



# Corporate Production GIS Metadata

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## Layer Name: Water\_Mains

### General Information

<b>Layer Name:</b>	Water_Mains
<b># of Features:</b>	16164
<b>Status:</b>	ACTIVE
<b>Layer Source:</b>	GIS_DATA.WAT_MAIN
<b>Layer Quality:</b>	Good
<b>Feature Accuracy:</b>	+/- 2m
<b>Type:</b>	POLYLINE
<b>Description:</b>	Water distribution network.
<b>Projection:</b>	NAD 83 UTM Zone 17N (EPSG 26917)
<b>Disclaimer:</b>	The City of Kitchener assumes no responsibility for the accuracy of the provided data. Any use of this information is done so at the users risk. Good survey practices must be applied when utilizing this information. The City of Kitchener and its partners have created this data for information purposes on an as-is and as available basis and is under no circumstances a substitute for a Legal Survey. The City does not make any representations or warranty, express or implied, concerning the accuracy, quality, likely results, or reliability of the use of the data. The City of Kitchener assumes no responsibility for any errors and is not liable for any damages of any kind resulting from the use of, or reliance on, the information and material contained in this layer. All information should be verified independently before being used or relied on. Users are encouraged to contact the City of Kitchener to ensure the accuracy of the information provided by Kitchener.

### Source and Contraints

<b>Source Map Label:</b>	Water Pipe Network: Corporate Services - Technology Innovation and Services - Geospatial Data and Analytics (Current to date of printing)
<b>History:</b>	Water Data is maintained by Utilities staff on an annual base during the winter. 1998 - GIS staff using MicroStation redrew the existing water network to match up with the other base data i.e. land parcel, road network etc. Up until this point the linework was not geographically correct but based on an old copy of linework created at the Region.
<b>Original Source:</b>	INS - Utilities
<b>Original Source Process:</b>	
<b>Maintenance:</b>	Utilities maintains the data and in March/April of each year GIS moves the data from the MicroStation environment to the SDE layers in order to be displayed using Onpoint. GIS Updates: Yearly - March Utilities - Water See update documentation for instructions
<b>Current Info Source:</b>	As-Builts
<b>Outstanding Issues:</b>	Not a true network, nodes such as valves, connectors are not network features, simply placed on top of pipe segments. Segments of pipe are arbitrarily broken by road blocks not using nodes.
<b>Update Frequency:</b>	CONTINUOUS

### Data Fields & Domain Information

Water\_Mains

Column Name	Alias	Data Type	Comments	Domain Name	Default value	Domain Values
OBJECTID	OBJECTID	NUMBER	ESRI system maintained integer field used to uniquely identify rows in tables in a geodatabase. Note that OBJECTID values change upon export or import of the data and should not be used as a primary field for searching or identifying records.			
WATMAINID	Watmainid	NUMBER	Database maintained field that permanently assigns a unique value for each record. This ID value should be the one referred to when identifying a record.			
CREATE_BY	Create By	VARCHAR2	Database maintained field. Updates to the user name that created the feature. Update takes place when the feature is created.			
CREATE_DATE	Create Date	DATE	Database maintained field. Updates to the current data/time. Update takes place when the feature is created.			
UPDATE_BY	Update By	VARCHAR2	Database maintained field. Updates to the user name that most recently updated either an attribute or the geometry of the feature. Update takes place when the feature is created and/or changed.			
UPDATE_DATE	Update Date	DATE	Database maintained field. Updates to the current data/time when an attribute or the geometry of the feature is changed. Update takes place when the feature is created and/or changed.			
STATUS	Status	VARCHAR2	Indicates the status of feature. A pick list is used for this field - contact GIS for pick list values.	GISStatusAbandoned	ACTIVE	ABANDONED; ACTIVE; UNKNOWN
STATUS_DATE	Status Date	DATE	Database maintained field. Updates to the current date/time when the STATUS field value is changed.			
SOURCE	Source	NUMBER	GIS maintained field. Source EDRA (Electronic Document Registration Application) document number, or name of department or specific staff member that the information came from.			
SOURCE_DATE	Source Date	DATE	GIS maintained field. Date of the source document or information.			

Column Name	Alias	Data Type	Comments	Domain Name	Default value	Domain Values
PARENTID	Parentid	NUMBER	Input by GIS staff. Used when an an existing water main is split for any number of reasons. Usually this occurs when another, typically new, pipe tees into it. The existing record is split into 2 or more individual records. The longest single existing record retains its WATMAINID value and no value is entered into PARENTID, however for each of the remaining shorter existing records the original WATMAINID value is copied into the PARENTID field, their WATMAINID values are deleted and the database generates new WATMAINIDs for the 2 or more new shorter records. This is done so that information, such as work orders, could be linked back to the records that have new WATMAINID values.			
PRESSURE_ZONE	Pressure Zone	VARCHAR2	Input by GIS staff. Pressure zone that the main fall in.	WatPressureZone		BRESLAU NORTH; KIT 5; KIT 6; MANNHEIM; MANN_Z5; RAW NO ZONE; UNKNOWN; VICTORIABURG; WAT 4; WAT 5 ...See GIS for a complete list...
ROADSEGMENTID	Roadsegmentid	NUMBER	Input by GIS staff. ROADSEGMENTID of the GIS_DATA.ROADSEGMENT layer feature that the majority of the gas main follows . A value of -1 indicates that the feature does not follow a road. Roadsegments must have a CATEGORY value of 'HIGHWAY' , 'RAMP' , 'ROAD' , or 'ROUNDABOUT' and a STATUS value of 'ACTIVE' , 'PLANNED' , or 'REGISTERED'.			
MAP_LABEL	Map Label	VARCHAR2	Database maintained field. Combines the GIS length, and the DIAMETER and MATERIAL field values.			
TAG1	Tag1	VARCHAR2	Temporary location to store short term data for mapping purposes only.			
SHAPE	SHAPE	ST_GEOMETRY	ESRI system maintained field. Stores the geometry type and geometry of the feature.			
CATEGORY	Category	VARCHAR2	Primary mapping field of the layer. Valid category values are:TREATED,UNKNOWN,UNTREATED	WatMainTreated	TREATED	TREATED; UNKNOWN; UNTREATED

Column Name	Alias	Data Type	Comments	Domain Name	Default value	Domain Values
MATERIAL	Material	VARCHAR2	Provided through as-built plan or digital submission. Material of the water main. The default value is 'TO INPUT'. The value 'UNKNOWN' indicates that the material was not given or is unknown.	WatMainMaterial	XXX	AC - ASBESTOS CEMENT; DI - DUCTILE IRON; HDPE - HIGH DENSITY POLYETHYLENE; HDPE IN CI - HIGH DENSITY POLYETHYLENE IN CAST IRON; PVC - POLYVINYL CHLORIDE; PVCB - POLYVINYL CHLORIDE BIONAX; PVCF - POLYVINYL CHLORIDE FUSIBLE; PVCO - POLYVINYL CHLORINE ORIENTATED; ST - STEEL; XXX - UNKNOWN ...See GIS for a complete list...
LINED	Lined	VARCHAR2	Indication if the main has been lined for rehabilitation life extension or not.	YesNoLong	NO	NO; UNKNOWN; YES
LINED_DATE	Lined Date	DATE	Date the life extension rehabilitation was performed.			
LINED_MATERIAL	Lined Material	VARCHAR2	Material used for life extension rehabilitation.	WatMainLineMaterial	NONE	CEMENT; EPS - EPOXY STRUCTURAL; HDPE - HIGH DENSITY POLYETHYLENE; NONE
INSTALLATION_DATE	Installation Date	DATE	Date the feature was installed			
ACQUISITION	Acquisition	VARCHAR2	Input by GIS staff. Identification of how the city received or acquired the feature. If the feature came through the subdivision process it is considered 'DONATED' and if not it is 'PURCHASED'	PSABAcquisition	DONATED	DONATED; PURCHASED
KU_NOTES	Ku Notes	VARCHAR2	Input by Utilities staff. Open text field for notes.			
ENGINEERING_NOTES	Engineering Notes	VARCHAR2	Input by Engineering staff. Open text field for notes.			
CONSULTANT	Consultant	VARCHAR2	Name of the consultant that constructed the main.			

Column Name	Alias	Data Type	Comments	Domain Name	Default value	Domain Values
OWNERSHIP	Ownership	VARCHAR2	Asset Owner: Who owns the feature, Generally Government agencies such as CITY, REGION and MTO and private citizens and businesses shown as PUBLIC. This usually relates to the property the asset sits on.	OwnershipClass	KITCHENER	CAMBRIDGE; DUAL CITY AND REGION; DUAL CITY AND WRDSB; PRIVATE; REGION; SCHOOL BOARD; UNKNOWN; WATERLOO; WELLESLEY; WILMOT ...See GIS for a complete list...
BRIDGE_MAIN	Bridge Main	VARCHAR2	Indication if the main is located on a bridge.	YesNo	N	N - NO; U - UNKNOWN; Y - YES
BRIDGE_DETAILS	Bridge Details	VARCHAR2	Details of the main located on a bridge.			
CRITICALITY	Criticality	NUMBER	Value calculated/assigned by the Region of Waterloo to indicated the level of criticality of the main.	WaterCriticality	-1	-1; 10; 2; 3; 4; 5; 6; 7; 8; 9 ...See GIS for a complete list...
REL_CLEANING_AREA	Rel Cleaning Area	VARCHAR2	Related watermain cleaning main area.	WatMainCleanMainArea	0	0; 1; 2; 3; 4; 5; 6
REL_CLEANING_SUBAREA	Rel Cleaning Subarea	VARCHAR2	Related watermain cleaning sub area.	WatMainCleanSubArea	0	0; 41; 42; 43; 44; 45; 46; 47; 48; 49 ...See GIS for a complete list...
FROZEN_SERVICES	Frozen Services	VARCHAR2	Indication if any service pipes associated with the main have been frozen during winter.	YesNo	N	N - NO; U - UNKNOWN; Y - YES
INFRASTRUCTURE_EXPOSED	Infrastructure Exposed	VARCHAR2	Indication if the main is exposed at the surface.	YesNo	N	N - NO; U - UNKNOWN; Y - YES
SANDBLASTED_SERVICES	Sandblasted Services	VARCHAR2	Indication if any service pipes associated with the main have been sandblasted.	YesNo	N	N - NO; U - UNKNOWN; Y - YES
SUSPECTED_LEAD	Suspected Lead	VARCHAR2	Indication if the material of any service pipes associated with the main are suspected to be lead.	YesNo	N	N - NO; U - UNKNOWN; Y - YES
WATER_QUALITY_ISSUE	Water Quality Issue	VARCHAR2	Indication if the main is associated with any water quality issues.	YesNo	N	N - NO; U - UNKNOWN; Y - YES
UNDERSIZED	Undersized	VARCHAR2	Indication if the main is undersized for what is required for this area.	YesNo	N	N - NO; U - UNKNOWN; Y - YES
SHALLOW_MAIN	Shallow Main	VARCHAR2	Indication if the depth of the main is shallow.	YesNo	N	N - NO; U - UNKNOWN; Y - YES
CONDITION_SCORE	Condition Score	NUMBER	Condition scoring calculated by Asset Management. The score was determined through a joint initiative with all municipalities, including the Region and is an internal metric with no additional information available		-1.0	

Column Name	Alias	Data Type	Comments	Domain Name	Default value	Domain Values
OVERSIZED	OVERSIZED	VARCHAR2	Indication if the diameter of the main is oversized from the standard size.	YesNo	N	N - NO; U - UNKNOWN; Y - YES
CLEANED	CLEANED	VARCHAR2		YesNoOnly	N	No; Yes
PIPE_SIZE	Pipe size	NUMBER		WatPipeSizeInt	0	0; 1200; 19; 300; 350; 400; 450; 600; 750; 900 ...See GIS for a complete list...

**\*Layer Quality:**

SCHEMATIC - spatial representation of features are not to scale and not in accurate relative position to other features on other layers.

GENERALIZED - position of features are approximate, should not be used in conjunction with base layers (parcel fabric or Ortho-imagery)

GOOD - position of features are usually based on relative position to base layers (Ortho-imagery or parcel fabric)

Note: Dataset may not include all fields: Open Data layers will only include fields approved for sharing as open data

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