Appendix K – Three Waters Facility Asset Identification Specification
(Normative)

CONTENTS

1 APPLICATION

This specification applies to all water facility assets that will be vested in or are currently managed by Queenstown Lakes District Council.

2 PURPOSE

The purpose of this specification is to establish a framework of principles to be applied to the representation of three water facility assets in Queenstown-Lakes District's Asset Management System (AMS) Technology One and operational documents.

A facility is defined as a plant or process that is distinctly separated from the distributed network assets. Facilities include, but are not limited to:

- Wastewater treatment plants
- Wastewater pump stations
- Water Supply treatment plants
- Water supply pump stations

There are currently no stormwater pump stations or treatment facilities within the QLDC network, it is intended that these will be included as and when required. Consideration of including other stormwater assets is underway and may be included in future versions.

It is intended that this specification will ensure that the assets can be accurately valued and effectively managed.

It should be noted that network (distributed) assets are entered into Technology One via GIS as per the QLDC As-Built Standard and are not subject to this specification.

3 RELATED DOCUMENTS

This specification should be read in conjunction with the following documents which are on the QLDC Website under Land Developments and Subdivisions:

- QLDC As-built Standard
- QLDC Land Development and Subdivision Code of Practice

4 ASSET REPRESENTATION IN THE ASSET MANAGEMENT SYSTEM

To facilitate the purpose of this document, the following will be required/generated for each asset within a facility:

- **UnitID** – Unique ID generated by the Asset Management System (AMS) when the individual asset is created in the AMS environment.
- **Position ID** – a descriptive ID of the function of the asset within the facility.
- **Asset Register Data** – a list of the required asset specification data prior to its import into the AMS. See section 5.

> **Piping and Instrumentation Diagram (P&ID)** - A diagram which shows the interconnection of process equipment and the instrumentation used to control the process*1*

4.1.1 UnitID

For facility asset types the UnitID is generated by using a combination of the Asset Equipment Codes (see Appendix B) and the unique numeric identifier (compkey) generated in Technology One, e.g.:

VLV		150203
Asset Equipment Type		Unique ID (Compkey)

4.1.2 Position ID

A facility is likely to contain one or more individual process areas depending on the design and sophistication of that plant.

The process ID is it to be generated by the designer or owner (where the asset is to be vested) by concatenating the following four elements separated by hyphens:

> Facility ID

> Process ID

> Asset Equipment Code

> Equipment Number

4.1.2.1 Facility ID

A unique Facility ID is generated by QLDC and is a four character alpha code. This is created from two parts, the first being a two character code describing the facility type, followed by a two character code to identify the specific facility. A longer descriptive name with a 25 charactor limit can follow the 4 character code. The current allocated names are listed in Appendix A, e.g:

ST	SP		Shotover Ponds
Facility Type (Sewer Treatment)	Facility ID (Shotover Ponds)		Facility Descriptive Name

4.1.2.2 Process ID

The appropriate two digit process area code is to be selected from one of the types listed in appendix B. New codes are required to be approved by QLDC prior to their use. E.g. 01 (Intake and Screening)

4.1.2.3 Asset Equipment Code

The appropriate three character alpha asset equipment code is to be selected from one of the types listed in appendix C. New codes are required to be approved by QLDC prior to their use. E.g. SCR (Screen)

4.1.2.4 Equipment Number

A three character sequential numeric ID to uniquely identify multiple occurrences of the same asset type within the facility/process, e.g. 001.

This will result in a Position IDs as per the following examples:

Shotover ponds sewer treatment plant inlet screen one:

STSP	-	01	-	SCR	-	001
Facility ID		Process ID		Equipment Code		Equipment Number

1 As defined by the Institute of Instrumentation and Control

Shotover ponds sewer treatment plant inlet screen two:

STSP	-	01	-	SCR	-	002
Facility ID		Process ID		Equipment Code		Equipment Number

Shotoer ponds sewer treatment plant UV reactor one:

STSP	-	07	-	UVS	-	001
Facility ID		Process ID		Equipment Code		Equipment Number

4.1.3 Asset Register Data

As per the QLDC Land Development & Subdivision Code of Practice an asset register is required to be provided to the adopted format / level of detail. The asset register shall include (but not be limited to) all process units, civil structures and buildings, earth structures, pipes and appurtenances, process tankage, mechanical and electrical equipment.

Individual assets shall be componentised by the expected design life and the physical location of the assets.

Asset costs are to be the actual cost applicable to each item plus any overhead allocation or installation costs that are included in the Contractor's Contract costs.

5 RESPONSIBILITIES

5.1 DESIGNER

The designer or owner (where the asset is to be vested) is responsible for the creation of the Position ID, along with the reference of the Position ID within all appropriate documents including, but not limited to, design drawings, P&IDs, functional documents and asset schedules.

5.2 CONSTRUCTION CONTRACTOR

The construction contractor or owner (where the asset is to be vested) is responsible for the tagging of assets with the Position ID. All items that are assigned a Position ID shall be physically tagged on site using a system that does not suffer degradation due to environmental conditions such as sunlight or gaseous emissions. The tags for each asset shall be connected by use of a plastic cable tie, the tag itself shall be made from stainless steel and the tag number punched into it.

5.3 QLDC

To enable the generation of position IDs, QLDC will provide a facility ID following a request to the Asset Management Team (threewatersdata@qldc.govt.nz.

6 IMPROVEMENT PLAN

- Improve definition and delineation of facility and network assets.
- Incorporate a Piping and Instrumentation Diagram (P&ID) standard.
- Improve the definitions around the level of componentisation.
- Consider inclusion of include Stormwater detention basins and/or soak pits.

7 REVIEW

This specification will be reviewed annually.

TABLE A – FACILITY NAMES The following are currently allocated facility names as at June 2024.

Water - Pump Stations

WPAR-ANDERSON RD BST	WPHI-HIGHVIEW TCE
WPAT-ARROWTOWN	WPHT-HEATON PARK
WPAT-ARROWTOWN 1	WPKH-KELVIN HEIGHTS
WPAT-ARROWTOWN 2	WPKG-KINGSTON
WPB3-ARROWTOWN BOOST	WPL1-LAKE HAYES EST
WPBB-BENBRAE	WPLA-HAYES EST BST
WPBF-BORE ARTHURS PT	WPLC-LOMOND CRES
WPBG-BORE GLENORCHY	WPLG-LUGGATE
WPBL-BALMORAL BOOST	WPLH-LAKE HAYES
WPBP-BEACON POINT	WPLW-QTOWN HILL #1
WPBV-BROADVIEW RISE	WPMA-MTASPIRING RD
WPCD-COREBRIDGE BORE	WPMD-MARINA DRIVE
WPC1-CARDRONA RIVER	WPML-MIDDLETON
WPC2-UPPER TERRACE	WPMR-MIDDLETON ROAD
WPCR-CARDRONA	WPPR-PENINSULA ROAD
WPF1-FERNHILL #1	WPPW-PANNERS WAY
WPF2-FERNHILL #2	WPRB-ROYS BAY
WPFD-FRANKTON RD	WPSC-SHOTOVER BORES
WPFH-FAR HORIZON	WPTM-TWO MILE
WPFR-FRANKTON RD	WPWA-WANAKA AIRPORT
WPGB-GLENDHU BAY	WPWB-THREEPWOOD BST
WPGD-GLENDA DRIVE	WPWW-WESTERN WANAKA
WPGR-GOLDRUSH WAY	
WPHA-HAWEA	
WPHH-HIDDEN HILLS	

Water - Treatment

WTA2- ARROWTOWN
WTAT-ARROWTOWN
WTAP-ARTHURS POINT
WTBP-BEACON POINT
WTCV-CARDRONA VALLEY
WTGB-GLENDHU BAY
WTHA-HAWEA
WTHB - HAWEA
WTHT-HAWEA ALT
WTKH-KELVIN HEIGHTS
WTKG-KINGSTON
WTLE-LAKE HAYES EST
WTLG-LUGGATE
WTLH-LAKE HAYES
WTRB-ROYS BAY
WTTM-TWO MILE
WTWI-WESTERN INTAKE

Water - Intakes

WIC1-PRINGLES CREEK
W1C2-CARDRONA RIVER
WIKG-KINGSTON

Water - Raw Water - Reservoirs

RRCV-CARDRONA VALLEY

Water - Reservoirs

WRAP-ARTHURS POINT	WRKH-KELVIN HEIGHTS
WRAR-ARROWTOWN	WRKG-KINGSTON
WRBB-BENBRAE	WRLC-LOMOND CRESCENT
WRBP-BEACON POINT	WRLE-LAKE HAYES EST
WRCR-CARDRONA	WRLH-LAKE HAYES
WRCV-CARDRONA VALLEY	WRLR-LUGGATE
WRF1-FERNHILL #1	WRMI-MOUNT IRON
WRF2-FERNHILL A	WRMR-MIDDLETON ROAD
WRF2-FERNHILL B	WRMR-MINERS RISE
WRF3-FERNHILL #3	WRNL-NORTHLAKE
WRFH-FAR HORIZON RES	WRPR-PENINSULA ROAD
WRGB-GLENDHU BAY	WRPR-PLANTATION
WRGB-WAITIRI	WRQ1-QTOWN HILL #1
WRGF-GOLDFIELDS	WRQ2-QTOWN HILL #2
WRGR-GLENORCHY	WRQR-QUAIL RISE
WRHR-HAWEA	WRRV-REMARKABLESVIEW
WRJP-JARDINE A	WRSC-SHOTOVER
WRJP-JARDINE B	WR-SE-SICILIAN EST
WRJP-JARDINE C	WRWR-WESTERN
WRJP-JARDINE D	

Water - Irrgation - Reservoirs

IRCV-CARDRONA VALLEY

Water - Irrigation - Treatement

ITCV-CARDRONA VALLEY

TABLE A Continued – FACILITY NAMES The following are currently allocated facility names as at June 2024.

Wastewater - Pump Stations				Wastewater - Treatment Plants
SPA1-ALISON AVE #2	SPFB-FRANKTON BEACH	SPLP-LANCASTER PLACE	SPT4-ALICEBURNDR #1	STAP-ALBERT TOWN PND
SPA2-KINGSTON STREET	SPFF-FASTFLO BLOCK	SPMD-MEADOWSTONE	SPT5-ALICEBURNDR #2	STBB-BENBRAE INNFLO
SPA3-ALISON AVE #1	SPFS-FREDERICK ST	SPMP-MARINE PARADE	SPTB-TUCKERS BEACH	STBD-BENBRAE DFIELD
SPAP-OXNBRDGE TUN RD	SPGO-GORGE ROAD	SPMR-MCDONNELL RD	SPW1-THREEPWOOD #1	STCP-CARDRONA PUB
SPAR-AUBREY ROAD	SPGR-GORDON ROAD	SPN2-NORFOLK ST #2	SPW2-THREEPWOOD #2	STCR-PHEONIX 47
SPAT-ATLEY ROAD	SPH1-HAWEA ESPLANADE	SPNI-NICHOL STREET	SPW7-THREEPWOOD #7	STCV-CARDRONA VALLEY
SPBF-BRIDESDALE	SPH2-SCOTTS BEACH	SPNS-NORFOLK STREET	SPWA-WAN-LUGG HWY #1	STHP-HAWEA PONDS
SPBM-ARTN-LK HAYS RD	SPHD-HIKUWAI DRIVE	SPOR-OUTLET ROAD	SPWL-WAN-LUGG HWY #2	STID-INVINCIBLE DR
SPBV-BAYVIEW RD	SPHD-HANLEY DOWNS	SPP1-ALBERTTOWN #1	SPWL-WILLOW PLACE	STKG-KINGSTON
SPCD-CEDAR DRIVE	SPJA-JONES AVE	SPP2-ALBERTTOWN #2	SPWP-WAIMANA PLACE	STLP-LANCASTER PLACE
SPCD-CARDRONA	SPJV-JACKS POINT VILLAGE	SPP3-RIVERBANK RD		STPP-PROJECT PURE
SPCP-CARDRONA PRINGLE CREEK	SPK1-LAKESIDE RD #1	SPPL-PARK ST LIFT		STSD-SHOTOVER DELTA
SPCR-CEMETERY RD	SPK2-LAKESIDE RD #2	SPPP-STEVENSON RD		STSP-SHOTOVER PONDS
SPCV-CARDRONA VILLAGE	SPKG-KINGSTON	SPPR-129 PENINSULA ROAD		SPSF-SHOTOVER DISPOSAL FIELD
SPD1-DUNGARVON #1	SPKP-KAWARAU PLACE	SPPS-PARK STREET		STWP-WANAKA PONDS
SPD2-DUNGARVON #2	SPL1-LAKE HAYES #1	SPRP-REMARKS PARK #1		
SPDR-DOMAIN ROAD	SPL2-LAKE HAYES #2	SPRS-1A ROBERTSON ST		
SPEA-ESSEX AVENUE	SPL3-LAKE HAYES #3	SPRV-RETIRE VILLAGE		
SPEC-EVENTS CENTRE	SPL4-LAKE HAYES #4	SPSB-SUNSHINE BAY		
SPEP-EELY POINT	SPL5-LAKE HAYES #5	SPSC-STALKER RD		
SPEW-EDGEWATER	SPL6-LAKE HAYES #6	SPT1-CHURCH RD		
SPF2-FRANKTON BEACH	SPLB-LONGBURN AVE	SPT2-HARRIS PLACE		
SPFA-FRANKTON BEACH A	SPLHTB-LAKE HAYES TOILET BLOCK	SPT3-PISA ROAD		

TABLE B – PROCESS ID'S

The following are acceptable, as at June 2024, any addition to this list is required to be agreed with the QLDC Strategic Asset Management Team prior to their use.

WW Treatment

01	General and Ancillary
02	Inlet and Screening
03	Biological Treatment
04	Clarifier
05	RAS / Sludge Return Line
06	Sludge Handling / Drying
07	Disinfection

WW Pump Stations

21	General and Ancillary
22	Inlet and Operational Storage
23	Emergency Storage
24	Electrical and Pumps
25	Outlet

WS Intake/Treatment

41	General and Ancillary
42	Bore / Inlet (Including Pumps)
43	Disinfection
44	Contact Tanks

WS Pump Stations (Network)

51	General and Ancillary
52	Bore / Inlet
53	Electrical and Pumps
54	Outlet

WS Storage

61	Inlet
62	Storage
63	Outlet

TABLE C – ASSET EQUIPMENT CODES

The following are acceptable, as at June 2024, any addition to this list is required to be agreed with the QLDC Asset Planning Team prior to their use.

Code	Description	Code	Description	Code	Description	Code	Description
ABL	Air Blower	CBK	Chain Block	EDD	Electrical Dosing Drive	HAM	Hammer Resister
ACD	Air Conditioner	CBL	Cabling	ELE	Electrical Controls	HAR	Harmonic Filter
ACT	Actuator	CBM	Containment Boom	ELS	Electrical Services	HDV	Hand Valve
AEL	Analyser Element	CDB	Chlorine Doser	EMS	Emergency Shower	HER	Heat Exchanger
AET	Aerator	CHB	Chamber	FAN	Fan	HMI	Human Machine Interface
AIC	Analyser Indicator Controller	CHL	Chlorine, Chlorinator	FOP	Fibre Optic Panel	HND	Handstanding
AIV	Air Bleed Valve	CLD	Chlorine Leak Detector	FIC	Flow Indicator Controller	HOS	Hose Reel/Hose
ALD	Acoustic Door	CLS	Chlorine Sensor	FILS	Filter - Storm	HPR	Hopper
ANT	Antenna/ Arial	CML	Chamber Lid	FIN	Flow Indicating Transmitter	HST	Hoist
AOM	Distribution Board	CMP	Computer	FIR	Flow Indicating Readout	HTR	Heater
ASB	Assembly Kit	CDT	Conduit	FIT	Pipes and Fittings	HUM	Humidifier
ASM	Alarm System	CNP	Control Panel	FLC	Flowmeter Chamber	HYD	Fire Hydrant
AUT	Autosampler	CNT	Centrifuge	FLJ	Flexible Joint	IRR	Irrigation System
AVR	Automatoc Voltage Regulator	CNV	Conveyor	FLM	Flowmeter	INJ	Injector
BAS	Basin- Detention, Retention, Sediment	COM	Compressor	FLS	Flushing Connection	INS	Instrument
BAC	Battery Charger	CTL	Chlorine Trolley Load	FLT	Cartridge Filter	ITH	IT Hardware
BAF	Baffle	CWP	Chlorine Weigh Pads	FNK	Fuel Tank	JBX	Junction Box
BAT	Backup Battery	CPN	Cathodic Protection	FRE	Fire System	KST	Timer/Time Initiated Space
BCN	Beacon	CUL	Culvert	FRT	Filter	LAB	Laboratory Equipment
BEL	Bellow (Expansion)	DAM	Dam	FSW	Flow Switch	LAD	Ladders
BIN	Bin/Skip	DCT	Decanter	FUR	Office Furniture & Equipment	LAH	High Level Alarm
BKP	Backflow Preventor	DIF	Diffuser	GCE	Gantry Crane	LAL	Low Level Alarm
BRE	Bore	DLG	Data Logger	GCN	Generator Connection	LCU	Level Control
BRG	Bridge	DNT	Decant Tank	GEN	Generator	LEI	Level Indicator
BLD	Building	DOM	DO Meter	GNC	Generator Controller	LFB	Lifting Beam
CAB	Cabinetry	DRN	Drain - Natural, Manmade.	GRC	Grit Classifier	LFS	Lime Hooper & Feeder
CAM	Camlock Coupling	DUC	Ducting	GBX	Gearbox	LMT	Limit Switch
CASS	Membrane Cassette	DVT	Dose/Volume Timer	GRS	Grilles	LOV	Discharge Louvre
CAZ	Chlorine Analyser	EAV	Electric Actuated Valve	GRT	Grit Removal	LPU	Lightning Arrester

TABLE C Continued – ASSET EQUIPMENT CODES

Code	Description
LSH	High Level Switch
LSL	Low Level Switch
LSN	Level Sensor
LTM	Level Transmitter
LTR	Level Transducer
MAC	Macerator
MET	Meter
MHL	Manhole/ Lampholes/ Cleaning E
MIX	Mixer
MOC	Moisture Controller
MOI	Moisture Monitoring Probe
MPR	Motor Protection Relay
MTC	Motor Control
MTR	Motor
NRV	Non Return Valve
OFT	Odour Filter
PBD	Portable Building (Container/Room)
PBT	Pressure Break Tank
PBU	Polmer Batching Unit
PCM	Pump Chamber
PHA	pH Analyser
PIC	Pressure Indicating Controller
PIP	Pipework
PLC	Programme Logic Controller
PLY	Polymer Tank
PMC	Pump Control
PMP	Pump
PPR	Pump Rails
ROD	Road
ROT	Rotameter
RTR	Router
SAL	Satellite Dish
SAM	Sampler
SAT	Surge Anticipating Valve
SBT	SBR Tanks
SCL	Scales
SCR	Mechanical Screen
SIL	Acoustic Silencer
SIG	Sign
SLT	Sludge Storage Tank
SKI	Skimmer (Scum Collector)
SKD	Soakage Device
SOFN	Water Softener
SOL	Solenoid Valve
SPI	Speed Indicator
SPN	Solar Panel
SPR	Sprinklers
SSR	Scraper
STA	Soft Starter
STI	Strainer
SUR	Surge Controller
SUP	Support Structure. Includes Foundation, Anchor Block, Roller, Pad Plinth, Pontoon.
SWY	Spillway
SWB	Switchboard
SWF	Screw Feeder
SWW	Screw
SWR	Software
TAP	Sample tap or similar
TAR	Tarriff Metering
TEE	TEE
TEL	Telemetry
TEM	Temperature Switch
TIC	Temperature Indicator Control
TNL	Tunnel
TMA	Temperature Alarm
TME	Temperature Element
TOO	Tool
TRT	Treatment Device - Wetland, Rain Garden, Tree Pit
TRA	Trap - Pollutant, Silt Trap
TRL	Trailer
TRN	Transformer
TRR	Telemetry Radio
TTR	Temperature Transmittor
TUM	Turbidity Meter
TUB	Turbine
TUR	Telemetry Unit
UPS	UPS
UVS	UV System
VDD	Variable Dosing Drive
VIB	Vibration Switch
VNT	Ventilation
VSD	Variable Speed Drive
WBR	Water Blaster
WDU	Washdown Unit
WER	Weir/ Slide Gate
WEL	Weigh Element
WST	Weather Station
WTR	Weigh Transmitter
WWL	Wet Well Lid
ZIC	Position Inducating Controller
ZSO	Position Switch Open