

HARBOR & BEACHES MASTER PLAN PROJECTS 2025																	Last Updated:	11/05/2024	
Ref #	Project	Category	YR Built	Last Refurb.	Units Measurement	Total Units	Today's Unit Cost	Current Age:	Estimated Useful Life	Years to Start	Project Estimate	FY Design Start Year	FY Const Start Year	FV Cost Est @2.5% Growth	External Contributions	Net Proposed Cost	Notes		
UTILITIES																			
32	Tide Gate Valve Program (Peninsula, 62 total): Ongoing	Gate Valves	0	0	EA	62	\$65,000	**	25	3	\$4,030,000	2026	2027	\$4,339,869		\$4,339,869	Every 25 years		
SUBTOTAL														\$4,339,869		\$0	\$4,339,869		
BULKHEAD/STRUCTURES																			
39	Bulkhead (Lower Castaways): Replace	Bulkhead	0	0	LF	265	\$10,000	**	80	4	\$2,650,000	2026	2028	\$2,925,104		\$2,925,104	Every 80 years		
45	Balboa Island (Grand Canal & West End): Replace Bulkhead	Bulkhead	1930		LF	4,685	\$12,000	94	81	4	\$56,220,000	2026	2028	\$62,056,361		\$62,056,361	Every 80 years		
	Balboa Island (Grand Canal & West End): Boardwalk & Drainage	Other	1930	0	SF	32,950	\$25	**	80		\$823,750	2026	2028				Every 80 years		
46	Balboa Island (East & South Little Island): Replace Bulkhead	Bulkhead	1930		LF	2,730	\$12,000	94	80	10	\$32,760,000	2026	2034	\$41,935,570		\$41,935,570	Every 80 years		
	Balboa Island (East & South Little Island): Boardwalk & Drainage	Other	1930	0	SF	20,005	\$25	94	80	10	\$500,125	2026	2034	\$640,202		\$640,202	Every 80 years		
47	Balboa Island (South & North): Replace Bulkhead	Bulkhead	1930		LF	5,861	\$12,000	94	82	15	\$70,332,000	2026	2039	\$101,861,707		\$101,861,707	Every 80 years		
	Balboa Island (South & North): Boardwalk & Drainage	Other	1930	0	SF	46,888	\$25	94	80	15	\$1,172,200	226	2039				Every 80 years		
61	Bulkhead (American Legion): Replace	Bulkhead	1957	0	LF	336	\$10,000	67	95	32	\$3,360,000	2053	2056	\$7,404,623		\$7,404,623	Every 80 years		
65	Bulkhead (West Newport): Repair / Replace Program	Bulkhead	0	0	LF	1,722	\$10,000	**	80	3	\$17,220,000	2025	2027	\$18,544,057		\$18,544,057	Every 80 years		
66	Bulkhead (Corona Del Mar): Replace	Bulkhead	0	0	LF	175	\$10,000	**	80	21	\$1,750,000	2042	2045	\$2,939,268		\$2,939,268	Every 80 years		
67	Bulkhead (Promontory Bay): Replace	Bulkhead	1972	0	LF	1,158	\$10,000	52	80	21	\$11,580,000	2042	2045	\$19,449,558		\$19,449,558	Every 80 years		
69	Bulkhead (Rhine Wharf): Replace	Bulkhead	1960	0	LF	343	\$10,000	64	80	16	\$3,430,000	2036	2040	\$5,091,854		\$5,091,854	Every 80 years		
71	Bulkhead (Peninsula Street Ends): Repair / Replace Program	Bulkhead	0	0	LF	2,217	\$10,000	**	80	3	\$22,170,000	2025	2027	\$23,874,665		\$23,874,665	Every 80 years		
27	Bulkhead (Balboa Yacht Basin): Replace	Bulkhead	1985	0	LF	1,370	\$10,000	39	80	41	\$13,700,000	2062	2065	\$37,705,009		\$37,705,009	Every 80 years		
37	Bulkhead (Marina Park): Replace	Bulkhead	2015	0	LF	857	\$10,000	9	90	81	\$8,570,000	2101	2105	\$0		\$0	Every 80 years		
SUBTOTAL														\$246,238,075		\$324,427,978	\$0	\$324,427,978	
PUBLIC PIERS - REPAIR / REPLACE																			
11	Public Pier (15th St): Float only	Piers	1967	2000	EA	1	\$75,000	**	20	1	\$75,000	2021	2025	\$76,875		\$76,875	Every 20 years		
12	Public Pier (19th St): Float only	Piers	1957	2000	EA	1	\$80,000	**	20	1	\$80,000	2021	2025	\$82,000		\$82,000	Every 20 years		
13	Public Pier (Coral Ave): Float only	Piers	1940's	2000	EA	1	\$90,000	38	20	1	\$90,000	2021	2025	\$92,250		\$92,250	Every 20 years		
14	Public Pier (Fernando St): Float only	Piers	0	2000	EA	1	\$60,000	**	20	1	\$60,000	2021	2025	\$61,500		\$61,500	Every 20 years		
15	Public Pier (M St): Float only	Piers	1940	2000	EA	1	\$70,000	**	20	1	\$70,000	2021	2025	\$71,750		\$71,750	Every 20 years		
16	Public Pier (Opal Ave): Float & Gangway only	Piers	1940's	2000	EA	1	\$85,000	**	20	1	\$85,000	2021	2025	\$87,125		\$87,125	Every 20 years		
17	Public Pier (Park Ave): Float & Gangway only	Piers	1940's	2000	EA	1	\$85,000	**	20	1	\$85,000	2021	2025	\$87,125		\$87,125	Every 20 years		
18	Public Pier (Washington St): Float only	Piers	1940's	2000	EA	1	\$70,000	**	20	1	\$70,000	2021	2025	\$71,750		\$71,750	Every 20 years		
28	Ocean Piers Biennial Maintenance Program - (Balboa & Newport)	Piers	1940	2022	EA	1	550,000	83	0	2	\$550,000	2025	2026	\$577,844		\$577,844	Biennial		
30	Public Pier (Emerald Ave): Float only	Piers	1940's	2000	EA	1	\$90,000	37	20	1	\$90,000	2021	2025	\$92,250		\$92,250	Every 20 years		
31	Public Pier (Sapphire Ave): Float & Gangway only	Piers	1940's	2000	EA	1	\$95,000	**	20	1	\$95,000	2021	2025	\$97,375		\$97,375	Every 20 years		
42	Balboa Yacht Basin Slips: Replace	Slips Marina	1928	1985	EA	172	\$35,000	38	40	3	\$6,020,000	2025	2027	\$6,482,882		\$6,482,882	Every 40 years		
52	Public Pier (15th St): Pier & Gangway (aluminum only)	Piers	1967	1986	EA	1	\$150,000	**	40	16	\$150,000	2037	2040	\$222,676		\$222,676	Every 40 years		
74	Public Pier (19th St): Pier Platform & Gangway	Piers	1957	1986	EA	1	\$70,000	**	40	16	\$70,000	2037	2040	\$103,915		\$103,915	Every 40 years		
53	Public Pier (Coral Ave): Pier only	Piers	1940's	1985	EA	1	\$125,000	38	40	16	\$125,000	2037	2040	\$185,563		\$185,563	Every 40 years		
54	Public Pier (Emerald Ave): Pier only	Piers	1940's	1986	EA	1	\$125,000	37	40	16	\$125,000	2037	2040	\$185,563		\$185,563	Every 40 years		
55	Public Pier (Fernando St): Pier only	Piers	0	1985	EA	1	\$125,000	**	40	16	\$125,000	2037	2040	\$185,563		\$185,563	Every 40 years		
56	Public Pier (M St): Pier only	Piers	1940	1985	EA	1	\$175,000	38	40	16	\$175,000	2037	2040	\$259,788		\$259,788	Every 40 years		
57	Public Pier (Opal Ave): Pier only	Piers	1940's	1985	EA	1	\$125,000	**	40	16	\$125,000	2037	2040	\$185,563		\$185,563	Every 40 years		
58	Public Pier (Park Ave): Pier only	Piers	1940's	1986	EA	1	\$125,000	**	40	16	\$125,000	2037	2040	\$185,563		\$185,563	Every 40 years		
59	Public Pier (Sapphire Ave): Pier only	Piers	1940's	1985	EA	1	\$125,000	**	40	16	\$125,000	2037	2040	\$185,563		\$185,563	Every 40 years		
60	Public Pier (Washington St): Pier only	Piers	1940's	1985	EA	1	\$150,000	**	40	16	\$150,000	2037	2040	\$222,676		\$222,676	Every 40 years		
62	Public Pier (Rhine Wharf): Float only	Piers	2007	0	EA	1	\$200,000	16	40	23	\$200,000	2045	2047	\$352,922		\$352,922	Every 40 years		
64	Public Pier (Grand Canal, Balboa Ave): Pier Platform	Piers	2017	2012	EA	1	\$25,000	6	20	14	\$25,000	2037	2038	\$35,324		\$35,324	Every 20 years		
68	Public Pier (Rhine Wharf): Pier Platform & Gangway (aluminum) only	Piers	2007	0	EA	1	\$140,000	16	50	33	\$140,000	2055	2057	\$316,239		\$316,239	Every 50 years		
70	Marina Park Slips: Replace	Slips Marina	2015	0	EA	23	\$35,000	8	40	31	\$805,000	2052	2055	\$1,730,755		\$1,730,755	Every 40 years		
72	Public Pier (Balboa Marina West): Float only	Piers	2025	0	EA	1	\$600,000	2	40	40	\$600,000	2062	2064	\$1,611,038		\$1,611,038	Every 40 years		
73	Public Pier (Balboa Marina West): Gangway (aluminum)	Piers	2025	0	EA	1	\$70,000	0	50	50	\$70,000	2072	2074	\$240,598		\$240,598	Every 50 years		
26	Public Pier (Central Ave): Pier Platform & Gangway (aluminum) only	Piers	2017	0	EA	1	\$140,000	6	50	43	\$140,000	2065	2067	\$404,813		\$404,813	Every 50 years		
75	Public Pier (Central Ave): Float only	Piers	2017	0	EA	1	\$200,000	6	40	33	\$200,000	2055	2057	\$451,770		\$451,770	Every 40 years		
10	Ocean Pier (Newport): Replace	Piers	1940	0	EA	1	\$20,000,000	83	85	3	\$20,000,000	2024	2027	\$21,537,813		\$21,537,813	Every 85 years		
23	Ocean Pier (Balboa): Replace	Piers	1940	0	EA	1	\$15,000,000	83	85	13	\$15,000,000	2034	2037	\$20,677,666		\$20,677,666	Every 85 years		
76	Public Swim Float (10th St): Replace	Piers	1950's	2020	EA	1	\$35,000	3	20	18	\$35,000	2040	2041	\$54,588		\$54,588	Every 20 years		
77	Public Swim Float (Ruby Ave): Replace	Piers	1933	2020	EA	1	\$35,000	3	20	18	\$35,000	2040	2041	\$54,588		\$54,588	Every 20 years		
SUBTOTAL														\$45,915,000		\$57,271,274	\$0	\$57,271,274	
DREDGING																			
2	Dredging & Beach Maintenance (Grand Canal)	Dredging	0	2019	CY	1	\$1,500,000	**	10	5	\$1,500,000	2027	2029	\$1,697,112		\$1,697,112	Every 10 years		

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												Year	Year	Growth	Contributions	Net Proposed Cost		
9	Dredging (Lower Federal Bay Channels): Ongoing Maintenance	Dredging	1935	2012	CY	1,200,000	\$19	**	30	1	\$22,800,000	2017	2025	\$22,800,000	\$10,000,000	\$12,800,000	Every 5-7 years	
25	Bathymetry Survey (Newport Island Channels)	Dredging	0	2021	EA	1	\$75,000	**	5	2	\$75,000	2026	2026	\$78,797		\$78,797	Every 5 years	
43	Dredging (Balboa Yacht Basin)	Dredging	1921	1985	CY	25,600	\$70	38	40	4	\$1,792,000	2026	2028	\$1,978,033		\$1,978,033	Every 40 years	
48	Dredging (Upper Bay Catch Basins)	Dredging	0	2009	CY	500,000	\$30	14	20	10	\$15,000,000	2031	2034	\$19,201,268	\$19,201,268	\$0	Every 25 years	
49	Dredging (Upper Bay Channels)	Dredging	0	2009	CY	250,000	\$30	14	21	10	\$7,500,000	2031	2034	\$9,600,634	\$9,600,634	\$0	Every 25 years	
	SUBTOTAL										\$48,667,000			\$55,355,844	\$38,801,902	\$16,553,942		
	FERRY & WHARF REPAIR / REPLACE																	
35	Ferry Landing, Bulkhead & Restroom (Agate Ave)	Bulkhead	1930	0	EA	1	\$1,500,000	93	80	4	\$1,500,000	2026	2028	\$1,655,719		\$1,655,719		
36	Ferry Landing & Bulkhead (Palm St)	Bulkhead	1930	0	EA	1	\$1,500,000	93	80	4	\$1,500,000	2026	2028	\$1,655,719		\$1,655,719		
	SUBTOTAL										\$3,000,000			\$3,311,439	\$0	\$3,311,439		
	WATER QUALITY																	
20	Water Quality: TMDL Compliance (Ongoing)	Water Quality	0	0	EA	1	\$200,000	**	Ongoing	1	\$200,000	2025	2025	\$205,000		\$205,000	Annual	
33	Vessel Sewage Pumpout Replacement (5 units)	Water Quality	1980's	2021	EA	5	\$23,000	3	7	4	\$115,000	2027	2028	\$126,938	\$86,250	\$40,688	Every 7 years	
	SUBTOTAL										\$315,000			\$331,938	\$86,250	\$245,688		
	BEACH NOURISHMENT - HARBOR & OCEAN																	
22	Ocean Beach: Sand Nourishment (Ongoing)	Sand	0	0	CY	1,000,000	\$15	**	20	4	\$15,000,000	2025	2028	\$16,557,193	\$12,417,895	\$4,139,298		
44	Surfside/Sunset Ocean Beach: Sand Nourishment (Stage 14)	Sand	1964	2024	LS	1	\$300,000	0	7	4	\$300,000	2025	2028	\$331,144		\$331,144	Every 5-6 years	
51	Bay Beaches: Sand Nourishment (Ongoing)	Sand	0	2024	LS	1	\$125,000	**	Ongoing	1	\$125,000	2025	2025	\$128,125		\$128,125	Annual	
	SUBTOTAL										\$15,425,000			\$17,016,462	\$12,417,895	\$4,598,567		
	MISCELLANEOUS																	
79	Mooring Field Optimization (C-Field pilot)	Moorings	1940's	0	LS	1	\$450,000	**	**	2	\$450,000	2024	2026	\$472,781		\$472,781		
	SUBTOTAL										\$450,000			\$472,781	\$0	\$472,781		
	GRAND TOTAL										\$364,290,075			\$462,783,836	\$51,306,047	\$411,477,789	(25,334,575)	
																	\$248,640,517	
	COMPLETED																	
38	Balboa Island Bulkhead (South & North): Extend Cap	Bulkhead	1930	0	LF	7,000	\$100	94	20		\$0	2015	2018	\$0		\$0		
40	Balboa Island Bulkhead (West): Extend Cap	Bulkhead	1930	0	LF	1,300	\$100	94	20		\$0	2015	2018	\$0		\$0		
50	Edgewater Bulkhead: Extend Cap	Bulkhead	2017		LF	145	\$303	7	20		\$0	2017	2017	\$0		\$0		
1	Arches Drain: Dry Weather Diversion	Drain	2017	0	LS	1	\$860,000	7	80	1	\$0	2017	2019	\$0	\$839,500	\$0	Moved out of active	
3	Oil Collection Center (BYB)	Water Quality	0	0	LS	1	\$100,000	**	15	1	\$0	2018	2020	\$0		\$0	Moved out of active	
5	Public Swim Float (10th St)	Piers	0	0	EA	1	\$30,000	**	20	1	\$0	2018	2020	\$0		\$0	Moved out of active	
6	Public Swim Float (Ruby Ave)	Piers	0		EA	1	\$30,000	**	20	1	\$0	2018	2020	\$0		\$0	Moved out of active	
7	Oil Collection Center (Corp Yard)	Water Quality	0	0	EA	1	\$20,000	0	0	1	\$0	2018	2021	\$0		\$0	Moved out of active	
8	Bulkhead (American Legion): Repair	Bulkhead	1957	0	LS	1	\$1,200,000	66	40	1	\$0	2019	2023	\$0		\$0	Moved out of active	
29	Public Pier (29th St): Pier, Gangway & Float	Piers	2024	0	EA	1	\$250,000	**	25	1	\$250,000	2022	2025	\$256,250		\$256,250	Every 25 years	
	TOTAL						\$1,040,503				\$0			\$0	\$0	\$0		
	POTENTIAL PROJECTS																	
A	Mooring Helical Anchor Upgrade (Onshore and Offshore)		1940's		EA	1,500	\$7,500			Incremental (TBD)	\$11,250,000	2024	TBD				Cost per anchor (2 per each)	
B	Multiple Vessel Mooring System (City Moorings)	Moorings			EA	6	\$45,000	**	20		\$270,000	2024	TBD	\$270,000		\$270,000		
C	Public Pier (Promontory Bay)	Piers	0		LS	1	\$600,000				\$600,000	2025	TBD					
80	Lower Castaways: Aquatic Center		0	0														
	TOTAL						\$52,500				\$11,520,000			\$270,000	\$0	\$270,000		
	** denotes "unknown".																	