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

QUEENSTOWN LAKES DISTRICT COUNCIL

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:

- QLDC As-built Standard
- QLDC Land Development and Subdivision Code of Practice (NZS 4404/2010 with QLDC amendments)

4 ASSET REPRESENTATION IN THE ASSET MANAGEMENT SYSEM

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*

1 As defined by the Institute of Instrumentation and Control

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

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 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

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 Planning Team (threewatersdata@qldc.govt.nz and infrastructureassetplanningteam@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 February 2023.

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

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

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

TABLE A Continue – FACILITY NAMES The following are currently allocated facility names as at February 2023.

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

TABLE B – PROCESS ID'S

The following are acceptable, as at March 2016, any addition to this list is required to be agreed with the QLDC Asset Planning 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 March 2016, any addition to this list is required to be agreed with the QLDC Asset Planning Team prior to their use.

Equipment Type	Description	Equipment Type	Description	Equipment Type	Description	Equipment Type	Description
ABL	Air Blower	FAN	Fan	LPU	Lightening Arrester	SCL	Scales
ACD	Air Conditioner	FIC	Flow Indicator Controller	LSH	High Level Switch	SCR	Mechanical Screen
AET	Aerator	FIN	Flow Indicating Transmitter	LSL	Low Level Switch	SIL	Acoustic Silencer
AIC	Analyser Indicator Controller	FIR	Flow Indicating Readout	LSN	Level Sensor	SLT	Sludge Storage Tank
AIV	Air Bleed Valve	FIT	Pipes and Fittings	LTM	Level Transmitter	SLV	Ball, Gate, Sluice Valve
ALD	Acoustic Door	FLC	Flowmeter Chamber	LTR	Level Transducer	SOL	Solenoid Valve
ANT	Antenna/ Arial	FLJ	Flexible Joint	MAC	Macerator	SPI	Speed Indicator
AOM	Analogue Output Module	FLM	Flowmeter	MET	Meter	SPN	Solar Panel
ASB	Assembly Kit	FLS	Flushing Connection	MHL	Manhole/ Lampholes/ Cleaning E	SPR	Sprinklers
ASM	Alarm System	FLT	Cartridge Filter	MIX	Mixer	STA	Soft Starter
AUT	Autosampler	FNK	Fuel Tank	MKV	Motorised Knife Gate Valve	STI	Strainer
BAT	backup Battery	FRE	Fire System	MOC	Moisture Controller	SUR	Surge Controller
BIN	Bin/Skip	FSW	Flow Switch	MOI	Moisture Monitoring Probe	SWB	Switchboard
BKP	Backflow Preventor	GCN	Generator Connection	MPR	Motor Protection Relay	SWR	Software
CAB	Cabinetry	GEN	Generator	MTC	Motor Control	TAP	Sample tap or similar
CAM	Camlock Coupling	GNC	Generator Controller	MTR	Motor	TAR	Tarriff Metering
CAZ	Chlorine Analyser	GRC	Grit Classifier	NRV	Non Return Valve	TEE	TEE
CBK	Chain Block	GRS	Grilles	PBT	Pressure Break Tank	TEL	Telemetry
CBL	Cabling	GRT	Grit Removal	PCM	Pump Chamber	TEM	Temperature Switch
CDB	Chlorine Doser	GSY	Generator Synchroniser	PHA	pH Analyser	TIC	Temperature Indicator Controll
CLD	Chlorine Leak Detector	HAM	Hammer Resister	PIC	Pressure Indicating Controller	TMA	Temperature Alarm
CLS	Chlorine Sensor	HAR	Harmonic Filter	PIP	Pipework	TME	Temperature Element
CML	Chamber Lid	HMI	Human Machine Interface	PLC	Programme Logic Controller	TRA	Pressure Transducer
CMP	Computer	HOS	Hose Reel/Hose	PLY	Polymer Tank	TRL	Trailer
CNP	Control Panel	HST	Hoist	PMC	Pump Control	TRN	Transformer
CNT	Centrifuge	HTR	Heater	PMP	Pump	TRR	Telemetry Radio
CNV	Conveyor	HUM	Humidifier	PPR	Pump Rails	TUM	Turbidity Meter
COM	Compressor	HYD	Fire Hydrant	PRG	Pressure Gauge	TUR	Telemetry Unit
CTL	Chlorine Trolley Load	IRR	Irrigation System	PRS	Pressure Switch	UPS	UPS
CWP	Chlorine Weigh Pads	ISO	Isolating valve Gate & Sluice	PRV	Pressure Reducing/Regulating V	UVS	UV System

Equipment Type	Description
DCT	Decanter
DIF	Diffuser
DNT	Decant Tank
DOM	DO Meter
DVT	Dose/Volume Timer
EDD	Electrical Dosing Drive
ELE	Electrical Controls
ELS	Electrical Services
EMS	Emergency Shower

Equipment Type	Description
ITH	IT Hardware
LAH	High Level Alarm
LAL	Low Level Alarm
LCU	Level Control
LEI	Level Indicator
LFB	Lifting Beam
LFS	Lime Hooper & Feeder
LMT	Limit Switch
LOV	Discharge Louvre

Equipment Type	Description
PSN	Pressure Sensor
PWS	Pressure Washer
RAI	Rain Gauge
REV	Reservoir
ROT	Rotameter
SAL	Satellite Dish
SAM	Sampler
SAT	Surge Anticipating Valve
SBT	SBR Tanks

Equipment Type	Description
VDD	Variable Dosing Drive
VIB	Vibration Switch
VNT	Ventilation
VSD	Variable Speed Drive
WBR	Water Blaster
WER	Weir/ Slide Gate
WWL	Wet Well Lid