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## 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 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<sup>1</sup>

### 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 (comkey) generated in Technology One, e.g.:

VLV		150203
Asset Equipment Type		Unique ID (Comkey)

### 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 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 character 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

<sup>1</sup> 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

Shotover 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](mailto: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		Water - Treatment		Water - Reservoirs	
WPAR-ANDERSON RD BST	WPHI-HIGHVIEW TCE	WTA2- ARROWTOWN	WRAP-ARTHURS POINT	WRKH-KELVIN HEIGHTS	
WPAT-ARROWTOWN	WPHT-HEATON PARK	WTAT-ARROWTOWN	WRAR-ARROWTOWN	WRKG-KINGSTON	
WPAT-ARROWTOWN 1	WPKH-KELVIN HEIGHTS	WTAP-ARTHURS POINT	WRBB-BENBRAE	WRLC-LOMOND CRESCENT	
WPAT-ARROWTOWN 2	WPKG-KINGSTON	WTBP-BEACON POINT	WRBP-BEACON POINT	WRLE-LAKE HAYES EST	
WPB3-ARROWTOWN BOOST	WPL1-LAKE HAYES EST	WTCV-CARDRONA VALLEY	WRCR-CARDRONA	WRLH-LAKE HAYES	
WPBB-BENBRAE	WPLA-HAYES EST BST	WTGB-GLENDHU BAY	WRCV-CARDRONA VALLEY	WRLR-LUGGATE	
WPBF-BORE ARTHURS PT	WPLC-LOMOND CRES	WTHA-HAWEA	WRF1-FERNHILL #1	WRMI-MOUNT IRON	
WPBG-BORE GLENORCHY	WPLG-LUGGATE	WTHB - HAWEA	WRF2-FERNHILL A	WRMR-MIDDLETON ROAD	
WPBL-BALMORAL BOOST	WPLH-LAKE HAYES	WTHT-HAWEA ALT	WRF2-FERNHILL B	WRMR-MINERS RISE	
WPBP-BEACON POINT	WPLW-QTOWN HILL #1	WTKH-KELVIN HEIGHTS	WRF3-FERNHILL #3	WRNL-NORTHLAKE	
WPBV-BROADVIEW RISE	WPMA-MTASPIRING RD	WTKG-KINGSTON	WRFH-FAR HORIZON RES	WRPR-PENINSULA ROAD	
WPCD-COREBRIDGE BORE	WPMD-MARINA DRIVE	WTLE-LAKE HAYES EST	WRGB-GLENDHU BAY	WRPR-PLANTATION	
WPC1-CARDRONA RIVER	WPML-MIDDLETON	WTLG-LUGGATE	WRGB-WAITIRI	WRQ1-QTOWN HILL #1	
WPC2-UPPER TERRACE	WPMR-MIDDLETON ROAD	WTLH-LAKE HAYES	WRGF-GOLDFIELDS	WRQ2-QTOWN HILL #2	
WPCR-CARDRONA	WPPR-PENINSULA ROAD	WTRB-ROYS BAY	WRGR-GLENORCHY	WRQR-QUAIL RISE	
WPF1-FERNHILL #1	WPPW-PANNERS WAY	WTTM-TWO MILE	WRHR-HAWEA	WRRV-REMARKABLESVIEW	
WPF2-FERNHILL #2	WPRB-ROYS BAY	WTWI-WESTERN INTAKE	WRJP-JARDINE A	WRSC-SHOTOVER	
WPFD-FRANKTON RD	WPSC-SHOTOVER BORES		WRJP-JARDINE B	WR-SE-SICILIAN EST	
WPFH-FAR HORIZON	WPTM-TWO MILE		WRJP-JARDINE C	WRWR-WESTERN	
WPFH-FRANKTON RD	WPWA-WANAKA AIRPORT		WRJP-JARDINE D		
WPGB-GLENDHU BAY	WPWB-THREEPWOOD BST	Water - Intakes			
WPGD-GLENDA DRIVE	WPWW-WESTERN WANAKA	WIC1-PRINGLES CREEK		Water - Irrigation - Reservoirs	
WPGR-GOLDRUSH WAY		W1C2-CARDRONA RIVER		IRCV-CARDRONA VALLEY	
WPHA-HAWEA		WIKG-KINGSTON			
WPHH-HIDDEN HILLS		Water - Raw Water - Reservoirs		Water - Irrigation - Treatement	
		RRCV-CARDRONA VALLEY		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 INNFO
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**

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- 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**

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

## **WS Intake/Treatment**

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

## **WS Pump Stations (Network)**

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

## **WS Storage**

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- 61 Inlet
- 62 Storage
- 63 Outlet

## Appendix K – Three Waters Facility Asset Identification Specification

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



## Appendix K – Three Waters Facility Asset Identification Specification

**TABLE C Continued – ASSET EQUIPMENT CODES**

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

