

2024 Cross-connection Control Program Summary

Overview

King County Wastewater Treatment Division (WTD) with support from the Consultant team, Kennedy Jenks and cross-connection control specialist Steve Coke, developed and submitted the Brightwater Treatment Plant Recycled Water System Cross-connection Control (CCC) Program (Plan) in April 2023, as part of WTD's reclaimed water (RW) permit (ST0045498). This memo serves to provide an update to the Plan since its implementation, including identifying system improvements and backflow prevention compliance testing. Details pertaining to the status of each section of the Plan are described below. WTD is in the process of updating customer contracts to provide the legal instrument to include language around King County's authority to manage the RW cross-connection efforts on their sites. This summary report has been reviewed by Steve Coke.

Status of Cross-connection Control Program Improvements

In February 2023, WTD and the Consultant team conducted an evaluation of the existing RW system and identified three areas for near term improvements. Updates are provided on each recommended near-term improvement in the Table 1 below.

Table 1: CCC Plan Near Term Improvements

Recommended Near Term Improvements	Status
Amend all existing customer contracts to included appropriate CCC language similar to the Example Recycled Water Contract Excerpts included in Appendix E of the CCC Plan	WTD recycled water program has drafted new customer contracts and will seek approval from the Department of Ecology in 2025.
Installation of a double check valve assembly at the Buttonwood Tree Farms	A reduced pressure backflow assembly was installed in 2023.
Update and amend truck fill customer contracts as new contracts arise	WTD recycled water program does not have any active truck fill customer contracts.

Annual Compliance Testing

Cross-connection control equipment was tested in 2024 by James Harmon (BAT License #B6309). A copy of the backflow testing reports can be made available upon request. Table 2 shows the cross-connection equipment inspection dates.

Table 2: Tested Cross-Connection Control Equipment

Jurisdiction	Location	Asset Number	Date Tested
Cross Valley	WTD – Brightwater Center	BW-BFP160020	Not tested. On-site RW system has not been operated since 2020.
Bothell		BW-T210216	4/5/2024

	WTD – Brightwater Influent Pump Station	BW-BAC240232	3/29/2024
		BW-BFP210060	3/27/2024
Redmond	WTD – Hollywood Pump Station	T308301	5/24/2024
		BW-BAC308160	5/24/2024
Bothell	WTD – North Creek Pump Station	T310046	3/28/2024
		BAC310017	3/28/2024
Kirkland	WTD – York Pump and RW Fill Station	T309400	5/24/2024
		BW-BAC309307B	5/24/2024
		BAC309307	5/24/2024
		BW-BAC309510	5/24/2024
Redmond	60 Acres Park	BW-BAC309102	5/16/2024
		BW-BAC309103	8/27/2024
Redmond	Buttonwood Farms	BW-BAC309104	5/16/2024
Redmond	Willows Run Golf Complex	BW-BAC309101	5/16/2024

List of CCC Devices

Attachment A lists the cross-connection protection equipment throughout the RW Onsite and Offsite Distribution System. In July 2024, WTD replaced the Reduced Pressure Backflow Assembly for the reclaimed water fill station located at WTD - York Pump Station due to a leak.

Attachment A: List of Service Connections (Updated March 2025)

Jurisdiction	Location	Address	Backflow Device	Device Specifications	Asset Number	Serial Number	Hazard Level
Cross Valley	WTD – Brightwater Center	22505 WA-9 Woodinville WA 98072	Reduced Pressure Backflow Assembly	1 ½” Wilkins 975XL RP	BW-BFP160020	3309899XLTCV	High
Bothell	WTD – Brightwater Influent Pump Station	11711 NE 195th Street. Bothell WA 98011	Air Gap Tank	N/A	BW-T210216	AG4RW	High
			Reduced Pressure Backflow Assembly (6”)	6” Febco LF880 RP	BW-BAC240232	N1708010614	High
			Reduced Pressure Backflow Assembly (2”)	2” Watts 0092 M2QT RP	BW-BFP210060	298002	Low
Redmond	WTD – Hollywood Pump Station	14815 NE 124 th St Redmond WA 98052	Air Gap Tank	N/A	T308301	AG	High
			Reduced Pressure Backflow Assembly	2” Watts LF009M2 RP	BW-BAC308160	120879	Low
Bothell	WTD – North Creek Pump Station	18707 North Creek Parkway South Bothell WA 98011	Air Gap Tank	N/A	T310046	[NONE]	High
			Reduced Pressure Backflow Assembly	4” Watts 909 RP	BAC310017	217619	Low
Kirkland	WTD – York Pump and RW Fill Station	14120 NE 124 th St Redmond WA 98052	Air Gap Tank	N/A	T309400	[NONE]	High
			Reduced Pressure Backflow Assembly ²	4” Watts 909 RP	BW-BAC309307B	220263	High
			Double Check Valve Assembly (Irrigation)	1 ½” Febco 805Y DC	BAC309307	Y8101	Low
			Reduced Pressure Backflow Assembly (Fill Station) ¹	3” Watts 957 RP	BW-BAC309510	PA0126 (old assembly) YC0536 (new assembly)	Low
Redmond	60 Acres Park	15200 NE 116 th St Redmond WA 98052	Reduced Pressure Backflow Assembly	6” Wilkins 375A RP	BW-BAC309102	X36354	Low
			Double Check Valve Assembly (Connection with river)	4” Wilkins 350 AST DC	BW-BAC309103	10260A	Low
Redmond	Buttonwood Farms	14500 NE 116 th St Redmond WA 98052	Reduced Pressure Backflow Assembly	2” Watts 009M2QT RP	BW-BAC309104	296144	Low
Redmond	Willows Run Golf Complex	10402 Willows Rd NE Redmond WA 98052	Double Check Valve Assembly	8” Watts 709 DC	BW-BAC309101	328406	High
Legend ¹ Device was replaced in July 2024.							