

Charlotte Water FY '17 - '21 Community Investment Plan

Project Information			Proposed CIP Funding							
Project ID	Project Title	Previous Appropriations	FY17	FY18	FY19	FY20	FY21	Current 5-YR Total	10-YR	Total 10-YR CIP
99W04	Water Line Rehabilitation/Replacement	\$134,594,887	\$9,000,000	\$10,500,000	\$10,500,000	\$10,500,000	\$10,500,000	\$51,000,000	\$52,500,000	\$103,500,000
99W88	New Service Installation Water	\$64,376,371	\$8,000,000	\$8,000,000	\$8,000,000	\$8,000,000	\$8,000,000	\$40,000,000	\$40,000,000	\$80,000,000
16W04	Franklin Water Treatment Plant – Water Quality Improvement Project	\$500,000	\$6,000,000	\$6,000,000	\$8,000,000	\$5,000,000	\$0	\$25,000,000	\$0	\$25,000,000
15W08	WTP Rehab and Upgrades	\$7,600,000	\$5,350,000	\$4,850,000	\$4,850,000	\$4,850,000	\$4,850,000	\$24,750,000	\$24,750,000	\$49,500,000
99W19	Street and Minor Water Main Extensions	\$98,336,390	\$4,200,000	\$4,200,000	\$4,200,000	\$4,200,000	\$4,200,000	\$21,000,000	\$21,000,000	\$42,000,000
99W09	Water Lines for Street Improv.	\$66,835,871	\$2,750,000	\$2,750,000	\$2,750,000	\$2,750,000	\$2,750,000	\$13,750,000	\$13,750,000	\$27,500,000
16W23	Water Meter Operations Program	\$1,300,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$13,000,000	\$13,000,000	\$26,000,000
02W71	GIS Facilities Mapping	\$7,117,000	\$2,070,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$7,270,000	\$7,270,000	\$14,540,000
17W02	NCDOT Railroad Improvement Project - Watermain Relocation	\$0	\$1,600,000	\$0	\$0	\$0	\$0	\$1,600,000	\$0	\$1,600,000
02W11	Technology Projects	\$16,346,884	\$1,200,000	\$1,275,000	\$1,275,000	\$1,275,000	\$1,275,000	\$6,300,000	\$6,300,000	\$12,600,000
12W02	UMS / Banner CIS and Billing Sys Operations and Enhancements	\$6,778,400	\$1,100,000	\$150,000	\$150,000	\$150,000	\$150,000	\$1,700,000	\$0	\$1,700,000
13W05	Independence Blvd. Widening - Water and Sewer	\$100,000	\$1,000,000	\$0	\$0	\$0	\$10,000,000	\$11,000,000	\$0	\$11,000,000
15W02	Streetcar Program Utility Improvements Phase II	\$7,600,000	\$1,000,000	\$0	\$0	\$0	\$0	\$1,000,000	\$0	\$1,000,000
12W01	Optimization of Metering and Services Program	\$5,400,000	\$1,000,000	\$0	\$0	\$0	\$0	\$1,000,000	\$50,000,000	\$51,000,000
17W03	Plaza Booster Pump Station Upgrades	\$0	\$500,000	\$2,800,000	\$0	\$0	\$0	\$3,300,000	\$0	\$3,300,000
15W01	Water Quality Sampling Stations	\$500,000	\$500,000	\$500,000	\$0	\$0	\$0	\$1,000,000	\$0	\$1,000,000
01W23	Water Treatment Regulatory Improvements	\$2,700,000	\$400,000	\$200,000	\$100,000	\$0	\$0	\$700,000	\$0	\$700,000
17W06	Backup Power and UPS System at ESF Building	\$0	\$350,000	\$0	\$0	\$0	\$0	\$350,000	\$0	\$350,000
17W01	I-77 Express Lanes - Water	\$0	\$300,000	\$8,700,000	\$0	\$0	\$0	\$9,000,000	\$0	\$9,000,000
99W03	Booster Pump Station Upgrades	\$3,450,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,250,000	\$1,250,000	\$2,500,000
16W05	Corrosion Control Optimization	\$0	\$250,000	\$250,000	\$0	\$0	\$0	\$500,000	\$0	\$500,000
99W05	Elevated Water Storage Tank Rehabilitation	\$11,674,000	\$100,000	\$200,000	\$100,000	\$100,000	\$0	\$500,000	\$500,000	\$1,000,000
13W02	LIMS Replacement	\$525,000	\$75,000	\$50,000	\$25,000	\$25,000	\$25,000	\$200,000	\$0	\$200,000
13W04	Dixie Berryhill Water Projects	\$1,900,000	\$0	\$5,400,000	\$0	\$0	\$0	\$5,400,000	\$0	\$5,400,000
15W03	Vest FM & Pump Station to Franklin	\$2,330,000	\$0	\$3,500,000	\$0	\$0	\$0	\$3,500,000	\$0	\$3,500,000
16W15	Vest Rehab and Upgrade	\$17,744,000	\$0	\$3,000,000	\$6,500,000	\$7,000,000	\$6,500,000	\$23,000,000	\$500,000	\$23,500,000
15W04	Franklin Dewatered Residuals Storage Facility	\$0	\$0	\$250,000	\$750,000	\$0	\$0	\$1,000,000	\$0	\$1,000,000
16W16	Security Improvements - Water System	\$400,000	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$400,000	\$0	\$400,000
05W06	Water Distribution Flow Monitoring Program	\$1,300,000	\$0	\$0	\$100,000	\$100,000	\$100,000	\$300,000	\$0	\$300,000
16W22	Hambright Road Water Main	\$0	\$0	\$0	\$0	\$0	\$1,000,000	\$1,000,000	\$0	\$1,000,000
16W08	Catawba River Water Pump Station Cell 4 – Pump Addition	\$0	\$0	\$0	\$0	\$0	\$200,000	\$200,000	\$1,200,000	\$1,400,000
99W53	882 Zone Elevated Storage	\$4,287,500	\$0	\$0	\$0	\$0	\$0	\$0	\$2,380,000	\$2,380,000
99W10	Fire Hydrant Installation / Replacement	\$965,000	\$0	\$0	\$0	\$0	\$0	\$0	\$400,000	\$400,000
17W04	Franklin Recycle Pump Station	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,800,000	\$1,800,000

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16W21	Verhoeff Drive Water Main	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,300,000	\$1,300,000
16W14	Energy Optimization - Pumping	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,600,000	\$1,600,000
16W13	Franklin Water Treatment Plant- Pump Replacement and Addition	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$1,500,000
16W07	Catawba River Water Pump Station New Generator	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,450,000	\$1,450,000
16W06	Dukes Water Treatment Plant – Backwash Recycle Pump Station	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,000,000	\$1,000,000
16W03	Catawba Raw Water Pump Station Cell 1 Rehabilitation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,700,000	\$9,700,000
15W05	Duke Dewatering Building and Residuals Storage Facility	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,590,000	\$3,590,000
14W01	Camp Stewart and Rocky River Church Rd 12" Water Main	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$1,500,000
11W05	Plaza BPS Intake Transmission Main -NEWT Extension	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000,000	\$5,000,000
10W17	Cornelius - Main Street WM Extension	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000,000	\$3,000,000
10W16	Quail Hollow WM - Sharon to Carmel Road	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,000,000	\$4,000,000
10W15	Sardis BPS to Lebanon Tank Transmission Main	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$14,000,000	\$14,000,000
10W13	Carmel Rd. to NC-51 Transmission Main	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,300,000	\$8,300,000
10W12	Gibbon / Nevin to Mallard Tank Transmission Main	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,000,000	\$12,000,000
10W10	Plaza Rd. BPS to W.T. Harris TM	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$1,500,000
10W08	North Tryon Transmission Main	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,000,000	\$2,000,000
10W07	Lee S. Dukes WTP/Stumptown Rd. Transmission Main	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,050,000	\$22,050,000
10W04	Water Main to Plaza Tank	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,000,000	\$1,000,000
10W03	978 Booster Pump Station	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000,000	\$5,000,000
10W02	Rozzelles Ferry Water Main	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,300,000	\$1,300,000
08W10	978' North-South Transmission Main (formerly Hwy. 21 WM)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,000,000	\$8,000,000
06W10	WM - Freedom / Tuckaseegee Rd. Replacement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,200,000	\$7,200,000
01W14	Northeast Water Transmission Main	\$18,150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$25,700,000	\$25,700,000
01W13	Franklin WTP - Renovation Main Bldg.	\$300,000	\$0	\$0	\$0	\$0	\$0	\$0	\$7,000,000	\$7,000,000
Subtotal Water			\$49,595,000	\$66,825,000	\$51,550,000	\$48,200,000	\$53,800,000	\$269,970,000	\$385,290,000	\$655,260,000

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99S30	Sanitary Sewer Line Rehabilitation	\$180,162,720	\$14,000,000	\$14,000,000	\$15,000,000	\$15,000,000	\$15,000,000	\$73,000,000	\$75,000,000	\$148,000,000
17S18	WWTP PCB Remediation	\$0	\$8,000,000	\$7,600,000	\$0	\$0	\$0	\$15,600,000	\$0	\$15,600,000
15S01	WWTP Rehab and Upgrades	\$10,600,000	\$7,600,000	\$7,800,000	\$7,800,000	\$7,800,000	\$7,800,000	\$38,800,000	\$38,800,000	\$77,600,000
99S04	Street and Minor Sewer Main Extension	\$160,156,640	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000	\$6,000,000	\$30,000,000	\$30,000,000	\$60,000,000
17S10	McAlpine Creek WWMF Aeration System and Clarifier Rehabilitation and Upgrades	\$0	\$5,900,000	\$13,800,000	\$10,000,000	\$15,600,000	\$11,500,000	\$56,800,000	\$12,300,000	\$69,100,000
17S04	McDowell Creek WWTP Digester Rehabilitation and Upgrades	\$0	\$4,000,000	\$0	\$0	\$0	\$0	\$4,000,000	\$0	\$4,000,000
17S06	McAlpine Creek WWMF CIPS Reliability Improvements	\$0	\$3,000,000	\$0	\$0	\$0	\$0	\$3,000,000	\$0	\$3,000,000
99S40	New Service Installation Sewer	\$27,620,000	\$2,700,000	\$2,700,000	\$2,700,000	\$2,700,000	\$2,700,000	\$13,500,000	\$13,500,000	\$27,000,000
99S15	Sewer Lines in Streets to be Widened	\$45,261,952	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$12,500,000	\$12,500,000	\$25,000,000
17S16	Trunk Sewer Stream Bank Repairs	\$0	\$2,000,000	\$500,000	\$250,000	\$250,000	\$250,000	\$3,250,000	\$0	\$3,250,000
14S05	Clems Branch Pump Station Improvements	\$4,000,000	\$1,500,000	\$0	\$0	\$0	\$0	\$1,500,000	\$0	\$1,500,000
17S13	Four Mile Tributary Trunk Sewer	\$0	\$1,336,000	\$0	\$0	\$0	\$0	\$1,336,000	\$0	\$1,336,000
07S01	Upper McAlpine Creek Relief Sewer	\$500,000	\$1,000,000	\$8,000,000	\$0	\$0	\$0	\$9,000,000	\$0	\$9,000,000
01S03	Work and Asset Management	\$7,095,175	\$750,900	\$625,900	\$350,900	\$350,900	\$350,900	\$2,429,500	\$0	\$2,429,500
02S81	Lift Station Improvements	\$11,509,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$3,750,000	\$0	\$3,750,000
17S01	Vacuum Truck Debris Receiving Stations	\$0	\$750,000	\$750,000	\$750,000	\$0	\$0	\$2,250,000	\$0	\$2,250,000
99S13	Site Work at All WWTPs	\$10,900,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$2,500,000	\$2,500,000	\$5,000,000
16S01	Sewer Lift Station Force Main Replacement and Rehabilitation	\$200,000	\$500,000	\$500,000	\$0	\$0	\$0	\$1,000,000	\$0	\$1,000,000
01S58	Goose Creek PS and Outfall	\$0	\$500,000	\$0	\$0	\$0	\$3,000,000	\$3,500,000	\$0	\$3,500,000
16S09	R-Ww System Evaluation	\$4,050,000	\$400,000	\$500,000	\$500,000	\$500,000	\$500,000	\$2,400,000	\$2,500,000	\$4,900,000
01S12	Developer Constructed Sewer - Reimbursable	\$6,285,000	\$310,000	\$810,000	\$810,000	\$500,000	\$500,000	\$2,930,000	\$500,000	\$3,430,000
17S11	Upper Little Sugar Creek Trunk Sewer	\$0	\$300,000	\$0	\$0	\$0	\$0	\$300,000	\$0	\$300,000
16S05	Flow Metering at Sewer Lift Stations	\$290,000	\$290,000	\$290,000	\$290,000	\$290,000	\$0	\$1,160,000	\$0	\$1,160,000
17S12	I-77 Express Lanes - Sewer	\$0	\$200,000	\$4,300,000	\$0	\$0	\$0	\$4,500,000	\$0	\$4,500,000
17S09	WWTP UV Disinfection System Improvements	\$0	\$200,000	\$3,800,000	\$0	\$0	\$0	\$4,000,000	\$0	\$4,000,000
17S17	Belmont & Mt. Holly Pump Station and Forcemain	\$0	\$200,000	\$200,000	\$8,600,000	\$0	\$0	\$9,000,000	\$0	\$9,000,000
02S10	Wastewater Master Plan Study	\$1,805,000	\$100,000	\$0	\$0	\$0	\$0	\$100,000	\$0	\$100,000
15S12	Mallard Creek WRF Generator Project	\$2,500,000	\$0	\$8,500,000	\$0	\$0	\$0	\$8,500,000	\$0	\$8,500,000
13S01	Dixie Berryhill Sewer Projects	\$0	\$0	\$5,500,000	\$0	\$0	\$0	\$5,500,000	\$0	\$5,500,000
14S04	Gum Branch Outfall Replacement	\$1,000,000	\$0	\$3,000,000	\$0	\$0	\$0	\$3,000,000	\$0	\$3,000,000
14S02	Upper Taggart Creek Outfall Replacement	\$5,000,000	\$0	\$2,400,000	\$0	\$4,500,000	\$0	\$6,900,000	\$0	\$6,900,000
17S07	Irwin Creek WWTP Dewatering Facility	\$0	\$0	\$1,200,000	\$0	\$0	\$0	\$1,200,000	\$0	\$1,200,000
06S13	McDowell Basin Trunk Sewers	\$3,000,000	\$0	\$0	\$17,000,000	\$0	\$0	\$17,000,000	\$0	\$17,000,000
03S05	WW Collect. Div. Site Needs	\$17,057,400	\$0	\$0	\$15,000,000	\$0	\$0	\$15,000,000	\$0	\$15,000,000

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06S14	McMullen Creek Parallel Sewer and Flow EQ	\$1,850,000	\$0	\$0	\$7,000,000	\$0	\$0	\$7,000,000	\$0	\$7,000,000
01S48	North Fork of Crooked Creek Trunk Sewer	\$0	\$0	\$0	\$0	\$0	\$2,700,000	\$2,700,000	\$0	\$2,700,000
13S03	McKee Creek Tributary - Larkhaven GC Trunk Sewer	\$0	\$0	\$0	\$0	\$0	\$2,500,000	\$2,500,000	\$0	\$2,500,000
01S18	Campus Ridge Road Gravity Sewer	\$0	\$0	\$0	\$0	\$0	\$2,500,000	\$2,500,000	\$0	\$2,500,000
07S10	Dixon Branch Trunk Sewer Extension	\$0	\$0	\$0	\$0	\$0	\$1,600,000	\$1,600,000	\$0	\$1,600,000
12S01	Fuda Creek Trunk Sewer	\$0	\$0	\$0	\$0	\$0	\$1,550,000	\$1,550,000	\$0	\$1,550,000
09S01	McCullough Branch LS Improvements	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$1,500,000	\$0	\$1,500,000
05S08	Beaver Dam Creek West Branch Outfall	\$0	\$0	\$0	\$0	\$0	\$1,300,000	\$1,300,000	\$0	\$1,300,000
07S05	Upper Clear Creek Tributary Sewer	\$0	\$0	\$0	\$0	\$0	\$1,000,000	\$1,000,000	\$0	\$1,000,000
09S03	Clear Creek Tributary Sewer	\$0	\$0	\$0	\$0	\$0	\$975,000	\$975,000	\$0	\$975,000
14S06	Cane Creek Southeast Tributary Trunk Sewer	\$0	\$0	\$0	\$0	\$0	\$700,000	\$700,000	\$0	\$700,000
09S02	Lake Road Trunk Sewer	\$0	\$0	\$0	\$0	\$0	\$625,000	\$625,000	\$0	\$625,000
11S05	Mountain Island Tributary Extension	\$0	\$0	\$0	\$0	\$0	\$510,000	\$510,000	\$0	\$510,000
16S10	Cane Creek Trunk Sewer North	\$0	\$0	\$0	\$0	\$0	\$450,000	\$450,000	\$0	\$450,000
99S25	Remove Aerial Crossings	\$2,580,000	\$0	\$0	\$0	\$0	\$0	\$0	\$2,000,000	\$2,000,000
17S08	McAlpine Creek WWMF Digester Facility Rehabilitation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,700,000	\$5,700,000
17S05	Large Diameter Sanitary Sewer Rehabilitation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$40,000,000	\$40,000,000
17S02	Long Creek Pump Station Expansion	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,000,000	\$2,000,000
16S06	Pump Station Elimination Program	\$4,788,000	\$0	\$0	\$0	\$0	\$0	\$0	\$750,000	\$750,000
15S10	Dewatered Residuals Storage Facility at McDowell	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,930,000	\$5,930,000
15S09	Thickening/Dewatering Improvements at Mallard	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,800,000	\$3,800,000
15S08	Thermal Dryer at McAlpine	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$24,970,000	\$24,970,000
15S07	Dewatering Complex Upgrade at McAlpine	\$2,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$3,410,000	\$3,410,000
15S06	Phosphorus Recovery at McAlpine	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000	\$250,000
15S03	PS & WAS Pipelines from Irwin to McAlpine	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,860,000	\$13,860,000
15S02	Thermal Hydrolysis System at McAlpine	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$57,110,000	\$57,110,000
08S08	Long Creek WWTP to 11 mgd	\$14,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$183,000,000	\$183,000,000
07S03	Middle Clear Creek LS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,000,000	\$20,000,000
02S80	Lift Station Communications, SCADA	\$505,000	\$0	\$0	\$0	\$0	\$0	\$0	\$80,000	\$80,000
Subtotal Sewer			\$65,286,900	\$96,525,900	\$95,800,900	\$57,240,900	\$69,260,900	\$384,115,500	\$550,460,000	\$934,575,500
Total Expense All Projects - Water & Sewer			\$114,881,900	\$163,350,900	\$147,350,900	\$105,440,900	\$123,060,900	\$654,085,500	\$935,750,000	\$1,589,835,500

FY 2017-2021 Community Investment Plan & 10 Year Needs Water Projects



0 1 2 4 6 8 Miles



Locations are approximate
Maps indicate funding status only
Construction status may differ

FY 2017-2021 Community Investment Plan & 10 Year Needs Sewer Projects



Locations are approximate
Maps indicate funding status only
Construction status may differ