

Mā tō tātou takiwā
For our District

2025
Water Services
As Built Data Specification



**Western
Bay of Plenty**
District Council

Data Requirements

The following data is required to ensure up to date data is captured on Council's GIS and AMS.

- All alterations, upgrades and extensions to Council utilities require a sign off from a Registered Surveyor or a Chartered Professional Engineer.
- All As Built data is required to be submitted 10 working days before application for the signing off of the 224 Consents Notice. Failure to provide an accurate "As Built" may impact on the 224 Consent Notice completion. Data will be supplied directly to the Principal Administrative Officer (PAO) and/or the Project Engineer. As Built data files provided via email as per specification, drawings to be in PDF.
- Accuracy of the data is to be +/- 0.1m (100mm) for the X & Y co-ordinates and +/- 0.01 (10mm) for the Z co- ordinate.
- Coordinates must be in NZTM 2000 with levels based on NZVD 2016.
- The Short ID of a feature will be applied to the As Built Plan, Spatial and Aspatial files. Existing feature Short ID's will begin with an EX. e.g. EXWSVA, EXSWMH.

Electronic Copy – As Built Documents

All As Built documentation will consist of at least:

- A PDF plan for each Utility (Water, Wastewater, Stormwater).
- An Aspatial point spreadsheet for each Utility (Water, Wastewater, Stormwater).
- An Aspatial line spreadsheet for each Utility (Water, Wastewater, Stormwater).
- A Spatial spreadsheet OR shapefile for points of each Utility (Water, Wastewater, Stormwater).
- A Spatial spreadsheet OR shapefile for lines of each Utility (Water, Wastewater, Stormwater).
- A benchmark sheet (if applicable).

Pdf Plans

Drawing Requirements:

- A3 size minimum.
- All new Water features to be shown in blue.
- All new Wastewater features to be shown in red.
- All new Stormwater features to be shown in green.
- A green dashed line showing the Stormwater overland flow path.
- All relevant existing Utilities shown in grey.
- Property/lot boundaries, kerb lines and or edge of seal shown in grey.
- All abandoned and or removed pipe work and surface features shown in purple and clearly labelled.
- Enlargements to show clearly how new features connect to existing features (if applicable).
- One sheet/drawing or series of sheets/drawings per new utility (Water, Wastewater, Stormwater).
- One sheet/drawing with all utilities (if practicable).
- A clear and legible Legend of all symbols and line types used.
- A title block including:
 - Contract/Subdivision Number
 - Date Drawn
 - Street or Area Location
 - Contractors Name
 - Scale
 - Surveyors Name
 - Construction Date
 - Drawing Amendment/Issue Number
 - The Words "As Built Plans"
 - Drawing Number
 - Drawing Sheet Size
 - North Point/Arrow
 - Details of the benchmark the levels are taken from

Spatial Data Format

Spatial data can either be submitted as **Shapefiles OR Spreadsheets**.

All relevant existing features are to be included in the Spatial files with their co-ordinates and lid level.

Shapefiles

A separate shapefile for each of the following Utility services:

-Water Point - Water Line - Wastewater Point - Wastewater Line - Stormwater Point - Stormwater Line

- Points and lines to be labelled using Short Id's.

Spreadsheets

A separate spreadsheet for each of the following Utility services:

-Water Point - Water Line - Wastewater Point - Wastewater Line - Stormwater Point - Stormwater Line

The format ofr each of these is:

Short Id	X Coordinate	Y Coordinate	Z Coordinate
----------	--------------	--------------	--------------

Example: Spatial Wastewater Point

Short Id	X	Y	Z
SSMH01	1852765.94	5837992.98	5.42
SSMH02	1852759.58	5837987.14	5.02
SSRE01	1852766.11	5837993.11	4.98

Example: Spatial Wastewater Line

Short Id	X	Y	Z
SSPI01	1852765.94	5837992.98	5.45
SSPI01	1852764.64	5837992.67	5.38
SSPI01	1852759.58	5837987.14	5.23
SSH001	1852764.64	5837992.67	5.18
SSH001	1852766.11	5837993.11	5.09

- Z Coordinate is not required for Water Line.
- Line features requires at least 2 sets of co-ordinates.
- Include any points along a line feature where the line changes direction or intersects with a house connection. When entering the co-ordinates for a curved line feature the distance between points should not exceed 1m.

Aspatial Data Format

A separate spreadsheet for each of the following Utility services:

- Water Point - Water Line - Wastewater Point - Wastewater Line - Stormwater Point - Stormwater Line

Please make a copy of the spreadsheet template provided and fill it in. Please fill in ALL required information.

Required Fields

The following table shows the required fields in green for each of the utility services:

	ShortId	AssetType	AssetSubType	Material	Diameter	Depth	LidLevel	USinvert	DSinvert	InstallDate	Class	Manufacturer	Meter_No	Datum
Water Point	Y	Y	Y	N	Y	N	Y	N	N	Y	N	Y	Y (Meter only)	Y
Water Line	Y	Y	N	Y	Y	N	N	N	N	Y	Y	Y	N	N
Wastewater Point	Y	Y	Y	N	Y	Y	Y	N	N	Y	N	Y	N	Y
Wastewater Line	Y	Y	N	Y	Y	N	N	Y	Y	Y	Y	Y	N	Y
Stormwater Point	Y	Y	Y	N	Y	Y	Y	N	N	Y	N	Y	N	Y
Stormwater Line	Y	Y	N	Y	Y	N	N	Y	Y	Y	Y	Y	N	Y

Field descriptions

ShortId	Unique value, corresponds to the feature Short Id allocated in the Spatial data
AssetType	This is the type of Asset; see 'TYPE' in the Water, Wastewater, Stormwater lookup tables
AssetSubType	This is the SubType of Asset; see 'SUBTYPE' in the Water, Wastewater, Stormwater lookup tables
Material	The material type; see 'MATERIAL' lookup table
Diameter	The pipe nominal bore diameter in mm
Depth	The depth of a chamber or manhole from lid to bottom
LidLevel	This is the level above Moturiki Datum (Z)
USinvert	This is the upstream invert level for pipes
DSinvert	This is the downstream invert level for pipes
InstallDate	This is the date/month/year of construction in full i.e. dd/mm/yyyy
Class	This is the class of pipe; see examples
Manufacturer	Manufacturer of materials
Meter_No	This is the meter serial number for the water meter only
Datum	Name of the datum the levels for this asset; either NZVD2016 or Moturiki

Note: Lid Level for Stormwater scruffy domes is to be taken on the edge of the top manhole ring not the top of the grilled dome.

EXAMPLE: ASPATIAL WATER POINT

ShortId	Asset Type	Asset Subtype	Diameter	Lidlevel	Install date	Manufacturer	Meter _No	Datum
WSVA01	Valve	Sluice	50	6.87	01-01-18	Hynds		NZVD2016
WSFH01	Valve	Hydrant	100	6.5	01-01-18	Hynds		NZVD2016
WSME01	Instruments	Meter	20	6.54	01-01-18	Sensus	17M123456	NZVD2016

EXAMPLE: ASPATIAL WATER LINE

ShortId	Asset Type	Asset Subtype	Diameter	Install date	Class	Manufacturer	Datum
WSMA01	Main	Asbestos cement	150	01-01-18	C	Iplex	NZVD2016
WSRM01	Rider Main	Polyethylene	50	01-01-18	PN12.5	Sensus	NZVD2016
WSHC01	Connection	Polyethylene	20	01-01-18	PN9	Sensus	NZVD2016

EXAMPLE: ASPATIAL WASTEWATER POINT

ShortId	Asset Type	Asset Subtype	Diameter	Depth	Lid level	Install date	Manufacturer	Datum
SSMH01	Chamber	Manhole	1050	1.76	14.25	01-01-18	Hynds	NZVD2016
SSMH02	Chamber	Manhole	1200	1.68	14.38	01-01-18	Hynds	NZVD2016
SSRE01	Chamber	Inspection Shaft	50	1.86	12.06	01-01-18	Hynds	NZVD2016

EXAMPLE: ASPATIAL WASTEWATER LINE

ShortId	Asset Type	Asset Subtype	Diameter	USInvert	DSInvert	Install date	Manufacturer	Datum
SSHC01	Laterals	Un-Plasticised PVC	100	5.08	3.31	01-01-18	Humes	NZVD2016
SSGM01	Gravity Main	Un-Plasticised PVC	150	5.76	5.46	01-01-18	Hynds	NZVD2016
SSRM02	Rising Main	Polyethylene	300	4.93	4.57	01-01-18	Iplex	NZVD2016

EXAMPLE: ASPATIAL STORM WATER POINT

ShortId	Asset Type	Asset Subtype	Diameter	Depth	Lidlevel	Install date	Manufacturer	Datum
SWCP01	Catchpit	Catchpit - Double	300	1.52	5.47	01-01-18	Hynds	NZVD2016
SWCP02	Catchpit	Catchpit - single	300	1.69	5.44	01-01-18	Hynds	NZVD2016
SWMH01	Chamber	Manhole	1050	1.62	5.42	01-01-18	Humes	NZVD2016

EXAMPLE: ASPATIAL STORM WATER LINE

ShortId	Asset Type	Asset Subtype	Diameter	USInvert	DSInvert	Install date	Class	Manufacturer	Datum
SSGM012	Gravity Main	Concrete	450	5.06	3.3	01-01-18	2	Humes	NZVD2016
SWHC01	Laterals	Un-plasticised PVC	100	5.74	5.44	01-01-18	SN16	Humes	NZVD2016
SWSM01	Service Main	Un-plasticised PVC	225	4.92	4.54	01-01-18	2	Humes	NZVD2016

Water Services as built data specification

WATER POINT		
TYPE	SUBTYPE	SHORTID
INSTRUMENTS	Meter	WSME
	Toby	WSTO
VALVE	Air release	WSVA
	Altitude	WSVA
	Backflow preventer	WSVA
	Butterfly	WSVA
	Flow control	WSVA
	Flow meter	WSFM
	Hydrant	WSFH
	Nonreturn	WSVA
	Normally closed	WSVA
	Pressure reducing	WSVA
	Pressure sustaining	WSVA
Scour	WSVA	
Sluice	WSVA	

WASTEWATER POINT		
TYPE	SUBTYPE	SHORTID
CHAMBER	Manhole	SSMH
	Inspection shaft (Rodding Eye)	SSRE
FITTING	Junction	SSJN
MECHANICAL	Air	SSVA
	Airknife	SSVA
	Knife	SSVA
	Nonreturn	SSVA
	Pressure reducing	SSVA
	Scour	SSVA
WING WALL	Inlet	SSWW
	Outlet	SSWW

STORMWATER POINT		
TYPE	SUBTYPE	SHORTID
CATCHPIT	Catchpit - Double	SWCP
	Catchpit - Mega	SWCP
	Catchpit - Quad	SWCP
	Catchpit - Single	SWCP
	Catchpit - Super	SWCP
CHAMBER	Box	SWBX
	Inspection shaft (Rodding)	SWRE
	Manhole	SWMH
SOAKHOLE	Soakhole	SSSH
VALVE	Flood gate	SSVA
	Sluice	SWVA
WING WALL	Head wall	SWWW
	Outlet	SWWW

WATER LINE	
TYPE	SHORTID
CONNECTION	WSHC
MAIN	WSMA
RIDER MAIN (SUB MAIN)	WSRM

WASTEWATER LINE	
TYPE	SHORTID
GRAVITY MAIN	SSGM
LATERALS (HOUSE CONNECTION)	SSHC
RISING MAIN	SSRM
SERVICE MAIN (SUB MAIN)	SSSM

STORMWATER LINE	
TYPE	SHORTID
GRASS SWALE	SWGS
GRAVITY MAIN	SWGM
LATERALS (HOUSE CONNECTION)	SWHC
OPEN DRAIN	SWOD
PRESSURE MAIN (RISING MAIN)	SWPM
SERVICE MAIN	SWSM

MATERIAL						
Alkathine	Concrete Lined Steel	Galvanised iron	Glazed earthenware	None	Polyethylene	Steel
Asbestos cement	Corrugated Aluminium	Galvanised steel	Modified polyvinyl choride	Novaflow	Polypropylene	Un-plasticised PVC
Concrete	Corrugated steel	Glass reinforced poly	Natural	O PVC	Stainless steel	