					Unescalated Capital Cost								
Project Name	Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032 2033 2034 2035 2036		
Water Treatment Plant (Painting)	Interior of the Water Treatment Plant has evidence of corrosion due to wet environment. In order to maintain the longevity of the building, the interior of the plant needs to be painted. (The results of the Long Term Water Supply Study may determine whether this project is advanced.)	\$ 12,000	\$ 140,000	\$ -	\$ -	\$ -	\$ -	\$ -	- \$	- \$ -	\$ -		
Long Term Water Supply Study	There are issues drawing water at the Rock Creek Intake. This study will determine if the well could suffice as a long term source. The outcome would determine if money should be invested on (1) replacing or rehabilitating Rock Creek Intake, or (2) constructing infrastructure to treat the well water for permanent use. Hegewald Well treatment identified as project 3 on page 93 of the Water System Plan.	-	400,000	300,000	-	-	-				-		
Church Reservoir Transmission	The project involves the replacement of the six-inch reservoir transmission main routed along School Street and Russell Avenue. This line is undersized to provide existing and future fire flow goals to the commercial district. Replacing the six-inch main with, at a minimum, an eight-inch main will improve fire flow capabilities to the downtown	-	-	-	425,000	-	-				-		
School St. Waterline Replacement	commercial area. Total length is approximately 1,450 feet. Project 7 on page 94 of the Water System Plan. 2) replacing approximately 1,300 feet of six-inch AC mains with eight-inch ductile iron on Upper School Street between Hot Springs Alameda Road and Kanaka Creek Road, section 6.4.1 Leak Reduction Program, page 98.	-	-	-	250,000	-	-	-			-		
Frank Johns South	The first project is the construction of a new PRV station intertie with PZ 3. The PRV would replace a closed valve on Frank Johns Road near Gale Street. Addition of an intertie in this location increases available fire flow to the Frank Johns and Loop Road areas. The second project is the replacement of undersized AC water mains in Frank Johns Road from Gale Street to Loop Road. Replacing the six-inch water main with an eightinch main increases available fire flow to the Frank Johns and Loop Road areas. Total length is approximately 900 feet. The third project is the replacement of undersized AC water mains in Frank Johns Road from Loop Road to just north of Highway 14. Replacing the six-inch water main with an eight-inch main satisfies available fire flow to the lower reaches of Frank Johns Road. Total length is approximately 1,000 feet. In addition to the projects described above and described in the Water System Plan, it is recommended that the remaining AC water mains in the zone be upsized to eight-inch when they are replaced as part of the City's AC pipe replacement program. Opportunities to transfer lower elevation portions of this area to PZ 1 should be explored as new development is proposed east of the downtown area. Project 8 on page 94 of the Water System Plan. As part of the dig once practice, the Main D phase 2 will complete the project outlined in the General Sewer Plan 5.2.1 (Project S-04) page 79: extend Sewer Main D north along East Loop Road and Frank Johns Road to provide an available sewer to connect to for properties currently on septic. Spur lines will be provided to serve properties on Thomas Street, Jordan Street, Carrick Road, and Gale Street. It would also allow for future extension north on Frank Johns Road beyond current city limits to serve new		-	-		283,000							
Frank Johns PRV Frank Johns North	development after annexation. The project consists of installing 3,500 feet of 8-inch sewer pipe. It will provide possible sewer connection for 31 properties currently on septic as well as future service to undeveloped properties located near the line.	-	-	-	-	157,000 237,000				- 	-		
Main D Extension (phase 2)		-	-	-	-	1,230,000	-	-		-			
Cascade Interceptor Phase 2 (MH CI-4 to 12)	This portion of the existing 12-inch Cascade Interceptor is undersized for year 2040 peak flows. It starts at MH CI-4 and continues upstream to MH CI-12 at the intersection of Russell Avenue and Railroad Street. The project consists of replacing 1,650 feet of 12-inch sewer pipe with new 18-inch pipe. This is project 5.1.3 (Project S-03) in the General Sewer Plan-page 77.	-	-	-		1,050,000							

		Unescalated Capital Cost									
Project Name	Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032 2033 2034 2035 2036
SW Atwell Rd	The project is the replacement of undersized AC waterlines along SW Atwell Road between Rock Creek Drive. Replacement of this four-inch main with an eight-inch main will increase available fire flow to this area thereby meeting the 2,000 gpm fire flow goal. Total length is approximately 1,000 feet. Identified in project 7 on page 94 of the Water System Plan.	-	-	-	-	-	-	-	263,000	-	-
NE Major St (water)	Replacement of an undersized AC water main in Hillcrest Avenue and NE Major Street. Replacing the four-inch water main with an eight-inch main satisfies available fire flow to the lower reaches of NE Major Street. Total length is approximately 500 feet. Project 9 in the Water System Plan-page 95. Per dig-once practice, will plan to add sewer to the	-	-	-	-	-	132,000	-	-	-	-
Sheppard-Major-Loop (WW Extension not estimated)	area to maximize infrastructure improvement funding.	-	-	-	-	-	-	-	-	-	
Vancouver West Waterline (not on plan)	Upsize and extend water mainline along Vancouver from Lasher to Rock Creek Dr. Add fire hydrant to meet standards for minimum distance between. Project driven by development and to replace an existing section of 4" AC line (Section 6.4 Ongoing Pipe Replacement on page 97 of the Water System Plan). Opportunity to remove connection through the County property and invest in future looping.	-	-	-	-	-	385,000	-	-	-	-
Cascade Ave Water	The existing 8-inch sewer in Cascade Avenue, east of Russell Avenue between MH CI-13 and CI-15 is undersized for existing and future peak flows. This line should be upsized prior to any capacity upgrades to the Kanaka Pump Station. The project consists of replacing 920 feet of 8-inch sewer pipe with new 12-inch pipe. (project 5.1.1 S-01 in the General Sewer Plan page 77) Section 6.4 - Ongoing Pipe Replacement and 6.4.1 Leak Reduction Program focuses on replacement of outdated watermains (page 97-98). Cascade Avenue is an AC line and with the dig once practice there is a cost	-	50,000	1,000,000	-	-	-	-	-	-	-
Cascade Avenue Sewer (8-12")	savings to having the projects done at the same time.	-	50,000	1,000,000	-	-	-	-	-	-	
Ryan Allen Waterline & Rock Creek PRV	The project is the replacement of undersized AC waterlines along Rock Creek Drive between Ryan Allen Road and Monda Road and along Rock Creek Drive from Monda Road to the intersection with the water main from the Angel Heights PRV. Replacement	-	-	-	-	-	-	644,000	-	-	
Rock Creek Drive	of these six-inch mains with eight-inch mains will increase available fire flow to this area thereby meeting the 2,000 gpm fire flow goal for future commercial development. Total length is approx. 1,430 feet. Per dig-once practice, will plan to add sewer to the area to save costs. Identified in project 7 on page 94 of the Water System Plan. Also the first is the relocation of the existing pressure reducing station near the Interpretive Center to	-	-	-	-	-	-	-	375,000	-	-
Ryan Allen (WW)-Waterline	restructure the service zone for this area. Relocating this pressure reducing station from Rock Creek Drive to just north of the intersection of Ryan Allen Road and Foster Creek Road will benefit this area by transferring existing waterlines on both roads from PZ 2 to PZ 1project 12 on page 95 of the Water System Plan. And section 6.4.1 Leak Reduction Program-page 98 in the Water System Plan outlines: 1) replacing approximately 2,000 feet of six-inch AC mains with eight-inch ductile iron on Ryan Allen Road between Foster Creek Road and SW Rock Creek Drive	-	-	-	-	-	-	500,000	-	-	
West-End Looping	A second improvement for PZ 2 is to provide looping at the west end of the system by extending the 12-inch water mains adjacent to Skamania Lodge to the proposed PZ 1 waterline extension at the west end of the system. This improvement will require the installation of a pressure reducing valve to connect the two zones. Total length is approximately 2,500 feet. Project 12 on page 95 of the Water System Plan.	-	-	-	-	-	-	657,000		-	-

		Unescalated Capital Cost												
Project Name	Description	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033 2034	2035	2036
Maple Way East Maple Way West	The first project includes an extension of an eight-inch main north on Maple Way Road from the intersection with Gropper, and an extension of eight-inch main along West Loop Road. Total length of pipe is approximately 5,700 feet. The second project is a eight-inch main on Maple Way Road between West Loop and Kanaka Creek Road that will provide the backbone for future development. Total length of pipe is approximately 1,700 feet. Identified as project 13 in the Water System Plan-pg 96.	-	-	-	-	-	-	1,323,000	-	-	-			
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Zone 4 Predesign	A single project is identified for Zone 4 and will be dependent upon development extending into this higher elevation area. This project includes construction of a 500,000-gallon reservoir, booster pump station, PRV intertie, and extension of a 12-inch water main north along Kanaka Creek Road to the future PZ 4 reservoir site. Total length of pipe is assumed to be approximately 4,600 feet for cost estimating purposes. Because this is outside of the Retail Service Area, a water system plan amendment will be needed to expand the boundary. Project 14 in the Water System Plan, page 96.	-	-	-	-	-	-	75,000	-	-	-			
Zone 4 Improvements		_	_	-	_	-	-	4,038,000	-	-	_			
Water System Plan	Required by law to update the Water System Plan every 10 years. Also identified as project 10 on page 95 of the Water System Plan.	-	-	-	-	200,000	-	-	-	-	-			
GSP update	Majority of projects in current Plan will be completed by 2025. Additional phases of WWTP upgrades and sewer line extensions need to be reviewed and planned for with updated cost estimates.	-	75,000	-	-	-	-	-	-	-	-		-	-
Foster Creek Rd-by int. w/Rock Creek Dr. (WW Ext.not estimated)(S-06)	Section 5.2 - Extensions to unsewered areas (page 77) of the General Sewer Plan and 5.2.4 Other Extension Projects (page 79)	-	-	-	-	-	-	200,000	-	-	-		-	-
WW Line Extensions	Section 5.2 - Extensions to unsewered areas (page 77) of the General Sewer Planchange due to change in policy being discussed.	-	150,000	-	-	-	-	-	-	-	-		-	-
Ryan Allen (WW)to Hollstrom	This project will extend sewer closer to properties within city limits that are currently on septic to allow conversion to the sewer system. The new sanitary sewer will start from the intersection of Ryan Allen Road and Iman Cemetery Road, continue east to Foster Creek Road, and then continue north to the intersection of Foster Creek Road and Hollstrom Road. Spur lines will be provided to serve properties on Lakeview Road and SW Jayden Lane. The project consists of installing 4,000 feet of 8-inch sewer pipe. It will provide a possible sewer connection to 24 properties currently on septic as well as future service to undeveloped properties located near the line. Project 5.2.3 (Project S-06) in the General Sewer Plan-page 79.	-			-	-		-	-	-			-	1,525,000

Water Project
Combined Water/Sewer project
Sewer Project