

**2022 Capital Budget
2022-2027 CIP**

Final

Updated: **May 24, 2021**

		Annual Totals							
		\$ 7,971,000	\$ 13,769,700	\$ 11,672,000	\$ 8,367,000	\$ 9,429,000	\$ 9,750,000		
Project	Description/Purpose	Primary Construction Year	Tasks	2022	2023	2024	2025	2026	2027
UW #19 Water Quality Mitigation		2023		Start Const					
Elevated levels of iron, manganese, and radium at Well 19 exceed Water Utility Board standards and need to be addressed. Well 19 is a major supply point on the west side and provides water to the University of Wisconsin campus and the near west side. This project will examine alternatives to mitigate contaminate levels to bring the well into compliance with WUB water quality policy. A pilot study was completed in 2018 that demonstrated filtration will reduce the contaminants to below Utility goals. Other options will also be considered to include but not be limited to blending with Well 6, drilling a new well, and modifying the Well 19 bore hole. Work on the project will commence in 2022 and is scheduled to be complete by 2024.	Public Engagement		5,000						
	Utility Labor Costs		27,000	81,000	81,000				
	Engineering Services		859,000						
	Filter Construction			6,610,000					
	Total			891,000	6,691,000	81,000	-	-	-
Unit Well No. 8 - Re-Construction		2027					Start Const		
Elevated levels of iron and manganese at Well 8 exceed Water Utility Board standards and need to be addressed. The facility was constructed in 1945 and is in need of renewal. The facility will be demolished and rebuilt. Geographically, the well is located in a well developed area in the near east side of the system. This location provides is in proximity of Zones 6e, 6w, and 4. This would allow the well to serve these three zones, transferring water from the isthmus to the SE side of the service area. Challenges and limitations exists from the Kipp Corporation site, Olbrich Park and Lake Monona. Coordination with neighborhood groups and the Parks Department will be critical to project success. Preliminary planning work will commence in 2025.	Public Engagement						10,000	10,000	
	Well 8 Rehab							500,000	
	Sentinel Well							-	
	Utility Labor Costs						28,000	81,000	81,000
	Engineering Services						50,000	987,000	
	Property Acquisition and Permitting							200,000	
	Pipeline Improvements								2,211,000
	Well 8 Re-Construction								
Total			-	-	-	-	88,000	1,778,000	2,292,000
Lake View BPS Reconstruction (BPS 213)		2025				Start Const			
Pressure Zone 5 in the north end of the service area has long been restricted by the size of the reservoir and the associate booster pumping station. Fire protection capacity is limited and currently does not meet Utility standards. With the construction of the Lake View Reservoir, Zone 5 has 300,000 gallons of available storage capacity and requires an upgrade of the booster pumping station to support this reservoir. The existing reservoir will be upgraded to a firm capacity of 1,000 gpm with generator backup for reliability. This allows Zone 5 to expand improving	Public Engagement				5,000	5,000			
	Utility Labor Costs				54,000	81,000			
	Engineering Services				129,000				
	Upgrade Pumps @ BPS 213						500,000		
	Generator						575,000		
	Water Main Imp. To BPS 213								
Total			-	-	188,000	1,161,000			
Unit Well 12 Conversion to a Two Zone Well		2024		Start Const					
Well 12 is located on the boarder between Zone 7 and Zone 8. This location provides the opportunity to convert Well 12 to a two zone supply point that would also provide booster pumping capacity from Zone 7 to Zone 8. This project has been developed during 2017/2018 and is ready for implementation. Currently no pumping capacity exists between Zone 7 and Zone 8. This condition puts the Utility at risk in event of a mechanical failure in Zone 8. The ability to transfer water from	Utility Labor Costs			41,000	54,000	41,000			
	Engineering Services			222,000					
	Well Reconstruction and Upgrade				3,700,000				
	Water Main Improvements								
Total			-	263,000	3,754,000	41,000	-	-	-

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Pipeline Replacement/Rehab/Improvements	Ongoing		Total Pipe Rehab Budget	2,970,000	1,726,000	3,754,000	4,221,000	4,671,000	4,535,000
Madison Water Utility has a planned piping system replacement and upgrade program that provides for annual main replacement and rehabilitation to keep the system at an acceptable service level. Lining pipe instead of replacing it saves money and extends the useful life of existing assets. The Utility's Water Master Plan also recommends hydraulic improvements to the system to correct hydraulic bottlenecks, fire protection limitations, and other identified issues.			Water Mains - New	30,000	30,000	734,000	108,000	228,000	454,000
			Pavement Management	2,042,000	481,000	402,000	1,377,000	656,000	1,359,000
			Water Main Rehab-(Lining)	617,000	900,000	1,036,000	1,172,000	1,458,000	1,458,000
			Reconstruction Pipe Projects	311,000	345,000	2,316,000	1,672,000	2,557,000	1,718,000
			Major Streets Main Program	1,435,000	2,779,000	157,000	437,000	-	32,000
			Total	4,435,000	4,535,000	4,645,000	4,766,000	4,899,000	5,021,000
Water Utility Facility Improvements	Annually								
Water Supply			SCADA System Upgrades	26,000	27,000	28,000	29,000	30,000	31,000
Water Supply			Fiber Optic system installation and upgrades	70,000	90,000	50,000	80,000	52,000	54,000
Water Supply			Control & Instrumentation Replacement/Upgrades	121,000	92,000	95,000	98,000	101,000	104,000
Water Supply			VFD Installs & MCC Upgrades	130,000	122,000	96,600	75,000	122,000	126,000
Water Supply			Well Equipment	56,000	57,700	59,400	61,000	63,000	65,000
			Total Supply	403,000	388,700	329,000	343,000	368,000	380,000
Maintenance			Various Olin Building/Site Improvements	50,000	50,000	428,000	51,000	53,000	54,000
Maintenance			Unexpected Well and Booster Station Mechanical Failures	268,000	276,000	284,000	293,000	302,000	311,000
Maintenance			Facility Safety and Security Upgrades	52,000	54,000	56,000	58,000	60,000	62,000
Maintenance			Miscellaneous Facility Upgrade Projects	74,000	76,000	78,000	80,000	82,000	84,000
			Total Maintenance	444,000	456,000	846,000	482,000	497,000	511,000
			Total WU Facility Improvements Program	847,000	844,700	1,175,000	825,000	865,000	891,000
Meter and Fixed Network Program	Annually								
			Total Meter & Fixed Network Program	513,000	526,000	539,000	552,000	566,000	580,000
Vehicles & Equipment Program	Annually								
Fleet and Equipment			Dump Truck Replacement	150,000	-	173,000	-	174,000	-
Fleet and Equipment			Service Truck Replacement	70,000	95,000	105,000	170,000	-	175,000
Fleet and Equipment			Small Vehicle Replacement	90,000	70,000	35,000	-	152,000	-
Fleet and Equipment			Backhoe Replacement	150,000	-	130,000	-	130,000	-
Fleet and Equipment			Mapping and Survey Equipment Replacement	12,000	13,000	14,000	15,000	16,000	16,000
Fleet and Equipment			Small Equipment Replacement	15,000	15,000	15,000	15,000	15,000	15,000
Fleet and Equipment			Operations RP Valve Complete/Parts/Testing/Registration	27,000	27,000	28,000	28,000	29,000	30,000
Fleet and Equipment			Operations d Shore Replacement Box; Parts and Supplies	20,000	20,000	21,000	21,000	22,000	23,000
Fleet and Equipment			Maintenance Tools	20,000	21,000	21,000	22,000	22,000	23,000
			Total Fleet & Equipment	554,000	261,000	542,000	271,000	560,000	282,000
UW Rehab Program	Annually								
Maintenance			Annual Well Rehabs	330,000	247,000	340,000	254,000	350,000	262,000
Hydrant Program	Annually								
Operations			Water Hydrant Replacement/Move/Remove Program	350,000	350,000	350,000	350,000	350,000	359,000
New Valve Cut-In Program	Annually								
Operations			New Water Valve Cut-Ins	16,000	17,000	18,000	19,000	20,000	21,000
Chlorinators & Floridators Program	Annually								
Maintenance			Chlorinators & Floridators	35,000	35,000	40,000	40,000	41,000	42,000
			Total Estimated Annual Costs	7,971,000	13,769,700	11,672,000	8,367,000	9,429,000	9,750,000