

The Hillsmere Shores Marina

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Reserve Component List	Engineering Data Section	Replacement Year (red font if in 5 years or less)	Age (N/A = not available)	Useful Life (years)	Remaining Useful Life (years)	Replacement Cost without Inflation	% Included (blue font if less than 100%)	\$ Included	Number of Phases	Cost per Phase	Flexibility
Boat Lifts	6.105	2039	2019	20	19	\$75,000	100%	\$75,000	1	\$75,000	deferrable
Boat Ramps (1 of 2 every 20 years)	6.107	2028	varies	20	8	\$100,000	50%	\$50,000	1	\$50,000	deferrable
Bulkheads at Main Marina - Wood	6.202	2043	2013	30	23	\$450,000	100%	\$450,000	2	\$225,000	deferrable
Bulkheads at Sunset Boat Ramp - Wood	6.203	2049	2019	30	29	\$60,000	100%	\$60,000	1	\$60,000	deferrable
Bulkheads - Steel	6.204	2043	N/A	40	23	\$160,000	100%	\$160,000	1	\$160,000	deferrable
Dredging	-	2024	N/A	10	4	\$60,000	100%	\$60,000	1	\$60,000	deferrable
Electrical Hook-ups - Main Marina (replace outlets)	6.262	2020	N/A	30	0	\$45,000	60%	\$27,000	1	\$27,000	deferrable
Electrical Hook-ups - Main Marina (remaining)	6.262	2032	N/A	30	12	\$45,000	40%	\$18,000	2	\$9,000	deferrable
Electrical Hook-ups - Sunset Drive Boat Ramp	6.263	2032	N/A	30	12	\$5,000	100%	\$5,000	1	\$5,000	deferrable
Electrical Hook-ups - Beach Drive Boat Ramp	6.264	2032	N/A	30	12	\$3,400	100%	\$3,400	1	\$3,400	deferrable
Electrical Panels - Main Marina	6.265	2032	N/A	40	12	\$140,000	100%	\$140,000	2	\$70,000	deferrable
Gravel Augmentation - Main Marina Parking Area	6.417	2020	N/A	5	0	\$5,000	100%	\$5,000	1	\$5,000	deferrable
Gate Operator	6.421	2021	N/A	10	1	\$6,100	100%	\$6,100	1	\$6,100	discretionary
Gates	6.423	2031	N/A	40	11	\$10,000	100%	\$10,000	1	\$10,000	deferrable
Kayak Racks (5 of 30 every 5 years)	6.537	2022	varies	5	2	\$28,000	17%	\$4,667	1	\$4,667	deferrable
Landscape	6.541	2025	2020	5	5	\$10,000	100%	\$10,000	1	\$10,000	discretionary
Life Rings	6.547	2032	N/A	15	12	\$4,800	100%	\$4,800	1	\$4,800	deferrable
Light Poles and Fixtures - Main Marina (1)	6.601	2043	2013	30	23	\$21,600	100%	\$21,600	1	\$21,600	deferrable
Light Poles and Fixtures - Sunset Drive Boat Ramp	6.602	2028	N/A	30	8	\$5,000	100%	\$5,000	1	\$5,000	deferrable
Light Poles and Fixtures - Beach Drive Boat Ramp	6.603	2028	N/A	30	8	\$7,500	100%	\$7,500	1	\$7,500	deferrable
Lighting - Main Marina Piers (1)	6.604	2022	N/A	30	2	\$15,000	100%	\$15,000	1	\$15,000	deferrable
Pavement Replacement - Main Marina	6.661	2034	N/A	30	14	\$14,000	100%	\$14,000	1	\$14,000	deferrable
Pavement Replacement - Sunset Drive Boat Ramp (1)	6.662	2045	N/A	30	25	\$89,000	100%	\$89,000	1	\$89,000	deferrable
Pavement Replacement - Beach Drive Boat Ramp (1)	6.663	2022	N/A	30	2	\$103,000	100%	\$103,000	1	\$103,000	deferrable
Piers - Main Marina (dated)	6.665	2032	N/A	30	12	\$554,000	80%	\$443,200	2	\$221,600	deferrable
Piers - Main Marina (newer)	6.665	2042	N/A	30	22	\$554,000	20%	\$110,800	1	\$110,800	deferrable
Piers - Sunset Drive Boat Ramp (dated)	6.667	2032	N/A	30	12	\$94,000	30%	\$28,200	1	\$28,200	deferrable
Piers - Sunset Drive Boat Ramp (newer)	6.667	2049	2019	30	29	\$94,000	70%	\$65,800	1	\$65,800	deferrable
Piers - Beach Drive Boat Ramp	6.668	2030	2000	30	10	\$70,000	100%	\$70,000	1	\$70,000	deferrable
Pier - Kayak Ramp	6.669	2020	N/A	30	0	\$31,000	100%	\$31,000	1	\$31,000	deferrable
Pilings (5% every 5 years)	6.747	2024	varies	5	4	\$1,080,000	5%	\$54,000	1	\$54,000	deferrable
Pump Station - Main Marina	6.757	2030	2020	10	10	\$6,000	100%	\$6,000	1	\$6,000	deferrable
Rip Rap Augmentation - Main Marina	6.857	2030	2020	10	10	\$16,000	100%	\$16,000	1	\$16,000	deferrable
Security System - Cameras	6.957	2032	2020	12	12	\$10,000	100%	\$10,000	1	\$10,000	discretionary
Signs (1)	6.961	2021	N/A	25	1	\$9,300	100%	\$9,300	1	\$9,300	discretionary
Piping - Piers	6.987	2032	N/A	40	12	\$94,000	100%	\$94,000	2	\$47,000	deferrable
Well Pump and Pressurization System - Main Marina	6.993	2038	2018	20	18	\$3,500	100%	\$3,500	1	\$3,500	deferrable

(1) See Property Engineering Review Page 1.201

The Hillsmere Shores Marina

Property and Service Summary

Location:	Annapolis, Maryland
Property type:	marina
Number of units:	123
Year of construction:	construction began in the 1950's with various additions and improvements throughout the years
Date of inspection:	September 1, 2020
Type of service:	reserve study
Level of service:	Full Study
Length of analysis:	30 years
2020-21 budgeted reserve contribution:	\$72,500
2021-22 recommended reserve contribution:	\$80,000 = increase of \$7,500 (\$5.08 per owner per month)
Features:	piers, parking areas, boat ramps, kayak racks, bulkheads, well, pumping station
Completed projects:	installation of boat lifts, renovation at Sunset Drive boat ramp, pump station, rip rap augmentation
Upcoming projects:	partial replacement of electrical hook-ups, gravel augmentation at main marina, replacement of gate operator, replacement of pier at kayak ramp, signs, repaving at Beach Drive boat ramp



main marina



Sunset Drive boat ramp



Beach Drive boat ramp



boat park (top left) and kayak ramp (bottom right)

Recommended Reserve Funding Plan

The Hillsmere Shores Marina

Year	Inflated expenditures (2.9% annual)	Recommended reserve contributions	Ending reserve balance	Average \$ per owner per month (123 owners)**	\$ increase per month from previous year	% increase from previous year
2020-21*	(\$63,000)	\$72,500	\$393,195	\$49.12	-	-
2021-22	(\$15,847)	\$80,000	\$465,853	\$54.20	\$5.08	10.3%
2022-23	(\$129,884)	\$87,500	\$432,362	\$59.28	\$5.08	9.4%
2023-24	\$0	\$95,000	\$536,959	\$64.36	\$5.08	8.6%
2024-25	(\$127,810)	\$102,500	\$522,134	\$69.44	\$5.08	7.9%
2025-26	(\$17,305)	\$110,000	\$626,200	\$74.53	\$5.08	7.3%
2026-27	\$0	\$113,200	\$753,056	\$76.69	\$2.17	2.9%
2027-28	(\$5,701)	\$116,500	\$880,024	\$78.93	\$2.24	2.9%
2028-29	(\$78,560)	\$119,900	\$939,378	\$81.23	\$2.30	2.9%
2029-30	(\$69,844)	\$123,400	\$1,012,256	\$83.60	\$2.37	2.9%
2030-31	(\$142,409)	\$127,000	\$1,016,938	\$86.04	\$2.44	2.9%
2031-32	(\$22,049)	\$130,700	\$1,147,014	\$88.55	\$2.51	2.9%
2032-33	(\$568,863)	\$134,500	\$731,248	\$91.12	\$2.57	2.9%
2033-34	(\$504,057)	\$138,400	\$376,559	\$93.77	\$2.64	2.9%
2034-35	(\$190,996)	\$142,400	\$335,008	\$96.48	\$2.71	2.9%
2035-36	(\$23,031)	\$146,500	\$466,411	\$99.25	\$2.78	2.9%
2036-37	\$0	\$150,700	\$627,946	\$102.10	\$2.85	2.9%
2037-38	(\$7,587)	\$155,100	\$789,493	\$105.08	\$2.98	2.9%
2038-39	(\$5,855)	\$159,600	\$960,565	\$108.13	\$3.05	2.9%
2039-40	(\$222,066)	\$164,200	\$921,332	\$111.25	\$3.12	2.9%
2040-41	(\$65,540)	\$169,000	\$1,044,253	\$114.50	\$3.25	2.9%
2041-42	(\$11,119)	\$173,900	\$1,229,547	\$117.82	\$3.32	2.9%
2042-43	(\$216,568)	\$178,900	\$1,216,093	\$121.21	\$3.39	2.9%
2043-44	(\$784,731)	\$184,100	\$633,778	\$124.73	\$3.52	2.9%
2044-45	(\$693,098)	\$189,400	\$137,719	\$128.32	\$3.59	2.9%
***2045-46	(\$212,529)	\$194,900	\$122,668	\$132.05	\$3.73	2.9%
2046-47	(\$19,556)	\$200,600	\$307,976	\$135.91	\$3.86	2.9%
2047-48	(\$20,484)	\$206,400	\$501,911	\$139.84	\$3.93	2.9%
2048-49	(\$111,327)	\$212,400	\$614,033	\$143.90	\$4.07	2.9%
2049-50	(\$411,942)	\$218,600	\$431,039	\$148.10	\$4.20	2.9%
2050-51	(\$223,967)	\$224,900	\$440,601	\$152.37	\$4.27	2.9%

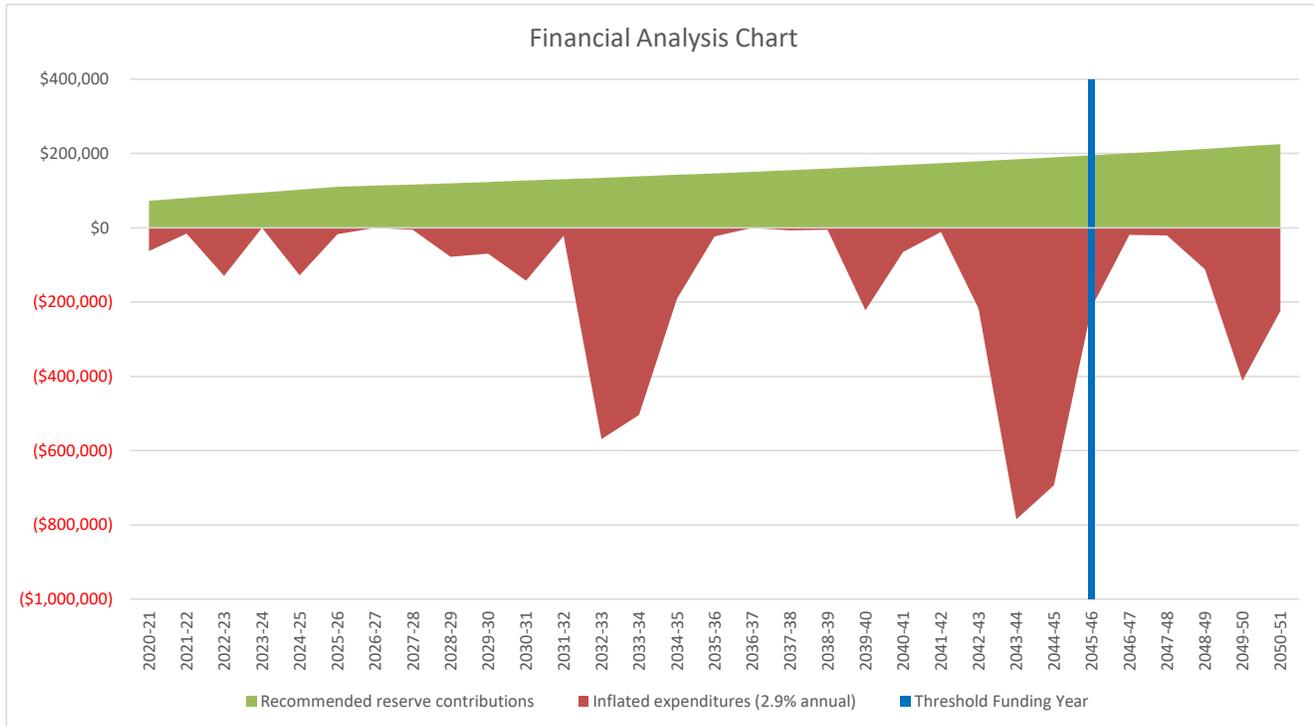
* reserve contributions are budgeted

**The costs in this column represent an AVERAGE \$ only and is only intended to put the \$ into perspective.

***2045-46 is the THRESHOLD FUNDING YEAR (the year the reserve balance is at its lowest point)



The Hillsmere Shores Marina



30 Year Expenditure Summary

These summary pages depict the INFLATED reserve expenses during the next 30 years. The costs on these pages SHOULD NOT be compared to current bid costs as these costs are inflated.

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The Hillsmere Shores Marina

Fiscal year	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Construction inflation rate	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%
Compounded construction inflation	100.0%	102.9%	105.9%	109.0%	112.1%	115.4%	118.7%	122.2%
Beginning balance (July 1, 2020)	\$376,078	\$393,195	\$465,853	\$432,362	\$536,959	\$522,134	\$626,200	\$753,056
Inflated expenditures (2.9% annual)	(\$63,000)	(\$15,847)	(\$129,884)	\$0	(\$127,810)	(\$17,305)	\$0	(\$5,701)
Recommended reserve contributions	\$72,500	\$80,000	\$87,500	\$95,000	\$102,500	\$110,000	\$113,200	\$116,500
Estimated interest earned (2.0% PROJECTED yield rate)	\$7,617	\$8,505	\$8,893	\$9,597	\$10,486	\$11,370	\$13,656	\$16,169
Ending reserve balance	\$393,195	\$465,853	\$432,362	\$536,959	\$522,134	\$626,200	\$753,056	\$880,024

Reserve Component List

Boat Lifts								
Boat Ramps (1 of 2 every 20 years)								
Bulkheads at Main Marina - Wood								
Bulkheads at Sunset Boat Ramp - Wood								
Bulkheads - Steel								
Dredging					67,269			
Electrical Hook-ups - Main Marina (replace outlets)	27,000							
Electrical Hook-ups - Main Marina (remaining)								
Electrical Hook-ups - Sunset Drive Boat Ramp								
Electrical Hook-ups - Beach Drive Boat Ramp								
Electrical Panels - Main Marina								
Gravel Augmentation - Main Marina Parking Area	5,000					5,768		
Gate Operator		6,277						
Gates								
Kayak Racks (5 of 30 every 5 years)			4,941					5,701
Landscape						11,537		
Life Rings								
Light Poles and Fixtures - Main Marina (1)								
Light Poles and Fixtures - Sunset Drive Boat Ramp								
Light Poles and Fixtures - Beach Drive Boat Ramp								
Lighting - Main Marina Piers (1)			15,883					
Pavement Replacement - Main Marina								
Pavement Replacement - Sunset Drive Boat Ramp (1)								
Pavement Replacement - Beach Drive Boat Ramp (1)			109,061					
Piers - Main Marina (dated)								
Piers - Main Marina (newer)								
Piers - Sunset Drive Boat Ramp (dated)								
Piers - Sunset Drive Boat Ramp (newer)								
Piers - Beach Drive Boat Ramp								
Pier - Kayak Ramp	31,000							
Pilings (5% every 5 years)					60,542			
Pump Station - Main Marina								
Rip Rap Augmentation - Main Marina								
Security System - Cameras								
Signs (1)		9,570						
Piping - Piers								
Well Pump and Pressurization System - Main Marina								

30 Year Expenditure Summary

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The Hillsmere Shores Marina

Fiscal year	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36
Construction inflation rate	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%
Compounded construction inflation	125.7%	129.3%	133.1%	137.0%	140.9%	145.0%	149.2%	153.5%
Beginning balance (July 1, 2020)	\$880,024	\$939,378	\$1,012,256	\$1,016,938	\$1,147,014	\$731,248	\$376,559	\$335,008
Inflated expenditures (2.9% annual)	(\$78,560)	(\$69,844)	(\$142,409)	(\$22,049)	(\$568,863)	(\$504,057)	(\$190,996)	(\$23,031)
Recommended reserve contributions	\$119,900	\$123,400	\$127,000	\$130,700	\$134,500	\$138,400	\$142,400	\$146,500
Estimated interest earned (2.0% PROJECTED yield rate)	\$18,014	\$19,323	\$20,091	\$21,425	\$18,597	\$10,968	\$7,045	\$7,935
Ending reserve balance	\$939,378	\$1,012,256	\$1,016,938	\$1,147,014	\$731,248	\$376,559	\$335,008	\$466,411

Reserve Component List

Boat Lifts								
Boat Ramps (1 of 2 every 20 years)	62,848							
Bulkheads at Main Marina - Wood								
Bulkheads at Sunset Boat Ramp - Wood								
Bulkheads - Steel								
Dredging							89,530	
Electrical Hook-ups - Main Marina (replace outlets)								
Electrical Hook-ups - Main Marina (remaining)					12,683	13,051		
Electrical Hook-ups - Sunset Drive Boat Ramp					7,046			
Electrical Hook-ups - Beach Drive Boat Ramp					4,791			
Electrical Panels - Main Marina					98,647	101,507		
Gravel Augmentation - Main Marina Parking Area		6,655						7,677
Gate Operator				8,354				
Gates				13,695				
Kayak Racks (5 of 30 every 5 years)					6,576			
Landscape			13,309					15,354
Life Rings					6,764			
Light Poles and Fixtures - Main Marina (1)								
Light Poles and Fixtures - Sunset Drive Boat Ramp	6,285							
Light Poles and Fixtures - Beach Drive Boat Ramp	9,427							
Lighting - Main Marina Piers (1)								
Pavement Replacement - Main Marina							20,890	
Pavement Replacement - Sunset Drive Boat Ramp (1)								
Pavement Replacement - Beach Drive Boat Ramp (1)								
Piers - Main Marina (dated)					312,287	321,344		
Piers - Main Marina (newer)								
Piers - Sunset Drive Boat Ramp (dated)					39,741			
Piers - Sunset Drive Boat Ramp (newer)								
Piers - Beach Drive Boat Ramp			93,165					
Pier - Kayak Ramp								
Pilings (5% every 5 years)		69,844					80,577	
Pump Station - Main Marina			7,986					
Rip Rap Augmentation - Main Marina			21,295					
Security System - Cameras					14,092			
Signs (1)								
Piping - Piers					66,234	68,155		
Well Pump and Pressurization System - Main Marina								

30 Year Expenditure Summary

These summary pages depict the INFLATED reserve expenses during the next 30 years. The costs on these pages SHOULD NOT be compared to current bid costs as these costs are inflated.

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The Hillsmere Shores Marina

Fiscal year	2036-37	2037-38	2038-39	2039-40	2040-41	2041-42	2042-43	2043-44
Construction inflation rate	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%
Compounded construction inflation	158.0%	162.6%	167.3%	172.1%	177.1%	182.3%	187.6%	193.0%
Beginning balance (July 1, 2020)	\$466,411	\$627,946	\$789,493	\$960,565	\$921,332	\$1,044,253	\$1,229,547	\$1,216,093
Inflated expenditures (2.9% annual)	\$0	(\$7,587)	(\$5,855)	(\$22,066)	(\$65,540)	(\$11,119)	(\$216,568)	(\$784,731)
Recommended reserve contributions	\$150,700	\$155,100	\$159,600	\$164,200	\$169,000	\$173,900	\$178,900	\$184,100
Estimated interest earned (2.0% PROJECTED yield rate)	\$10,835	\$14,034	\$17,327	\$18,633	\$19,461	\$22,513	\$24,214	\$18,316
Ending reserve balance	\$627,946	\$789,493	\$960,565	\$921,332	\$1,044,253	\$1,229,547	\$1,216,093	\$633,778

Reserve Component List

Boat Lifts	129,108
Boat Ramps (1 of 2 every 20 years)	
Bulkheads at Main Marina - Wood	434,246
Bulkheads at Sunset Boat Ramp - Wood	
Bulkheads - Steel	308,797
Dredging	
Electrical Hook-ups - Main Marina (replace outlets)	
Electrical Hook-ups - Main Marina (remaining)	
Electrical Hook-ups - Sunset Drive Boat Ramp	
Electrical Hook-ups - Beach Drive Boat Ramp	
Electrical Panels - Main Marina	
Gravel Augmentation - Main Marina Parking Area	8,857
Gate Operator	11,119
Gates	
Kayak Racks (5 of 30 every 5 years)	7,587
Landscape	17,714
Life Rings	
Light Poles and Fixtures - Main Marina (1)	41,688
Light Poles and Fixtures - Sunset Drive Boat Ramp	
Light Poles and Fixtures - Beach Drive Boat Ramp	
Lighting - Main Marina Piers (1)	
Pavement Replacement - Main Marina	
Pavement Replacement - Sunset Drive Boat Ramp (1)	
Pavement Replacement - Beach Drive Boat Ramp (1)	
Piers - Main Marina (dated)	
Piers - Main Marina (newer)	207,816
Piers - Sunset Drive Boat Ramp (dated)	
Piers - Sunset Drive Boat Ramp (newer)	
Piers - Beach Drive Boat Ramp	
Pier - Kayak Ramp	
Pilings (5% every 5 years)	92,958
Pump Station - Main Marina	10,628
Rip Rap Augmentation - Main Marina	28,342
Security System - Cameras	
Signs (1)	
Piping - Piers	
Well Pump and Pressurization System - Main Marina	5,855

30 Year Expenditure Summary

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The Hillsmere Shores Marina

		threshold funding year					
Fiscal year	2044-45	2045-46	2046-47	2047-48	2048-49	2049-50	2050-51
Construction inflation rate	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%
Compounded construction inflation	198.6%	204.4%	210.3%	216.4%	222.7%	229.1%	235.8%
Beginning balance (July 1, 2020)	\$633,778	\$137,719	\$122,668	\$307,976	\$501,911	\$614,033	\$431,039
Inflated expenditures (2.9% annual)	(\$693,098)	(\$212,529)	(\$19,556)	(\$20,484)	(\$111,327)	(\$411,942)	(\$223,967)
Recommended reserve contributions	\$189,400	\$194,900	\$200,600	\$206,400	\$212,400	\$218,600	\$224,900
Estimated interest earned (2.0% PROJECTED yield rate)	\$7,639	\$2,578	\$4,264	\$8,019	\$11,049	\$10,347	\$8,630
Ending reserve balance	\$137,719	\$122,668	\$307,976	\$501,911	\$614,033	\$431,039	\$440,601

Reserve Component List

Boat Lifts							
Boat Ramps (1 of 2 every 20 years)					111,327		
Bulkheads at Main Marina - Wood	446,839						
Bulkheads at Sunset Boat Ramp - Wood						137,467	
Bulkheads - Steel							
Dredging	119,157						
Electrical Hook-ups - Main Marina (replace outlets)							63,654
Electrical Hook-ups - Main Marina (remaining)							
Electrical Hook-ups - Sunset Drive Boat Ramp							
Electrical Hook-ups - Beach Drive Boat Ramp							
Electrical Panels - Main Marina							
Gravel Augmentation - Main Marina Parking Area		10,218					11,788
Gate Operator							
Gates							
Kayak Racks (5 of 30 every 5 years)				10,098			
Landscape		20,435					23,576
Life Rings				10,386			
Light Poles and Fixtures - Main Marina (1)							
Light Poles and Fixtures - Sunset Drive Boat Ramp							
Light Poles and Fixtures - Beach Drive Boat Ramp							
Lighting - Main Marina Piers (1)							
Pavement Replacement - Main Marina							
Pavement Replacement - Sunset Drive Boat Ramp (1)		181,876					
Pavement Replacement - Beach Drive Boat Ramp (1)							
Piers - Main Marina (dated)							
Piers - Main Marina (newer)							
Piers - Sunset Drive Boat Ramp (dated)							
Piers - Sunset Drive Boat Ramp (newer)						150,755	
Piers - Beach Drive Boat Ramp							
Pier - Kayak Ramp							73,084
Pilings (5% every 5 years)	107,241					123,720	
Pump Station - Main Marina							14,145
Rip Rap Augmentation - Main Marina							37,721
Security System - Cameras	19,860						
Signs (1)				19,556			
Piping - Piers							
Well Pump and Pressurization System - Main Marina							