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 

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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 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 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]

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. RESPONSBILITIES

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.

Water - Pump Stations

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

Water - Treatment

WTBP-BEACON POINT
WTKH-KELVIN HEIGHTS
WTLE-LAKE HAYES EST
WTLG-LUGGATE
WTLH-LAKE HAYES
WTRB-ROYS BAY
WTTM-TWO MILE
WTWI-WESTERN INTAKE

Water - Reservoirs

WRAP-ARTHURS POINT
WRAR-ARROWTOWN
WRBP-BEACON POINT
WRF1-FERNHILL #1
WRF2-FERNHILL #2
WRF3-FERNHILL #3
WRGB-GLENDHU BAY
WRGF-GOLDFIELDS
WRGR-GLENORCHY
WRHR-HAWEA
WRKH-KELVIN HEIGHTS
WRLC-LOMOND CRESCENT
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

Wastewater - Pump Stations

SPA1-ALISON AVE #2
SPA2-KINGSTON STREET
SPA3-ALISON AVE #1
SPAP-OXNBRDGE TUN RD
SPAT-ATLEY ROAD
SPBM-ARTN-LK HAYS RD
SPBV-BAYVIEW RD
SPCD-CEDAR DRIVE
SPCR-CEMETERY RD
SPD1-DUNGARVON #1
SPD2-DUNGARVON #2
SPDR-DOMAIN ROAD
SPEA-ESSEX AVENUE
SPEP-EELY POINT
SPEW-EDGEWATER
SPF2-FRANKTON BEACH
SPFB-FRANKTON BEACH
SPFF-FASTFLO BLOCK
SPFS-FREDERICK ST
SPGO-GORGE ROAD
SPGR-GORDON ROAD
SPH1-HAWEA ESPLANADE
SPH2-SCOTTS BEACH
SPHD-HIKUWAI DRIVE
SPK1-LAKESIDE RD #1
SPK2-LAKESIDE RD #2
SPKP-KAWARAU PLACE
SPL1-LAKE HAYES #1
SPL2-LAKE HAYES #2
SPL3-LAKE HAYES #3
SPL4-LAKE HAYES #4
SPL5-LAKE HAYES #5
SPL6-LAKE HAYES #6
SPMP-MARINE PARADE
SPMR-MCDONNELL RD
SPNI-NICHOL STREET
SPNS-NORFOLK STREET
SPOR-OUTLET ROAD
SPP1-ALBERTTOWN #1
SPP2-ALBERTTOWN #2
SPP3-RIVERBANK RD
SPPL-PARK ST LIFT
SPPS-PARK STREET
SPRP-REMARKS PARK #1
SPSB-SUNSHINE BAY
SPT1-CHURCH RD
SPT2-HARRIS PLACE
SPT4-ALICEBURNDR #1
SPT5-ALICEBURNDR #2
SPTB-TUCKERS BEACH
SPW1-THREEPWOOD #1
SPW2-THREEPWOOD #2
SPW7-THREEPWOOD #7
SPWA-WAN-LUGG HWY #1
SPWL-WILLOW PLACE
SPWP-WAIMANA PLACE

Wastewater - Treatment Plants

STHP-HAWEA PONDS
STPP-PROJECT PURE
STSP-SHOTOVER PONDS

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
ABL	Air Blower
ACD	Air Conditioner
AET	Aerator
AIC	Analyser Indicator Controller
AIV	Air Bleed Valve
ALD	Acoustic Door
ANT	Antenna/ Arial
AOM	Analogue Output Module
ASB	Assembly Kit
ASM	Alarm System
AUT	Autosampler
BAT	backup Battery
BIN	Bin/Skip
BKP	Backflow Preventer
CAB	Cabinetry
CAM	Camlock Coupling
CAZ	Chlorine Analyser
CBK	Chain Block
CBL	Cabling
CDB	Chlorine Doser
CLD	Chlorine Leak Detector
CLS	Chlorine Sensor
CML	Chamber Lid
CMP	Computer
CNP	Control Panel
CNT	Centrifuge
CNV	Conveyor
COM	Compressor
CTL	Chlorine Trolley Load
CWP	Chlorine Weigh Pads
DCT	Decanter
DIF	Diffuser
FAN	Fan
FIC	Flow Indicator Controller
FIN	Flow Indicating Transmitter
FIR	Flow Indicating Readout
FIT	Pipes and Fittings
FLC	Flowmeter Chamber
FLJ	Flexible Joint
FLM	Flowmeter
FLS	Flushing Connection
FLT	Cartridge Filter
FNK	Fuel Tank
FRE	Fire System
FSW	Flow Switch
GCN	Generator Connection
GEN	Generator
GNC	Generator Controller
GRC	Grit Classifier
GRS	Grilles
GRT	Grit Removal
GSY	Generator Synchroniser
HAM	Hammer Resister
HAR	Harmonic Filter
HMI	Human Machine Interface
HOS	Hose Reel/Hose
HST	Hoist
HTR	Heater
HUM	Humidifier
HYD	Fire Hydrant
IRR	Irrigation System
ISO	Isolating valve Gate & Sluice
ITH	IT Hardware
LAH	High Level Alarm
LPU	Lightening Arrester
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
MKV	Motorised Knife Gate Valve
MOC	Moisture Controller
MOI	Moisture Monitoring Probe
MPR	Motor Protection Relay
MTC	Motor Control
MTR	Motor
NRV	Non Return Valve
PBT	Pressure Break Tank
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
PRG	Pressure Gauge
PRS	Pressure Switch
PRV	Pressure Reducing/Regulating V
PSN	Pressure Sensor
PWS	Pressure Washer
SCL	Scales
SCR	Mechanical Screen
SIL	Acoustic Silencer
SLT	Sludge Storage Tank
SLV	Ball, Gate, Sluice Valve
SOL	Solenoid Valve
SPI	Speed Indicator
SPN	Solar Panel
SPR	Sprinklers
STA	Soft Starter
STI	Strainer
SUR	Surge Controller
SWB	Switchboard
SWR	Software
TAP	Sample tap or similar
TAR	Tariff Metering
TEE	TEE
TEL	Telemetry
TEM	Temperature Switch
TIC	Temperature Indicator Control
TMA	Temperature Alarm
TME	Temperature Element
TRA	Pressure Transducer
TRL	Trailer
TRN	Transformer
TRR	Telemetry Radio
TUM	Turbidity Meter
TUR	Telemetry Unit
UPS	UPS
UVS	UV System
VDD	Variable Dosing Drive
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
LAL	Low Level Alarm
LCU	Level Control
LEI	Level Indicator
LFB	Lifting Beam
LFS	Lime Hooper & Feeder
LMT	Limit Switch
LOV	Discharge Louvre
RAI	Rain Gauge
REV	Reservoir
ROT	Rotameter
SAL	Satellite Dish
SAM	Sampler
SAT	Surge Anticipating Valve
SBT	SBR Tanks
VNT	Ventilation
VSD	Variable Speed Drive
WBR	Water Blaster
WER	Weir/ Slide Gate
WWL	Wet Well Lid