.640	0.40	5	84.00	0	168	4,200	0	4,368	53.760	
	31-Mar-06	White bass	Adult	0	2	0	1	3	0.507	0.40	5	84.00	0	168	0	84	252	42.588	
	31-Mar-06	White perch	Adult	0	1	17	0	18	0.580	0.40	5	84.00	0	84	1,428	0	1,512	48.720	
	31-Mar-06	Yellow perch	Adult	0	0	1	0	1	0.486	0.40	5	84.00	0	84	0	0	84	40.824	
77	31-Mar-06	Daily Total		1	434	1,797	1	2,233	10.159	0.40	5	84.00	84	36,456	150,948	84	187,572	853.356	
	3-Apr-06	Bluegill	Adult	0	0	1	0	1	0.008	0.83	5	40.48	0	0	40	0	40	0.324	
	3-Apr-06	Emerald shiner		0	146	1,870	0	2,016	3.066	0.83	5	40.48	0	5,910	75,701	0	81,612	124.118	
	3-Apr-06	Freshwater drum	Adult	0	2	0	0	2	0.846	0.83	5	40.48	0	81	0	0	81	34.248	
	3-Apr-06	Gizzard shad	Adult	0	10	381	0	391	6.944	0.83	5	40.48	0	405	15,424	0	15,828	281.107	
	3-Apr-06	Orangespotted sunfish		0	0	1	0	1	0.008	0.83	5	40.48	0	0	40	0	40	0.324	
	3-Apr-06	Pumpkinseed		0	1	0	0	1	0.056	0.83	5	40.48	0	40	0	0	40	2.267	
	3-Apr-06	Silver lamprey		1	0	0	0	1	0.098	0.83	5	40.48	40	0	0	0	40	3.967	
	3-Apr-06	Spottail shiner		0	2	1	0	3	0.030	0.83	5	40.48	0	81	40	0	121	1.214	
	3-Apr-06	Trout-perch		0	4	6	0	10	0.076	0.83	5	40.48	0	162	243	0	405	3.077	
	3-Apr-06	White bass	Adult	1	1	1	0	3	0.252	0.83	5	40.48	40	40	0	0	121	10.201	
	3-Apr-06	Yellow perch	Adult	1	0	0	0	1	0.266	0.83	5	40.48	40	0	0	0	40	10.768	
78	3-Apr-06	Daily Total		3	166	2,261	0	2,430	11.650	0.83	5	40.50	121	6,720	91,530	0	98,371	471.614	
	7-Apr-06	Channel catfish	Adult	1	4	0	0	5	0.223	0.33	5	101.82	102	407	0	0	509	22.705	
	7-Apr-06	Emerald shiner		0	1,060	3,720	0	4,780	9.383	0.33	5	101.82	0	107,927	378,764	0	486,691	955.360	
	7-Apr-06	Freshwater drum	Adult	0	3	8	0	11	0.266	0.33	5	101.82	0	305	815	0	1,120	27.084	
	7-Apr-06	Gizzard shad	Adult	0	30	282	4	316	6.944	0.33	5	101.82	0	3,055	28,713	407	32,175	707.025	
	7-Apr-06	Largemouth bass		0	1	0	0	1	0.032	0.33	5	101.82	0	102	0	0	102	3.258	
	7-Apr-06	Redhorse		0	0	1	0	1	0.004	0.33	5	101.82	0	0	102	0	102	0.407	
	7-Apr-06	Round goby		0	1	0	0	1	0.003	0.33	5	101.82	0	102	0	0	102	0.305	
	7-Apr-06	Spottail shiner		0	8	16	0	24	0.148	0.33	5	101.82	0	815	1,629	0	2,444	15.069	
	7-Apr-06	Trout-perch		0	1	8	0	9	0.052	0.33	5	101.82	0	102	815	0	916	5.295	
	7-Apr-06	White bass	Adult	0	3	0	0	3	0.196	0.33	5	101.82	0	305	0	0	305	19.956	
	7-Apr-06	White perch	Adult	0	4	3	0	7	0.642	0.33	5	101.82	0	407	305	0	713	65.367	
	7-Apr-06	Yellow bullhead		0	1	0	0	1	0.042	0.33	5	101.82	0	102	0	0	102	4.276	
	7-Apr-06	Yellow perch	Adult	0	0	1	0	1	0.004	0.33	5	101.82	0	0	102	0	102	0.407	
79	7-Apr-06	Daily Total		1	1,116	4,039	4	5,160	17.939	0.33	5	101.80	102	113,629	411,244	407	525,382	1,826.516	

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	9-Apr-06	Brown bullhead		0	1	0	0	1	0.052	0.67	5	50.15	0	50	0	0	50	2.608	
	9-Apr-06	Channel catfish	Adult	0	2	0	0	2	0.029	0.67	5	50.15	0	100	0	0	100	1.454	
	9-Apr-06	Emerald shiner		0	0	4,146	0	4,146	5.614	0.67	5	50.15	0	0	207,919	0	0	207,919	281.538
	9-Apr-06	Freshwater drum	Adult	0	3	15	0	18	0.935	0.67	5	50.15	0	150	752	0	0	903	46.890
	9-Apr-06	Gizzard shad	Adult	0	13	483	0	496	7.559	0.67	5	50.15	0	652	24,222	0	0	24,874	379.078
	9-Apr-06	Pumpkinseed		0	1	0	0	1	0.004	0.67	5	50.15	0	50	0	0	50	0.201	
	9-Apr-06	Spottail shiner		0	0	74	0	74	0.426	0.67	5	50.15	0	0	3,711	0	0	3,711	21.364
	9-Apr-06	Trout-perch		0	1	8	0	9	0.062	0.67	5	50.15	0	50	401	0	0	451	3.109
	9-Apr-06	Walleye	Adult	0	3	0	0	3	1.340	0.67	5	50.15	0	150	0	0	0	150	67.200
	9-Apr-06	White bass	Adult	0	0	5	0	5	0.190	0.67	5	50.15	0	0	251	0	0	251	9.528
	9-Apr-06	White perch	Adult	0	7	0	0	7	0.374	0.67	5	50.15	0	351	0	0	0	351	18.756
	9-Apr-06	Yellow perch	Adult	0	3	0	0	3	0.320	0.67	5	50.15	0	150	0	0	0	150	16.048
80	9-Apr-06	Daily Total		0	34	4,731	0	4,765	16.905	0.67	5	50.10	0	1,705	237,256	0	0	238,961	847.773
	14-Apr-06	Bigmouth buffalo		0	1	0	0	1	0.618	1.00	4	42.00	0	42	0	0	0	42	25.956
	14-Apr-06	Bluegill	Adult	0	0	2	0	2	0.002	1.00	4	42.00	0	0	84	0	0	84	0.084
	14-Apr-06	Brown bullhead		0	9	0	0	9	0.123	1.00	4	42.00	0	378	0	0	0	378	5.166
	14-Apr-06	Channel catfish	Adult	0	41	2	0	43	1.745	1.00	4	42.00	0	1,722	84	0	0	1,806	73.290
	14-Apr-06	Common carp	Adult	0	1	0	0	1	0.108	1.00	4	42.00	0	42	0	0	0	42	4.536
	14-Apr-06	Emerald shiner		0	0	1,254	0	1,254	2.893	1.00	4	42.00	0	0	52,668	0	0	52,668	121.506
	14-Apr-06	Flathead catfish		0	0	1	0	1	0.001	1.00	4	42.00	0	0	42	0	0	42	0.042
	14-Apr-06	Freshwater drum	Adult	0	13	122	0	135	5.573	1.00	4	42.00	0	546	5,124	0	0	5,670	234.066
	14-Apr-06	Gizzard shad	Adult	0	0	111	0	111	2.518	1.00	4	42.00	0	0	4,662	0	0	4,662	105.756
	14-Apr-06	Logperch		0	0	1	0	1	0.004	1.00	4	42.00	0	0	42	0	0	42	0.168
	14-Apr-06	Orangespotted sunfish		0	0	1	0	1	0.001	1.00	4	42.00	0	0	42	0	0	42	0.042
	14-Apr-06	Pumpkinseed		0	0	1	0	1	0.042	1.00	4	42.00	0	0	42	0	0	42	1.764
	14-Apr-06	Quillback		0	0	2	0	2	0.136	1.00	4	42.00	0	0	84	0	0	84	5.712
	14-Apr-06	Round goby		0	1	3	0	4	0.013	1.00	4	42.00	0	42	126	0	0	168	0.546
	14-Apr-06	Sand shiner		0	0	8	0	8	0.006	1.00	4	42.00	0	0	336	0	0	336	0.252
	14-Apr-06	Shorthead redhorse		0	1	2	0	3	0.042	1.00	4	42.00	0	42	84	0	0	126	1.764
	14-Apr-06	Silver chub		0	1	0	0	1	0.025	1.00	4	42.00	0	42	0	0	0	42	1.050
	14-Apr-06	Spottail shiner		0	0	30	0	30	0.174	1.00	4	42.00	0	0	1,260	0	0	1,260	7.308
	14-Apr-06	Trout-perch		0	0	42	0	42	0.283	1.00	4	42.00	0	0	1,764	0	0	1,764	11.886
	14-Apr-06	Walleye	Adult	0	3	4	0	7	6.631	1.00	4	42.00	0	126	168	0	0	294	278.502
	14-Apr-06	White bass	Adult	0	2	1	0	3	0.194	1.00	4	42.00	0	84	42	0	0	126	8.148
	14-Apr-06	White perch	Adult	0	8	18	0	26	3.485	1.00	4	42.00	0	336	756	0	0	1,092	146.370
	14-Apr-06	Yellow perch	Adult	0	5	2	0	7	0.288	1.00	4	42.00	0	210	84	0	0	294	12.096
81	14-Apr-06	Daily Total		0	86	1,607	0	1,693	24.905	1.00	4	42.00	0	3,612	67,494	0	0	71,106	1,046.010
	17-Apr-06	Black crappie	Adult	0	0	1	0	1	0.002	1.00	5	33.60	0	0	34	0	0	34	0.067
	17-Apr-06	Brown bullhead		0	14	0	0	14	0.276	1.00	5	33.60	0	470	0	0	0	470	9.274
	17-Apr-06	Channel catfish	Adult	0	20	0	0	20	0.713	1.00	5	33.60	0	672	0	0	0	672	23.957
	17-Apr-06	Common carp	Adult	0	0	13	0	13	0.154	1.00	5	33.60	0	0	437	0	0	437	5.174
	17-Apr-06	Emerald shiner		0	0	2,674	0	2,674	4.834	1.00	5	33.60	0	0	89,846	0	0	89,846	162.422
	17-Apr-06	Freshwater drum	Adult	0	0	87	0	87	3.442	1.00	5	33.60	0	0	2,923	0	0	2,923	115.651
	17-Apr-06	Gizzard shad	Adult	0	0	179	0	179	3.031	1.00	5	33.60	0	0	6,014	0	0	6,014	101.842
	17-Apr-06	Pumpkinseed		0	0	2	0	2	0.008	1.00	5	33.60	0	0	67	0	0	67	0.269
	17-Apr-06	Round goby		0	0	5	0	5	0.018	1.00	5	33.60	0	0	168	0	0	168	0.605
	17-Apr-06	Sand shiner		0	0	50	0	50	0.019	1.00	5	33.60	0	0	1,680	0	0	1,680	0.638
	17-Apr-06	Spottail shiner		0	0	46	0	46	0.286	1.00	5	33.60	0	0	1,546	0	0	1,546	9.610
	17-Apr-06	Trout-perch		0	0	10	0	10	0.042	1.00	5	33.60	0	0	336	0	0	336	1.411
	17-Apr-06	Walleye	Adult	0	4	0	0	4	3.840	1.00	5	33.60	0	134	0	0	0	134	129.024
	17-Apr-06	White bass	Adult	0	3	7	0	10	1.163	1.00	5	33.60	0	101	235	0	0	336	39.077
	17-Apr-06	White perch	Adult	0	6	5	0	11	1.645	1.00	5	33.60	0	202	168	0	0	370	55.272
	17-Apr-06	Yellow perch	Adult	0	4	0	0	4	0.103	1.00	5	33.60	0	134	0	0	0	134	3.461
82	17-Apr-06	Daily Total		0	51	3,079	0	3,130	19.576	1.00	5	33.60	0	1,714	103,454	0	0	105,168	657.754

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	20-Apr-06	Bluegill	Adult	0	1	8	0	9	0.078	1.00	4	42.00	0	42	336	0	378	3.276	
	20-Apr-06	Brook silverside		0	0	3	0	3	0.003	1.00	4	42.00	0	0	126	0	126	0.126	
	20-Apr-06	Brown bullhead		0	1	0	0	1	0.057	1.00	4	42.00	0	42	0	0	42	2.394	
	20-Apr-06	Emerald shiner		0	57	109	1	167	0.358	1.00	4	42.00	0	2,394	4,578	42	7,014	15.036	
	20-Apr-06	Freshwater drum	Adult	0	3	16	0	19	8.093	1.00	4	42.00	0	126	672	0	798	339.906	
	20-Apr-06	Gizzard shad	Adult	0	0	139	0	139	3.486	1.00	4	42.00	0	0	5,838	0	5,838	146.412	
	20-Apr-06	Goldfish		0	1	0	0	1	0.273	1.00	4	42.00	0	42	0	0	42	11.466	
	20-Apr-06	Largemouth bass		0	1	0	0	1	0.420	1.00	4	42.00	0	42	0	0	42	17.640	
	20-Apr-06	Orangespotted sunfish		0	0	2	0	2	0.002	1.00	4	42.00	0	0	84	0	84	0.084	
	20-Apr-06	Pumpkinseed		0	0	1	0	1	0.011	1.00	4	42.00	0	0	42	0	42	0.462	
	20-Apr-06	Round goby		0	0	1	0	1	0.001	1.00	4	42.00	0	0	42	0	42	0.042	
	20-Apr-06	Sand shiner		0	14	105	0	119	0.082	1.00	4	42.00	0	588	4,410	0	4,998	3.444	
	20-Apr-06	Shorthead redhorse		0	0	1	0	1	0.012	1.00	4	42.00	0	0	42	0	42	0.504	
	20-Apr-06	Spottail shiner		0	10	47	0	57	0.299	1.00	4	42.00	0	420	1,974	0	2,394	12.558	
	20-Apr-06	Tadpole madtom		0	0	1	0	1	0.001	1.00	4	42.00	0	0	42	0	42	0.042	
	20-Apr-06	Trout-perch		0	0	11	0	11	0.073	1.00	4	42.00	0	0	462	0	462	3.066	
	20-Apr-06	White bass	Adult	0	0	5	0	5	0.669	1.00	4	42.00	0	0	210	0	210	28.098	
	20-Apr-06	White perch	Adult	0	30	16	0	46	6.771	1.00	4	42.00	0	1,260	672	0	1,932	284.382	
	20-Apr-06	Yellow perch	Adult	0	1	1	0	2	0.023	1.00	4	42.00	0	42	42	0	84	0.966	
83	20-Apr-06	Daily Total		0	119	466	1	586	20.712	1.00	4	42.00	0	4,998	19,572	42	24,612	869.904	
	24-Apr-06	Brook silverside		0	0	3	0	3	0.004	1.00	5	33.60	0	0	101	0	101	0.134	
	24-Apr-06	Brown bullhead		0	5	1	0	6	0.092	1.00	5	33.60	0	168	34	0	202	3.091	
	24-Apr-06	Channel catfish	Adult	0	16	8	0	24	0.748	1.00	5	33.60	0	538	269	0	806	25.133	
	24-Apr-06	Emerald shiner		0	0	514	0	514	1.028	1.00	5	33.60	0	0	17,270	0	17,270	34.541	
	24-Apr-06	Freshwater drum	Adult	0	2	29	0	31	1.794	1.00	5	33.60	0	67	974	0	1,042	60.278	
	24-Apr-06	Gizzard shad	Adult	0	0	36	0	36	1.360	1.00	5	33.60	0	0	1,210	0	1,210	45.696	
	24-Apr-06	Orangespotted sunfish		0	1	0	0	1	0.002	1.00	5	33.60	0	34	0	0	34	0.067	
	24-Apr-06	Quillback		0	0	3	0	3	0.062	1.00	5	33.60	0	0	101	0	101	2.083	
	24-Apr-06	Redhorse		0	0	1	0	1	0.004	1.00	5	33.60	0	0	34	0	34	0.134	
	24-Apr-06	Round goby		0	1	1	0	2	0.006	1.00	5	33.60	0	34	34	0	67	0.202	
	24-Apr-06	Sand shiner		0	0	25	0	25	0.021	1.00	5	33.60	0	0	840	0	840	0.706	
	24-Apr-06	Spottail shiner		0	0	41	0	41	0.172	1.00	5	33.60	0	0	1,378	0	1,378	5.779	
	24-Apr-06	Tadpole madtom		1	0	0	0	1	0.006	1.00	5	33.60	34	0	0	0	34	0.202	
	24-Apr-06	Trout-perch		0	0	86	0	86	0.480	1.00	5	33.60	0	0	2,890	0	2,890	16.128	
	24-Apr-06	Walleye	Adult	0	1	3	0	4	2.734	1.00	5	33.60	0	34	101	0	134	91.862	
	24-Apr-06	White bass	Adult	0	5	4	0	9	1.200	1.00	5	33.60	0	168	134	0	302	40.320	
	24-Apr-06	White perch	Adult	0	8	18	0	26	3.644	1.00	5	33.60	0	269	605	0	874	122.438	
	24-Apr-06	Yellow perch	Adult	0	3	0	0	3	0.132	1.00	5	33.60	0	101	0	0	101	4.435	
84	24-Apr-06	Daily Total		1	42	773	0	816	13.489	1.00	5	33.60	34	1,411	25,973	0	27,418	453.230	
	26-Apr-06	Bluegill	Adult	0	0	6	0	6	0.026	1.00	5	33.60	0	0	202	0	202	0.874	
	26-Apr-06	Bluntnose minnow		0	0	1	0	1	0.001	1.00	5	33.60	0	0	34	0	34	0.034	
	26-Apr-06	Brook silverside		0	0	1	0	1	0.001	1.00	5	33.60	0	0	34	0	34	0.034	
	26-Apr-06	Brown bullhead		0	1	0	0	1	0.010	1.00	5	33.60	0	34	0	0	34	0.336	
	26-Apr-06	Channel catfish	Adult	1	2	0	0	3	0.072	1.00	5	33.60	34	67	0	0	101	2.419	
	26-Apr-06	Common carp	Adult	0	1	0	0	1	0.012	1.00	5	33.60	0	34	0	0	34	0.403	
	26-Apr-06	Emerald shiner		0	2	56	0	58	0.103	1.00	5	33.60	0	67	1,882	0	1,949	3.461	
	26-Apr-06	Freshwater drum	Adult	0	5	12	0	17	1.074	1.00	5	33.60	0	168	403	0	571	36.086	
	26-Apr-06	Gizzard shad	Adult	0	1	31	0	32	1.702	1.00	5	33.60	0	34	1,042	0	1,075	57.187	
	26-Apr-06	Pumpkinseed		1	1	0	0	2	0.072	1.00	5	33.60	34	34	0	0	67	2.419	
	26-Apr-06	Round goby		0	1	0	0	1	0.002	1.00	5	33.60	0	34	0	0	34	0.067	
	26-Apr-06	Spottail shiner		0	4	21	0	25	0.109	1.00	5	33.60	0	134	706	0	840	3.662	
	26-Apr-06	Trout-perch		0	3	23	0	26	0.132	1.00	5	33.60	0	101	773	0	874	4.435	
	26-Apr-06	Walleye	Adult	0	2	0	0	2	0.700	1.00	5	33.60	0	67	0	0	67	23.520	
	26-Apr-06	White perch	Adult	0	20	1	0	21	3.334	1.00	5	33.60	0	672	34	0	706	112.022	
	26-Apr-06	White sucker		0	1	1	0	2	0.030	1.00	5	33.60	0	34	34	0	67	1.008	
	26-Apr-06	Yellow perch	Adult	0	2	0	0	2	0.024	1.00	5	33.60	0	67	0	0	67	0.806	
85	26-Apr-06	Daily Total		2	46	153	0	201	7.404	1.00	5	33.60	67	1,546	5,141	0	6,754	248.774	

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	4-May-06	Black bullhead		0	1	0	0	1	0.056	1.00	5	33.60	0	34	0	0	34	1.882	
	4-May-06	Bluegill	Adult	0	0	2	0	2	0.002	1.00	5	33.60	0	0	67	0	67	0.067	
	4-May-06	Bluntnose minnow		0	1	0	0	1	0.001	1.00	5	33.60	0	34	0	0	34	0.034	
	4-May-06	Brown bullhead		0	1	0	0	1	0.088	1.00	5	33.60	0	34	0	0	34	2.957	
	4-May-06	Channel catfish	Adult	0	3	0	0	3	0.108	1.00	5	33.60	0	101	0	0	101	3.629	
	4-May-06	Creek chub		0	1	0	0	1	0.010	1.00	5	33.60	0	34	0	0	34	0.336	
	4-May-06	Emerald shiner		0	0	674	0	674	1.210	1.00	5	33.60	0	0	22,646	0	22,646	40.656	
	4-May-06	Freshwater drum	Adult	0	1	46	0	47	9.519	1.00	5	33.60	0	34	1,546	0	1,579	319.838	
	4-May-06	Gizzard shad	Adult	0	2	19	0	21	0.414	1.00	5	33.60	0	67	638	0	706	13.910	
	4-May-06	Logperch		0	0	1	0	1	0.004	1.00	5	33.60	0	0	34	0	34	0.134	
	4-May-06	Pumpkinseed		0	1	0	0	1	0.008	1.00	5	33.60	0	34	0	0	34	0.269	
	4-May-06	Quillback		0	0	1	0	1	0.056	1.00	5	33.60	0	0	34	0	34	1.882	
	4-May-06	Redhorse		0	2	0	0	2	1.846	1.00	5	33.60	0	67	0	0	67	62.026	
	4-May-06	Silver chub		0	0	4	0	4	0.224	1.00	5	33.60	0	0	134	0	134	7.526	
	4-May-06	Smallmouth bass	Adult	0	1	0	0	1	0.204	1.00	5	33.60	0	34	0	0	34	6.854	
	4-May-06	Spottail shiner		0	0	12	0	12	0.066	1.00	5	33.60	0	0	403	0	403	2.218	
	4-May-06	Trout-perch		0	0	149	0	149	0.806	1.00	5	33.60	0	0	5,006	0	5,006	27.082	
	4-May-06	Walleye	Adult	0	9	0	0	9	77.516	1.00	5	33.60	0	302	0	0	302	2,604.538	
	4-May-06	White bass	Adult	0	0	2	0	2	0.044	1.00	5	33.60	0	0	67	0	67	1.478	
	4-May-06	White perch	Adult	0	54	4	0	58	9.092	1.00	5	33.60	0	1,814	134	0	1,949	305.491	
86	4-May-06	Daily Total		0	77	914	0	991	101.274	1.00	5	33.60	0	2,587	30,710	0	33,298	3,402.806	
	6-May-06	Brown bullhead		0	1	0	0	1	0.032	1.00	5	33.60	0	34	0	0	34	1.075	
	6-May-06	Channel catfish	Adult	0	12	3	0	15	0.464	1.00	5	33.60	0	403	101	0	504	15.590	
	6-May-06	Common carp	Adult	0	1	2	1	4	0.642	1.00	5	33.60	0	34	67	34	134	21.571	
	6-May-06	Emerald shiner		0	0	1,208	0	1,208	4.932	1.00	5	33.60	0	0	40,589	0	40,589	165.715	
	6-May-06	Freshwater drum	Adult	0	0	28	0	28	2.681	1.00	5	33.60	0	0	941	0	941	90.082	
	6-May-06	Gizzard shad	Adult	0	0	10	0	10	0.208	1.00	5	33.60	0	0	336	0	336	6.989	
	6-May-06	Goldfish		0	0	1	0	1	0.009	1.00	5	33.60	0	0	34	0	34	0.302	
	6-May-06	Logperch		0	0	1	0	1	0.002	1.00	5	33.60	0	0	34	0	34	0.067	
	6-May-06	Redhorse		0	1	1	0	2	1.833	1.00	5	33.60	0	34	34	0	67	61.589	
	6-May-06	Round goby		0	0	8	0	8	0.013	1.00	5	33.60	0	0	269	0	269	0.437	
	6-May-06	Sand shiner		0	0	2	0	2	0.001	1.00	5	33.60	0	67	0	67	0.034		
	6-May-06	Silver chub		0	3	1	0	4	0.194	1.00	5	33.60	0	101	34	0	134	6.518	
	6-May-06	Spottail shiner		0	0	1	0	1	0.010	1.00	5	33.60	0	0	34	0	34	0.336	
	6-May-06	Trout-perch		0	6	112	0	118	0.552	1.00	5	33.60	0	202	3,763	0	3,965	18.547	
	6-May-06	Walleye	Adult	0	0	2	0	2	1.095	1.00	5	33.60	0	67	0	67	67	36.792	
	6-May-06	White bass	Adult	0	2	0	0	2	0.902	1.00	5	33.60	0	67	0	67	67	30.307	
	6-May-06	White crappie	Adult	0	0	1	0	1	0.007	1.00	5	33.60	0	0	34	0	34	0.235	
	6-May-06	White perch	Adult	0	11	40	0	51	7.148	1.00	5	33.60	0	370	1,344	0	1,714	240.173	
	6-May-06	Yellow perch	Adult	0	1	1	0	2	0.091	1.00	5	33.60	0	34	34	0	67	3.058	
87	6-May-06	Daily Total		0	38	1,422	1	1,461	20.816	1.00	5	33.60	0	1,277	47,779	34	49,090	699.418	

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**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	8-May-06	Bluegill	Adult	0	0	1	0	1	0.060	1.03	6	27.18	0	0	27	0	27	1.631	
	8-May-06	Channel catfish	Adult	0	8	5	0	13	0.705	1.03	6	27.18	0	217	136	0	353	19.165	
	8-May-06	Common carp	Adult	0	0	1	0	1	0.142	1.03	6	27.18	0	0	27	0	27	3.860	
	8-May-06	Emerald shiner	1	0	0	873	0	873	1.809	1.03	6	27.18	0	0	23,732	0	23,732	49.177	
	8-May-06	Freshwater drum	Adult	0	3	36	0	39	4.404	1.03	6	27.18	0	82	979	0	1,060	119.720	
	8-May-06	Gizzard shad	Adult	0	2	13	0	15	1.320	1.03	6	27.18	0	54	353	0	408	35.883	
	8-May-06	Orangespotted sunfish		0	0	1	0	1	0.010	1.03	6	27.18	0	0	27	0	27	0.272	
	8-May-06	Redhorse		0	0	1	0	1	0.742	1.03	6	27.18	0	0	27	0	27	20.171	
	8-May-06	Round goby		0	5	2	0	7	0.007	1.03	6	27.18	0	136	54	0	190	0.190	
	8-May-06	Sand shiner		0	0	6	0	6	0.004	1.03	6	27.18	0	0	163	0	163	0.109	
	8-May-06	Silver chub		0	1	5	0	6	0.231	1.03	6	27.18	0	27	136	0	163	6.280	
	8-May-06	Spottail shiner		0	0	3	0	3	0.013	1.03	6	27.18	0	0	82	0	82	0.353	
	8-May-06	Trout-perch		0	2	86	0	88	0.439	1.03	6	27.18	0	54	2,338	0	2,392	11.934	
	8-May-06	Walleye	Adult	0	0	1	0	1	0.839	1.03	6	27.18	0	0	27	0	27	22.808	
	8-May-06	White bass	Adult	0	0	1	0	1	0.250	1.03	6	27.18	0	0	27	0	27	6.796	
	8-May-06	White perch	Adult	0	21	11	0	32	4.285	1.03	6	27.18	0	571	299	0	870	116.485	
	8-May-06	Yellow perch	Adult	0	2	0	0	2	0.240	1.03	6	27.18	0	54	0	0	54	6.524	
88	8-May-06	Daily Total		0	44	1,046	0	1,090	15.500	1.03	6	27.20	0	1,196	28,435	0	29,631	421.359	
	12-May-06	Bluegill	Adult	0	0	2	0	2	0.003	1.00	7	24.00	0	0	48	0	48	0.072	
	12-May-06	Channel catfish	Adult	0	1	1	0	2	0.069	1.00	7	24.00	0	24	24	0	48	1.656	
	12-May-06	Emerald shiner	1	0	2	60	0	62	0.129	1.00	7	24.00	0	48	1,440	0	1,488	3.096	
	12-May-06	Freshwater drum	Adult	0	8	9	0	17	3.194	1.00	7	24.00	0	192	216	0	408	76.656	
	12-May-06	Gizzard shad	Adult	0	1	1	0	2	0.068	1.00	7	24.00	0	24	24	0	48	1.632	
	12-May-06	Golden shiner	1	0	1	1	0	2	0.003	1.00	7	24.00	0	24	24	0	48	0.072	
	12-May-06	Logperch		0	1	0	0	1	0.004	1.00	7	24.00	0	24	0	0	24	0.096	
	12-May-06	Quillback		0	0	1	0	1	0.089	1.00	7	24.00	0	0	24	0	24	2.136	
	12-May-06	Round goby		0	1	0	0	1	0.001	1.00	7	24.00	0	24	0	0	24	0.024	
	12-May-06	Sand shiner		0	0	11	0	11	0.006	1.00	7	24.00	0	0	264	0	264	0.144	
	12-May-06	Silver chub		0	4	1	0	5	0.262	1.00	7	24.00	0	96	24	0	120	6.288	
	12-May-06	Spottail shiner		0	1	3	0	4	0.017	1.00	7	24.00	0	24	72	0	96	0.408	
	12-May-06	Trout-perch		0	7	21	0	28	0.155	1.00	7	24.00	0	168	504	0	672	3.720	
	12-May-06	Walleye	Adult	0	0	1	0	1	0.104	1.00	7	24.00	0	0	24	0	24	2.496	
	12-May-06	White perch	Adult	0	11	13	0	24	2.946	1.00	7	24.00	0	264	312	0	576	70.704	
	12-May-06	Yellow perch	Adult	0	6	0	0	6	0.425	1.00	7	24.00	0	144	0	0	144	10.200	
89	12-May-06	Daily Total		0	44	125	0	169	7.475	1.00	7	24.00	0	1,056	3,000	0	4,056	179.400	
	10-Oct-06	Bluegill	YOY(<100mm)		1			1	0.001	0.70	5	61.71		62			62	0.062	
	10-Oct-06	Channel catfish	Adult	4				4	0.182	0.70	5	61.71	247			247		11.232	
	10-Oct-06	Channel catfish	YOY(<150mm)	14		8	1	23	0.053	0.70	5	61.71	864		494	62	1,419	3.271	
	10-Oct-06	Emerald shiner	1	21	18	304		343	0.508	0.70	5	61.71	1,296	1,111	18,761		21,168	31.329	
	10-Oct-06	Freshwater drum	Adult		4			4	0.686	0.70	5	61.71		247			247	42.336	
	10-Oct-06	Freshwater drum	YOY(<200mm)	3	8			11	0.254	0.70	5	61.71		185	494		679	15.675	
	10-Oct-06	Gizzard shad	YOY(<200mm)		38	215	3	256	1.121	0.70	5	61.71		2,345	13,269	185	15,799	69.157	
	10-Oct-06	Logperch		1				1	0.005	0.70	5	61.71		62			62	0.309	
	10-Oct-06	Round goby		1		6		7	0.009	0.70	5	61.71	62		370		432	0.555	
	10-Oct-06	Spottail shiner	Adult			2		2	0.023	0.70	5	61.71		123			123	1.419	
	10-Oct-06	Spottail shiner	1	1		4		5	0.015	0.70	5	61.71	62		247		309	0.926	
	10-Oct-06	Trout-perch				5		5	0.023	0.70	5	61.71		309			309	1.419	
	10-Oct-06	White perch	Adult	3	6			9	0.713	0.70	5	61.71	185	370			555	44.002	
	10-Oct-06	White perch	YOY(<150mm)	155	873	121		1,149	4.906	0.70	5	61.71	9,566	53,877	7,467		70,910	302.755	
	10-Oct-06	Yellow perch	Adult	1				1	0.110	0.70	5	61.71	62				62	6.789	
	10-Oct-06	Yellow perch	YOY(<150mm)	2				2	0.013	0.70	5	61.71		123			123	0.802	
90	10-Oct-06	Daily Total		201	945	673	4	1,823	8.621	0.70	5	61.71	12,405	58,320	41,534	247	112,505	532.038	

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**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement					
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
	18-Oct-06	Bluegill	YOY(<100mm)	3	4			7	0.008	0.23	4	235.81	707	943			1,651	1.886
	18-Oct-06	Channel catfish	Adult	1				1	0.074	0.23	4	235.81	236				236	17.450
	18-Oct-06	Emerald shiner		1	5	13		19	0.034	0.23	4	235.81	236	1,179	3,066		4,480	8.017
	18-Oct-06	Gizzard shad	YOY(<200mm)	19	898	899	19	1,835	11.542	0.23	4	235.81	4,480	211,755	211,991	4,480	432,707	2,721.798
	18-Oct-06	Round goby		1	2			3	0.014	0.23	4	235.81	236	472			707	3.301
	18-Oct-06	Shorthead redhorse	Adult		1			1	0.187	0.23	4	235.81	236				236	44.096
	18-Oct-06	Smallmouth bass	YOY(<150mm)	1				1	0.012	0.23	4	235.81	236				236	2.830
	18-Oct-06	White bass	Adult	1				1	0.043	0.23	4	235.81	236				236	10.140
	18-Oct-06	White perch	Adult	1	1			2	0.476	0.23	4	235.81	236				472	112.245
	18-Oct-06	White perch	YOY(<150mm)	4	35	96	1	136	0.570	0.23	4	235.81	943	8,253	22,638	236	32,070	134.410
91	18-Oct-06	Daily Total		32	946	1,008	20	2,006	12.960	0.23	4	235.81	7,546	223,074	237,694	4,716	473,031	3,056.174
	26-Oct-06	Black redhorse	Adult	1				1	0.162	0.18	4	295.08	295				295	47.803
	26-Oct-06	Bluegill	YOY(<100mm)	2	1			3	0.009	0.18	4	295.08	590	295			885	2.656
	26-Oct-06	Channel catfish	YOY(<150mm)	2	1	1		4	0.009	0.18	4	295.08	590	295			1,180	2.656
	26-Oct-06	Emerald shiner		48	81	187	3	319	0.538	0.18	4	295.08	14,164	23,902	55,180	885	94,131	158.707
	26-Oct-06	Freshwater drum	YOY(<200mm)		2			2	0.004	0.18	4	295.08	590				590	1.180
	26-Oct-06	Gizzard shad	Adult	1				1	0.424	0.18	4	295.08	295				295	125.115
	26-Oct-06	Gizzard shad	YOY(<200mm)	183	180	121	1	485	2.944	0.18	4	295.08	54,000	53,115	35,705	295	143,115	868.836
	26-Oct-06	White perch	Adult	4	2			6	0.300	0.18	4	295.08	1,180	590			1,770	88.525
	26-Oct-06	White perch	YOY(<150mm)	7	29	16		52	0.306	0.18	4	295.08	2,066	8,557	4,721		15,344	90.295
92	26-Oct-06	Daily Total		248	296	325	4	873	4.696	0.18	4	295.08	73,180	87,344	95,902	1,180	257,607	1,385.773
	30-Oct-06	Channel catfish	YOY(<150mm)			1		1	0.001	0.22	4	248.85		249			249	0.249
	30-Oct-06	Emerald shiner		18	37	119		174	0.313	0.22	4	248.85	4,479	9,207	29,613		43,300	77.939
	30-Oct-06	Gizzard shad	Adult	1				1	0.318	0.22	4	248.85	249				249	79.134
	30-Oct-06	Gizzard shad	YOY(<200mm)	3	13	32		48	0.367	0.22	4	248.85	747	3,235	7,963		11,945	91.327
	30-Oct-06	Round goby				1		1	0.001	0.22	4	248.85		249			249	0.249
	30-Oct-06	White perch	Adult		2			2	0.105	0.22	4	248.85		498			498	26.129
	30-Oct-06	White perch	YOY(<150mm)	1	28	19		48	0.237	0.22	4	248.85	249	6,968	4,728		11,945	58.977
93	30-Oct-06	Daily Total		23	80	172		275	1.342	0.22	4	248.85	5,724	19,908	42,802		68,433	334.004
	31-Oct-06	Bluegill	YOY(<100mm)	2				2	0.003	0.55	4	98.18	196				196	0.295
	31-Oct-06	Brook silverside				1		1	0.001	0.55	4	98.18		98			98	0.098
	31-Oct-06	Emerald shiner		18	38	120		176	0.317	0.55	4	98.18	1,767	3,731	11,782		17,280	31.104
	31-Oct-06	Freshwater drum	YOY(<200mm)		1			1	0.019	0.55	4	98.18		98			98	1.865
	31-Oct-06	Gizzard shad	YOY(<200mm)	15	111	146	10	282	2.528	0.55	4	98.18	1,473	10,898	14,335	982	27,687	248.219
	31-Oct-06	Goldfish	Adult	1				1	0.573	0.55	4	98.18	98				98	56.258
	31-Oct-06	Goldfish		1	2			3	0.062	0.55	4	98.18	98	196			295	6.087
	31-Oct-06	Round goby		1				1	0.001	0.55	4	98.18	98				98	0.098
	31-Oct-06	Spottail shiner	Adult		2			2	0.019	0.55	4	98.18		196			196	1.865
	31-Oct-06	White perch	Adult	2	1			3	0.333	0.55	4	98.18	196	98			295	32.695
	31-Oct-06	White perch	YOY(<150mm)	16	48	35	1	100	0.513	0.55	4	98.18	1,571	4,713	3,436	98	9,818	50.367
94	31-Oct-06	Daily Total		56	203	302	11	572	4.369	0.55	4	98.18	5,498	19,931	29,651	1,080	56,160	428.952
	2-Nov-06	Bluegill	YOY(<100mm)	1	4	1		6	0.007	2.00	4	27.00	27	108	27		162	0.189
	2-Nov-06	Brook silverside				1		1	0.001	2.00	4	27.00		27			27	0.027
	2-Nov-06	Channel catfish	YOY(<150mm)	3	1	1		5	0.007	2.00	4	27.00	81	27	27		135	0.189
	2-Nov-06	Emerald shiner	Adult			1		1	0.006	2.00	4	27.00		27			27	0.162
	2-Nov-06	Emerald shiner		4	8	12	3	27	0.041	2.00	4	27.00	108	216	324	81	729	1.107
	2-Nov-06	Freshwater drum	YOY(<200mm)		1			1	0.017	2.00	4	27.00		27			27	0.459
	2-Nov-06	Gizzard shad	YOY(<200mm)	10	43	58	3	114	0.919	2.00	4	27.00	270	1,161	1,566	81	3,078	24.813
	2-Nov-06	Goldfish			4			4	0.015	2.00	4	27.00		108			108	0.405
	2-Nov-06	Largemouth bass	YOY(<150mm)		1			1	0.036	2.00	4	27.00		27			27	0.972
	2-Nov-06	Spottail shiner			1			1	0.001	2.00	4	27.00		27			27	0.027
	2-Nov-06	White crappie	YOY(<150mm)		1			1	0.001	2.00	4	27.00		27			27	0.027
	2-Nov-06	White perch	Adult	4				4	0.262	2.00	4	27.00	108				108	7.074
	2-Nov-06	White perch	YOY(<150mm)	7	42	17	6	66	0.313	2.00	4	27.00	189	1,134	459		1,782	8.451
95	2-Nov-06	Daily Total		29	108	89	6	232	1.626	2.00	4	27.00	783	2,916	2,403	162	6,264	43.902

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	5-Nov-06	Brook silverside				1		1	0.001	0.92	4	58.89			59		59	0.059	
	5-Nov-06	Channel catfish	YOY(<150mm)	1				1	0.001	0.92	4	58.89	59			59		0.059	
	5-Nov-06	Emerald shiner		63	210	114	30	417	0.834	0.92	4	58.89	3,710	12,366	6,713	1,767	24,556	49.112	
	5-Nov-06	Freshwater drum	YOY(<200mm)	1				1	0.005	0.92	4	58.89	59			59		0.294	
	5-Nov-06	Gizzard shad	YOY(<200mm)	72	102	81	2	257	1.804	0.92	4	58.89	4,240	6,007	4,770	118	15,134	106.233	
	5-Nov-06	Goldfish		2				2	0.023	0.92	4	58.89	118			118		1.354	
	5-Nov-06	Shorthead redhorse	Adult	1				1	0.161	0.92	4	58.89	59			59		9.481	
	5-Nov-06	Smallmouth bass	Adult	1				1	0.224	0.92	4	58.89	59			59		13.191	
	5-Nov-06	Smallmouth bass	YOY(<150mm)		1			1	0.017	0.92	4	58.89		59		59		1.001	
	5-Nov-06	TROUT-perch				1		1	0.006	0.92	4	58.89		59		59		0.353	
	5-Nov-06	White perch	Adult	1	1			2	0.114	0.92	4	58.89	59	59		118		6.713	
	5-Nov-06	White perch	YOY(<150mm)	70	218	59		347	2.200	0.92	4	58.89	4,122	12,838	3,474		20,434		129.553
	5-Nov-06	Yellow perch	YOY(<150mm)		1			1	0.006	0.92	4	58.89		59		59		0.353	
96	5-Nov-06	Daily Total		212	533	256	32	1,033	5.396	0.92	4	58.89	12,484	31,387	15,075	1,884	60,831	317.758	
	8-Nov-06	Bluegill	YOY(<100mm)	2	1			3	0.006	1.50	4	36.00	72	36				108	0.216
	8-Nov-06	Brown bullhead	Adult	1				1	0.151	1.50	4	36.00	36					36	5.436
	8-Nov-06	Emerald shiner		12	47	103	1	163	0.293	1.50	4	36.00	432	1,692	3,708	36	5,868		10.544
	8-Nov-06	Freshwater drum	YOY(<200mm)		1			1	0.054	1.50	4	36.00		36		36		1.944	
	8-Nov-06	Gizzard shad	YOY(<200mm)	8	18	25	3	54	0.512	1.50	4	36.00	288	648	900	108	1,944		18.432
	8-Nov-06	Goldfish		3	1			4	0.036	1.50	4	36.00	108	36				144	1.296
	8-Nov-06	Shorthead redhorse	Adult			1		1	0.174	1.50	4	36.00		36				36	6.264
	8-Nov-06	Spottail shiner	Adult	1				1	0.011	1.50	4	36.00	36					36	0.396
	8-Nov-06	White perch	Adult	1				1	0.050	1.50	4	36.00	36					36	1.800
	8-Nov-06	White perch	YOY(<150mm)	34	130	87	2	253	1.282	1.50	4	36.00	1,224	4,680	3,132	72	9,108		46.145
	8-Nov-06	Yellow perch	Adult	1				1	0.115	1.50	4	36.00	36					36	4.140
97	8-Nov-06	Daily Total		63	199	215	6	483	2.684	1.50	4	36.00	2,268	7,164	7,740	216	17,388	96.612	
	12-Nov-06	Alewife				1		1	0.016	1.50	4	36.00		36				36	0.576
	12-Nov-06	Bluegill	YOY(<100mm)	6				6	0.011	1.50	4	36.00	216					216	0.396
	12-Nov-06	Channel catfish	YOY(150mm)	1				1	0.001	1.50	4	36.00	36					36	0.036
	12-Nov-06	Emerald shiner		22	73	39	11	145	0.252	1.50	4	36.00	792	2,628	1,404	396	5,220		9.058
	12-Nov-06	Freshwater drum	YOY(<200mm)			1		1	0.003	1.50	4	36.00		36				36	0.108
	12-Nov-06	Gizzard shad	Adult	2				2	0.325	1.50	4	36.00	72					72	11.700
	12-Nov-06	Gizzard shad	YOY(<200mm)	23	51	25	7	106	0.649	1.50	4	36.00	828	1,836	900	252	3,816		23.364
	12-Nov-06	Goldfish		2				2	0.010	1.50	4	36.00	72					72	0.360
	12-Nov-06	Largemouth bass	YOY(<150mm)		1			1	0.033	1.50	4	36.00		36				36	1.188
	12-Nov-06	Round goby		1				1	0.001	1.50	4	36.00		36				36	0.036
	12-Nov-06	Spottail shiner		1	1	1	1	3	0.039	1.50	4	36.00	36	36		36	108	1.404	
	12-Nov-06	White perch	Adult	2				2	0.273	1.50	4	36.00	72					72	9.828
	12-Nov-06	White perch	YOY(<150mm)	150	205	80	4	439	1.982	1.50	4	36.00	5,400	7,380	2,880	144	15,804		71.350
	12-Nov-06	Yellow perch	YOY(<150mm)	1				1	0.008	1.50	4	36.00	36					36	0.288
98	12-Nov-06	Daily Total		211	331	147	22	711	3.603	1.50	4	36.00	7,596	11,916	5,292	792	25,596	129.692	
	15-Nov-06	Brook silverside				1		1	0.001	0.79	4	68.18		68				68	0.068
	15-Nov-06	Channel catfish	YOY(<150mm)	2				2	0.002	0.79	4	68.18		136				136	0.136
	15-Nov-06	Emerald shiner		326	2,986	181	109	3,602	6.311	0.79	4	68.18	22,227	203,591	12,341	7,432	245,591	430.282	
	15-Nov-06	Gizzard shad	Adult	1				1	0.092	0.79	4	68.18	68					68	6.273
	15-Nov-06	Gizzard shad	YOY(<200mm)	20	111	98	2	231	1.952	0.79	4	68.18	1,364	7,568	6,682	136	15,750		133.116
	15-Nov-06	Goldfish		1	3			4	0.037	0.79	4	68.18	68	205				273	2.523
	15-Nov-06	Round goby		3				3	0.012	0.79	4	68.18	205					205	0.818
	15-Nov-06	Sauger	Adult	1				1	0.960	0.79	4	68.18	68					68	65.455
	15-Nov-06	Spottail shiner				1		1	0.002	0.79	4	68.18		68				68	0.136
	15-Nov-06	Walleye	Adult	1				1	0.869	0.79	4	68.18		68				68	59.250
	15-Nov-06	White perch	Adult	2				2	0.154	0.79	4	68.18	136					136	10.500
	15-Nov-06	White perch	YOY(<150mm)	319	386	54		759	4.029	0.79	4	68.18	21,750	26,318	3,682		51,750		274.729
99	15-Nov-06	Daily Total		675	3,488	334	111	4,608	14.422	0.79	4	68.18	46,023	237,818	22,773	7,568	314,182	983.286	

Individual estimates may not add to totals due to rounding.

**APPENDIX 9 (cont'd)**  
**Estimated Daily Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Event No.	Date	Species	Bayshore: Impinged Fish Collected							Duration (h)	Active Screens	Conversion Factor	Bayshore: Estimated 24-Hour Impingement						
			Life Stage	Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)				Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)	
	19-Nov-06	Alewife			1			1	0.010	0.50	4	108.00		108			108	1.080	
	19-Nov-06	Brook silverside			2			2	0.002	0.50	4	108.00		216			216	0.216	
	19-Nov-06	Emerald shiner	100	832	46	28		1,006	1.680	0.50	4	108.00	10,800	89,856	4,968	3,024	108,648	181,442	
	19-Nov-06	Gizzard shad	YOY(<200mm)	2	7	10		19	0.172	0.50	4	108.00	216	756	1,080		2,052	18,576	
	19-Nov-06	Spottail shiner		1	2			3	0.013	0.50	4	108.00	108	216			324	1.404	
	19-Nov-06	TROUT-perch			1			1	0.003	0.50	4	108.00		108			108	0.324	
	19-Nov-06	White perch	Adult	1				1	0.135	0.50	4	108.00	108				108	14.580	
	19-Nov-06	White perch	YOY(<150mm)	23	33	15		71	0.382	0.50	4	108.00	2,484	3,564	1,620		7,668	41,256	
	19-Nov-06	Yellow perch	YOY(<150mm)	1	2			3	0.025	0.50	4	108.00	108	216			324	2.700	
100	19-Nov-06	Daily Total		128	880	71	28	1,107	2.422	0.50	4	108.00	13,824	95,040	7,668	3,024	119,556	261,578	
	20-Nov-06	Emerald shiner			488	28	17	533	0.890	0.50	4	108.00		52,704	3,024	1,836	57,564	96,132	
	20-Nov-06	Gizzard shad	YOY(<200mm)	6	14	15	8	43	0.394	0.50	4	108.00	648	1,512	1,620	864	4,644	42,552	
	20-Nov-06	Spottail shiner	Adult	1	2			3	0.035	0.50	4	108.00	108	216			324	3.780	
	20-Nov-06	Spottail shiner				2		2	0.011	0.50	4	108.00		216			216	1.188	
	20-Nov-06	White perch	YOY(<150mm)	8	18	20	19	65	0.333	0.50	4	108.00	864	1,944	2,160	2,052	7,020	35,964	
101	20-Nov-06	Daily Total		15	524	63	44	646	1.663	0.50	4	108.00	1,620	56,592	6,804	4,752	69,768	179,616	
	29-Nov-06	Emerald shiner		609	896	1,696		3,201	6.178	1.17	4	46.27	28,180	41,460	78,478		148,118	285,868	
	29-Nov-06	Freshwater drum	YOY(<200mm)		1			1	0.021	1.17	4	46.27		46			46	0.972	
	29-Nov-06	Gizzard shad	YOY(<200mm)		11	21	1	33	0.150	1.17	4	46.27		509	972	46	1,527	6,941	
	29-Nov-06	Shortnose redhorse	Adult	1				1	0.171	1.17	4	46.27		46			46	7,913	
	29-Nov-06	Spottail shiner	Adult	1				1	0.114	1.17	4	46.27		46			46	5,275	
	29-Nov-06	Spottail shiner			1			1	0.006	1.17	4	46.27		46			46	0.278	
	29-Nov-06	TROUT-perch				1		1	0.007	1.17	4	46.27		46			46	0.324	
	29-Nov-06	White perch	Adult	5	4	1		10	1.039	1.17	4	46.27	231	185	46		463	48,077	
	29-Nov-06	White perch	YOY(<150mm)	102	256	200	1	559	3.795	1.17	4	46.27	4,720	11,846	9,254	46	25,866	175,583	
	29-Nov-06	Yellow perch	YOY(<150mm)	1				1	0.005	1.17	4	46.27	46				46	0.231	
102	29-Nov-06	Daily Total		719	1,169	1,919	2	3,809	11.485	1.17	4	46.27	33,270	54,093	88,797	93	176,252	531,462	
	5-Dec-06	Black crappie		2				2	0.110	2.00	4	27.00	54				54	2.970	
	5-Dec-06	Bluegill	YOY(<100mm)		1			1	0.001	2.00	4	27.00		27			27	0.027	
	5-Dec-06	Brook silverside			1	16	4	21	0.021	2.00	4	27.00		27	432	108	567	0.567	
	5-Dec-06	Emerald shiner		212	387	635	13	1,247	2.282	2.00	4	27.00	5,724	10,449	17,145	351	33,669	61,614	
	5-Dec-06	Freshwater drum	Adult		1			1	0.313	2.00	4	27.00		27			27	8,451	
	5-Dec-06	Gizzard shad	Adult	2	10	1		13	3.506	2.00	4	27.00	54	270	27		351	94,662	
	5-Dec-06	Gizzard shad	YOY(<200mm)	7	58	128	60	253	3.879	2.00	4	27.00	189	1,566	3,456	1,620	6,831	104,730	
	5-Dec-06	Logperch			1			1	0.004	2.00	4	27.00		27			27	0.108	
	5-Dec-06	Round goby		2	2	1		5	0.005	2.00	4	27.00	54	54			135	0.135	
	5-Dec-06	Spottail shiner		1		1	1	3	0.017	2.00	4	27.00	27		27		27	0.459	
	5-Dec-06	White perch	YOY(<150mm)	3	4	6		13	0.056	2.00	4	27.00	81	108	162		351	1,512	
	5-Dec-06	White sucker			1			1	1.146	2.00	4	27.00	27				27	30,942	
103	5-Dec-06	Daily Total		231	464	788	78	1,561	11.340	2.00	4	27.00	6,237	12,528	21,276	2,106	42,147	306,178	
	11-Dec-06	Bluegill	YOY(<100mm)			1		1	0.001	0.92	4	58.91		59			59	0.059	
	11-Dec-06	Brook silverside				1		1	0.001	0.92	4	58.91		59			59	0.059	
	11-Dec-06	Emerald shiner		78	133	893		1,104	2.120	0.92	4	58.91	4,595	7,835	52,606		65,036	124,868	
	11-Dec-06	Gizzard shad	Adult	6				6	1.544	0.92	4	58.91	353				353	90,956	
	11-Dec-06	Gizzard shad	YOY(<200mm)	50	180	191		421	5.408	0.92	4	58.91	2,945	10,604	11,252		24,801	318,604	
	11-Dec-06	White perch	YOY(<150mm)		6	5		11	0.070	0.92	4	58.91		353	295		648	4,124	
104	11-Dec-06	Daily Total		134	320	1,090		1,544	9.144	0.92	4	58.91	7,894	18,851	64,211		90,956	538,669	

Individual estimates may not add to totals due to rounding.

**APPENDIX 10**  
**Estimated Monthly Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Species	Life Stage	Bayshore: Estimated Monthly Impingement					
		Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
Bluegill	YOY(<100mm)		249			249	0.499
Bluntnose minnow			249			249	0.499
Channel catfish	YOY(<150mm)		748	494		1,242	2.738
Emerald shiner			392,274	113,505	499	506,277	1,689.500
Freshwater drum	Adult		3,237	1,242		4,479	1,172.221
Freshwater drum	YOY(<200mm)		9,970	6,454		16,424	270.741
Gizzard shad	Adult		1,247	494		1,741	562.712
Gizzard shad	YOY(<200mm)		249			249	2.494
Goldfish			249			249	12.468
Pumpkinseed			499			499	17.705
Round goby			5,486	2,494		7,980	17.705
Silver chub			489			489	25.425
Spottail shiner			1,227	14,957		16,184	30.686
Stonecat madtom			249			249	5.985
Trout-perch			23,426	7,721		31,146	189.370
Walleye	Adult			249	249	499	339.135
White bass	Adult		997	499		1,496	313.201
White bass	YOY(<150mm)		499			499	1.995
White perch	Adult		42,798	15,646	499	58,943	7,691.179
White perch	YOY(<150mm)			748		748	7.481
Yellow perch	Adult		1,237			1,237	69.353
Yellow perch	YOY(<150mm)			244		244	1.956
<b>May-05</b>		<b>0</b>	<b>485,380</b>	<b>164,747</b>	<b>1,247</b>	<b>651,373</b>	<b>12,425.047</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 10 (cont'd)**  
**Estimated Monthly Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Species	Life Stage	Bayshore: Estimated Monthly Impingement					
		Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
Bluegill	YOY(<100mm)		93	216		309	1.697
Bluntnose minnow				201		201	0.309
Channel catfish	Adult		565			565	81.584
Channel catfish	YOY(<150mm)		3,284	123	201	3,608	22.544
Common carp	YOY(<150mm)		3,829	91		3,920	2.014
Emerald shiner			383,382	127,124	107,866	618,371	1,765.553
Fathead minnow			108			108	0.108
Freshwater drum	Adult		3,996	755	216	4,967	1,006.208
Freshwater drum	YOY(<200mm)		6,394	1,356	108	7,859	473.415
Gizzard shad	Adult		123		123	245	75.109
Gizzard shad	YOY(<200mm)		65,902	182		66,083	17.807
Golden shiner			108			108	3.456
Largemouth bass	YOY(<150mm)		307			307	0.307
Logperch			1,061	93	91	1,244	1.244
Orangespotted sunfish				108		108	0.108
Pumpkinseed			93			93	0.926
Rainbow trout			93			93	7.776
Redhorse			182			182	0.182
Round goby			17,832	1,783	93	19,707	39.489
Silver chub			432	339		771	52.370
Spotfin shiner			216		93	309	0.309
Spottail shiner			3,615	1,512		5,127	8.250
Steelhead trout			93			93	7.776
Trout-perch			9,998	1,804		11,801	62.863
Walleye	Adult		740	324		1,064	325.509
Walleye	YOY(<200mm)		64,254	2,359	185	66,798	43.737
White bass	Adult		747			747	73.362
White bass	YOY(<150mm)		213,167	4,756		217,923	74.360
White perch	Adult		3,448	1,742	108	5,298	589.388
White perch	YOY(<150mm)		133,554	3,070		136,624	51.950
Yellow perch	Adult		492			492	37.323
Yellow perch	YOY(<150mm)		525			525	11.541
<b>Jun-05</b>		<b>0</b>	<b>918,630</b>	<b>147,936</b>	<b>109,082</b>	<b>1,175,648</b>	<b>4,838.572</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 10 (cont'd)**  
**Estimated Monthly Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Species	Life Stage	Bayshore: Estimated Monthly Impingement					
		Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
Bigmouth buffalo			123			123	0.123
Bluegill	Adult		123			123	2.468
Bluntnose minnow			1,727			1,727	1.727
Brown bullhead			123			123	0.247
Channel catfish	Adult		1,379	123		1,503	130.660
Channel catfish	YOY(<150mm)		8,997	494		9,491	18.653
Common carp	YOY(<150mm)		1,357	740		2,097	1.974
Emerald shiner			39,585	3,331		42,916	79.868
Fathead minnow			617			617	0.617
Freshwater drum	Adult		370			370	20.975
Freshwater drum	YOY(<200mm)		10,263	123		10,386	15.919
Gizzard shad	YOY(<200mm)		1,044,623	9,700		1,054,323	785.610
Green sunfish			123			123	0.123
Largemouth bass	YOY(<150mm)		381			381	1.179
Logperch			11,068	475		11,543	11.256
Orangespotted sunfish				123		123	0.740
Round goby			14,985	1,892		16,876	34.633
Silver chub			1,851			1,851	8.883
Spottail shiner			58,826	6,909	123	65,859	80.873
Trout-perch			1,625	391		2,015	5.511
Walleye	Adult		247			247	59.840
Walleye	YOY(<200mm)		2,036	370		2,406	7.238
White bass	Adult			123		123	28.624
White bass	YOY(<150mm)		1,233,425	66,749		1,300,174	633.097
White crappie	YOY(<150mm)		114	123		237	0.176
White perch	Adult		2,139	370		2,509	280.177
White perch	YOY(<150mm)		992,965	131,761	123	1,124,849	669.350
Yellow bullhead			123			123	0.123
Yellow perch	Adult		351			351	24.587
<b>Jul-05</b>		<b>0</b>	<b>3,429,547</b>	<b>223,798</b>	<b>247</b>	<b>3,653,593</b>	<b>2,905.252</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 10 (cont'd)**  
**Estimated Monthly Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Species	Life Stage	Bayshore: Estimated Monthly Impingement					
		Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
Bluegill	YOY(<100mm)		697	118		816	0.579
Brook silverside			10,244	342		10,586	10.219
Channel catfish	Adult		465			465	14.497
Channel catfish	YOY(<150mm)		11,129	513		11,642	35.650
Channel darter			342			342	0.342
Emerald shiner			41,541	1,027		42,567	30.685
Freshwater drum	Adult		122			122	6.845
Freshwater drum	YOY(<200mm)		76,996	1,622		78,618	709.655
Gizzard shad	YOY(<200mm)		182,224	6,569	293	189,086	576.460
Golden shiner			122			122	0.122
Largemouth bass	YOY(<150mm)		122			122	1.834
Lepomis spp.				171		171	0.171
Logperch			22,342	1,956		24,298	12.323
Pumpkinseed			293			293	8.948
Quillback			171			171	1.540
Round goby			30,747	1,614		32,361	40.335
Silver chub			4,278			4,278	4.107
Spottail shiner			111,599	4,081	579	116,259	107.791
Stonecat madtom			171			171	0.513
Trout-perch			19,512	1,158		20,670	23.375
Walleye	Adult		118			118	39.997
Western banded killifish			171			171	0.171
White bass	YOY(<150mm)		45,596			45,596	92.205
White perch	Adult		171			171	15.573
White perch	YOY(<150mm)		518,581	1,320	342	520,243	1,382.835
Yellow perch	Adult		974			974	115.309
<b>Aug-05</b>		<b>0</b>	<b>1,078,728</b>	<b>20,491</b>	<b>1,215</b>	<b>1,100,434</b>	<b>3,232.081</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 10 (cont'd)**  
**Estimated Monthly Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Species	Life Stage	Bayshore: Estimated Monthly Impingement					
		Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
Bluegill	YOY(<100mm)		162			162	0.324
Channel catfish	Adult		292	162		454	20.995
Channel catfish	YOY(<150mm)		4,314	4,547	93	8,953	61.328
Common carp	Adult			108		108	2.916
Emerald shiner			12,695	126,953	130	139,778	249.877
Fathead minnow			270			270	0.270
Freshwater drum	Adult		400	306		706	59.408
Freshwater drum	YOY(<200mm)		11,127	11,550		22,677	307.820
Gizzard shad	Adult			177		177	2.650
Gizzard shad	YOY(<200mm)		62,395	390,911	130	453,435	2,345.355
Largemouth bass	YOY(<150mm)		162	108		270	2.160
Logperch			1,472	353		1,825	5.192
Orangespotted sunfish			162			162	2.592
Pumpkinseed			741			741	18.584
Round goby			5,022	3,523		8,545	16.952
Silver chub				1,015		1,015	4.493
Smallmouth bass	YOY(<100mm)		432			432	9.450
Spotfin shiner				432		432	1.404
Spottail shiner			11,206	10,316		21,522	41.770
Tadpole madtom			162	324		486	0.810
Trout-perch			2,052	6,518		8,570	18.763
Walleye	YOY(<200mm)		130	292		421	20.704
White bass	YOY(<150mm)		4,450	9,013	108	13,570	76.519
White perch	YOY(<150mm)		79,613	343,308	389	423,310	1,867.655
Yellow perch	Adult		492			492	43.194
Yellow perch	YOY(<150mm)		93	130		222	2.907
<b>Sep-05</b>		<b>0</b>	<b>197,841</b>	<b>910,047</b>	<b>849</b>	<b>1,108,736</b>	<b>5,184.090</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 10 (cont'd)**  
**Estimated Monthly Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Species	Life Stage	Bayshore: Estimated Monthly Impingement					
		Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
Black bullhead		145				145	7.812
Bluegill	YOY(<100mm)	4,118	810			4,928	8.266
Bluntnose minnow		96				96	0.193
Brook silverside		116	116			231	0.231
Brown bullhead		231				231	7.754
Central stoneroller		1,630				1,630	32.601
Channel catfish	YOY(<150mm)	12,798	1,196	96		14,091	166.907
Emerald shiner		305,187	707,288	1,128		1,013,604	1,430.696
Freshwater drum	Adult	984	2,893	145		4,022	111.104
Freshwater drum	YOY(<200mm)	10,156	9,201			19,356	502.910
Gizzard shad	Adult		463			463	86.106
Gizzard shad	YOY(<200mm)	2,244,024	5,329,327			7,573,351	76,363.913
Largemouth bass	YOY(<150mm)	145				145	1.157
Logperch		20,928	1,157			22,086	74.841
Pumpkinseed		887				887	11.670
Quillback		96				96	0.193
Round goby		309	1,843	116		2,267	8.723
Smallmouth bass	YOY(<150mm)	4,697	145			4,842	71.147
Spottail shiner		5,787	9,837	434		16,058	65.882
Trout-perch		665	637			1,302	4.977
Walleye	Adult	231				231	249.290
Walleye	YOY(<200mm)	116				116	12.383
White bass	Adult	492	116			608	45.310
White bass	YOY(<150mm)	3,694	347			4,041	54.011
White perch	Adult	926	145			1,071	94.901
White perch	YOY(<150mm)	862,235	693,387			1,555,622	9,227.534
White sucker		231				231	8.217
Yellow perch	Adult	96	145			241	33.563
Yellow perch	YOY(<150mm)	96	145			241	1.447
<b>Oct-05</b>		<b>0</b>	<b>3,481,118</b>	<b>6,759,197</b>	<b>1,919</b>	<b>10,242,235</b>	<b>88,683.736</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 10 (cont'd)**  
**Estimated Monthly Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Species	Life Stage	Bayshore: Estimated Monthly Impingement					
		Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
Bluegill	YOY(<100mm)		5,457	1,300		6,758	6.499
Brook silverside				1,042		1,042	1.042
Channel catfish	YOY(<150mm)		5,489			5,489	42.080
Emerald shiner			4,277,670	1,406,781	54,782	5,739,232	12,182.627
Freshwater drum	Adult		780	618		1,398	408.340
Freshwater drum	YOY(<200mm)		2,373	7,183		9,556	125.744
Gizzard shad	Adult		7,734	2,558		10,292	1,002.458
Gizzard shad	YOY(<200mm)		856,008	637,072		1,493,080	16,158.456
Goldfish			780	395		1,174	18.017
Green sunfish			521			521	5.208
Largemouth bass	YOY(<150mm)		1,628			1,628	43.943
Largemouth bass			814			814	131.014
Logperch			814			814	0.814
Northern pike			395			395	246.196
Northern redfin shiner			260			260	0.260
Rainbow smelt			2,339	6,882		9,221	6.466
Round goby				395		395	1.578
Spottail shiner			2,668	521		3,188	16.207
Tadpole madtom			260			260	0.781
Trout-perch			395	1,943		2,338	5.465
Walleye	Adult		1,617			1,617	1,243.837
Walleye	YOY(<200mm)		395			395	19.727
White bass	Adult		962			962	438.472
White bass	YOY(<150mm)		1,943			1,943	33.036
White crappie	YOY(<150mm)			260		260	0.521
White perch	Adult		4,501	307		4,808	507.949
White perch	YOY(<150mm)		1,313,168	271,266	3,156	1,587,591	10,147.924
Yellow perch	YOY(<150mm)		54,352	166,388		220,741	1,536.065
<b>Nov-05</b>		<b>0</b>	<b>6,543,321</b>	<b>2,504,911</b>	<b>57,938</b>	<b>9,106,170</b>	<b>44,330.725</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 10 (cont'd)**  
**Estimated Monthly Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Species	Life Stage	Bayshore: Estimated Monthly Impingement					
		Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
Bluegill	YOY(<100mm)			658		658	0.658
Brook silverside				1,305		1,305	2.611
Channel catfish	YOY(<150mm)		648			648	15.546
Emerald shiner			43,400	5,507,260	2,170	5,552,830	10,220.855
Freshwater drum	Adult			648		648	86.800
Gizzard shad	Adult		4,761	12,418		17,179	1,544.946
Gizzard shad	YOY(<200mm)		31,093	6,825,498		6,856,591	84,682.946
Rainbow smelt				13,020		13,020	13.020
Round goby				658		658	3.945
Spottail shiner				10,443		10,443	71.195
White crappie	YOY(<150mm)		648			648	20.728
White perch	YOY(<150mm)		42,979	366,332		409,310	2,393.800
Yellow perch	Adult		648			648	99.755
Yellow perch	YOY(<150mm)			658		658	11.836
<b>Dec-05</b>		<b>0</b>	<b>124,176</b>	<b>12,738,896</b>	<b>2,170</b>	<b>12,865,242</b>	<b>99,168.641</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 10 (cont'd)**  
**Estimated Monthly Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Species	Life Stage	Bayshore: Estimated Monthly Impingement					
		Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
Bluegill	Adult			868		868	0.868
Brook silverside				760		760	1.085
Brown bullhead			434			434	10.416
Emerald shiner		6,316	40,492	2,217,567	19,964	2,284,338	5,194.034
Freshwater drum	Adult		434	326		760	272.118
Gizzard shad	Adult		208,072	623,569	10,308	841,949	17,231.002
Goldfish			760			760	6.944
Round goby		326				326	0.326
Smallmouth bass	Adult	326				326	286.440
Spottail shiner				1,891		1,891	9.891
Trout-perch				326		326	1.953
White bass	Adult		486			486	153.519
White crappie	Adult			434		434	0.868
White perch	Adult		2,816	14,236		17,052	100.847
Yellow perch	Adult		868			868	6.076
<b>Jan-06</b>		<b>6,967</b>	<b>254,361</b>	<b>2,859,976</b>	<b>30,272</b>	<b>3,151,575</b>	<b>23,276.387</b>
Black bullhead			256			256	5.113
Brook silverside			511			511	0.511
Brown bullhead			550			550	9.625
Channel catfish	Adult		294	495		789	73.763
Emerald shiner		17,903	58,066	1,536,608		1,612,578	2,662.955
Freshwater drum	Adult		294	542		836	90.072
Gizzard shad	Adult		24,913	286,184	1,534	312,631	4,459.125
Logperch				294		294	0.294
Quillback				294		294	2.058
Rainbow smelt				351		351	0.351
Silver chub				248		248	8.170
Smallmouth bass	Adult		256			256	3.068
Spottail shiner			702			702	9.829
White perch	Adult	351	1,744	2,951		5,046	28.813
<b>Feb-06</b>		<b>18,254</b>	<b>87,586</b>	<b>1,827,966</b>	<b>1,534</b>	<b>1,935,340</b>	<b>7,353.749</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 10 (cont'd)**  
**Estimated Monthly Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Species	Life Stage	Bayshore: Estimated Monthly Impingement					
		Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
Black darter			372			372	2.232
Bluegill	Adult			1,712	224	1,936	3.128
Brook silverside				596		596	0.596
Brown bullhead				1,488		1,488	35.712
Channel catfish	Adult			372		372	0.744
Emerald shiner			848,027	5,808,503	3,361	6,659,892	12,399.891
Freshwater drum	Adult		224	521		745	15.647
Gizzard shad	Adult		74,571	884,756		959,327	16,363.968
Goldfish			224	149		373	19.989
Northern pike		224				224	81.571
Orangespotted sunfish				372		372	9.672
Pumpkinseed			224			224	12.998
Round goby		372		372		744	2.232
Sand shiner				744		744	0.744
Spottail shiner			2,160	18,510		20,670	131.453
Tadpole madtom			372			372	2.232
Trout-perch			1,736	18,600		20,336	250.976
Walleye	Adult		496	149		645	538.557
White bass	Adult		1,960	446	372	2,778	793.209
White perch	Adult		868	7,835		8,703	228.494
White sucker			446	149		595	378.250
Yellow bullhead			744			744	8.928
Yellow perch	Adult		968	372		1,340	234.414
<b>Mar-06</b>		<b>596</b>	<b>933,393</b>	<b>6,745,645</b>	<b>3,958</b>	<b>7,683,592</b>	<b>31,515.638</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 10 (cont'd)**  
**Estimated Monthly Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Species	Life Stage	Bayshore: Estimated Monthly Impingement					
		Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
Bigmouth buffalo			158			158	97.335
Black crappie	Adult			126		126	0.252
Bluegill	Adult		158	2,483		2,640	17.090
Bluntnose minnow				126		126	0.126
Brook silverside				977		977	1.103
Brown bullhead			4,283	126		4,409	85.757
Channel catfish	Adult	508	13,149	1,323		14,980	558.595
Common carp	Adult		284	1,638		1,922	37.926
Emerald shiner			436,121	3,107,355	158	3,543,633	6,367.431
Flathead catfish				158		158	0.158
Freshwater drum	Adult		5,415	43,738		49,154	3,353.283
Gizzard shad	Adult		15,543	326,715	1,527	343,786	6,840.386
Goldfish			158			158	42.998
Largemouth bass			539			539	78.368
Logperch				158		158	0.630
Orangespotted sunfish			126	624		750	1.939
Pumpkinseed		126	466	567		1,159	27.681
Quillback				693		693	29.232
Redhorse				508		508	2.031
Round goby			791	1,386		2,177	6.626
Sand shiner			2,205	27,248		29,453	18.900
Shorthead redhorse		0	158	473	0	630	8.505
Silver chub			158			158	3.938
Silver lamprey		152				152	14.877
Spottail shiner			5,437	45,913		51,350	287.116
Tadpole madtom		126		158		284	0.914
Trout-perch			1,555	28,811		30,366	181.526
Walleye	Adult		1,919	1,008		2,927	2,212.907
White bass	Adult		2,468	3,271		5,740	544.228
White perch	Adult	152	13,264	9,676		23,093	3,055.535
White sucker			126	126		252	3.780
Yellow bullhead			382			382	16.036
Yellow perch	Adult	152	2,643	854		3,649	183.704
<b>Apr-06</b>		<b>1,215</b>	<b>507,505</b>	<b>3,606,238</b>	<b>1,685</b>	<b>4,116,642</b>	<b>24,080.911</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 10 (cont'd)**  
**Estimated Monthly Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

<b>Species</b>	<b>Life Stage</b>	<b>Bayshore: Estimated Monthly Impingement</b>					
		<b>Live-Healthy</b>	<b>Live-Stressed</b>	<b>Recently Dead</b>	<b>Long Dead</b>	<b>Total #</b>	<b>Weight (kg)</b>
Black bullhead			260			260	14.582
Bluegill	Adult			1,103		1,103	13.720
Bluntnose minnow			260			260	0.260
Brown bullhead			521			521	31.248
Channel catfish	Adult		5,777	2,021		7,798	310.312
Common carp	Adult		260	731	260	1,252	197.093
Creek chub			260			260	2.604
Emerald shiner			372	685,156		685,528	2,004.490
Freshwater drum	Adult		2,380	28,528		30,909	4,698.797
Gizzard shad	Adult		1,128	10,476		11,605	452.714
Golden shiner			186	186		372	0.558
Goldfish				260		260	2.344
Logperch			186	521		707	2.306
Orangespotted sunfish				211		211	2.107
Pumpkinseed			260			260	2.083
Quillback				446		446	31.136
Redhorse			781	471		1,252	1,114.336
Round goby			1,239	2,505		3,744	5.046
Sand shiner				3,831		3,831	2.219
Silver chub			1,736	2,541		4,277	206.246
Smallmouth bass	Adult		260			260	53.122
Spottail shiner			186	4,575		4,761	25.691
Trout-perch			3,286	89,989		93,275	474.942
Walleye	Adult		2,344	917		3,261	20,666.409
White bass	Adult		521	731		1,252	299.008
White crappie	Adult			260		260	1.823
White perch	Adult		23,396	16,193		39,589	5,679.614
Yellow perch	Adult		1,798	260		2,058	153.310
<b>May-06</b>		<b>0</b>	<b>47,400</b>	<b>851,915</b>	<b>260</b>	<b>899,576</b>	<b>36,448.120</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 10 (cont'd)**  
**Estimated Monthly Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

<b>Species</b>	<b>Life Stage</b>	<b>Bayshore: Estimated Monthly Impingement</b>					
		<b>Live-Healthy</b>	<b>Live-Stressed</b>	<b>Recently Dead</b>	<b>Long Dead</b>	<b>Total #</b>	<b>Weight (kg)</b>
Black redhorse	Adult	1,652				1,652	267.698
Bluegill	YOY(<100mm)	8,366	7,280			15,646	27.431
Brook silverside				550		550	0.550
Channel catfish	Adult	2,703				2,703	160.618
Channel catfish	YOY(<150mm)	8,143	1,652	5,811	346	15,952	34.582
Emerald shiner		122,877	219,127	663,049	4,957	1,010,011	1,719.739
Freshwater drum	Adult		1,382			1,382	237.082
Freshwater drum	YOY(<200mm)		4,892	2,765		7,656	104.839
Gizzard shad	Adult	3,046				3,046	1,143.791
Gizzard shad	YOY(<200mm)	339,918	1,575,552	1,586,270	33,277	3,535,017	22,396.293
Goldfish	Adult	550				550	315.046
Goldfish		550	1,100			1,649	34.089
Logperch		346				346	1.728
Round goby		2,216	2,641	3,467		8,324	23.541
Shorthead redhorse	Adult		1,321			1,321	246.938
Smallmouth bass	YOY(<150mm)	1,321				1,321	15.846
Spottail shiner	Adult		1,100	691		1,791	18.395
Spottail shiner		346		1,382		1,728	5.184
Trout-perch				1,728		1,728	7.949
White bass	Adult	1,321				1,321	56.783
White perch	Adult	10,067	10,036			20,103	1,700.132
White perch	YOY(<150mm)	80,608	461,259	240,748	1,870	784,486	3,566.106
Yellow perch	Adult	346				346	38.016
Yellow perch	YOY(<150mm)		691			691	4.493
<b>Oct-06</b>		<b>584,374</b>	<b>2,288,033</b>	<b>2,506,462</b>	<b>40,451</b>	<b>5,419,319</b>	<b>32,126.868</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 10 (cont'd)**  
**Estimated Monthly Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Species	Life Stage	Bayshore: Estimated Monthly Impingement					
		Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
Alewife		405	135			540	6,210
Bluegill	YOY(<100mm)	1,181	540	101		1,823	3,004
Brook silverside			1,167	221		1,388	1.388
Brown bullhead	Adult	135				135	20.385
Channel catfish	YOY(<150mm)	1,036	101	101		1,238	1.441
Channel catfish	YOY(150mm)	135				135	0.135
Emerald shiner	Adult		101			101	0.608
Emerald shiner		248,434	1,516,926	416,101	54,643	2,236,104	3,988.293
Freshwater drum	YOY(<200mm)	221	410	135		766	14.164
Gizzard shad	Adult	526				526	67.398
Gizzard shad	YOY(<200mm)	29,451	74,988	69,335	6,020	179,794	1,402.601
Goldfish		1,372	1,307			2,679	22.268
Largemouth bass	YOY(<150mm)		236			236	8.100
Round goby		902				902	3.203
Sauger	Adult	256				256	245.455
Shorthead redhorse	Adult	394	135			529	88.716
Smallmouth bass	Adult	221				221	49.466
Smallmouth bass	YOY(<150mm)		221			221	3.754
Spottail shiner	Adult	714	810			1,524	35.441
Spottail shiner		540	2,030	391		2,960	16.639
Trout-perch			405	394		799	3.755
Walleye	Adult		256			256	222.188
White crappie	YOY(<150mm)		101			101	0.101
White perch	Adult	2,815	915	174		3,903	369.646
White perch	YOY(<150mm)	152,823	261,388	99,981	8,679	522,871	2,936.367
Yellow perch	Adult	135				135	15.525
Yellow perch	YOY(<150mm)	714	1,031			1,744	13.398
<b>Nov-06</b>		<b>442,004</b>	<b>1,863,472</b>	<b>587,070</b>	<b>69,342</b>	<b>2,961,888</b>	<b>9,539.647</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 10 (cont'd)**  
**Estimated Monthly Impingement of Fish at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Species	Life Stage	Bayshore: Estimated Monthly Impingement					
		Live-Healthy	Live-Stressed	Recently Dead	Long Dead	Total #	Weight (kg)
Black crappie		837				837	46.035
Bluegill	YOY(<100mm)		419	913		1,332	1.332
Brook silverside			1,332	6,696	1,674	9,702	9.702
Emerald shiner		159,943	283,401	1,081,138	5,441	1,529,922	2,890.482
Freshwater drum	Adult		419			419	130.991
Gizzard shad	Adult	6,316	4,185	419		10,919	2,877.073
Gizzard shad	YOY(<200mm)	48,584	188,629	227,968	25,110	490,292	6,561.681
Logperch		419				419	1.674
Round goby		837	837	419		2,093	2.093
Spottail shiner		419		419	419	1,256	7.115
White perch	YOY(<150mm)	1,256	7,153	7,076		15,485	87.352
White sucker		419				419	479.601
<b>Dec-06</b>		<b>219,028</b>	<b>486,373</b>	<b>1,325,047</b>	<b>32,643</b>	<b>2,063,091</b>	<b>13,095.129</b>
<b>Total</b>		<b>1,272,438</b>	<b>22,726,864</b>	<b>43,780,341</b>	<b>354,809</b>	<b>68,134,453</b>	<b>438,204.593</b>

Individual estimates may not add to totals due to rounding.

**APPENDIX 11**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Bluegill																	
Length Range (TL, mm)	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Oct-06	Nov-06	Dec-06	
1 - 14																	
15 - 24																	
25 - 34				1		1	3								1		
35 - 44		1		4		5	5					1	1		6	4	
45 - 54	1			1		9		1			2	4	1	3	7		
55 - 64					1	10	1		1		1	4	3	3	3	3	
65 - 74		1				2	1					4				1	
75 - 84												3					
85 - 94		1	1														
95 - 104																	
105 - 114													1				
115 - 124													1				
125 - 134																	
135 - 144													1				
145 - 154																	
<b>Sample Size</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>6</b>	<b>1</b>	<b>27</b>	<b>10</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>18</b>	<b>5</b>	<b>13</b>	<b>15</b>	<b>0</b>	
<b>Maximum</b>	<b>50</b>	<b>94</b>	<b>94</b>	<b>47</b>	<b>63</b>	<b>70</b>	<b>66</b>	<b>45</b>	<b>55</b>	<b>N/A</b>	<b>55</b>	<b>122</b>	<b>141</b>	<b>58</b>	<b>65</b>	<b>N/A</b>	
<b>Minimum</b>	<b>50</b>	<b>41</b>	<b>94</b>	<b>27</b>	<b>63</b>	<b>28</b>	<b>32</b>	<b>45</b>	<b>55</b>	<b>N/A</b>	<b>36</b>	<b>38</b>	<b>47</b>	<b>33</b>	<b>36</b>	<b>N/A</b>	
<b>Average</b>	<b>50</b>	<b>68</b>	<b>94</b>	<b>38</b>	<b>63</b>	<b>51</b>	<b>43</b>	<b>45</b>	<b>55</b>	<b>N/A</b>	<b>46</b>	<b>68</b>	<b>72</b>	<b>46</b>	<b>48</b>	<b>N/A</b>	

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Brook silverside																	
Length Range (TL, mm)	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Oct-06	Nov-06	Dec-06	
1 - 14																	
15 - 24																	
25 - 34																	
35 - 44					13												
45 - 54					31												
55 - 64					12			1									1
65 - 74						2	3	1	1	1	2	4			1	4	
75 - 84								1	1	1		3					
85 - 94																	
<b>Sample Size</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>56</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>0</b>	
<b>Maximum</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>63</b>	<b>N/A</b>	<b>71</b>	<b>72</b>	<b>78</b>	<b>77</b>	<b>76</b>	<b>70</b>	<b>78</b>	<b>N/A</b>	<b>71</b>	<b>72</b>	<b>N/A</b>	
<b>Minimum</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>36</b>	<b>N/A</b>	<b>69</b>	<b>63</b>	<b>67</b>	<b>70</b>	<b>73</b>	<b>68</b>	<b>70</b>	<b>N/A</b>	<b>71</b>	<b>62</b>	<b>N/A</b>	
<b>Average</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>49</b>	<b>N/A</b>	<b>70</b>	<b>68</b>	<b>73</b>	<b>74</b>	<b>75</b>	<b>69</b>	<b>74</b>	<b>N/A</b>	<b>71</b>	<b>66</b>	<b>N/A</b>	

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

<b>Brown bullhead</b>																
<b>Length Range (TL, mm)</b>	<b>May-05</b>	<b>Jun-05</b>	<b>Jul-05</b>	<b>Aug-05</b>	<b>Sep-05</b>	<b>Oct-05</b>	<b>Nov-05</b>	<b>Dec-05</b>	<b>Jan-06</b>	<b>Feb-06</b>	<b>Mar-06</b>	<b>Apr-06</b>	<b>May-06</b>	<b>Oct-06</b>	<b>Nov-06</b>	<b>Dec-06</b>
1 - 14																
15 - 24																
25 - 34																
35 - 44			1													
45 - 54																
55 - 64																
65 - 74											2	4				
75 - 84												4				
85 - 94						1						4				
95 - 104										1		3				
105 - 114											1	1				
115 - 124										1		5				
125 - 134																
135 - 144									1			1				
145 - 154											1	4	1			
155 - 164						1						2				
165 - 174																
175 - 184																
185 - 194												1				
195 - 204																
205 - 214																
215 - 224														1		
<b>Sample Size</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>28</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>
<b>Maximum</b>	<b>N/A</b>	<b>N/A</b>	<b>44</b>	<b>N/A</b>	<b>N/A</b>	<b>160</b>	<b>N/A</b>	<b>N/A</b>	<b>137</b>	<b>123</b>	<b>145</b>	<b>158</b>	<b>185</b>	<b>N/A</b>	<b>221</b>	<b>N/A</b>
<b>Minimum</b>	<b>N/A</b>	<b>N/A</b>	<b>44</b>	<b>N/A</b>	<b>N/A</b>	<b>90</b>	<b>N/A</b>	<b>N/A</b>	<b>137</b>	<b>101</b>	<b>67</b>	<b>65</b>	<b>145</b>	<b>N/A</b>	<b>221</b>	<b>N/A</b>
<b>Average</b>	<b>N/A</b>	<b>N/A</b>	<b>44</b>	<b>N/A</b>	<b>N/A</b>	<b>125</b>	<b>N/A</b>	<b>N/A</b>	<b>137</b>	<b>112</b>	<b>99</b>	<b>107</b>	<b>165</b>	<b>N/A</b>	<b>221</b>	<b>N/A</b>

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Length Range (TL, mm)	Channel catfish																	
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Oct-06	Nov-06	Dec-06
1 - 14																		
15 - 24			2													1		
25 - 34		1	4	6	1											1		
35 - 44			6	14	3	1							1			2	5	3
45 - 54	1	1	1	22	11	5				1	1	3				12	5	
55 - 64	1	2	3	7	10	2	1					6				6		
65 - 74	1	2	2	7	4	3			1			2	3			2		
75 - 84	1	1	1	5	6	3	1					1			1	1	1	
85 - 94	1	4	4	1	3	7				1		1	1				1	
95 - 104		6	7	1	7	16						2	3					
105 - 114		8	8	3	4	22	3					3	1					
115 - 124				1	9	9	1					7	5					
125 - 134				1	1	11						8	4					
135 - 144				4	3	5						10	4					
145 - 154				2	2	3		1				3	1		1	2		
155 - 164		1	2	1		3						4	1					
165 - 174				1								4	1			1		
175 - 184					1	2						4						
185 - 194			1		2							10	3			2		
195 - 204												6	2			1		
205 - 214												8	1					
215 - 224																		
225 - 234												1						
235 - 244			2															
245 - 254												3						
255 - 264		1	1									1						
265 - 274		1	2										1					
275 - 284		1	1									1						
285 - 294		1	1						1		1							
295 - 304																		
305 - 314													1					
315 - 324																		
325 - 334													1					
335 - 344																		
345 - 354																		
355 - 364																		
365 - 374																		
375 - 384																		
385 - 394			1															
395 - 404																		
<b>Sample Size</b>	<b>5</b>	<b>30</b>	<b>49</b>	<b>76</b>	<b>67</b>	<b>92</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>90</b>	<b>33</b>	<b>0</b>	<b>6</b>	<b>33</b>	<b>9</b>	<b>0</b>
<b>Maximum</b>	<b>90</b>	<b>286</b>	<b>385</b>	<b>174</b>	<b>187</b>	<b>178</b>	<b>123</b>	<b>146</b>	<b>72</b>	<b>287</b>	<b>45</b>	<b>285</b>	<b>325</b>	<b>N/A</b>	<b>150</b>	<b>203</b>	<b>76</b>	<b>N/A</b>
<b>Minimum</b>	<b>45</b>	<b>26</b>	<b>21</b>	<b>26</b>	<b>34</b>	<b>39</b>	<b>55</b>	<b>146</b>	<b>72</b>	<b>50</b>	<b>45</b>	<b>43</b>	<b>65</b>	<b>N/A</b>	<b>21</b>	<b>41</b>	<b>35</b>	<b>N/A</b>
<b>Average</b>	<b>67</b>	<b>116</b>	<b>112</b>	<b>67</b>	<b>88</b>	<b>108</b>	<b>96</b>	<b>146</b>	<b>72</b>	<b>141</b>	<b>45</b>	<b>152</b>	<b>149</b>	<b>N/A</b>	<b>59</b>	<b>76</b>	<b>48</b>	<b>N/A</b>

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Length Range (TL, mm)	Common carp															
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Oct-06	Nov-06	Dec-06
1 - 14																
15 - 24																
25 - 34		24	6													
35 - 44		1	6													
45 - 54			7													
55 - 64																
65 - 74												1				
75 - 84																
85 - 94																
95 - 104												1				
105 - 114																
115 - 124													1			
125 - 134					1											
135 - 144																
145 - 154																
155 - 164																
165 - 174												1				
175 - 184																
185 - 194																
195 - 204												1				
205 - 214																
215 - 224													2			
225 - 234																
235 - 244													1			
245 - 254																
255 - 264																
265 - 274																
275 - 284													1			
285 - 294																
<b>Sample Size</b>	<b>0</b>	<b>25</b>	<b>19</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Maximum</b>	<b>N/A</b>	<b>36</b>	<b>54</b>	<b>N/A</b>	<b>130</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>201</b>	<b>276</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Minimum</b>	<b>N/A</b>	<b>26</b>	<b>30</b>	<b>N/A</b>	<b>130</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>68</b>	<b>118</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Average</b>	<b>N/A</b>	<b>30</b>	<b>41</b>	<b>N/A</b>	<b>130</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>136</b>	<b>215</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

<b>Emerald shiner</b>																
<b>Length Range (TL, mm)</b>	<b>May-05</b>	<b>Jun-05</b>	<b>Jul-05</b>	<b>Aug-05</b>	<b>Sep-05</b>	<b>Oct-05</b>	<b>Nov-05</b>	<b>Dec-05</b>	<b>Jan-06</b>	<b>Feb-06</b>	<b>Mar-06</b>	<b>Apr-06</b>	<b>May-06</b>	<b>Oct-06</b>	<b>Nov-06</b>	<b>Dec-06</b>
1 - 14																
15 - 24																1
25 - 34	3		5	15	9	6									5	
35 - 44	11	2	6	65	49	27	1					4		26	19	
45 - 54	22	25	2	53	68	46	13		1	9	17	8	2	23	68	6
55 - 64	70	166	11	17	104	226	108	35	48	64	112	130	60	113	455	54
65 - 74	48	105	60	10	30	111	214	92	108	116	192	199	115	160	511	124
75 - 84	25	49	3	3	5	14	88	32	51	54	69	75	27	12	61	9
85 - 94	51	95	1			9	31	12	18	11	20	31	11	10	50	5
95 - 104	4	18					12	6	12	5	10	24	17	1	1	2
105 - 114	1	3					1	1	2	2	1	2			1	
115 - 124																
<b>Sample Size</b>	<b>235</b>	<b>463</b>	<b>88</b>	<b>163</b>	<b>265</b>	<b>439</b>	<b>468</b>	<b>178</b>	<b>240</b>	<b>261</b>	<b>421</b>	<b>473</b>	<b>232</b>	<b>351</b>	<b>1,166</b>	<b>200</b>
<b>Maximum</b>	<b>109</b>	<b>106</b>	<b>91</b>	<b>82</b>	<b>82</b>	<b>90</b>	<b>110</b>	<b>110</b>	<b>105</b>	<b>107</b>	<b>112</b>	<b>108</b>	<b>103</b>	<b>111</b>	<b>100</b>	<b>100</b>
<b>Minimum</b>	<b>31</b>	<b>42</b>	<b>25</b>	<b>30</b>	<b>25</b>	<b>28</b>	<b>43</b>	<b>58</b>	<b>53</b>	<b>47</b>	<b>50</b>	<b>41</b>	<b>55</b>	<b>30</b>	<b>40</b>	<b>49</b>
<b>Average</b>	<b>69</b>	<b>75</b>	<b>64</b>	<b>47</b>	<b>53</b>	<b>58</b>	<b>69</b>	<b>72</b>	<b>73</b>	<b>70</b>	<b>69</b>	<b>69</b>	<b>71</b>	<b>63</b>	<b>66</b>	<b>67</b>

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Length Range (TL, mm)	Freshwater drum																	
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Oct-06	Nov-06	Dec-06
1 - 14																		
15 - 24			2													1		
25 - 34			10	3	1													
35 - 44			2	3	3											3		
45 - 54			2	6												2		
55 - 64			3	26	4	1	1									8	1	
65 - 74				33	3	1	1							2		3	1	
75 - 84	1	3	2	48	5	1	1							1		2		2
85 - 94	5	3		71	8								2	1		1		
95 - 104	8	7		74	22	6							2	2		1		
105 - 114	12	17		64	32	18	1						3	1			2	
115 - 124	12	15		20	33	23	1						12	2				1
125 - 134	11	16	1	9	43	17	1					1	36	18		4	1	
135 - 144	3	7	1	1	11	37				1	1	37	22			4		
145 - 154		1			4	21	2				1	48	17			1		
155 - 164	2	1			1	7	1					17	11					
165 - 174	2	1				3						9	2			1		
175 - 184	2	1			2							1	1					
185 - 194	3	3	2	1									2				1	
195 - 204	3	1			1							2	2			1		
205 - 214	2	3		1	1							2	2					
215 - 224		4			3	2						6	6					
225 - 234	2	3				1						4	8			1		
235 - 244	1	4				1				1		1	3					
245 - 254		2						1				1		3				
255 - 264	2	4					1					1	2					
265 - 274	1	2										2				1		
275 - 284		4								1		1						

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Freshwater drum (cont'd)																		
Length Range (TL, mm)	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Oct-06	Nov-06	Dec-06
285 - 294	2	1										2	1					
295 - 304	1	4											1	1				
305 - 314	1	2					1						1	1				
315 - 324		1							1				1	2				
325 - 334				1						1			1	2				
335 - 344	1	1					1		1			4			1			
345 - 354		1		1								2	2					
355 - 364	1											2	1					
365 - 374	1	1																
375 - 384		1										1	3					
385 - 394		1				1												
395 - 404												1	2					
405 - 414																		
415 - 424													1					
425 - 434																		
435 - 444												1						
445 - 454																		
455 - 464	1												1					
465 - 474		1										1						
475 - 484												1						
<b>Sample Size</b>	<b>80</b>	<b>116</b>	<b>25</b>	<b>362</b>	<b>177</b>	<b>139</b>	<b>13</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>204</b>	<b>127</b>	<b>0</b>	<b>21</b>	<b>18</b>	<b>5</b>	<b>0</b>
<b>Maximum</b>	<b>455</b>	<b>467</b>	<b>194</b>	<b>191</b>	<b>220</b>	<b>385</b>	<b>340</b>	<b>254</b>	<b>342</b>	<b>282</b>	<b>145</b>	<b>490</b>	<b>460</b>	<b>N/A</b>	<b>95</b>	<b>342</b>	<b>193</b>	<b>N/A</b>
<b>Minimum</b>	<b>80</b>	<b>79</b>	<b>16</b>	<b>26</b>	<b>34</b>	<b>55</b>	<b>61</b>	<b>254</b>	<b>323</b>	<b>137</b>	<b>130</b>	<b>87</b>	<b>70</b>	<b>N/A</b>	<b>24</b>	<b>64</b>	<b>79</b>	<b>N/A</b>
<b>Average</b>	<b>158</b>	<b>176</b>	<b>59</b>	<b>85</b>	<b>116</b>	<b>135</b>	<b>167</b>	<b>254</b>	<b>333</b>	<b>218</b>	<b>137</b>	<b>168</b>	<b>189</b>	<b>N/A</b>	<b>62</b>	<b>154</b>	<b>121</b>	<b>N/A</b>

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

		Gizzard shad																	
Length Range (TL, mm)		May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Oct-06	Nov-06	Dec-06
1 - 14																	4		1
15 - 24				2															
25 - 34		24	22	4													3	1	
35 - 44		20	173	38	2												14	9	1
45 - 54		1	142	60	5	1											7	38	20
55 - 64		92	70	27	3	2								1			7	104	58
65 - 74		38	108	55	28	13	1			1			1				3	184	126
75 - 84		7	85	147	75	45	5	1	6	3	3	1					212	97	17
85 - 94		2	78	117	111	124	38	25	46	46	9	1					154	77	26
95 - 104	1		30	64	88	87	54	32	48	45	19	1					158	90	42
105 - 114			11	34	92	76	28	34	27	38	35						109	87	41
115 - 124				7	12	57	28	26	33	44	61	45	9				74	53	32
125 - 134				2	17	39	39	9	22	24	51	55	5				23	38	13
135 - 144					11	16	27	7	16	15	37	45	3				13	9	3
145 - 154			3	5	12	11		23	9	34	44	7					7	2	2
155 - 164					3	11	10	1	21	10	40	34	4				2	1	2
165 - 174						5	8		12	7	28	38	2				1	5	2
175 - 184						1	5	1	12	6	10	31	5				3	2	3
185 - 194						1	3	7	7	2	10	20	5					5	4
195 - 204							5	3	4	3		10	2				1	3	3
205 - 214							9	6	2	2	5	6	1					1	
215 - 224								5	1	2		1	1					2	
225 - 234						1		2	1		1		3						
235 - 244									2			1							
245 - 254																			
255 - 264																			

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Length Range (TL, mm)	Gizzard shad (cont'd)																	
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Oct-06	Nov-06	Dec-06
265 - 274																		
275 - 284																		
285 - 294	1																	
295 - 304	1	1																
305 - 314	2					1												1
315 - 324	2	1																1
325 - 334									1								1	1
335 - 344																		
345 - 354	1						1											
355 - 364															1			
365 - 374								1										
375 - 384														2	1			
385 - 394													2					
395 - 404																		
405 - 414														2				
415 - 424												1						
425 - 434																		
435 - 444																		
445 - 454														1				
455 - 464																		
<b>Sample Size</b>	<b>8</b>	<b>47</b>	<b>478</b>	<b>496</b>	<b>500</b>	<b>541</b>	<b>500</b>	<b>190</b>	<b>247</b>	<b>252</b>	<b>413</b>	<b>405</b>	<b>48</b>	<b>0</b>	<b>34</b>	<b>1,099</b>	<b>678</b>	<b>207</b>
<b>Maximum</b>	<b>348</b>	<b>316</b>	<b>70</b>	<b>125</b>	<b>225</b>	<b>185</b>	<b>363</b>	<b>240</b>	<b>326</b>	<b>365</b>	<b>394</b>	<b>450</b>	<b>377</b>	<b>N/A</b>	<b>74</b>	<b>69</b>	<b>80</b>	<b>327</b>
<b>Minimum</b>	<b>95</b>	<b>27</b>	<b>21</b>	<b>30</b>	<b>40</b>	<b>49</b>	<b>57</b>	<b>74</b>	<b>83</b>	<b>72</b>	<b>75</b>	<b>62</b>	<b>78</b>	<b>N/A</b>	<b>31</b>	<b>8</b>	<b>43</b>	<b>11</b>
<b>Average</b>	<b>286</b>	<b>46</b>	<b>43</b>	<b>68</b>	<b>84</b>	<b>96</b>	<b>108</b>	<b>115</b>	<b>131</b>	<b>118</b>	<b>128</b>	<b>143</b>	<b>158</b>	<b>N/A</b>	<b>48</b>	<b>59</b>	<b>67</b>	<b>109</b>

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Length Range (TL, mm)	Logperch																	
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Oct-06	Nov-06	Dec-06
1 - 14																		
15 - 24																		
25 - 34		2																
35 - 44		9	6	25												16		
45 - 54			11	61	1	1										24		
55 - 64			10	28	6	2					1					12		
65 - 74			1	3	2	8	1									2		
75 - 84				2		7									3			
85 - 94				1	4	13							1	1			1	
95 - 104						8												
105 - 114						1												
115 - 124																		
<b>Sample Size</b>	<b>0</b>	<b>11</b>	<b>28</b>	<b>120</b>	<b>13</b>	<b>40</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>54</b>	<b>1</b>	<b>0</b>	<b>0</b>
<b>Maximum</b>	<b>N/A</b>	<b>44</b>	<b>65</b>	<b>85</b>	<b>92</b>	<b>105</b>	<b>68</b>	<b>N/A</b>	<b>N/A</b>	<b>64</b>	<b>N/A</b>	<b>91</b>	<b>87</b>	<b>N/A</b>	<b>69</b>	<b>89</b>	<b>N/A</b>	<b>N/A</b>
<b>Minimum</b>	<b>N/A</b>	<b>33</b>	<b>37</b>	<b>38</b>	<b>51</b>	<b>53</b>	<b>68</b>	<b>N/A</b>	<b>N/A</b>	<b>64</b>	<b>N/A</b>	<b>91</b>	<b>76</b>	<b>N/A</b>	<b>39</b>	<b>89</b>	<b>N/A</b>	<b>N/A</b>
<b>Average</b>	<b>N/A</b>	<b>39</b>	<b>52</b>	<b>51</b>	<b>71</b>	<b>83</b>	<b>68</b>	<b>N/A</b>	<b>N/A</b>	<b>64</b>	<b>N/A</b>	<b>91</b>	<b>80</b>	<b>N/A</b>	<b>50</b>	<b>89</b>	<b>N/A</b>	<b>N/A</b>

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Length Range (TL, mm)	Pumpkinseed															
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Oct-06	Nov-06	Dec-06
1 - 14																
15 - 24																
25 - 34																
35 - 44																
45 - 54																
55 - 64																
65 - 74				1	1	2							2			
75 - 84		1				1							2	1		
85 - 94					1	1										
95 - 104						1										
105 - 114																
115 - 124	1															
125 - 134	1					1								1		
135 - 144													1	1		
145 - 154				1		1								1		
155 - 164																
<b>Sample Size</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>5</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Maximum</b>	<b>130</b>	<b>81</b>	<b>N/A</b>	<b>145</b>	<b>126</b>	<b>145</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>139</b>	<b>145</b>	<b>80</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Minimum</b>	<b>120</b>	<b>81</b>	<b>N/A</b>	<b>73</b>	<b>71</b>	<b>68</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>139</b>	<b>70</b>	<b>80</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Average</b>	<b>125</b>	<b>81</b>	<b>N/A</b>	<b>109</b>	<b>92</b>	<b>93</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>139</b>	<b>101</b>	<b>80</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Rainbow smelt																	
Length Range (TL, mm)	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Oct-06	Nov-06	Dec-06	
1 - 14																	
15 - 24																	
25 - 34																	
35 - 44																	
45 - 54							13	3									
55 - 64							5	3		1							
65 - 74																	
75 - 84							1										
<b>Sample Size</b>	0	0	0	0	0	0	19	6	0	1	0	0	0	0	0	0	0
<b>Maximum</b>	N/A	N/A	N/A	N/A	N/A	N/A	76	63	N/A	62	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Minimum</b>	N/A	N/A	N/A	N/A	N/A	N/A	46	46	N/A	62	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Average</b>	N/A	N/A	N/A	N/A	N/A	N/A	54	55	N/A	62	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

		Round goby																	
Length Range (TL, mm)		May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Oct-06	Nov-06	Dec-06
1 - 14																			
15 - 24			1	8	3	1											2		
25 - 34		6	29	80	25	1											7	2	
35 - 44	7	25	25	69	16	2				1		1		6		4	3		
45 - 54	14	47	6	17	11								2	7			5		
55 - 64	6	36	10	10	2	8						1	7	4		1	1	2	
65 - 74	3	20	6	10	4	4	1						2	1					
75 - 84	1	7	3	2	2	15		1					1					1	
85 - 94		1	3		1	7						2							
95 - 104			1	1	2	3										1	1		
105 - 114	1	1		2	3	4										1			
115 - 124				2		3													
125 - 134																			
Sample Size	32	144	91	196	67	47	1	1	1	0	2	14	18	0	16	12	3	0	
Maximum	108	105	95	119	110	122	67	80	44	N/A	55	87	66	N/A	111	95	84	N/A	
Minimum	35	22	15	22	24	32	67	80	44	N/A	40	47	38	N/A	23	31	55	N/A	
Average	54	54	43	41	46	80	67	80	44	N/A	48	64	49	N/A	42	48	65	N/A	

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

<b>Sand shiner</b>																
<b>Length Range (TL, mm)</b>	<b>May-05</b>	<b>Jun-05</b>	<b>Jul-05</b>	<b>Aug-05</b>	<b>Sep-05</b>	<b>Oct-05</b>	<b>Nov-05</b>	<b>Dec-05</b>	<b>Jan-06</b>	<b>Feb-06</b>	<b>Mar-06</b>	<b>Apr-06</b>	<b>May-06</b>	<b>Oct-06</b>	<b>Nov-06</b>	<b>Dec-06</b>
1 - 14																
15 - 24																
25 - 34													6			
35 - 44											2	43	9			
45 - 54												13	5			
55 - 64												33	4			
65 - 74												1	1			
75 - 84																
<b>Sample Size</b>	<b>0</b>	<b>2</b>	<b>96</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>0</b>									
<b>Maximum</b>	<b>N/A</b>	<b>41</b>	<b>65</b>	<b>68</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>									
<b>Minimum</b>	<b>N/A</b>	<b>35</b>	<b>33</b>	<b>35</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>									
<b>Average</b>	<b>N/A</b>	<b>38</b>	<b>47</b>	<b>47</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>									

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Silver chub																	
Length Range (TL, mm)	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Oct-06	Nov-06	Dec-06	
1 - 14																	
15 - 24																	
25 - 34			1	12	1												
35 - 44				2	3												
45 - 54				2													
55 - 64				5													
65 - 74				4													
75 - 84					1												
85 - 94																	
95 - 104						1											
105 - 114																	
115 - 124					1												
125 - 134					1												
135 - 144																	
145 - 154						1							1				
155 - 164		1										1		7			
165 - 174														9			
175 - 184	1	2												1			
185 - 194	1	1	1											1			
195 - 204		3															
205 - 214														1			
215 - 224																	
<b>Sample Size</b>	<b>2</b>	<b>7</b>	<b>2</b>	<b>25</b>	<b>7</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Maximum</b>	<b>190</b>	<b>197</b>	<b>194</b>	<b>73</b>	<b>133</b>	<b>149</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>155</b>	<b>N/A</b>	<b>145</b>	<b>205</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	
<b>Minimum</b>	<b>178</b>	<b>160</b>	<b>31</b>	<b>30</b>	<b>33</b>	<b>104</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>155</b>	<b>N/A</b>	<b>145</b>	<b>155</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	
<b>Average</b>	<b>184</b>	<b>187</b>	<b>113</b>	<b>45</b>	<b>68</b>	<b>127</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>155</b>	<b>N/A</b>	<b>145</b>	<b>169</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Spottail shiner																		
Length Range (TL, mm)	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Oct-06	Nov-06	Dec-06
1 - 14																		
15 - 24				2														
25 - 34	2	11	3	15	2											1		
35 - 44	5	21	50	53	21	1						6				2		
45 - 54	10	4	86	132	9							2				15		
55 - 64	13		34	148	43	10					1	5			44		1	
65 - 74	7			55	50	10	2				2	22	1			3	1	
75 - 84	4			6	22	31		1	1		13	69	4			2	3	
85 - 94	3	1	2		8	34	2	11	3		22	108	11				3	
95 - 104		1				2	1	3	1	1	6	30	3				1	
105 - 114	2			1	3			1			1	7	1			3	4	
115 - 124		1	1		1						3	2				1	3	
125 - 134	1	1			1		1					3						
135 - 144										1								
145 - 154																		
<b>Sample Size</b>	<b>47</b>	<b>40</b>	<b>176</b>	<b>412</b>	<b>160</b>	<b>88</b>	<b>6</b>	<b>16</b>	<b>5</b>	<b>2</b>	<b>48</b>	<b>254</b>	<b>20</b>	<b>0</b>	<b>62</b>	<b>9</b>	<b>16</b>	<b>0</b>
<b>Maximum</b>	<b>131</b>	<b>134</b>	<b>117</b>	<b>68</b>	<b>126</b>	<b>98</b>	<b>125</b>	<b>110</b>	<b>96</b>	<b>136</b>	<b>123</b>	<b>132</b>	<b>113</b>	<b>N/A</b>	<b>64</b>	<b>116</b>	<b>121</b>	<b>N/A</b>
<b>Minimum</b>	<b>31</b>	<b>29</b>	<b>32</b>	<b>24</b>	<b>27</b>	<b>43</b>	<b>70</b>	<b>81</b>	<b>80</b>	<b>98</b>	<b>57</b>	<b>37</b>	<b>66</b>	<b>N/A</b>	<b>34</b>	<b>67</b>	<b>60</b>	<b>N/A</b>
<b>Average</b>	<b>63</b>	<b>45</b>	<b>49</b>	<b>51</b>	<b>65</b>	<b>80</b>	<b>89</b>	<b>91</b>	<b>88</b>	<b>117</b>	<b>88</b>	<b>85</b>	<b>88</b>	<b>N/A</b>	<b>55</b>	<b>89</b>	<b>95</b>	<b>N/A</b>

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Trout-perch																	
Length Range (TL, mm)	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Oct-06	Nov-06	Dec-06	
1 - 14																	
15 - 24		1															
25 - 34		10															
35 - 44		6	6	5													
45 - 54			4	82	2												
55 - 64				32	21	1							1	2	1		
65 - 74	7	5	1	2	30	5	1					2	9	22			
75 - 84	37	25	2	2	7	2			1			9	70	105	3	1	
85 - 94	39	30	2	3	2		1					8	43	37	1	1	
95 - 104	8	9	1	2	3	1						3	22	14		1	
105 - 114	8	10	1	1	2							12	21	14			
115 - 124	10	4										3	8	6			
125 - 134		1												1			
135 - 144	1					1											
145 - 154																	
<b>Sample Size</b>	<b>110</b>	<b>101</b>	<b>17</b>	<b>129</b>	<b>67</b>	<b>10</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>37</b>	<b>174</b>	<b>201</b>	<b>5</b>	<b>3</b>	<b>0</b>	
<b>Maximum</b>	<b>138</b>	<b>125</b>	<b>107</b>	<b>106</b>	<b>110</b>	<b>140</b>	<b>93</b>	<b>N/A</b>	<b>83</b>	<b>N/A</b>	<b>115</b>	<b>122</b>	<b>125</b>	<b>87</b>	<b>95</b>	<b>N/A</b>	
<b>Minimum</b>	<b>66</b>	<b>22</b>	<b>35</b>	<b>41</b>	<b>54</b>	<b>63</b>	<b>74</b>	<b>N/A</b>	<b>83</b>	<b>N/A</b>	<b>70</b>	<b>64</b>	<b>70</b>	<b>64</b>	<b>75</b>	<b>N/A</b>	
<b>Average</b>	<b>90</b>	<b>81</b>	<b>62</b>	<b>54</b>	<b>70</b>	<b>81</b>	<b>84</b>	<b>N/A</b>	<b>83</b>	<b>N/A</b>	<b>95</b>	<b>89</b>	<b>85</b>	<b>77</b>	<b>87</b>	<b>N/A</b>	

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Length Range (TL, mm)	Walleye																
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Oct-06	Nov-06
1 - 14																	
15 - 24		1															
25 - 34		40															
35 - 44		104															
45 - 54		79	1														
55 - 64		29	2														
65 - 74		4	5														
75 - 84			7														
85 - 94			4														
95 - 104			1														
105 - 114																	
115 - 124																	
125 - 134																	
135 - 144																	
145 - 154					1												
155 - 164																	
165 - 174																	
175 - 184							1										
185 - 194							1										
195 - 204							1										
205 - 214																	
215 - 224																	
225 - 234			1										1				
235 - 244														1			
245 - 254							1										
255 - 264																	
265 - 274																	
275 - 284																	
285 - 294		1															
295 - 304																	
305 - 314		3															
315 - 324		1															
325 - 334		2															
335 - 344		3		1													
345 - 354																	
355 - 364														1			
365 - 374	1							1					1			1	
375 - 384																	

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Length Range (TL, mm)	Walleye (cont'd)																	
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Oct-06	Nov-06	Dec-06
385 - 394												1	1					
395 - 404												1	3	1				
405 - 414		1					1						3	2				
415 - 424							2						2	2				
425 - 434												1						
435 - 444						1							1					
445 - 454												2				1		
455 - 464													2					
465 - 474	1											1						
475 - 484																		
485 - 494																		
495 - 504																		
505 - 514											1	2	1					
515 - 524							1					1						
525 - 534																		
535 - 544																		
545 - 554																		
555 - 564						1												
565 - 574																		
575 - 584																		
585 - 594																		
595 - 604																		
605 - 614												1						
615 - 624																		
625 - 634																		
635 - 644																		
645 - 654													1					
655 - 664																		
<b>Sample Size</b>	<b>2</b>	<b>268</b>	<b>21</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>19</b>	<b>13</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>
<b>Maximum</b>	<b>470</b>	<b>413</b>	<b>230</b>	<b>335</b>	<b>195</b>	<b>560</b>	<b>520</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>510</b>	<b>614</b>	<b>653</b>	<b>N/A</b>	<b>359</b>	<b>N/A</b>	<b>450</b>	<b>N/A</b>
<b>Minimum</b>	<b>367</b>	<b>23</b>	<b>53</b>	<b>335</b>	<b>153</b>	<b>245</b>	<b>180</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>400</b>	<b>233</b>	<b>243</b>	<b>N/A</b>	<b>359</b>	<b>N/A</b>	<b>450</b>	<b>N/A</b>
<b>Average</b>	<b>419</b>	<b>53</b>	<b>84</b>	<b>335</b>	<b>181</b>	<b>415</b>	<b>388</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>455</b>	<b>432</b>	<b>430</b>	<b>N/A</b>	<b>359</b>	<b>N/A</b>	<b>450</b>	<b>N/A</b>

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Length Range (TL, mm)	White bass																		
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Oct-06	Nov-06	Dec-06	
1 - 14																			
15 - 24		18	1																
25 - 34		26	50	5															
35 - 44		32	127	11															
45 - 54		1	34	35		1											6		
55 - 64			17	61	4													3	
65 - 74	2		5	36	18														
75 - 84			1	10	25	1													
85 - 94				6	24	1										1			
95 - 104				3	13	8										1			
105 - 114				3	6	7	1									2	1		
115 - 124					1	1	4									1	3		
125 - 134						1										1			
135 - 144																1	3		
145 - 154							1									1	1		1
155 - 164		1					1										2		
165 - 174		2														1	3		
175 - 184		1					1										4		
185 - 194																	1		
195 - 204		2					1										2		
205 - 214	1	1															2		
215 - 224	3					1													
225 - 234																			
235 - 244		1																	
245 - 254																1			
255 - 264	1		1													1			
265 - 274							2									1			
275 - 284								1											
285 - 294																2			
295 - 304																			
305 - 314	1															1			
315 - 324																2	1		
325 - 334																			
335 - 344																			
345 - 354																1			
355 - 364																	1	1	
365 - 374							1												
375 - 384																			
<b>Sample Size</b>	<b>8</b>	<b>85</b>	<b>236</b>	<b>171</b>	<b>92</b>	<b>27</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>7</b>	<b>31</b>	<b>5</b>	<b>0</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>0</b>	
<b>Maximum</b>	<b>305</b>	<b>241</b>	<b>264</b>	<b>120</b>	<b>126</b>	<b>215</b>	<b>370</b>	<b>N/A</b>	<b>283</b>	<b>N/A</b>	<b>352</b>	<b>363</b>	<b>356</b>	<b>N/A</b>	<b>61</b>	<b>152</b>	<b>N/A</b>	<b>N/A</b>	
<b>Minimum</b>	<b>71</b>	<b>23</b>	<b>21</b>	<b>26</b>	<b>62</b>	<b>45</b>	<b>108</b>	<b>N/A</b>	<b>283</b>	<b>N/A</b>	<b>115</b>	<b>92</b>	<b>107</b>	<b>N/A</b>	<b>45</b>	<b>152</b>	<b>N/A</b>	<b>N/A</b>	
<b>Average</b>	<b>197</b>	<b>47</b>	<b>42</b>	<b>62</b>	<b>85</b>	<b>116</b>	<b>256</b>	<b>N/A</b>	<b>283</b>	<b>N/A</b>	<b>221</b>	<b>183</b>	<b>239</b>	<b>N/A</b>	<b>52</b>	<b>152</b>	<b>N/A</b>	<b>N/A</b>	

**APPENDIX 11 (cont'd)**  
**Length Distribution of Fish Impinged at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Length Range (TL, mm)	White Perch																	
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Oct-06	Nov-06	Dec-06
1 - 14																		
15 - 24		36	4		1													
25 - 34		56	118	17														
35 - 44		33	211	38	1											5		
45 - 54		1	133	98	14	3										42	1	
55 - 64		2	46	287	81	4	5		1							31	34	68
65 - 74	2		13	183	247	97	67	26	5	1	2	1			1	195	556	
75 - 84			2	57	182	212	236	69	17	8	3	3	1			168	639	
85 - 94	1			21	78	145	127	39	15	8	10	6	3			39	36	
95 - 104			1	6	32	45	29	9			3	3	4			4		
105 - 114				3	8	21	12	2	1		1	2	1			4		
115 - 124				1	1	8	4		1		1	4				1		
125 - 134					1	1					1	1	1					
135 - 144	2					1					1	3	1			2		
145 - 154	4	1				1						2	1			6		
155 - 164	2	4	2			1						5	2			6		
165 - 174	4	2	2	1							1	6	3			3		
175 - 184	3	4	2	1		2						10	7			4		
185 - 194	17	7	2	1		1						12	12					
195 - 204	21	22	1			1	1					22	28					
205 - 214	28	8	2				1				1	16	21					
215 - 224	23	2				1						17	24					
225 - 234	15	4										24	23			2		
235 - 244	5	2										9	16			1		
245 - 254	7		1									4	7					
255 - 264	1		1									4	2					
265 - 274	1					2						3	2			1		
275 - 284								1										
285 - 294													3					
295 - 304																		
305 - 314	1												1					
315 - 324											2	1	2					
325 - 334																		
335 - 344																		
345 - 354											1							
355 - 364												1	1					
365 - 374							1											
<b>Sample Size</b>	<b>137</b>	<b>184</b>	<b>541</b>	<b>714</b>	<b>646</b>	<b>544</b>	<b>485</b>	<b>145</b>	<b>41</b>	<b>17</b>	<b>27</b>	<b>160</b>	<b>165</b>	<b>0</b>	<b>79</b>	<b>471</b>	<b>1,299</b>	<b>0</b>
<b>Maximum</b>	<b>305</b>	<b>241</b>	<b>264</b>	<b>90</b>	<b>115</b>	<b>181</b>	<b>274</b>	<b>111</b>	<b>283</b>	<b>94</b>	<b>352</b>	<b>363</b>	<b>356</b>	<b>N/A</b>	<b>71</b>	<b>75</b>	<b>70</b>	<b>N/A</b>
<b>Minimum</b>	<b>71</b>	<b>16</b>	<b>21</b>	<b>26</b>	<b>23</b>	<b>53</b>	<b>63</b>	<b>65</b>	<b>63</b>	<b>73</b>	<b>72</b>	<b>70</b>	<b>107</b>	<b>N/A</b>	<b>35</b>	<b>50</b>	<b>56</b>	<b>N/A</b>
<b>Average</b>	<b>205</b>	<b>81</b>	<b>41</b>	<b>55</b>	<b>73</b>	<b>82</b>	<b>85</b>	<b>81</b>	<b>87</b>	<b>83</b>	<b>127</b>	<b>197</b>	<b>210</b>	<b>N/A</b>	<b>52</b>	<b>69</b>	<b>66</b>	<b>N/A</b>

**APPENDIX 11 (cont'd)**

**Length Distribution of Fish Impinged at Bay Shore Power Plant (May 2005 – December 2006)**

Length Range (TL, mm)	Yellow perch																	
	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Oct-06	Nov-06	Dec-06
1 - 14																		
15 - 24																		
25 - 34																		
35 - 44		1																
45 - 54																		
55 - 64					1													
65 - 74											1							
75 - 84												2						
85 - 94	1	1				1	1		1			3	1		2	3		
95 - 104		2				1			1			1				1		
105 - 114							1					5						
115 - 124								1				2				1		
125 - 134					2							3						
135 - 144																		
145 - 154	1																	
155 - 164	1											1						
165 - 174		1											1		1			
175 - 184	2	2	1										1					
185 - 194	1	1		1	2		1					2	2					
195 - 204				1								1	1					
205 - 214		1	1									2	2					
215 - 224					1							1	2			1	1	
225 - 234				3		1		1										
235 - 244						1												
245 - 254												1						
255 - 264																		
265 - 274				1								1						
275 - 284																		
285 - 294																		
295 - 304																		
305 - 314											1							
315 - 324																		
<b>Sample Size</b>	<b>6</b>	<b>9</b>	<b>2</b>	<b>6</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>24</b>	<b>10</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>6</b>	<b>0</b>
<b>Maximum</b>	<b>185</b>	<b>209</b>	<b>209</b>	<b>265</b>	<b>220</b>	<b>237</b>	<b>187</b>	<b>230</b>	<b>104</b>	<b>N/A</b>	<b>305</b>	<b>274</b>	<b>223</b>	<b>N/A</b>	<b>165</b>	<b>223</b>	<b>220</b>	<b>N/A</b>
<b>Minimum</b>	<b>92</b>	<b>36</b>	<b>176</b>	<b>185</b>	<b>64</b>	<b>87</b>	<b>88</b>	<b>117</b>	<b>90</b>	<b>N/A</b>	<b>72</b>	<b>76</b>	<b>93</b>	<b>N/A</b>	<b>165</b>	<b>88</b>	<b>90</b>	<b>N/A</b>
<b>Average</b>	<b>158</b>	<b>139</b>	<b>193</b>	<b>223</b>	<b>152</b>	<b>163</b>	<b>128</b>	<b>174</b>	<b>97</b>	<b>N/A</b>	<b>209</b>	<b>139</b>	<b>188</b>	<b>N/A</b>	<b>165</b>	<b>135</b>	<b>118</b>	<b>N/A</b>

**APPENDIX 12**  
**Long-Term (48-Hour) Survival Study #1**  
**(August 24-26, 2005)**

Species	Initial			24-Hour	48-Hour	
	Total #	Dead	Live	Dead	Dead	Live
1. Brook silverside	0	0	0			
2. Channel catfish	0	0	0			
3. Emerald shiner	0	0	0			
4. Freshwater drum	5	4	1	1		
5. Gizzard shad	6	6	0			
6. Logperch	0	0	0			
7. Round goby	0	0	0			
8. Spottail shiner	10	10	0			
9. Trout perch	1	0	1	1		
10. Walleye	0	0	0			
11. White bass	1	1	0			
12. White perch	33	18	15	14		1
<b>Sample #1</b>	<b>56</b>	<b>39</b>	<b>17</b>	<b>16</b>	<b>0</b>	<b>1</b>
1. Brook silverside	1	1	0			
2. Channel catfish	1	0	1		1	
3. Emerald shiner	1	0	1	1		
4. Freshwater drum	8	2	6	5	1	
5. Gizzard shad	4	4	0			
6. Logperch	0	0	0			
7. Round goby	0	0	0			
8. Spottail shiner	14	13	1	1		
9. Trout perch	2	1	1	1		
10. Walleye	1	0	1		1	
11. White bass	2	0	2	2		
12. White perch	67	24	43	43		
<b>Sample #2</b>	<b>101</b>	<b>45</b>	<b>56</b>	<b>53</b>	<b>3</b>	<b>0</b>
1. Brook silverside	1	1	0			
2. Channel catfish	2	0	2	1	1	
3. Emerald shiner	1	0	1	1		
4. Freshwater drum	12	8	4		3	1
5. Gizzard shad	11	10	1	1		
6. Logperch	1	0	1			1
7. Round goby	3	3	0			
8. Spottail shiner	6	5	1	1		
9. Trout perch	0	0	0			
10. Walleye	0	0				
11. White bass	4	3	1	1		
12. White perch	34	14	20	19		1
<b>Sample #3</b>	<b>75</b>	<b>44</b>	<b>31</b>	<b>24</b>	<b>4</b>	<b>3</b>
1. Brook silverside	0	0	0			
2. Channel catfish	2	0	2	1	1	
3. Emerald shiner	5	4	1	1		
4. Freshwater drum	8	6	2	1	1	
5. Gizzard shad	21	20	1	1		
6. Logperch	0	0	0			
7. Round goby	0	0	0			
8. Spottail shiner	10	9	1	1		
9. Trout perch	1	0	1	1		
10. Walleye	0	0	0			
11. White bass	2	1	1	1		
12. White perch	64	31	33	27	6	
<b>Sample #4</b>	<b>113</b>	<b>71</b>	<b>42</b>	<b>34</b>	<b>8</b>	<b>0</b>
<b>Total:</b>	<b>345</b>	<b>199</b>	<b>146</b>	<b>127</b>	<b>15</b>	<b>4</b>
<b>Percentage:</b>		<b>57.7%</b>	<b>42.3%</b>	<b>36.8%</b>	<b>4.3%</b>	<b>1.2%</b>

**APPENDIX 12 (cont'd)**  
**Long-Term (48-Hour) Survival Study #1**  
**(August 24-26, 2005)**

Water Quality and Weather Asessment: Bay Shore						
Dates of sampling:	8/24/2005		8/25/2005		8/26/2005	
Parameter	Initial - 30 min		24-Hour		48-Hour	
	Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2
Time Begin	0:00	0:00	0:00	0:00	21:55	21:55
Water Temperature (°C )in tanks	23.3	23.3	23.9	23.8	23.8	23.8
Conductivity (µs/cm)	893	901	814	828	454	453
Dissolved Oxygen (mg/L)	6.4	6.2	7.3	7	6.8	6.6
pH	8.1	8	8.3	8.3	7.8	7.9
Air Temperature (°C )	21.7	21.7	22.1	22.1	24	24
Cloud Cover (%)	70	70	20	20	80	80
Precipitation	NO	NO	NO	NO	NO	NO
Wind	From North	From North	Calm	Calm	Calm	Calm
Time End	0:10	0:10	0:10	0:10	22:05	22:05
Crew (initials)	JGM	JGM	JGM	JGM	JGM	JGM

measurements using a sensION156 multi parameter field probe

**APPENDIX 13**  
**Long-Term (48-Hour) Survival Study #2**  
**(October 30-November 1, 2005)**

Species	Initial			24-Hour	48-Hour	
	Total #	Dead	Live	Dead	Dead	Live
Brook silverside	0		0			
Emerald shiner	22	11	11	7	2	2
Freshwater drum	2		2		1	1
Gizzard shad	545	300	245	241	3	1
Round goby	0		0			
Spottail shiner	0		0			
Trout perch	0		0			
White bass	0		0			
White perch	16	11	5	3		2
<b>Sample #1</b>	<b>585</b>	<b>322</b>	<b>263</b>	<b>251</b>	<b>6</b>	<b>6</b>
Brook silverside	0		0			
Channel catfish	1		1			1
Emerald shiner	15	8	7	3	2	2
Freshwater drum	0		0			
Gizzard shad	417	234	183	175	4	4
Round goby	0		0			
Spottail shiner	0		0			
Trout perch	0		0			
Walleye	0		0			
White bass	0		0			
White perch	4	3	1			1
<b>Sample #2</b>	<b>437</b>	<b>245</b>	<b>192</b>	<b>178</b>	<b>6</b>	<b>8</b>
Brook silverside	0		0			
Channel catfish	0		0			
Emerald shiner	10	5	5	2	2	1
Freshwater drum	1		1	1		
Gizzard shad	286	145	141	115	13	13
Log perch	0		0			
Round goby	0		0			
Spottail shiner	0		0			
Trout perch	0		0			
White bass	0		0			
White perch	5	4	1			1
<b>Sample #3</b>	<b>302</b>	<b>154</b>	<b>148</b>	<b>118</b>	<b>15</b>	<b>15</b>
<b>Total:</b>	<b>1324</b>	<b>721</b>	<b>603</b>	<b>547</b>	<b>27</b>	<b>29</b>
<b>Percentage:</b>		<b>54.5%</b>	<b>45.5%</b>	<b>41.3%</b>	<b>2.0%</b>	<b>2.2%</b>

**APPENDIX 13 (cont'd)**  
**Long-Term (48-Hour) Survival Study #2**  
**(October 30-November 1, 2005)**

Water Quality and Weather Assessment: Bay Shore									
Dates of sampling:	10/30/2005			10/31/2005			11/1/2005		
	Initial - 30 min			24-Hour			48-Hour		
Parameter	Tank 1	Tank 2	Tank 3	Tank 1	Tank 2	Tank 3	Tank 1	Tank 2	Tank 3
Time Begin	21:00	21:00	21:00	23:00	23:00	23:00	23:00	23:00	23:00
Water Temperature (°C) in tanks	11.1	11.2	10.8	11.7	11.5	11.5	11.3	11.3	11.2
Conductivity (ms/cm)	347	348	350	399	403	402	401	404	400
Dissolved Oxygen (mg/L)	11.3	10.6	10.9	10	9.9	10	10.1	10	10.6
pH	8.7	8.7	8.7	8.3	8.4	8.3	8.4	8.7	8.6
Air Temperature (°C)	10	10	10	~10	~10	~10	~10	~10	~10
Cloud Cover (%)	0	0	0	80	80	80	100	100	100
Precipitation	NO	NO	NO	NO	NO	NO	NO	NO	NO
Time End	21:15	21:15	21:15	23:30	23:30	23:30	23:20	23:20	23:20
Crew (initials)	JGM	JGM	JGM	JGM	JGM	JGM	JGM	JGM	JGM

measurements using a sensION156 multi parameter field probe

**APPENDIX 14**  
**Long-Term (48-Hour) Survival Study #3**  
**(February 24-26, 2006)**

Species	Sample#	Initial			24-Hour	48-Hour	
		Total #	Dead	Live	Dead	Dead	Live
Emerald shiner	1	50	17	33	25	1	7
Emerald shiner	2	50	16	34	17	10	7
Emerald shiner	3	50	18	32	11	0	21
Emerald shiner	4	50	20	30	18	6	6
Emerald shiner	5	50	19	31	14	5	12
<b>Total:</b>		<b>250</b>	<b>90</b>	<b>160</b>	<b>85</b>	<b>22</b>	<b>53</b>
<b>Percentage:</b>			<b>36.0%</b>	<b>64.0%</b>	<b>34.0%</b>	<b>8.8%</b>	<b>21.2%</b>

Water Quality and Weather Assessment: Bay Shore			
Dates of sampling:	2/24/2006	2/25/2006	2/26/2006
Parameter	Initial - 30 min	24-Hour	48-Hour
Time Begin	18:00	18:00	18:00
Water Temperature (C )in tanks	2	4.2	3.7
Conductivity ( $\mu\text{s}/\text{cm}$ )	474	466	483
Dissolved Oxygen (mg/L)	12.2	12.2	12.1
pH	8.2	8.2	8.1
Air Temperature (C )	0	-1	-3
Cloud Cover (%)	0	10	30
Precipitation	NO	NO	NO
Wind	N @ 5mph	N @ 20mph	N @ 15mph
Time End	18:15	18:20	18:15
Crew (initials)	KS, JGM	KS, JGM	KS, JGM

measurements using a sensION156 multi parameter field probe

**APPENDIX 15**  
**Long-Term (48-Hour) Survival Study #4**  
**(May 4-6, 2006)**

Species	Sample#	Initial			24-Hour	48-Hour	
		Total #	Dead	Live	Dead	Dead	Live
Emerald shiner	1	50	5	45	13	13	9
Emerald shiner	2	50	14	36	11	13	15
Emerald shiner	3	50	8	42	5	7	11
Emerald shiner	4	50	4	46	20	21	18
Emerald shiner	5	50	6	44	7	4	25
<b>Total:</b>		<b>250</b>	<b>37</b>	<b>213</b>	<b>56</b>	<b>58</b>	<b>78</b>
<b>Percentage:</b>			14.8%	85.2%	22.4%	23.2%	31.2%

Water Quality and Weather Assessment: Bay Shore			
Dates of sampling:	5/4/2006	5/5/2006	5/6/2006
Parameter	Initial - 30 min	24-Hour	48-Hour
Time Begin	12:45:00 PM	13:17:00 PM	16:25:00 PM
Water Temperature (°C )in tanks	17.7	17.4	17.5
Conductivity (ms/cm)	587	614	609
Dissolved Oxygen (mg/L)	7.8	10	9.9
pH	8.4	9.2	8.8
Air Temperature (°C )	25.8	18	19
Cloud Cover (%)	0	0	0
Precipitation	NO	NO	NO
Time End	13:01:00 PM	14:45:00 PM	
Crew (initials)	KS,JGM	KS,JGM	KS,JGM

**APPENDIX 16**  
**Long-Term (48-Hour) Survival Study #5**  
**(November 15 – 17, 2006)**

**Bay Shore Mortality Assessment**  
**Taxon: *Morone americana* (white perch)**  
**Start Date: 11-15-2006**  
**Finish Date: 11-17-2006**

Tank #	11/15/2006 8:00		11/15/2006 20:00		11/16/2006 8:00		11/16/2006 20:00		11/17/2006 8:00		% survival
	# dead	# live	# dead	# live	# dead	# live	# dead	# live	# dead	# live	
1	NA	25	10	15	4	11	0	11	5	7	28.00%
2	NA	25	8	17	1	16	0	16	6	10	40.00%
3	NA	25	14	11	2	9	0	9	4	5	20.00%
4	NA	15	8	7	1	6	0	6	1	5	33.33%
5	NA	15	9	6	1	5	0	5	2	4	26.67%
<b>TOTAL</b>	NA	105	49	56	9	47	0	47	18	31	
Average	NA	21	10	11	2	9	0	9	4	6	<b>29.60%</b>
STDERR	NA	1.1	0.5	1.0	0.3	0.9	0.0	0.9	0.4	0.5	<b>1.50%</b>
pH	8.13		8.16		8.18		8.18		8.29		
Cond. (µS/cm)	433		394		385		372		371		
DO (mg/L)	9.23		10		10.48		10.07		10.13		
Temp. (°C)	13.7		9.5		8.9		8.2		6.2		

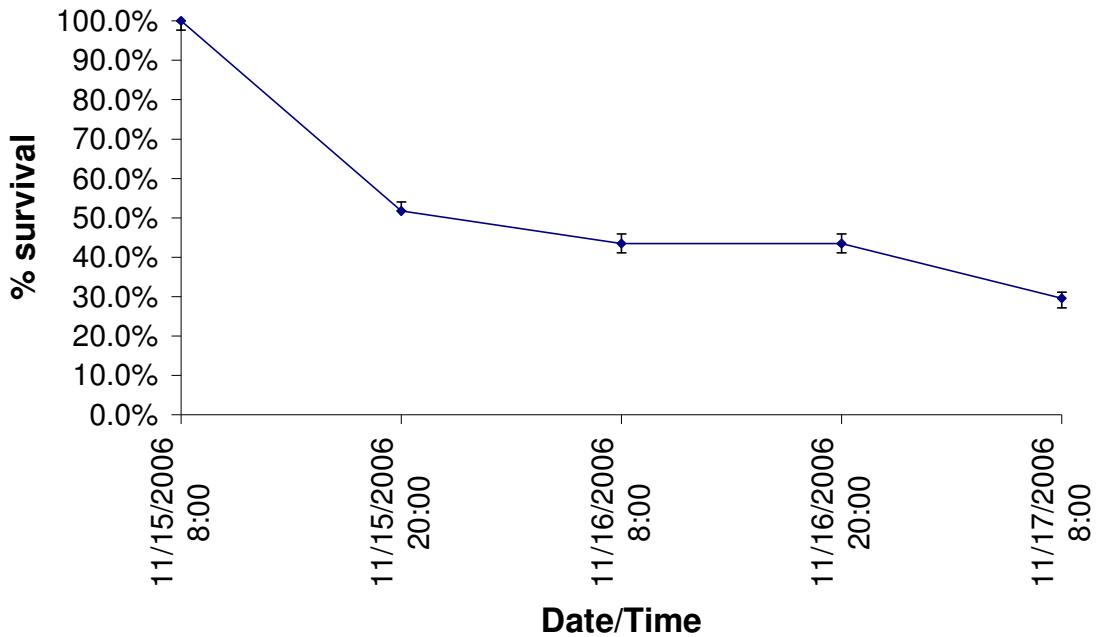
\* All "# live" Totals except for the final total are estimates based on the number of dead and floating fish visible at the respective intervals. Some fish may have sank to the bottom of tanks after dying and were not visible during any given interval thereby underestimating the actual number of dead fish. The final interval is accurate because the tanks were emptied and all fish were collected and identified as live or dead.

By % Tank #	11/15/2006 8:00		11/15/2006 20:00		11/16/2006 8:00		11/16/2006 20:00		11/17/2006 8:00		
	# dead	# live	# dead	# live	# dead	# live	# dead	# live	# dead	# live	
1	NA	100.0%	40.0%	60.0%	16.0%	44.0%	0.0%	44.0%	20.0%	28.0%	
2	NA	100.0%	32.0%	68.0%	4.0%	64.0%	0.0%	64.0%	24.0%	40.0%	
3	NA	100.0%	56.0%	44.0%	8.0%	36.0%	0.0%	36.0%	16.0%	20.0%	
4	NA	100.0%	53.3%	46.7%	6.7%	40.0%	0.0%	40.0%	6.7%	33.3%	
5	NA	100.0%	60.0%	40.0%	6.7%	33.3%	0.0%	33.3%	13.3%	26.7%	
Average	NA	100.0%	48.3%	51.7%	8.3%	43.5%	0.0%	43.5%	16.0%	<b>29.6%</b>	
STDERR	NA	0.0%	2.4%	2.4%	0.9%	2.4%	0.0%	2.4%	1.3%	<b>1.5%</b>	
pH	8.13		8.16		8.18		8.18		8.29		
Cond. (µS/cm)	433		394		385		372		371		
DO (mg/L)	9.23		10		10.48		10.07		10.13		
Temp. (°C)	13.7		9.5		8.9		8.2		6.2		

\* All "# live" Totals except for the final total are estimates based on the number of dead and floating fish visible at the respective intervals. Some fish may have sank to the bottom of tanks after dying and were not visible during any given interval thereby underestimating the actual number of dead fish. The final interval is accurate because the tanks were emptied and all fish were collected and identified as live or dead.

**APPENDIX 16 (cont'd)**  
**Long-Term (48-Hour) Survival Study #5**  
**(November 15 – 17, 2006)**

**Morone americana survival**



**APPENDIX 17**  
**Long-Term (48-Hour) Survival Study #6**  
**(November 29 – December 1, 2006)**

Bay Shore Mortality Assessment												
Taxon: <i>Notropis atherinoides</i> (emerald shiner)												
Start Date: 11-29-2006												
Finish Date: 12-1-2006												
Tank #	11/29/2006 10:00 # dead	11/29/2006 10:00 # live	11/29/2006 22:00 # dead	11/29/2006 22:00 # live	11/30/2006 10:00 # dead	11/30/2006 10:00 # live	11/30/2006 22:00 # dead	11/30/2006 22:00 # live	12/01/2006 10:00 # dead	12/01/2006 10:00 # live	% survival	
1	NA	40	1	39	0	39	0	39	13	26	65.00%	
2	NA	40	2	38	0	38	0	38	14	24	60.00%	
3	NA	40	1	39	1	38	0	38	17	21	52.50%	
4	NA	40	3	37	0	37	0	37	12	25	62.50%	
5	NA	40	3	37	0	37	0	37	18	19	47.50%	
<b>TOTAL</b>	NA	200	10	190	1	189	0	189	74	115		
Average	NA	40	2	38	0	38	0	38	15	23	57.50%	
STDERR	NA	0.0	0.2	0.2	0.1	0.2	0.0	0.2	0.5	0.6	1.46%	
pH	7.75	8.07		8.24		8.28		8.2				
Cond. (µS/cm)	347	374		378		378		298				
DO (mg/L)	9.02	10.15		9.71		9.08		10.22				
Temp. (°C)	13.2	12.2		13		8.5		7.5				

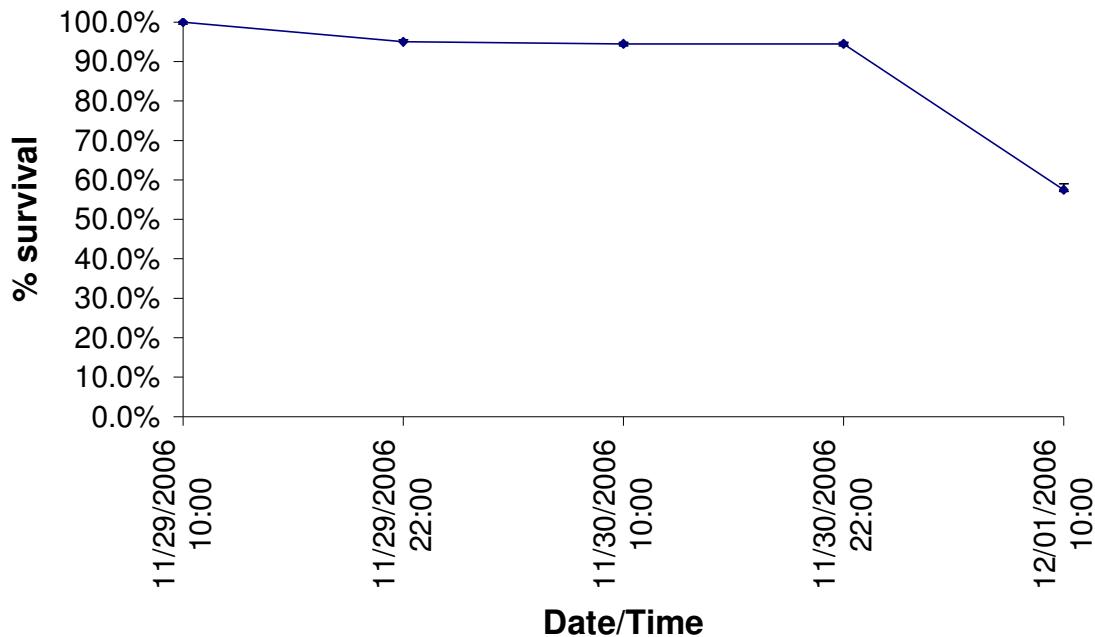
\* All "# live" Totals except for the final total are estimates based on the number of dead and floating fish visible at the respective intervals. Some fish may have sank to the bottom of tanks after dying and were not visible during any given interval thereby underestimating the actual number of dead fish. The final interval is accurate because the tanks were emptied and all fish were collected and identified as live or dead.

By % Tank #	11/29/2006 10:00 # dead	11/29/2006 10:00 # live	11/29/2006 22:00 # dead	11/29/2006 22:00 # live	11/30/2006 10:00 # dead	11/30/2006 10:00 # live	11/30/2006 22:00 # dead	11/30/2006 22:00 # live	12/01/2006 10:00 # dead	12/01/2006 10:00 # live
1	NA	100.0%	2.5%	97.5%	0.0%	97.5%	0.0%	97.5%	32.5%	65.0%
2	NA	100.0%	5.0%	95.0%	0.0%	95.0%	0.0%	95.0%	35.0%	60.0%
3	NA	100.0%	2.5%	97.5%	2.5%	95.0%	0.0%	95.0%	42.5%	52.5%
4	NA	100.0%	7.5%	92.5%	0.0%	92.5%	0.0%	92.5%	30.0%	62.5%
5	NA	100.0%	7.5%	92.5%	0.0%	92.5%	0.0%	92.5%	45.0%	47.5%
Average	NA	100.0%	5.0%	95.0%	0.5%	94.5%	0.0%	94.5%	37.0%	57.5%
STDERR	NA	0.0%	0.5%	0.5%	0.2%	0.4%	0.0%	0.4%	1.3%	1.5%
pH	7.75	8.07		8.24		8.28		8.2		
Cond. (µS/cm)	347	374		378		378		298		
DO (mg/L)	9.02	10.15		9.71		9.08		10.22		
Temp. (°C)	13.2	12.2		13		8.5		7.5		

\* All "# live" Totals except for the final total are estimates based on the number of dead and floating fish visible at the respective intervals. Some fish may have sank to the bottom of tanks after dying and were not visible during any given interval thereby underestimating the actual number of dead fish. The final interval is accurate because the tanks were emptied and all fish were collected and identified as live or dead.

**APPENDIX 17 (cont'd)**  
**Long-Term (48-Hour) Survival Study #6**  
**(November 29 – December 1, 2006)**

**Emerald Shiner**



**APPENDIX 18**  
**Quality Assessment of Larval Fish Identification**  
**Bay Shore Power Plant**

Sample #	Date	Sample ID	Technician # 1 (BGSU)		Technician # 2 (Kinectrics/ BII Consulting)		# Correct	# Incorrect
			No. of Larvae	Species	No. of Larvae	Species		
1	12-May-05	1 D	1	Unidentifiable	1	Unidentifiable	1	
	12-May-05	1 D	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
	12-May-05	1 D	1	Cyprinidae	1	Cyprinidae	1	
2	12-May-05	2 D	1	<b>Cyprinidae</b>	1	<b>Yellow perch</b>		1
	12-May-05	2 D	14	Unidentifiable	14	Unidentifiable	14	
	12-May-05	2 D	4	Alewife/shad/smelt	4	Alewife/shad/smelt	4	
	12-May-05	2 D	1	Morone spp.	1	Morone spp.	1	
3	12-May-05	3 D	10	Unidentifiable	10	Unidentifiable	10	
	12-May-05	3 D	2	Alewife/shad/smelt	2	Alewife/shad/smelt	2	
	12-May-05	3 D	1	<b>Alewife/shad/smelt</b>	1	<b>Cyprinidae</b>		1
	12-May-05	3 D	1	<b>Morone spp.</b>	1	<b>Percidae</b>		1
4	12-May-05	4 D	1	Walleye	1	Walleye	1	
	12-May-05	4 D	1	Cyprinidae	1	Cyprinidae	1	
	12-May-05	4 D	3	Alewife/shad/smelt	3	Alewife/shad/smelt	3	
	12-May-05	4 D	1	Unidentifiable	1	Unidentifiable	1	
5	12-May-05	5 D	2	Unidentifiable	2	Unidentifiable	2	
6	12-May-05	6 D	1	Unidentifiable	2	Unidentifiable	1	
7	12-May-05	7 D	1	Morone spp.	1	Morone spp.	1	
12-May-05	7 D	11	Unidentifiable	11	Unidentifiable	11		
8	12-May-05	8 D	7	Unidentifiable	8	Unidentifiable	7	
	12-May-05	8 D	2	<b>Unidentifiable</b>	2	<b>Common carp</b>		2
	12-May-05	8 D	1	Alewife/shad/smelt	2	Alewife/shad/smelt	1	
9	16-May-05	1 D	31	Morone spp.	31	Morone spp.	31	
	16-May-05	1 D	10	Alewife/shad/smelt	10	Alewife/shad/smelt	10	
	16-May-05	1 D	9	Unidentifiable	9	Unidentifiable	9	
	16-May-05	1 D	1	<b>Walleye</b>	1	<b>Burbot</b>		1
10	16-May-05	2 D	1	<b>Brook silverside</b>	1	<b>Burbot</b>		1
	16-May-05	2 D	18	Alewife/shad/smelt	18	Alewife/shad/smelt	18	
	16-May-05	2 D	41	Morone spp.	41	Morone spp.	41	
	16-May-05	2 D	19	Unidentifiable	19	Unidentifiable	19	
11	16-May-05	3 D	20	Morone spp.	20	Morone spp.	23	
	16-May-05	3 D	25	Alewife/shad/smelt	25	Alewife/shad/smelt	25	
	16-May-05	3 D	22	Unidentifiable	22	Unidentifiable	22	
	16-May-05	3 D	7	<b>Unidentifiable</b>	7	<b>Morone spp.</b>		7
12	16-May-05	4 D	15	Morone spp.	15	Morone spp.	15	
	16-May-05	4 D	17	Alewife/shad/smelt	17	Alewife/shad/smelt	17	
	16-May-05	4 D	14	Unidentifiable	14	Unidentifiable	14	
13	16-May-05	5 D	8	Morone spp.	8	Morone spp.	8	
	16-May-05	5 D	6	Unidentifiable	6	Unidentifiable	6	
	16-May-05	5 D	13	Alewife/shad/smelt	13	Alewife/shad/smelt	13	
14	16-May-05	6 D	1	Morone spp.	1	Morone spp.	1	
	16-May-05	6 D	18	Alewife/shad/smelt	18	Alewife/shad/smelt	18	
	16-May-05	6 D	9	Unidentifiable	9	Unidentifiable	9	
	16-May-05	6 D	2	<b>Morone spp.</b>	2	<b>Cyprinidae</b>		2
15	16-May-05	7 D	50	Alewife/shad/smelt	50	Alewife/shad/smelt	50	
	16-May-05	7 D	11	Unidentifiable	11	Unidentifiable	11	
	16-May-05	7 D	6	Morone spp.	6	Morone spp.	6	
16	16-May-05	8 D	104	Alewife/shad/smelt	104	Alewife/shad/smelt	104	
	16-May-05	8 D	19	Unidentifiable	19	Unidentifiable	19	
	16-May-05	8 D	21	Morone spp.	21	Morone spp.	21	
	16-May-05	8 D	2	<b>Unidentifiable</b>	2	<b>Burbot</b>		2
17	16-May-05	9 D	1	<b>Morone spp.</b>	1	<b>Centrachidae</b>		1
	16-May-05	9 D	16	Morone spp.	16	Morone spp.	16	
	16-May-05	9 D	12	Unidentifiable	12	Unidentifiable	12	
	16-May-05	9 D	15	Alewife/shad/smelt	15	Alewife/shad/smelt	15	
18	17-May-05	1 N	2	Morone spp.	2	Morone spp.	2	
	17-May-05	1 N	20	Alewife/shad/smelt	20	Alewife/shad/smelt	20	
	17-May-05	1 N	3	Walleye	3	Walleye	3	
	17-May-05	1 N	24	Unidentifiable	24	Unidentifiable	24	

**APPENDIX 18 (cont'd)**  
**Quality Assessment of Larval Fish Identification**  
**Bay Shore Power Plant**

Sample #	Date	Sample ID	Technician # 1 (BGSU)		Technician # 2 (Kinectrics/ BII Consulting)		# Correct	# Incorrect
			No. of Larvae	Species	No. of Larvae	Species		
19	17-May-05	2 N	3	Morone spp.	3	Morone spp.	3	
	17-May-05	2 N	38	Alewife/shad/smelt	38	Alewife/shad/smelt	38	
	17-May-05	2 N	3	Walleye	3	Walleye	3	
	17-May-05	2 N	14	Unidentifiable	14	Unidentifiable	14	
	17-May-05	2 N	3	Alewife/shad/smelt	3	<b>Morone spp.</b>		3
20	17-May-05	3 N	2	Morone spp.	2	Morone spp.	2	
	17-May-05	3 N	8	Alewife/shad/smelt	8	Alewife/shad/smelt	8	
	17-May-05	3 N	6	Unidentifiable	6	Unidentifiable	6	
21	17-May-05	4 N	63	Alewife/shad/smelt	63	Alewife/shad/smelt	63	
	17-May-05	4 N	58	Morone spp.	58	Morone spp.	58	
	17-May-05	4 N	13	Walleye	13	Walleye	13	
	17-May-05	4 N	11	Unidentifiable	11	Unidentifiable	11	
22	17-May-05	5 N	7	Morone spp.	7	Morone spp.	7	
	17-May-05	5 N	19	Alewife/shad/smelt	19	Alewife/shad/smelt	19	
	17-May-05	5 N	9	Unidentifiable	9	Unidentifiable	9	
	17-May-05	5 N	3	Alewife/shad/smelt	3	<b>Morone spp.</b>		3
23	17-May-05	6 N	37	Alewife/shad/smelt	37	Alewife/shad/smelt	37	
	17-May-05	6 N	37	Morone spp.	37	Morone spp.	37	
	17-May-05	6 N	4	Walleye	4	Walleye	4	
	17-May-05	6 N	17	Unidentifiable	17	Unidentifiable	17	
	17-May-05	6 N	1	Alewife/shad/smelt	1	<b>Catastomidae</b>		1
24	17-May-05	7 N	21	Alewife/shad/smelt	21	Alewife/shad/smelt	21	
	17-May-05	7 N	11	Morone spp.	11	Morone spp.	11	
	17-May-05	7 N	1	Walleye	1	Walleye	1	
	17-May-05	7 N	5	Unidentifiable	5	Unidentifiable	5	
	17-May-05	7 N	1	Trout perch	1	Walleye		1
25	17-May-05	8 N	1	Cyprinidae	1	Cyprinidae	1	
	17-May-05	8 N	21	Morone spp.	21	Morone spp.	21	
	17-May-05	8 N	4	Alewife/shad/smelt	4	Alewife/shad/smelt	4	
	17-May-05	8 N	5	Unidentifiable	5	Unidentifiable	5	
	17-May-05	8 N	1	Walleye	1	Walleye	1	
26	17-May-05	9 N	1	<b>Cyprinidae</b>	1	<b>Percidae</b>		1
	17-May-05	9 N	17	Morone spp.	17	Morone spp.	17	
	17-May-05	9 N	18	Alewife/shad/smelt	18	Alewife/shad/smelt	18	
	17-May-05	9 N	9	Unidentifiable	9	Unidentifiable	9	
	17-May-05	10 N	8	Alewife/shad/smelt	8	Alewife/shad/smelt	8	
27	17-May-05	10 N	13	Morone spp.	13	Morone spp.	13	
	17-May-05	10 N	1	Unidentifiable	1	Unidentifiable	1	
	23-May-05	1 N	1	<b>Cyprinidae</b>	1	<b>Catastomidae</b>		1
28	23-May-05	1 N	2	Unidentifiable	2	Unidentifiable	2	
	23-May-05	1 N	1	Morone spp.	1	Morone spp.	1	
	23-May-05	2 N	1	Alewife/shad/smelt	1	<b>Morone spp.</b>		1
29	23-May-05	2 N	1	Unidentifiable	1	<b>Morone spp.</b>		1
	23-May-05	2 N	2	Unidentifiable	3	Unidentifiable	2	
	23-May-05	3 N	2	Alewife/shad/smelt	2	Alewife/shad/smelt	2	
30	23-May-05	3 N	1	Unidentifiable	1	Unidentifiable	1	
	23-May-05	3 N	1	<b>Spottail shiner</b>	1	<b>Catastomidae</b>		1
	23-May-05	4 N	5	Alewife/shad/smelt	5	Alewife/shad/smelt	5	
31	23-May-05	4 N	3	Unidentifiable	3	Unidentifiable	3	
	23-May-05	4 N	1	Walleye	1	Walleye	1	
	23-May-05	4 N	1	Logperch	1	Logperch	1	
	23-May-05	5 N	7	Alewife/shad/smelt	7	Alewife/shad/smelt	7	
32	23-May-05	5 N	2	Unidentifiable	2	Unidentifiable	2	
	23-May-05	6 N	1	Cyprinidae	1	Cyprinidae	1	
33	23-May-05	6 N	16	Alewife/shad/smelt	16	Alewife/shad/smelt	16	
	23-May-05	6 N	1	Logperch	1	Logperch	1	
	23-May-05	6 N	6	Morone spp.	6	Morone spp.	6	
	23-May-05	6 N	9	Walleye	9	Walleye	9	
	23-May-05	6 N	4	Unidentifiable	4	Unidentifiable	4	

**APPENDIX 18 (cont'd)**  
**Quality Assessment of Larval Fish Identification**  
**Bay Shore Power Plant**

Sample #	Date	Sample ID	Technician # 1 (BGSU)		Technician # 2 (Kinectrics/ BII Consulting)		# Correct	# Incorrect
			No. of Larvae	Species	No. of Larvae	Species		
34	23-May-05	7 N	1	Cyprinidae	1	Cyprinidae	1	
	23-May-05	7 N	16	Alewife/shad/smelt	16	Alewife/shad/smelt	16	
	23-May-05	7 N	1	Logperch	1	Logperch	1	
	23-May-05	7 N	8	Morone spp.	8	Morone spp.	8	
	23-May-05	7 N	8	Walleye	8	Walleye	8	
	23-May-05	7 N	1	Unidentifiable	1	Unidentifiable	1	
35	23-May-05	8 N	2	Morone spp.	2	Morone spp.	2	
	23-May-05	8 N	8	Alewife/shad/smelt	8	Alewife/shad/smelt	8	
	23-May-05	8 N	1	Unidentifiable	1	Unidentifiable	1	
35	23-May-05	9 N	4	Alewife/shad/smelt	4	Alewife/shad/smelt	4	
	23-May-05	9 N	4	Unidentifiable	4	Unidentifiable	4	
36	23-May-05	10 N	1	<b>Cyprinidae</b>	1	<b>Catastomidae</b>	1	
	23-May-05	10 N	1	Cyprinidae	1	Cyprinidae	1	
	23-May-05	10 N	14	Alewife/shad/smelt	14	Alewife/shad/smelt	14	
	23-May-05	10 N	3	Morone spp.	3	Morone spp.	3	
	23-May-05	10 N	1	Walleye	1	Walleye	1	
	23-May-05	10 N	7	Unidentifiable	7	Unidentifiable	7	
37	27-May-05	1 D	31	Alewife/shad/smelt	31	Alewife/shad/smelt	31	
	27-May-05	1 D	2	Morone spp.	2	Morone spp.	2	
	27-May-05	1 D	1	Logperch	1	Logperch	1	
	27-May-05	1 D	3	Unidentifiable	3	Unidentifiable	3	
38	27-May-05	2 D	14	Alewife/shad/smelt	14	Alewife/shad/smelt	14	
	27-May-05	2 D	1	Morone spp.	1	Morone spp.	1	
	27-May-05	2 D	2	Unidentifiable	2	Unidentifiable	2	
39	27-May-05	3 D	12	Alewife/shad/smelt	12	Alewife/shad/smelt	12	
	27-May-05	3 D	1	Morone spp.	1	Morone spp.	1	
	27-May-05	3 D	1	Unidentifiable	1	Unidentifiable	1	
40	27-May-05	4 D	24	Alewife/shad/smelt	24	Alewife/shad/smelt	24	
	27-May-05	4 D	5	Morone spp.	5	Morone spp.	5	
	27-May-05	4 D	1	Logperch	1	Logperch	1	
	27-May-05	4 D	1	Unidentifiable	1	Unidentifiable	1	
41	27-May-05	5 D	12	Alewife/shad/smelt	12	Alewife/shad/smelt	12	
	27-May-05	5 D	2	Morone spp.	2	Morone spp.	2	
42	27-May-05	6 D	12	Alewife/shad/smelt	12	Alewife/shad/smelt	12	
	27-May-05	6 D	3	Morone spp.	3	Morone spp.	3	
43	27-May-05	7 D	25	Alewife/shad/smelt	25	Alewife/shad/smelt	25	
	27-May-05	7 D	3	Unidentifiable	3	Unidentifiable	3	
44	27-May-05	8 D	13	Alewife/shad/smelt	13	Alewife/shad/smelt	13	
	27-May-05	8 D	1	Morone spp.	1	Morone spp.	1	
45	27-May-05	9 D	5	Alewife/shad/smelt	5	Alewife/shad/smelt	5	
	27-May-05	9 D	1	Unidentifiable	1	Unidentifiable	1	
46	27-May-05	10 D	10	Alewife/shad/smelt	10	Alewife/shad/smelt	10	
	27-May-05	10 D	2	Unidentifiable	2	Unidentifiable	2	
47	2-Jun-05	1 N	1	Logperch	1	Logperch	1	
	2-Jun-05	1 N	3	Morone spp.	3	Morone spp.	3	
	2-Jun-05	1 N	4	Yellow perch	4	Yellow perch	4	
	2-Jun-05	1 N	5	Unidentifiable	5	Unidentifiable	5	
48	2-Jun-05	2 N	1	Logperch	1	Logperch	1	
	2-Jun-05	2 N	8	Morone spp.	8	Morone spp.	8	
	2-Jun-05	2 N	1	Yellow perch	1	Yellow perch	1	
	2-Jun-05	2 N	15	Alewife/shad/smelt	15	Alewife/shad/smelt	15	
	2-Jun-05	2 N	4	Unidentifiable	4	Unidentifiable	4	
49	2-Jun-05	3 N	32	Alewife/shad/smelt	32	Alewife/shad/smelt	32	
	2-Jun-05	3 N	3	Logperch	3	Logperch	3	
	2-Jun-05	3 N	12	Morone spp.	12	Morone spp.	12	
	2-Jun-05	3 N	2	Yellow perch	2	Yellow perch	2	
	2-Jun-05	3 N	5	Unidentifiable	5	Unidentifiable	5	

**APPENDIX 18 (cont'd)**  
**Quality Assessment of Larval Fish Identification**  
**Bay Shore Power Plant**

Sample #	Date	Sample ID	Technician # 1 (BGSU)		Technician # 2 (Kinectrics/ BII Consulting)		# Correct	# Incorrect
			No. of Larvae	Species	No. of Larvae	Species		
50	2-Jun-05	4 N	27	Alewife/shad/smelt	27	Alewife/shad/smelt	27	
	2-Jun-05	4 N	2	Logperch	2	Logperch	2	
	2-Jun-05	4 N	21	Morone spp.	21	Morone spp.	21	
	2-Jun-05	4 N	11	Unidentifiable	11	Unidentifiable	11	
	2-Jun-05	4 N	1	Freshwater drum	1	Morone spp.		1
51	2-Jun-05	9 N	9	Alewife/shad/smelt	9	Alewife/shad/smelt	9	
	2-Jun-05	9 N	2	Morone spp.	2	Morone spp.	2	
	2-Jun-05	9 N	1	Unidentifiable	1	Unidentifiable	1	
52	3-Jun-05	1 D	79	Alewife/shad/smelt	79	Alewife/shad/smelt	79	
	3-Jun-05	1 D	1	Cyprinidae	1	Cyprinidae	1	
	3-Jun-05	1 D	2	Logperch	2	Logperch	2	
	3-Jun-05	1 D	37	Morone spp.	37	Morone spp.	37	
	3-Jun-05	1 D	1	Yellow perch	1	Yellow perch	1	
	3-Jun-05	1 D	2	Walleye	2	Walleye	2	
	3-Jun-05	1 D	20	Unidentifiable	20	Unidentifiable	20	
	3-Jun-05	1 D	1	White bass	1	Walleye		1
	3-Jun-05	1 D	1	Morone spp.	1	Logperch		1
	3-Jun-05	1 D	1	Morone spp.	1	Walleye		1
	3-Jun-05	2 D	1	Unidentifiable	1	Alewife/shad/smelt		1
	3-Jun-05	2 D	1	Freshwater drum	1	Morone spp.		1
54	3-Jun-05	4 D	10	Alewife/shad/smelt	10	Alewife/shad/smelt	10	
	3-Jun-05	4 D	2	Morone spp.	2	Morone spp.	2	
	3-Jun-05	4 D	4	Unidentifiable	4	Unidentifiable	4	
	3-Jun-05	4 D	1	Logperch	1	Walleye		1
55	3-Jun-05	9 D	7	Alewife/shad/smelt	7	Alewife/shad/smelt	7	
	3-Jun-05	9 D	1	Morone spp.	1	Morone spp.	1	
	3-Jun-05	9 D	1	Walleye	1	Walleye	1	
56	3-Jun-05	10 D	9	Alewife/shad/smelt	9	Alewife/shad/smelt	9	
	3-Jun-05	10 D	2	Morone spp.	2	Morone spp.	2	
	3-Jun-05	10 D	1	Unidentifiable	1	Unidentifiable	1	
	3-Jun-05	10 D	1	Logperch	1	Walleye		1
57	6-Jun-05	1 D	1	Logperch	1	Walleye		1
58	6-Jun-05	4 D	3	Alewife/shad/smelt	3	Alewife/shad/smelt	3	
	6-Jun-05	4 D	2	Morone spp.	2	Morone spp.	2	
59	6-Jun-05	6 D	1	Cyprinidae	1	Cyprinidae	1	
	6-Jun-05	6 D	4	Alewife/shad/smelt	4	Alewife/shad/smelt	4	
	6-Jun-05	6 D	1	Logperch	1	Logperch	1	
	6-Jun-05	6 D	1	Yellow perch	1	Yellow perch	1	
	6-Jun-05	6 D	1	Walleye	1	Walleye	1	
	6-Jun-05	6 D	1	Unidentifiable	1	Unidentifiable	1	
60	6-Jun-05	7 D	1	Yellow perch	1	Walleye		1
61	7-Jun-05	1 N	18	Alewife/shad/smelt	18	Alewife/shad/smelt	18	
	7-Jun-05	1 N	1	Morone spp.	1	Morone spp.	1	
62	7-Jun-05	3 N	14	Alewife/shad/smelt	14	Alewife/shad/smelt	14	
	7-Jun-05	3 N	2	Morone spp.	2	Morone spp.	2	
	7-Jun-05	3 N	1	Logperch	1	Logperch	1	
	7-Jun-05	3 N	1	Unidentifiable	1	Unidentifiable	1	
63	7-Jun-05	4 N	38	Alewife/shad/smelt	38	Alewife/shad/smelt	38	
	7-Jun-05	4 N	2	Unidentifiable	2	Unidentifiable	2	
	7-Jun-05	4 N	1	Trout perch	1	Trout perch	1	
64	7-Jun-05	5 N	25	Alewife/shad/smelt	25	Alewife/shad/smelt	25	
65	7-Jun-05	8 N	3	Unidentifiable	3	Unidentifiable	3	
	7-Jun-05	8 N	14	Alewife/shad/smelt	14	Alewife/shad/smelt	14	
	7-Jun-05	8 N	1	Morone spp.	1	Morone spp.	1	
	7-Jun-05	8 N	3	Logperch	3	Logperch	3	
	7-Jun-05	8 N	1	Unidentifiable	1	Alewife/shad/smelt		1
66	13-Jun-05	1 N	53	Freshwater drum	53	Freshwater drum	53	
	13-Jun-05	1 N	4	Unidentifiable	4	Unidentifiable	4	

**APPENDIX 18 (cont'd)**  
**Quality Assessment of Larval Fish Identification**  
**Bay Shore Power Plant**

Sample #	Date	Sample ID	Technician # 1 (BGSU)		Technician # 2 (Kinectrics/ BII Consulting)		# Correct	# Incorrect
			No. of Larvae	Species	No. of Larvae	Species		
67	23-Jun-05	5 N	3	Alewife/shad/smelt	3	Alewife/shad/smelt	3	
	23-Jun-05	5 N	1	Alewife	1	Alewife	1	
	23-Jun-05	5 N	12	Gizzard shad	12	Gizzard shad	12	
	23-Jun-05	5 N	1	Emerald shiner	1	Emerald shiner	1	
	23-Jun-05	5 N	5	Morone spp.	5	Morone spp.	5	
	23-Jun-05	5 N	3	White bass	3	White bass	3	
	23-Jun-05	5 N	2	White perch	2	White perch	2	
	23-Jun-05	5 N	2	Round goby	2	Round goby	2	
	23-Jun-05	5 N	3	Notropis spp.	3	Notropis spp.	3	
	23-Jun-05	5 N	5	Gizzard shad	5	Alewife		5
68	23-Jun-05	6 N	19	Emerald shiner	19	Emerald shiner	19	
	23-Jun-05	6 N	3	Gizzard shad	3	Gizzard shad	3	
	23-Jun-05	6 N	3	White bass	3	White bass	3	
	23-Jun-05	6 N	2	Cyprinidae	2	Cyprinidae	2	
	23-Jun-05	6 N	1	Morone spp.	1	Morone spp.	1	
	23-Jun-05	6 N	7	Notropis spp.	7	Notropis spp.	7	
	23-Jun-05	6 N	3	Alewife/shad/smelt	3	Alewife/shad/smelt	3	
	23-Jun-05	6 N	3	Unidentifiable	3	Unidentifiable	3	
	23-Jun-05	6 N	1	White perch	1	White bass		1
69	23-Jun-05	7 N	2	Cyprinidae	2	Cyprinidae	2	
	23-Jun-05	7 N	23	Emerald shiner	23	Emerald shiner	23	
	23-Jun-05	7 N	2	Gizzard shad	2	Gizzard shad	2	
	23-Jun-05	7 N	1	Morone spp.	1	Morone spp.	1	
	23-Jun-05	7 N	5	Notropis spp.	5	Notropis spp.	5	
	23-Jun-05	7 N	5	Alewife/shad/smelt	5	Alewife/shad/smelt	5	
	23-Jun-05	7 N	2	Unidentifiable	2	Unidentifiable	2	
70	23-Jun-05	10 N	1	White bass	2	White bass	1	
71	24-Jun-05	4 D	6	Emerald shiner	6	Emerald shiner	6	
	24-Jun-05	4 D	1	Gizzard shad	1	Gizzard shad	1	
	24-Jun-05	4 D	1	Cyprinidae	1	Cyprinidae	1	
	24-Jun-05	4 D	1	Morone spp.	1	Morone spp.	1	
	24-Jun-05	4 D	2	Notropis spp.	2	Notropis spp.	2	
	24-Jun-05	4 D	1	Yellow perch	1	Yellow perch	1	
	24-Jun-05	4 D	3	Alewife/shad/smelt	3	Alewife/shad/smelt	3	
	24-Jun-05	4 D	1	Unidentifiable	1	Unidentifiable	1	
72	24-Jun-05	6 D	3	Gizzard shad	3	Gizzard shad	3	
	24-Jun-05	6 D	1	White bass	1	White bass	1	
	24-Jun-05	6 D	1	White perch	1	White perch	1	
	24-Jun-05	6 D	3	Alewife/shad/smelt	3	Alewife/shad/smelt	3	
	24-Jun-05	6 D	1	Notropis spp.	1	Notropis spp.	1	
73	24-Jun-05	10 D	2	Emerald shiner	2	Emerald shiner	2	
	24-Jun-05	10 D	1	Gizzard shad	1	Gizzard shad	1	
	24-Jun-05	10 D	1	Logperch	1	Logperch	1	
	24-Jun-05	10 D	1	White bass	1	White perch		1
	28-Jun-05	4 N	84	Emerald shiner	84	Emerald shiner	84	
74	28-Jun-05	4 N	3	Gizzard shad	3	Gizzard shad	3	
	28-Jun-05	4 N	3	Notropis spp.	3	Notropis spp.	3	
	28-Jun-05	4 N	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
	28-Jun-05	4 N	1	Round goby	1	Round goby	1	
	28-Jun-05	4 N	1	Unidentifiable	1	Unidentifiable	1	
	28-Jun-05	5 N	44	Emerald shiner	44	Emerald shiner	44	
75	28-Jun-05	5 N	8	Gizzard shad	8	Gizzard shad	8	
	28-Jun-05	5 N	3	Cyprinidae	3	Cyprinidae	3	
	28-Jun-05	5 N	2	Notropis spp.	2	Notropis spp.	2	
	28-Jun-05	5 N	1	Freshwater drum	1	Freshwater drum	1	
	28-Jun-05	5 N	2	Round goby	2	Round goby	2	
	28-Jun-05	5 N	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	

**APPENDIX 18 (cont'd)**  
**Quality Assessment of Larval Fish Identification**  
**Bay Shore Power Plant**

Sample #	Date	Sample ID	Technician # 1 (BGSU)		Technician # 2 (Kinectrics/ BII Consulting)		# Correct	# Incorrect
			No. of Larvae	Species	No. of Larvae	Species		
76	29-Jun-05	10 N	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
	29-Jun-05	10 N	2	Round goby	2	Round goby	2	
	29-Jun-05	10 N	3	Morone spp.	3	Morone spp.	3	
	29-Jun-05	10 N	2	White bass	2	White bass	2	
	29-Jun-05	10 N	1	Gizzard shad	1	Gizzard shad	1	
	29-Jun-05	10 N	18	Emerald shiner	18	Emerald shiner	18	
77	7-Jul-05	4 N	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
	7-Jul-05	4 N	1	Morone spp.	1	Morone spp.	1	
78	7-Jul-05	6 N	2	Gizzard shad	2	Gizzard shad	2	
	7-Jul-05	6 N	4	Round goby	4	Round goby	4	
	7-Jul-05	6 N	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
79	7-Jul-05	7 N	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
	7-Jul-05	7 N	2	Round goby	2	Round goby	2	
	7-Jul-05	7 N	1	Freshwater drum	1	Freshwater drum	1	
	7-Jul-05	7 N	1	Yellow perch	1	Yellow perch	1	
	7-Jul-05	7 N	1	Emerald shiner	1	Emerald shiner	1	
	7-Jul-05	7 N	1	<b>Yellow perch</b>	1	<b>White perch</b>	1	
80	7-Jul-05	8 N	1	channel catfish	1	channel catfish	1	
	7-Jul-05	8 N	1	common carp/goldfish	1	common carp/goldfish	1	
	7-Jul-05	8 N	2	Emerald shiner	2	Emerald shiner	2	
	7-Jul-05	8 N	1	Gizzard shad	1	Gizzard shad	1	
	7-Jul-05	8 N	2	Round goby	2	Round goby	2	
	7-Jul-05	8 N	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
	7-Jul-05	8 N	1	White bass	1	White bass	1	
81	8-Jul-05	4 D	2	Gizzard shad	2	Gizzard shad	2	
82	8-Jul-05	4 D	1	Emerald shiner	1	Emerald shiner	1	
83	8-Jul-05	7 D	1	Morone spp.	1	Morone spp.	1	
84	12-Jul-05	3 D	1	Emerald shiner	1	Emerald shiner	1	
85	12-Jul-05	7 D	1	White bass	1	White bass	1	
86	12-Jul-05	10 D	1	Morone spp.	1	Morone spp.	1	
87	28-Jul-05	3 D	1	Freshwater drum	1	Freshwater drum	1	
88	29-Jul-05	9 N	1	Emerald shiner	1	Emerald shiner	1	
89	29-Jul-05	9 N	1	Freshwater drum	1	Freshwater drum	1	
90	1-Aug-05	1 D	2	Lepomis spp.	2	Lepomis spp.	2	
91	1-Aug-05	2 D	1	Lepomis spp.	1	Lepomis spp.	1	
92	1-Aug-05	5 N	1	Yellow perch	1	Yellow perch	1	
93	2-Aug-05	5 N	1	Lepomis spp.	1	Lepomis spp.	1	
94	2-Aug-05	5 N	2	Gizzard shad	1	Gizzard shad	1	
95	9-Aug-05	1 D	1	Freshwater drum	1	Freshwater drum	1	
96	9-Aug-05	2 D	1	Emerald shiner	1	Emerald shiner	1	
97	15-Aug-05	1 D	1	Emerald shiner	1	Emerald shiner	1	
98	11-Sep-05	3 D	1	Emerald shiner	1	Emerald shiner	1	
99	9-Apr-06	8 D	1	Lake whitefish	2	Lake whitefish	1	
100	20-Apr-06	1 D	6	<b>Lake whitefish</b>	6	<b>Walleye/Yellow perch</b>	6	
101	20-Apr-06	2 D	1	<b>Lake whitefish</b>	1	<b>Logperch</b>	1	
102	20-Apr-06	2 D	3	<b>Lake whitefish</b>	3	<b>Percidae</b>	3	
103	20-Apr-06	3 D	4	Walleye/Yellow perch	4	Walleye/Yellow perch	4	
104	20-Apr-06	3 D	1	<b>Gizzard shad</b>	1	<b>Walleye</b>	1	
105	20-Apr-06	3 D	1	Logperch	1	Logperch	1	
106	20-Apr-06	4 D	3	Yellow perch	3	Yellow perch	3	
107	20-Apr-06	4 D	1	Cyprinidae	1	Logperch	1	
108	20-Apr-06	4 D	2	Logperch	2	Logperch	2	
109	20-Apr-06	4 D	3	Unidentifiable	3	Unidentifiable	3	
110	20-Apr-06	5 D	6	Logperch	6	Logperch	6	
111	20-Apr-06	5 D	1	<b>Catostomidae</b>	1	<b>Yellow perch</b>	1	
112	20-Apr-06	5 D	4	Yellow perch	4	Yellow perch	4	
113	20-Apr-06	5 D	2	Walleye	2	Walleye	2	

**APPENDIX 18 (cont'd)**  
**Quality Assessment of Larval Fish Identification**  
**Bay Shore Power Plant**

Sample #	Date	Sample ID	Technician # 1 (BGSU)		Technician # 2 (Kinectrics/ BII Consulting)		# Correct	# Incorrect
			No. of Larvae	Species	No. of Larvae	Species		
103	20-Apr-06	6 D	5	Yellow perch	5	Yellow perch	5	
	20-Apr-06	6 D	2	Gizzard shad	2	Yellow perch		2
	20-Apr-06	6 D	2	<b>Lake whitefish</b>	2	<b>Logperch</b>		2
	20-Apr-06	6 D	6	Logperch	6	Logperch	6	
104	20-Apr-06	7 D	6	Logperch	6	Logperch	6	
	20-Apr-06	7 D	5	Walleye/Yellow perch	5	Walleye/Yellow perch	5	
	20-Apr-06	7 D	4	Unidentifiable	4	Unidentifiable	4	
105	20-Apr-06	8 D	1	Gizzard shad	1	Percidae		1
	20-Apr-06	8 D	4	Logperch	4	Logperch	4	
	20-Apr-06	8 D	2	Yellow perch	2	Yellow perch	2	
	20-Apr-06	8 D	11	Unidentifiable	11	Unidentifiable	11	
106	20-Apr-06	9 D	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
	20-Apr-06	9 D	7	Yellow perch	7	Yellow perch	7	
	20-Apr-06	9 D	1	<b>Brook silverside</b>	1	<b>Logperch</b>		1
	20-Apr-06	9 D	4	Logperch	4	Logperch	4	
107	20-Apr-06	10 D	6	Logperch	6	Logperch	6	
	20-Apr-06	10 D	2	Percidae	2	Percidae	2	
	20-Apr-06	10 D	8	Walleye/Yellow perch	8	Walleye/Yellow perch	8	
108	24-Apr-06	1 N	4	Percidae	4	Percidae	4	
	24-Apr-06	1 N	4	Walleye	4	Walleye	4	
109	24-Apr-06	2 N	12	Yellow perch	12	Yellow perch	12	
	24-Apr-06	2 N	1	<b>Catostomidae</b>	1	<b>Yellow perch</b>		1
	24-Apr-06	2 N	1	<b>Cyprinidae</b>	1	<b>Yellow perch</b>		1
	24-Apr-06	2 N	2	Logperch	2	Logperch	2	
110	24-Apr-06	3 N	2	Walleye/Yellow perch	2	Walleye/Yellow perch	2	
	24-Apr-06	3 N	6	Walleye	6	Walleye	6	
	24-Apr-06	3 N	3	Logperch	3	Logperch	3	
	24-Apr-06	3 N	1	Percidae	1	Percidae	1	
	24-Apr-06	3 N	1	Unidentifiable	1	Unidentifiable	1	
111	24-Apr-06	4 N	3	Walleye/Yellow perch	3	Walleye/Yellow perch	3	
	24-Apr-06	4 N	1	Percidae	1	Percidae	1	
	24-Apr-06	4 N	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
	24-Apr-06	4 N	8	Logperch	8	Logperch	8	
	24-Apr-06	4 N	1	Yellow perch	1	Yellow perch	1	
112	24-Apr-06	5 N	5	Walleye	5	Walleye	5	
	24-Apr-06	5 N	5	Percidae	5	Percidae	5	
	24-Apr-06	5 N	4	Logperch	4	Logperch	4	
113	24-Apr-06	6 N	3	Logperch	3	Logperch	3	
	24-Apr-06	6 N	2	Walleye	2	Walleye	2	
	24-Apr-06	6 N	7	Percidae	7	Percidae	7	
114	24-Apr-06	7 N	8	Logperch	8	Logperch	8	
	24-Apr-06	7 N	4	Walleye	4	Walleye	4	
	24-Apr-06	7 N	3	Percidae	3	Percidae	3	
	24-Apr-06	7 N	1	Unidentifiable	1	Unidentifiable	1	
115	24-Apr-06	8 N	1	<b>Cyprinidae</b>	1	<b>Grass pickerel</b>		1
	24-Apr-06	8 N	10	Percidae	10	Percidae	10	
	24-Apr-06	8 N	4	Logperch	4	Logperch	4	
	24-Apr-06	8 N	2	Walleye	2	Walleye	2	
116	24-Apr-06	9 N	2	Walleye	2	Walleye	2	
	24-Apr-06	9 N	3	Logperch	3	Logperch	3	
	24-Apr-06	9 N	4	Percidae	4	Percidae	4	
	24-Apr-06	9 N	1	Unidentifiable	1	Unidentifiable	1	
117	24-Apr-06	10 N	6	Percidae	6	Percidae	6	
	24-Apr-06	10 N	3	Logperch	3	Logperch	3	
118	26-Apr-06	2 D	2	Logperch	2	Logperch	2	
119	26-Apr-06	3 D	13	Walleye	13	Walleye	13	
	26-Apr-06	3 D	4	Percidae	4	Percidae	4	
	26-Apr-06	3 D	4	Logperch	4	Logperch	4	
	26-Apr-06	3 D	1	<b>Cyprinidae</b>	1	<b>Grass pickerel</b>		1

**APPENDIX 18 (cont'd)**  
**Quality Assessment of Larval Fish Identification**  
**Bay Shore Power Plant**

Sample #	Date	Sample ID	Technician # 1 (BGSU)		Technician # 2 (Kinectrics/ BII Consulting)		# Correct	# Incorrect
			No. of Larvae	Species	No. of Larvae	Species		
120	26-Apr-06	4 D	4	unidentifiable	4	unidentifiable	4	
	26-Apr-06	4 D	1	Logperch	1	Logperch	1	
121	26-Apr-06	5 D	1	Percidae	1	Percidae	1	
	26-Apr-06	5 D	9	Walleye	9	Walleye	9	
122	26-Apr-06	6 D	7	Logperch	7	Logperch	7	
	26-Apr-06	6 D	6	Walleye	6	Walleye	6	
	26-Apr-06	6 D	7	Percidae	7	Percidae	7	
	26-Apr-06	6 D	6	Unidentifiable	6	Unidentifiable	6	
123	26-Apr-06	7 D	4	Logperch	4	Logperch	4	
	26-Apr-06	7 D	3	Walleye	3	Walleye	3	
124	26-Apr-06	8 D	1	Percidae	1	Percidae	1	
125	26-Apr-06	9 D	3	Walleye	3	Walleye	3	
	26-Apr-06	9 D	3	Percidae	3	Percidae	3	
	26-Apr-06	9 D	2	Logperch	2	Logperch	2	
126	26-Apr-06	10 D	7	Walleye	7	Walleye	7	
	26-Apr-06	10 D	12	Percidae	12	Percidae	12	
	26-Apr-06	10 D	3	Logperch	3	Logperch	3	
	26-Apr-06	10 D	5	Gizzard shad	5	Logperch		5
	26-Apr-06	10 D	5	Unidentifiable	5	Unidentifiable	5	
127	4-May-06	1 D	4	Walleye	4	Walleye	4	
	4-May-06	1 D	3	Percidae	3	Percidae	3	
	4-May-06	1 D	11	Logperch	11	Logperch	11	
	4-May-06	1 D	12	Unidentifiable	12	Unidentifiable	12	
	4-May-06	1 D	2	Morone spp.	2	Morone spp.	2	
128	4-May-06	2 D	4	Walleye	4	Walleye	4	
	4-May-06	2 D	1	Unidentifiable	1	Unidentifiable	1	
129	4-May-06	3 D	2	Morone spp.	2	Morone spp.	2	
	4-May-06	3 D	4	Walleye	4	Walleye	4	
	4-May-06	3 D	3	Unidentifiable	3	Unidentifiable	3	
	4-May-06	3 D	14	Logperch	14	Logperch	14	
	4-May-06	3 D	1	Gizzard shad	1	Gizzard shad	1	
	4-May-06	3 D	3	Alewife/shad/smelt	3	Alewife/shad/smelt	3	
130	4-May-06	4 D	1	Alewife/shad/smelt	1	Logperch		1
	4-May-06	4 D	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
	4-May-06	4 D	2	Percidae	2	Percidae	2	
131	4-May-06	5 D	2	Logperch	2	Logperch	2	
	4-May-06	5 D	2	Percidae	2	Percidae	2	
	4-May-06	5 D	2	unidentifiable	2	unidentifiable	2	
132	4-May-06	6 D	10	Alewife/shad/smelt	10	Alewife/shad/smelt	10	
	4-May-06	6 D	5	Morone spp.	5	Morone spp.	5	
	4-May-06	6 D	10	Logperch	10	Logperch	10	
	4-May-06	6 D	4	Walleye	4	Walleye	4	
	4-May-06	6 D	2	unidentifiable	2	unidentifiable	2	
133	4-May-06	7 D	2	Alewife/shad/smelt	2	Alewife/shad/smelt	2	
	4-May-06	7 D	3	Logperch	3	Logperch	3	
	4-May-06	7 D	1	Morone spp.	1	Morone spp.	1	
134	4-May-06	8 D	6	Logperch	6	Logperch	6	
	4-May-06	8 D	1	Morone spp.	1	Morone spp.	1	
	4-May-06	8 D	6	Alewife/shad/smelt	6	Alewife/shad/smelt	6	
	4-May-06	8 D	2	Walleye	2	Walleye	2	
135	4-May-06	9 D	5	Logperch	5	Logperch	5	
	4-May-06	9 D	1	Morone spp.	1	Morone spp.	1	
	4-May-06	9 D	2	Alewife/shad/smelt	2	Alewife/shad/smelt	2	
	4-May-06	9 D	2	Walleye	2	Walleye	2	
136	4-May-06	10 D	1	Logperch	1	Logperch	1	
	4-May-06	10 D	1	Morone spp.	1	Morone spp.	1	
	4-May-06	10 D	3	Walleye	3	Walleye	3	

**APPENDIX 18 (cont'd)**  
**Quality Assessment of Larval Fish Identification**  
**Bay Shore Power Plant**

Sample #	Date	Sample ID	Technician # 1 (BGSU)		Technician # 2 (Kinectrics/ BII Consulting)		# Correct	# Incorrect
			No. of Larvae	Species	No. of Larvae	Species		
137	6-May-06	1 N	1	Walleye	1	Walleye	1	
	6-May-06	1 N	1	White sucker	1	White sucker	1	
	6-May-06	1 N	6	Logperch	6	Logperch	6	
	6-May-06	1 N	3	Alewife/shad/smelt	3	Alewife/shad/smelt	3	
	6-May-06	1 N	3	Morone spp.	3	Morone spp.	3	
	6-May-06	1 N	6	Unidentifiable	6	Unidentifiable	6	
138	6-May-06	2 N	2	Morone spp.	2	Morone spp.	2	
	6-May-06	2 N	1	White sucker	1	White sucker	1	
	6-May-06	2 N	2	Logperch	2	Logperch	2	
139	6-May-06	3 N	8	Walleye	8	Walleye	8	
	6-May-06	3 N	3	White sucker	3	White sucker	3	
	6-May-06	3 N	28	Logperch	28	Logperch	28	
	6-May-06	3 N	6	Alewife/shad/smelt	6	Alewife/shad/smelt	6	
	6-May-06	3 N	8	Morone spp.	8	Morone spp.	8	
	6-May-06	3 N	4	Unidentifiable	4	Unidentifiable	4	
140	6-May-06	4 N	16	Logperch	16	Logperch	16	
	6-May-06	4 N	5	Walleye	5	Walleye	5	
	6-May-06	4 N	1	White sucker	1	White sucker	1	
	6-May-06	4 N	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
	6-May-06	4 N	9	Morone spp.	9	Morone spp.	9	
	6-May-06	4 N	3	Unidentifiable	3	Unidentifiable	3	
141	6-May-06	5 N	1	White sucker	1	White sucker	1	
	6-May-06	5 N	1	Morone spp.	1	Morone spp.	1	
	6-May-06	5 N	1	unidentifiable	1	unidentifiable	1	
	6-May-06	5 N	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
	6-May-06	5 N	1	Logperch	1	Logperch	1	
	6-May-06	6 N	2	Morone spp.	2	Morone spp.	2	
142	6-May-06	6 N	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
	6-May-06	6 N	4	Logperch	4	Logperch	4	
	6-May-06	7 N	1	Logperch	1	Logperch	1	
143	6-May-06	7 N	1	unidentifiable	1	unidentifiable	1	
	6-May-06	7 N	1	Walleye	1	Walleye	1	
	6-May-06	8 N	6	Morone spp.	6	Morone spp.	6	
144	6-May-06	8 N	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
	6-May-06	8 N	1	Walleye	1	Walleye	1	
	6-May-06	8 N	1	White sucker	1	White sucker	1	
	6-May-06	8 N	9	Logperch	9	Logperch	9	
	6-May-06	9 N	9	Logperch	9	Logperch	9	
145	6-May-06	9 N	1	Morone spp.	1	Morone spp.	1	
	6-May-06	9 N	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
	6-May-06	9 N	1	unidentifiable	1	unidentifiable	1	
	6-May-06	9 N	2	Walleye	2	Walleye	2	
	6-May-06	9 N	1	White sucker	1	White sucker	1	
	6-May-06	10 N	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
146	6-May-06	10 N	4	Logperch	4	Logperch	4	
	6-May-06	10 N	3	unidentifiable	3	unidentifiable	3	
	6-May-06	10 N	2	Walleye	2	Walleye	2	
	8-May-06	1 N	63	Morone spp.	63	Morone spp.	63	
147	8-May-06	1 N	1	<b>Logperch</b>	1	<b>Morone spp.</b>	1	
	8-May-06	1 N	40	Logperch	40	Logperch	40	
	8-May-06	1 N	3	Yellow perch	3	Yellow perch	3	
	8-May-06	1 N	14	Unidentifiable	14	Unidentifiable	14	
	8-May-06	2 N	4	Alewife/shad/smelt	4	Alewife/shad/smelt	4	
148	8-May-06	2 N	18	Morone spp.	18	Morone spp.	18	
	8-May-06	2 N	1	Percidae	1	Percidae	1	
	8-May-06	2 N	2	Yellow perch	2	Yellow perch	2	
	8-May-06	2 N	10	Unidentifiable	10	Unidentifiable	10	
	8-May-06	2 N	11	Logperch	11	Logperch	11	

**APPENDIX 18 (cont'd)**  
**Quality Assessment of Larval Fish Identification**  
**Bay Shore Power Plant**

Sample #	Date	Sample ID	Technician # 1 (BGSU)		Technician # 2 (Kinectrics/ BII Consulting)		# Correct	# Incorrect
			No. of Larvae	Species	No. of Larvae	Species		
149	8-May-06	3 N	22	Logperch	22	Logperch	22	
	8-May-06	3 N	2	Yellow perch	2	Yellow perch	2	
	8-May-06	3 N	11	Unidentifiable	11	Unidentifiable	11	
150	8-May-06	4 N	1	unidentifiable	1	unidentifiable	1	
	8-May-06	4 N	3	Logperch	3	Logperch	3	
151	8-May-06	5 N	2	Alewife/shad/smelt	2	Alewife/shad/smelt	2	
	8-May-06	5 N	14	Logperch	14	Logperch	14	
	8-May-06	5 N	3	Yellow perch	3	Yellow perch	3	
	8-May-06	5 N	10	Unidentifiable	10	Unidentifiable	10	
152	8-May-06	6 N	1	Morone spp.	1	Morone spp.	1	
	8-May-06	6 N	15	Logperch	15	Logperch	15	
	8-May-06	6 N	7	Unidentifiable	7	Unidentifiable	7	
	8-May-06	6 N	1	Unidentifiable	1	<b>Grass pickerel</b>	1	
153	8-May-06	7 N	1	<b>Cyprinidae</b>	1	<b>Catastomidae</b>	1	
	8-May-06	7 N	3	Morone spp.	3	Morone spp.	3	
	8-May-06	7 N	8	Logperch	8	Logperch	8	
	8-May-06	7 N	1	Walleye	1	Walleye	1	
	8-May-06	7 N	1	unidentifiable	1	unidentifiable	1	
154	8-May-06	8 N	8	Logperch	8	Logperch	8	
	8-May-06	8 N	6	unidentifiable	6	unidentifiable	6	
155	8-May-06	9 N	1	Alewife/shad/smelt	1	Alewife/shad/smelt	1	
	8-May-06	9 N	4	Morone spp.	4	Morone spp.	4	
	8-May-06	9 N	3	Logperch	3	Logperch	3	
	8-May-06	9 N	3	Logperch	3	Morone spp.	3	
	8-May-06	9 N	2	Yellow perch	2	Yellow perch	2	
	8-May-06	9 N	2	unidentifiable	2	unidentifiable	2	
156	8-May-06	10 N	5	Logperch	5	Logperch	5	
	8-May-06	10 N	1	Walleye	1	Walleye	1	
	8-May-06	10 N	2	Morone spp.	2	Morone spp.	2	
	8-May-06	10 N	3	unidentifiable	3	unidentifiable	3	
157	12-May-06	1 D	47	Alewife/shad/smelt	47	Alewife/shad/smelt	47	
	12-May-06	1 D	15	Morone spp.	15	Morone spp.	15	
	12-May-06	1 D	6	Logperch	6	Logperch	6	
	12-May-06	1 D	2	Unidentifiable	2	Unidentifiable	2	
	12-May-06	2 D	20	Alewife/shad/smelt	20	Alewife/shad/smelt	20	
158	12-May-06	2 D	20	Morone spp.	20	Morone spp.	20	
	12-May-06	2 D	7	Logperch	7	Logperch	7	
	12-May-06	2 D	3	Unidentifiable	3	Unidentifiable	3	
	12-May-06	3 D	8	Alewife/shad/smelt	8	Alewife/shad/smelt	8	
159	12-May-06	3 D	11	Morone spp.	11	Morone spp.	11	
	12-May-06	3 D	2	Logperch	2	Logperch	2	
	12-May-06	3 D	5	Unidentifiable	5	Unidentifiable	5	
	12-May-06	4 D	38	Alewife/shad/smelt	38	Alewife/shad/smelt	38	
160	12-May-06	4 D	21	Morone spp.	21	Morone spp.	21	
	12-May-06	4 D	12	Logperch	12	Logperch	12	

**APPENDIX 18 (cont'd)**  
**Quality Assessment of Larval Fish Identification**  
**Bay Shore Power Plant**

Sample #	Date	Sample ID	Technician # 1 (BGSU)		Technician # 2 (Kinectrics/ BII Consulting)		# Correct	# Incorrect
			No. of Larvae	Species	No. of Larvae	Species		
161	12-May-06	5 D	14	Alewife/shad/smelt	14	Alewife/shad/smelt	14	
	12-May-06	5 D	3	Morone spp.	3	Morone spp.	3	
	12-May-06	5 D	1	Logperch	1	Logperch	1	
	12-May-06	5 D	3	Unidentifiable	3	Unidentifiable	3	
162	12-May-06	6 D	20	Alewife/shad/smelt	20	Alewife/shad/smelt	20	
	12-May-06	6 D	12	Morone spp.	12	Morone spp.	12	
	12-May-06	6 D	1	<b>Alewife/shad/smelt</b>	1	<b>Logperch</b>		1
	12-May-06	6 D	1	Logperch	1	Logperch	1	
	12-May-06	6 D	2	Unidentifiable	2	Unidentifiable	2	
163	12-May-06	7 D	13	Alewife/shad/smelt	13	Alewife/shad/smelt	13	
	12-May-06	7 D	16	Morone spp.	16	Morone spp.	16	
	12-May-06	7 D	3	Logperch	3	Logperch	3	
	12-May-06	7 D	2	Unidentifiable	2	Unidentifiable	2	
164	12-May-06	8 D	17	Alewife/shad/smelt	17	Alewife/shad/smelt	17	
	12-May-06	8 D	37	Morone spp.	37	Morone spp.	37	
	12-May-06	8 D	1	Logperch	1	Logperch	1	
	12-May-06	8 D	7	Unidentifiable	7	Unidentifiable	7	
165	12-May-06	9 D	17	Alewife/shad/smelt	17	Alewife/shad/smelt	17	
	12-May-06	9 D	10	Morone spp.	10	Morone spp.	10	
	12-May-06	9 D	3	Logperch	3	Logperch	3	
	12-May-06	9 D	3	Unidentifiable	3	Unidentifiable	3	
166	12-May-06	10 D	13	Morone spp.	13	Morone spp.	13	
	12-May-06	10 D	1	<b>Logperch</b>	1	<b>Walleye</b>		1
	12-May-06	10 D	13	Alewife/shad/smelt	13	Alewife/shad/smelt	13	
	12-May-06	10 D	1	unidentifiable	1	unidentifiable	1	
<b>TOTAL</b>							<b>3,776</b>	<b>89</b>

Error rate = 2.30%

**APPENDIX 19**

**Water Quality and Meteorological Data Collected During Impingement & Entrainment Sampling at Bay Shore Power Plant  
(May 2005 – December 2006)**

Date	Time	Intake Temp (°C)	Conductivity uS/cm	DO mg/L	Water Transparency (m)	pH	Precipitation	Cloud Cover (%)	Wind Speed (mph)	Wind Direction	Air Temp (°C)
12-May-05	day	15.1	409	10.6	0.10	8.1	No	mostly	NA	NA	9.0
16-May-05	day	14.6	500	6.3	0.12	8.3	No	partly	5 to 10 mph	West	15.0
17-May-05	night	16.4	499	6.3	NA	8.1	No	clear	10 to 15	NE	NA
23-May-05	night	16.8	262	6.3	NA	7.8	No	100%	17.00	West	11.1
27-May-05	day	18.4	597	7.0	NA	8.1	No	1%	15.00	SE	11.1
MAY 2005	Min	14.6	262	6.3	0.1	7.8					9.0
	Max	18.4	597	10.6	0.1	8.3					15.0
	Average	16.3	453	7.3	0.1	8.1					11.6
2-Jun-05	night	21.2	531	8.2	NA	8.6	Yes	90%	calm	NA	19.0
3-Jun-05	day	20.8	517	8.6	NA	8.6	No	100%	5	NE	17.6
6-Jun-05	day	21.7	517	8.1	NA	8.4	No	0%	10 to 20	SW	25.5
7-Jun-05	night	24.7	476	9.4	NA	9.0	No	40%	0	NA	29.0
17-Jun-05	day	22.1	515	4.9	NA	7.7	No	2%	2	SW	19.2
23-Jun-05	night	24.8	533	11.4	NA	8.4	No	50%	10 to 15	NW	27.0
24-Jun-05	day	24.2	561	7.3	NA	8.1	No	0%	2	SW	32.0
27-Jun-05	day	26.6	401	8.6	NA	8.5	No	0%	None	NA	30.0
28-Jun-05	night	27.8	489	8.9	NA	8.5	No	0%	< 1	N	29.0
JUNE 2005	Min	20.8	401	4.9		7.7					17.6
	Max	27.8	561	11.4		9.0					32.0
	Average	23.8	504	8.4		8.4					25.4
7-Jul-05	night	26.9	490	6.8	0.50	8.7	No	10%	8	NW	26.0
8-Jul-05	day	25.0	567	4.5	0.25	7.3	No	10%	2	W	22.1
11-Jul-05	night	27.0	541	3.6	0.40	7.8	No	80%	5 to 10	NW	28.0
12-Jul-05	day	26.5	555	3.9	0.25	7.5	No	100%	12	SE	27.0
21-Jul-05	day	26.9	319	2.7	0.30	7.3	No	0%	calm	NA	26.0
22-Jul-05	night	29.7	320	6.9	0.40	8.3	No	40%	2	W	27.5
28-Jul-05	day	26.2	629	4.5	0.30	7.5	No	40%	5	NW	26.0
29-Jul-05	night	28.0	638	5.0	0.50	8.2	No	50%	1	NE	22.0
JULY 2005	Min	25.0	319	2.7	0.3	7.3					22.0
	Max	29.7	638	6.9	0.5	8.7					28.0
	Average	27.0	507	4.7	0.4	7.8					25.6

**APPENDIX 19 (cont'd)**

**Water Quality and Meteorological Data Collected During Impingement & Entrainment Sampling at Bay Shore Power Plant  
(May 2005 – December 2006)**

Date	Time	Intake Temp (°C)	Conductivity uS/cm	DO mg/L	Water Transparency (m)	pH	Precipitation	Cloud Cover (%)	Wind Speed (mph)	Wind Direction	Air Temp (°C)
1-Aug-05	day	26.0	NA	NA	0.25	NA	No	0%	3	SW	22.0
2-Aug-05	night	28.9	293	5.4	0.40	8.6	No	0%	calm	NA	30.0
9-Aug-05	day	27.5	565	5.0	0.20	7.5	No	0%	calm	NA	30.0
12-Aug-05	night	27.9	489	4.2	0.30	6.9	Yes	100%	5-10	SW	29.0
15-Aug-05	day	24.8	430	5.6	0.50	7.2	No	70%	calm	NA	26.0
18-Aug-05	night	24.5	433	5.4	0.43	7.3	No	60%	calm	NA	23.0
22-Aug-05		24.6	841	8.1	NA	8.1	No	80%	NA	NA	22.0
23-Aug-05		24.3	911	5.9	NA	7.6	No	10%	NA	NA	19.0
AUG 2005	Min	24.3	293	4.2	0.2	6.9					19.0
	Max	28.9	911	8.1	0.5	8.6					30.0
	Average	26.1	566	5.6	0.3	7.6					25.1
1-Sep-05		24.5	441	6.4	0.40	7.9	No	0%	5	SW	22.0
2-Sep-05	night	25.2	426	6.8	0.50	7.6	No	0%	0	NA	28.2
5-Sep-05		24.1	480	7.5	too dark	7.9	No	0%	10	NE	17.0
6-Sep-05		24.5	530	5.5	NA	7.6	No	0%	NA	clear	28.0
11-Sep-05	day	23.2	532	7.3	0.50	8.0	No	0%	0	NA	19.5
17-Sep-05	night	21.6	468	NA	NA	7.8	No	0%	0	NA	20.8
22-Sep-05	day	21.6	406	5.7	NA	7.1	No	100%	0	NA	22.0
23-Sep-05	night	20.4	465	6.1	NA	6.4	No	75%	0	NA	19.0
25-Sep-05	night	21.9	540	6.7	NA	7.5	Yes	80%	0	NA	18.0
26-Sep-05	day	22.6	588	4.1	NA	7.5	No	70%	0	NA	22.0
SEP 2005	Min	20.4	406	4.1	0.4	6.4					17.0
	Max	25.2	588	7.5	0.5	8.0					28.2
	Average	23.0	488	6.2	0.5	7.5					21.7
6-Oct-05		21.5	518	5.1	0.40	6.8	No	0%	5	SE	24.0
7-Oct-05		18.2	501	5.7	NA	6.9	No	95%	10	NW	14.0
9-Oct-05	night	15.5	540	6.2	NA	7.1	No	NA	10-15	NW	14.0
10-Oct-05	day	15.4	548	6.0	0.40	7.1	Yes	100%	15	N	12.0
16-Oct-05	day	16.8	244	8.9	0.50	7.0	No	90%	5	SW	13.0
22-Oct-05	night	14.4	445	9.2	NA	6.6	No	10%	5	NW	10.1
27-Oct-05		12.4	446	8.5	NA	7.8	NA	75%	0	calm	7.0
28-Oct-05		12.4	421	8.9	NA	8.1	No	0%	0	calm	8.6
30-Oct-05	night	11.5	232	10.0	NA	8.4	No	10%	5	SE	15.4
31-Oct-05	day	10.5	360	8.1	0.35	8.3	No	70%	10	E	17.1
OCT 2005	Min	10.5	232	5.1	0.4	6.6					7.0
	Max	21.5	548	10.0	0.5	8.4					24.0
	Average	14.9	426	7.7	0.4	7.4					13.5

**APPENDIX 19 (cont'd)**

**Water Quality and Meteorological Data Collected During Impingement & Entrainment Sampling at Bay Shore Power Plant  
(May 2005 – December 2006)**

Date	Time	Intake Temp (°C)	Conductivity uS/cm	DO mg/L	Water Transparency (m)	pH	Precipitation	Cloud Cover (%)	Wind Speed (mph)	Wind Direction	Air Temp (°C)
6-Nov-05	day	12.9	474	7.9	0.20	8.1	Yes	100%	15-20	SW	11.0
7-Nov-05	night	12.2	471	7.2	NA	8.2	No	0%	10	W SW	4.0
17-Nov-05	day	6.6	695	8.5	0.53	7.9	No	90%	10	SE	-4.0
18-Nov-05	night	6.1	684	8.7	NA	8.0	No	0%	10	SE	NA
23-Nov-05	day	3.5	544	10.0	0.50	7.5	Snow, 2 in.	100%	5	S	-1.0
25-Nov-05	night	0.7	436	11.3	NA	8.2	Snow, 1 in.	100%	5	N	0.4
27-Nov-05	night	4.2	510	10.7	0.27	8.1	No	90%	5-10	N	17.0
28-Nov-05	day	3.6	461	10.8	NA	8.2	No	60%	5	SE	11.0
NOV 2005	Min	0.7	436	7.2	0.2	7.5					-4.0
	Max	12.9	695	11.3	0.5	8.2					17.0
	Average	6.2	534	9.4	0.4	8.0					5.5
4-Dec-05	night	2.2	431	11.4	0.25	7.6	No	0%	0	NW	-1.0
5-Dec-05	day	1.1	526	9.3	0.19	6.8	No	30%	5	E	-3.0
21-Dec-05	day	0.3	614	9.4	0.34	8.0	No	85%	10	SW	-2.0
DEC 2005	Min	0.3	431	9.3	0.2	6.8					-3.0
	Max	2.2	614	11.4	0.3	8.0					-1.0
	Average	1.2	524	10.0	0.3	7.5					-2.0
5-Jan-06	night	4.0	424	9.5	0.10	7.1	No	100%	5	S	5.0
11-Jan-06	day	5.6	516	10.3	0.05	6.7	No	50%	10	E	7.0
17-Jan-06	night	3.7	876	10.1	0.07	6.7	Yes	100%	10	S	1.0
27-Jan-06	day	3.9	570	10.2	0.08	6.8	No	0%	5	E	3.0
JAN 2006	Min	3.7	424	9.5	0.1	6.7					1.0
	Max	5.6	876	10.3	0.1	7.1					7.0
	Average	4.3	597	10.0	0.1	6.8					4.0
1-Feb-06	night	6.4	625	8.5	NA	6.7	No	0%	5	E	7.0
10-Feb-06	day	2.1	463	10.8	0.02	8.2	No	100%	5	SE	1.0
14-Feb-06	day	0.8	452	11.8	0.23	6.4	No	40%	10	E	2.0
24-Feb-06	night	2.4	470	8.5	NA	6.3	No	60%	5	NE	-1.0
FEB 2006	Min	0.8	452	8.5	0.0	6.3					-1.0
	Max	6.4	625	11.8	0.2	8.2					7.0
	Average	2.9	503	9.9	0.1	6.9					2.3

**APPENDIX 19 (cont'd)**  
**Water Quality and Meteorological Data Collected During Impingement & Entrainment Sampling at Bay Shore Power Plant**  
**(May 2005 – December 2006)**

Date	Time	Intake Temp (°C)	Conductivity uS/cm	DO mg/L	Water Transparency (m)	pH	Precipitation	Cloud Cover (%)	Wind Speed (mph)	Wind Direction	Air Temp (°C)
1-Mar-06	night	2.4	551	11.4	0.10	8.1	No	80%	5-10	W	-1.0
7-Mar-06	day	5.2	535	11.0	0.20	7.8	No	10%	5	W	5.0
16-Mar-06		6.4	431	8.0	0.05	7.8	No	100%	10	W	-1.0
19-Mar-06	day	4.8	424	10.8	0.08	7.9	No	0%	10	W	-1.0
25-Mar-06	night	4.6	523	9.3	0.12	7.0	No	80%	0	calm	5.0
26-Mar-06	day	4.1	557	9.6	0.14	7.6	No	0%	5-10	NW	-3.0
31-Mar-06	night	9.6	531	9.1	NA	7.8	Yes	100%	10-15	SE	13.0
MAR 2006	Min	2.4	424	8.0	0.1	7.0					-3.0
	Max	9.6	557	11.4	0.2	8.1					13.0
	Average	5.3	507	9.9	0.1	7.7					2.4
3-Apr-06	day	10.5	597	9.3	0.19	7.9	Yes	100%	10-15	NW	9.0
7-Apr-06	night	10.7	598	9.4	0.04	7.8	No	100%	15-20	N	6.0
9-Apr-06	day	9.4	558	7.6	0.18	7.8	No	0%	0	calm	1.0
14-Apr-06	night	14.6	572	6.8	0.20	8.0	No	5%	5	W	19.0
17-Apr-06	night	12.4	594	6.9	NA	7.9	No	0%	10-15	NW	8.0
20-Apr-06	day	15.1	664	6.8	0.15	8.4	No	5%	5	NW	15.0
24-Apr-06	night	17.3	570	7.8	NA	7.5	No	50%	0	calm	15.0
26-Apr-06	day	15.2	560	10.9	0.25	7.3	No	0%	5	S	18.0
APRIL 2006	Min	9.4	558	6.8	0.0	7.3					1.0
	Max	17.3	664	10.9	0.3	8.4					19.0
	Average	13.2	589	8.2	0.2	7.8					11.4
4-May-06	day	NA	594	6.1	0.50	7.9	No	40%	5-10	S	25.8
6-May-06	night	17.6	604	8.0	0.10	8.6	No	0%	5	N	19.0
8-May-06	night	17.7	614	7.6	0.30	9.1	No	0%	10	SE	20.0
12-May-06	day	17.4	621	7.1	0.45	8.1	Yes	100%	5	S	10.0
MAY 2006	Min	17.4	594	6.1	0.1	7.9					10.0
	Max	17.7	621	8.0	0.5	9.1					25.8
	Average	17.6	608	7.2	0.3	8.4					18.7

**APPENDIX 19 (cont'd)**

**Water Quality and Meteorological Data Collected During Impingement & Entrainment Sampling at Bay Shore Power Plant  
(May 2005 – December 2006)**

Date	Time	Intake Temp (°C)	Conductivity uS/cm	DO mg/L	Water Transparency (m)	pH	Precipitation	Cloud Cover (%)	Wind Speed (mph)	Wind Direction	Air Temp (°C)
9-Oct-06	day	16.7	468	10.8	0.4	8.8	No	50%	5-10	NE	18.3
18-Oct-06	day	11.8	452	7.6	0.6	8.0	Yes	100%	0-5	W	10.0
26-Oct-06	day	9.8	313	9.2	0.2	7.1	No	100%	0-5	W	7.2
30-Oct-06	night	8.3	375	9.2	NA	8.1	No	100%	5-10	W	12.8
OCT 2006	Min	8.3	313	7.6	0.2	7.1					7.2
	Max	16.7	468	10.8	0.4	8.8					18.3
	Average	11.7	402	9.2	0.4	8.0					12.1
2-Nov-06	day	7.6	323	8.8	0.2	7.3	No	70%	10-15	W	3.4
5-Nov-06	day	9.1	187	8.8	0.2	8.0	No	100%	0-5	NW	12.8
8-Nov-06	night	9.5	330	9.4	NA	8.0	Yes	100%	0-5	W	10.0
12-Nov-06	night	8.7	386	8.2	NA	8.1	Yes	100%	10-15	NW	1.7
15-Nov-06	night	8.3	375	9.2	NA	8.1	No	100%	0-5	NE	4.4
19-Nov-06	day	6.6	288	9.7	NA	7.2	No	100%	0-5	W	1.1
29-Nov-06	day	9.4	347	10.1	0.25	6.6	Yes	100%	0-5	SW	18.3
NOV 2006	Min	6.6	187	8.2	0.2	6.6					1.1
	Max	9.5	386	10.1	0.25	8.1					18.3
	Average	8.5	319.4	9.2	0.2	7.6					7.4
5-Dec-06	day	2.5	148	10.7	0.1	6.7	No	90%	0-5	W	2.2
11-Dec-06	day	1.4	202	11.7	0.1	8.2	No	40%	0-5	W	7.2
DEC 2006	Min	1.4	148	10.7	0.1	6.7					2.2
	Max	2.5	202	11.7	0.1	8.2					7.2
	Average	2.0	175.0	11.2	0.1	7.4					4.7