



QUEENSTOWN LAKES DISTRICT COUNCIL

THREE WATERS FACILITY ASSET IDENTIFICATION SPECIFICATION

APRIL 2017

DOCUMENT HISTORY



Version	Action	Date	Prepared by	Approved by
1.00	First Draft	March 2016	Mark Baker	Myles Lind
2.00	Final	April 2017 2016	Mark Baker 	Myles Lind 

TABLE OF CONTENTS

1. APPLICATION	4
2. PURPOSE	4
3. RELATED DOCUMENTS	4
4. ASSET REPRESENTATION IN THE ASSET MANAGEMENT SYSTEM	4
5. RESPONSIBILITIES	6
6. IMPROVEMENT PLAN	6
7. REVIEW	6
TABLE 1 – FACILITY ID’S ELEMENTS	7
TABLE B – PROCESS ID’S	8
TABLE C – ASSET EQUIPMENT CODES	9

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 the Hansen Asset Management System (AMS) 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 Hansen 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 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 process¹

UnitID

For facility asset types the UnitID is automatically generated by Hansen using a combination of the Asset Equipment Codes (see Appendix B) and the unique numeric identifier (compkey) generated in Hansen. E.g.

¹ As defined by the Institute of Instrumentation and Control

VLV		150203
Asset Equipment Type		Unique ID (Compkey)

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

Facility ID

Facility ID is generated by QLDC within Hansen 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

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)

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)

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

Shotover ponds sewer treatment plant UV reactor one:

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

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

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.

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.

QLDC

To enable the generation of position IDs, QLDC will provide a facility ID following a request to the Asset Planning Team (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 March 2016.

<u>Water - Pump Stations</u>	<u>Water - Treatment</u>	<u>Water - Reservoirs</u>	<u>Wastewater - Pump Stations</u>	<u>Wastewater - Treatment Plants</u>
WPAR-ANDERSON RD BST	WTBP-BEACON POINT	WRAP-ARTHURS POINT	SPA1-ALISON AVE #2	SPMP-MARINE PARADE
WPAT-ARROWTOWN	WTKH-KELVIN HEIGHTS	WRAR-ARROWTOWN	SPA2-KINGSTON STREET	SPMR-MCDONNELL RD
WPB3-ARROWTOWN BOOST	WTLE-LAKE HAYES EST	WRBP-BEACON POINT	SPA3-ALISON AVE #1	SPNI-NICHOL STREET
WPBF-BORE ARTHURS PT	WTLG-LUGGATE	WRF1-FERNHILL #1	SPAP-OXNBRDGE TUN RD	SPNS-NORFOLK STREET
WPBG-BORE GLENORCHY	WTLH-LAKE HAYES	WRF2-FERNHILL #2	SPAT-ATLEY ROAD	SPOR-OUTLET ROAD
WPBL-BALMORAL BOOST	WTRB-ROYS BAY	WRF3-FERNHILL #3	SPBM-ARTN-LK HAYS RD	SPP1-ALBERTTOWN #1
WPBP-BEACON POINT	WTTM-TWO MILE	WRGB-GLENDHU BAY	SPBV-BAYVIEW RD	SPP2-ALBERTTOWN #2
WPBV-BROADVIEW RISE	WTWI-WESTERN INTAKE	WRGF-GOLDFIELDS	SPCD-CEDAR DRIVE	SPP3-RIVERBANK RD
WPCD-COREBRIDGE BORE		WRGR-GLENORCHY	SPCR-CEMETERY RD	SPPL-PARK ST LIFT
WPF1-FERNHILL #1		WRHR-HAWEA	SPD1-DUNGARVON #1	SPPS-PARK STREET
WPF2-FERNHILL #2		WRKH-KELVIN HEIGHTS	SPD2-DUNGARVON #2	SPRP-REMARKS PARK #1
WPDF-FRANKTON RD		WRLC-LOMOND CRESCENT	SPDR-DOMAIN ROAD	SPSB-SUNSHINE BAY
WPGB-GLENDHU BAY		WRLE-LAKE HAYES EST	SPEA-ESSEX AVENUE	SPT1-CHURCH RD
WPGD-GLENDA DRIVE		WRLH-LAKE HAYES	SPEP-EELY POINT	SPT2-HARRIS PLACE
WPHA-HAWEA		WRLR-LUGGATE	SPEW-EDGEWATER	SPT4-ALICEBURNDR #1
WPHH-HIDDEN HILLS		WRMI-MOUNT IRON	SPF2-FRANKTON BEACH	SPT5-ALICEBURNDR #2
WPHI-HIGHVIEW TCE		WRQ1-QTOWN HILL #1	SPFB-FRANKTON BEACH	SPTB-TUCKERS BEACH
WPHT-HEATON PARK		WRQ2-QTOWN HILL #2	SPFF-FASTFLO BLOCK	SPW1-THREEPWOOD #1
WPKH-KELVIN HEIGHTS		WRQR-QUAIL RISE	SPFS-FREDERICK ST	SPW2-THREEPWOOD #2
WPL1-LAKE HAYES EST		WRRV-REMARKABLESVIEW	SPGO-GORGE ROAD	SPW7-THREEPWOOD #7
WPLA-HAYES EST BST		WRWR-WESTERN	SPGR-GORDON ROAD	SPWA-WAN-LUGG HWY #1
WPLC-LOMOND CRES			SPH1-HAWEA ESPLANADE	SPWL-WILLOW PLACE
WPLG-LUGGATE			SPH2-SCOTTS BEACH	SPWP-WAIMANA PLACE
WPLH-LAKE HAYES			SPHD-HIKUWAI DRIVE	
WPLW-QTOWN HILL #1			SPK1-LAKESIDE RD #1	
WPMD-MARINA DRIVE			SPK2-LAKESIDE RD #2	
WPML-MIDDLETON			SPKP-KAWARAU PLACE	
WPPW-PANNERS WAY			SPL1-LAKE HAYES #1	
WPSC-Shotover Bore			SPL2-LAKE HAYES #2	
WPTM-TWO MILE			SPL3-LAKE HAYES #3	
WPWA-WANAKA AIRPORT			SPL4-LAKE HAYES #4	
WPWB-THREEPWOOD BST			SPL5-LAKE HAYES #5	
WPWW-WESTERN WANAKA			SPL6-LAKE HAYES #6	

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 Preventer	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	Tariff 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 Control
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
DCT	Decanter	ITH	IT Hardware	PSN	Pressure Sensor	VDD	Variable Dosing Drive
DIF	Diffuser	LAH	High Level Alarm	PWS	Pressure Washer	VIB	Vibration Switch

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

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

