

Backflow eService API Developer Guide

Backflow (PLBF) eService API provides a simple way for integrators to send reports directly to council's Building and Plumbing register. This developer's guide has been provided to help you through the process of integrating your systems to BFD eServices.

Introduction

Document Purpose

The purpose of this document is to provide third party developers with a definition of the PLBF eService API and a guide to its use.

Document Scope

The scope of this specification is limited to information required to make programmatic calls to the PLBF eService API. At the time of writing, supported capabilities include the following:

- Sending PLBF report messages
- Sending test report PDFs
- Sending test report photos

How to Connect

Supported Platforms

Almost any programmable system can be modified to send test reports directly to PLBF eService. If you are unsure about how to connect from your system please contact council for advice.

Methodology

PLBF eService provides a Web API (JSON over HTTPS) that accepts test reports and processes them into council's Building and Plumbing Backflow register. In addition to the message data a full test result report ie. Form 9 - Registration & report on inspection and testing of backflow prevention devices must be provided as a pdf. Photos of the device and location may also be supplied for the first test or when a change has been made.

The Form 9 pdf and photos are saved to the council document management system as a detailed record of the service.

Access

To access PLBF eService API visit the council's developer portal and subscribe to the PLBFInspections API.

[Council's Test Portal Environment](#)

[Council's Production Portal Environment](#)

Authentication

PLBF eService API requires an API key to submit inspections. After registering your account and approval by SCC, your account will have an API key (under your profile subscriptions) that you can use to submit inspections.

PLBFInspections API Request body

Council Device Reference – Make and Serial Number

The key to PLBF eService integration is council systems and your systems using a common device identifier. The unique identifier used for PLBF eService is both the Make and Serial Number of the device.

The make and serial is provided to council, by testing agents as part of a test report, when the backflow prevention device is first tested. This data is recorded in the SCC Backflow register by council officers.

Thereafter the make and serial number will remain the common reference for both council and testing agent. If the device is replaced then a new make and serial number pair will be provided and the backflow register will again be updated.

Make and serial numbers that are unknown to council will raise an alert for council officers to action. Once the register is updated with the new make and serial number reports will automatically be recorded without the need for council officer intervention.

Reference Data Mapping

Council corporate systems record PLBF test report data using a range of reference values and descriptions that are specific to our requirements. It is most likely that these lists are different to the lists that you use in your systems for the same purpose.

The lists we will need are recorded below. An excel spreadsheet is the preferable delivery format however please contact us if you would like to make alternative arrangements.

SCC Descriptor Name	Description	Example Value / Description	
BFIntAppnd	Test Appendix	A	RAG (Registered Air Gap / Registered Break Tank)
		B	PVB (Pressure-Type Vacuum Breaker)
		C	SPVB (Spill Resistant Pressure-Type Vacuum Breaker)
		D	RPZD (Reduced-Pressure Zone Device)
		E	DCV (Double Check Valve)
		F	RPDA (Reduced Pressure Detector Assembly)
		G	DCDA (Double Check Detector Assembly)
		H	SCVT (Single Check Valve Testable)
		I	SCDAT (Single Check Detector Assembly)
BFIntComp	Integration Company/Business	ABC	ABC Plumbing
		XYZ	XYZ Plumbing
BFIntMake	Device Make	AirGap	Air Gap
		Ames	Ames
		Apollo	Apollo
		ARI	A.R.I
		Beeco	Beeco
		Caleffi	Caleffi
		Clearflow	Clearflow
		Conbraco	Conbraco
		Duplex	Duplex
		Duraflex	Duraflex
		Febco	Febco
		Flomatic	Flomatic
		Gilbario	Gilbario
		Hydromet	Hydromet

		Hyflow Maxiflow Metcheck Pentair Qld Plumb Reliance RMC Spectra TYCO TZTomson ValvCheq Watts Wilkins Zurn CLA-VAL	Hyflow Maxiflow Metcheck Pentair Qld Plumbing Reliance RMC Spectra Tyco Tomson ValvCheq Watts Wilkins Zurn CLA_VAL
BFIntProte	Protection	Containmen Individual Zone	Containment Individual Zone
BFIntTestR	Inspection Result	Failed Fixed Pass Removed Replaced	Failed Yes Yes Removed Replaced
BFIntTruck	Truck	No Yes	No Yes
BFIntType	Device Type	DCDA DCV PVB RAG RPDA RPZD SCDAT SCVT SPVB	Double Check Detector Assembly Double Check Valve Pressure Type Vacuum Breaker Registered Air Gap Reduced Pressure Dectector Assembly Reduced Pressure Zone Single Check Detector Assembly Single Check Valve Spill Resistant Pressure Type Vacuum Breaker

Any changes made to these lists in the future must be communicated to council so we can map the new value.

Similarly if we make any changes on our side we will inform you. It is expected that occasional changes would generally be limited to the brand and types of devices.

Council Alerts

Some data sent to PLBF eService is validated and may raise alerts in council systems that officers must investigate and resolve.

Data alerts fall into three categories:

1. Primary Key (Make, Serial Number)

If Make (MakeID) or Serial Number does not match a register record, then the register cannot be updated. This raises an alert in council systems which prompts an investigation.

There are a number of scenarios that may cause this issue. The register or testing agent data is not correct, this is a new device that has not yet been added to the register, the device has not been previously tested or this is an unknown device that has been installed with council knowledge.

A council officer will establish the cause and rectify the problem. If required an officer will contact the testing agent.

2. ByPass - Primary Key (Make, Serial Number)

If BypassMake (MakeID) or BypassSerial Number (when supplied) do not match a register record, then the register cannot be updated. This raises an alert in council systems which prompts an investigation.

A council officer will establish the cause and rectify the problem. If required an officer will contact the testing agent.

3. Reference data validation

If a match on Make and Serial Number is found and ByPassMake and ByPassSerial Number (when supplied) is found but other validation has failed, in other words when the data provided does not match the register record or does not match the reference data mapping, an alert is raised in council systems which prompts an investigation.

A council officer will investigate, contact the service agent if required and resolve the issue.

Testing:

This sample data has been provided to help you through the process of initial testing and integration to the PLBF eService API.

[PLBF sample data.](#)

Contact Council

For more information about integrating with PLBF eService please contact Building and Plumbing Services, Sunshine Coast Council: mail@sunshinecoast.qld.gov.au or phone at 07 5475 7272.