

**Greater New Haven Water Pollution Control Authority - Wastewater Affordability Study
Potential Capital Improvement Schedule²**

Project Description	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	Total in 2009 Dollars	
	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24		
East Shore WPAF (FOG Project)¹																							
FOG Infrastructure Upgrades	-	828,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	828,000	
East Shore WPAF (Wet Weather)																							
Gravity Thickening	-	1,000,000	1,900,000	1,900,000	1,900,000	1,900,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,600,000	
Power Distribution	-	1,000,000	3,000,000	3,000,000	4,200,000	4,200,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15,400,000	
Odor Control	-	-	-	1,000,000	2,300,000	2,500,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,800,000	
NITROGEN - Methanol	-	200,000	1,200,000	1,200,000	1,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,600,000	
NITROGEN - MLE w/Post Anox	-	500,000	2,500,000	2,500,000	2,500,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,000,000	
Head Works	-	-	-	-	-	-	-	-	-	-	1,600,000	1,700,000	1,700,000	1,700,000	1,700,000	-	-	-	-	-	-	8,400,000	
Preliminary Treatment	-	-	-	-	-	-	-	-	-	-	-	-	7,875,000	7,875,000	7,875,000	7,875,000	-	-	-	-	-	31,500,000	
Maintenance Garage	-	-	700,000	700,000	700,000	700,000	700,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,500,000	
Primary Treatment/CEPT	-	-	-	-	-	4,600,000	9,150,000	9,150,000	-	-	-	-	-	-	-	-	-	-	-	-	-	22,900,000	
Disinfection	-	-	-	-	-	-	-	-	4,000,000	5,000,000	5,000,000	-	-	-	-	-	-	-	-	-	-	14,000,000	
Incineration	-	-	-	-	-	-	-	1,275,000	1,275,000	1,275,000	1,275,000	-	-	-	-	-	-	-	-	-	-	5,100,000	
NITROGEN - IFAS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,000,000	9,000,000	-	-	17,000,000	
Design/Engineering for Nitrogen - at 10% of project cost	10%	-	70,000	370,000	370,000	350,000	-	-	-	-	-	-	-	-	-	-	-	-	800,000	900,000	-	-	143,800,000
CE&I Cost for Nitrogen - at 15% of project cost	15%	-	105,000	555,000	555,000	525,000	-	-	-	-	-	-	-	-	-	-	-	-	1,200,000	1,350,000	-	-	4,290,000
Design/Engineering for WPAF - at 10% of project cost	10%	-	200,000	560,000	660,000	910,000	1,390,000	985,000	1,043,000	528,000	628,000	788,000	170,000	958,000	958,000	958,000	788,000	-	-	-	-	11,524,000	
CE&I Cost for WPAF - at 15% of project cost	15%	-	300,000	840,000	990,000	1,365,000	2,085,000	1,478,000	1,564,000	791,000	941,000	1,181,000	255,000	1,436,000	1,436,000	1,436,000	1,181,000	-	-	-	-	17,279,000	
Major Pump Stations (CSO, Upgrades)																							
CSO 021 (East Street Pump Station)	-	-	-	-	-	-	-	-	-	-	-	2,500,000	3,500,000	3,500,000	3,500,000	2,800,000	-	-	-	-	-	15,800,000	
CSO 024 (Boulevard Pump Station)	-	-	-	-	-	-	-	-	-	-	-	2,200,000	3,000,000	3,500,000	3,500,000	3,500,000	-	-	-	-	-	15,700,000	
CSO 025 (Union Street Pump Station)	-	-	-	-	-	-	-	-	-	-	-	-	5,000,000	7,000,000	9,000,000	9,000,000	9,000,000	4,400,000	-	-	-	43,400,000	
Design/Engineering for PS CSO - at 10% of project cost	10%	-	-	-	-	-	-	-	-	-	-	470,000	1,150,000	1,400,000	1,600,000	1,530,000	900,000	440,000	-	-	-	7,490,000	
CE&I Cost for PS CSO - at 15% of project cost	15%	-	-	-	-	-	-	-	-	-	-	705,000	1,725,000	2,100,000	2,400,000	2,295,000	1,350,000	660,000	-	-	-	11,235,000	
Collection System CSO (Yale/Trumbull)																							
Yale Trumbull Sewer Sep Ph 1A (CSO 014)	-	4,950,000	4,950,000	4,950,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,850,000	
Yale Trumbull Sewer Sep Ph 1B (CSO 014)	5,710,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,710,000	
Yale Trumbull Sewer Sep Ph 2	-	-	-	-	3,270,000	3,270,000	3,260,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,800,000	
Design/Engineering for Yale/Trumbull CSO - at 10% of project cost	10%	571,000	495,000	495,000	495,000	327,000	327,000	326,000	-	-	-	-	-	-	-	-	-	-	-	-	-	3,036,000	
CE&I Cost for Yale/Trumbull CSO - at 15% of project cost	15%	857,000	743,000	743,000	743,000	491,000	491,000	489,000	-	-	-	-	-	-	-	-	-	-	-	-	-	4,557,000	
Collection System CSO (Sewer Separation)																							
CSO 034 George/Temple	-	-	-	-	-	2,500,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,500,000	
CSO 010 (East/I-91), CSO 011 (Humphrey/I-91)	-	-	-	-	-	-	-	-	11,340,000	11,340,000	11,340,000	11,340,000	11,340,000	-	-	-	-	-	-	-	-	56,700,000	
CSO 006 (Whalley/Fitch), Whalley/Blake	-	-	-	-	-	-	-	-	8,220,000	8,220,000	8,220,000	8,220,000	8,220,000	-	-	-	-	-	-	-	-	41,100,000	
CSO 005 (Blvd/Derby), CSO 004 (Blvd/Legion), CSO 003 (Blvd/Old Derby)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,260,000	12,260,000	12,260,000	12,260,000	12,260,000	-	61,300,000	
CSO 019, CSO 018 (N. Front/Lombard), CSO 016 (Poplar/River), t	-	-	-	-	-	-	-	-	-	-	-	-	4,900,000	10,000,000	10,000,000	11,000,000	11,000,000	10,000,000	-	-	-	56,900,000	
CSO 008 (Munson/Orchard), Moreland/Coffe	-	-	-	-	-	800,000	4,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,800,000	
CSO 013 and nearby crossconnection (East Rock Road)	-	-	-	-	-	900,000	1,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,900,000	
CSO 026 (Humphrey Street Pump Station)	-	-	-	-	-	500,000	600,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,100,000	
Ramsdell Street	-	-	-	-	-	1,000,000	2,500,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,500,000	
Chapel Street Upstream of CSO 005	-	-	-	-	-	100,000	3,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,100,000	
CSO 020 (Quinnipac Ave/Clifton Street)	-	-	-	-	100,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100,000	
CSO 012 (Mitchell/Nicoll)	-	-	-	-	-	-	-	-	4,100,000	4,100,000	4,100,000	-	-	-	-	-	-	-	-	-	-	12,300,000	
East/Ives CSO (closed)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CSO 002 (Blvd/Lamberton) (closed)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
S. Frontage/Davenport CSO 031 (closed)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CSO 022 (Allen Place) (closed)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Design/Engineering for Sewer Sep. - at 10% of project cost	10%	-	-	-	10,000	-	580,000	1,110,000	1,956,000	2,366,000	2,366,000	2,366,000	1,956,000	490,000	1,000,000	2,226,000	2,326,000	2,326,000	2,226,000	1,226,000	-	24,530,000	
CE&I Cost for Sewer Sep. - at 15% of project cost	15%	-	-	-	15,000	-	870,000	1,665,000	2,934,000	3,549,000	3,549,000	3,549,000	2,934,000	735,000	1,500,000	3,339,000	3,489,000	3,489,000	3,339,000	1,839,000	-	36,795,000	
CSO Monitoring and I/I Rehab¹																							
Temporary CSO Monitors	-	476,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	476,000	
CSO Monitoring (O&M)	-	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100	1,142,000	
Collection System I&I Rehab	-	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	50,000,000	
																						51,618,000	

- 1) Cost already include design, engineering and construction administration.
- 2) Schedule subject to change.
- 3) All costs presented in 2009 dollars.
- 4) Created as DRAFT document September 8, 2011.
- 5) Beyond FY16, project sequence, schedule and scope subject to review and update every five years.

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