

Land Information Ontario Data Description

Waterpower Generation Station

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LIO Class Catalogue

Waterpower Generation Station

Class Short Name: WPGENSTN

Version Number: 3

Class Description:

A waterpower generation station is a facility that is used for the generation of electricity from water.

Abstract Class Name: SPSPNT

Abstract Class

Description:

Spatial Single-Point: An object is represented by ONE and ONLY ONE point. Examples: A cabin, bird nest, tower.

Tables in LIO Class:

Waterpower Generation Station

WPOWER_GENERATION_STATION_FT

A facility that is used for the generation of electricity from water.

Column Name	Column Type	Mandatory	Short Name	Valid Values
OGF_ID	NUMBER(13,0)	Yes	OGF_ID	
The system generated identifier, unique at the application level.				
SITE_IDENT	VARCHAR2(10)	Yes	SITE_IDENT	
The identifier assigned to a specific hydraulic site. The first three characters in the identifier represent the watershed and sub-watershed in which the site is located. The last one or two digits in the number are the site location within that watershed, e.g. site 4MC02 is in watershed number 4MC and at site number 2 in the watershed.				
SITE_NAME	VARCHAR2(100)	Yes	SITE_NAME	
The name of the hydraulic site.				
WATERSHED_BASIN	VARCHAR2(100)	No	WATERSHED	
The watershed basin in which the Waterpower Generation Station is located. It is preferable to use the official name for the watershed if it exists which is the name formally laid down, sanctioned, or imposed by a governing body.				
WATERBODY_NAME	VARCHAR2(100)	No	WBODY_NAME	
The name of the waterbody. It is preferable to use the official name for the waterbody if it exists which is the name formally laid down, sanctioned, or imposed by a governing body.				
HEAD_MEASUREMENT	NUMBER(5,2)	Yes	HEAD_MEAS	
The hydraulic head measured in metres.				
FOREBAY_NORMAL_WATER_LEVEL	NUMBER(10,2)	No	NORM_LEVEL	
The normal water level in the impoundment immediately above a dam or hydroelectric plant intake structure. The term is applicable to all types of hydroelectric developments (i.e., storage, run-of-river and pumped storage). It is measured in metres.				
DRAINAGE_AREA	NUMBER(8,2)	No	DRAIN_AREA	
The geographic area supplying runoff to a particular point on a stream equal to the area of all the catchments associated with upstream stream reaches supplying flow to the point. The area, measured in square kilometres, from which the potential hydropower site would receive water.				
YEAR_BUILT	NUMBER(4,0)	Yes	YEAR_BUILT	
The year the facility was built.				
OPERATION_TYPE	VARCHAR2(50)	Yes	OPER_TYPE	Base Load Plant,Conventional Plant,Peak Load Plant,Pumped-Storage Plant,Run-of-River Plant,Intermediate Plant

Identifies the type of Waterpower Generation Station:Potential entries include:Base Load Plant: Waterpower facility which is normally operated to carry base load and which, consequently, operates essentially at a constant load.Conventional Plant: Waterpower facility utilizing falling water only once as it passes downstream, as opposed to either a pump-back or pumped-storage plant which recirculates all or a portion of the streamflow during the production of electric power.Peak Load (or Peaking) Plant: Waterpower facilities that are usually located on larger dams with larger capacity reservoirs. Inflows can be stored for several days or more, and subsequently released during concentrated discharge peaks at peak energy demands.Pumped-Storage Plant: Waterpower facility that generates electric energy for peak load use by utilizing water pumped into a storage reservoir, usually during off-peak periods. The two major types of pumped-storage hydroelectric plants are pump-back and off-stream pumped-storage plants.Run-of-River Plant: Waterpower facilities that are usually located on small dams with little or no upstream storage capacity. The regulated flow uses a discharge rate equivalent to the head pond inflows, thus passing water

through their turbines without appreciable changes in river flow. Intermediate Plant: Run of River Facility with peaking capabilities. Waterpower facilities that are capable of storing a portion of the daily head pond inflows by discharging less water during off-peak periods than the rate of inflows to the head pond.

REMOTE_OPERATION_IND	VARCHAR2(3)	No	REMOTE_IND	Yes,No
Indicates if the waterpower generation station is operated from a remote location.				
POWERHOUSE_TYPE	VARCHAR2(25)	No	PH_TYPE	Indoor,Semi- Outdoor,Outdoor,Underground
There are four types of powerhouse structures, three of which are classified according to how the main generating units are housed: Indoor - This type of structure encloses all of the powerhouse components under one roof. Semi- Outdoor - This powerhouse has a fully enclosed generator room. The main hoisting and transfer equipment is located on the roof of the plant and equipment is handled through hatches located in the roof. Outdoor - A generator room is not provided with this type of powerhouse structure. Generators are enclosed in weatherproof individual cubicles or enclosures and are recessed into the powerhouse floor. Underground - It is also used to minimize penstock length in these areas because it can often be located directly below the reservoir. Pumped storage powerhouses are often located underground in order to shorten the penstock and obtain deep settings on the turbines.				
POWERHOUSE_LENGTH	NUMBER(10,2)	No	PH_LENGTH	
The distance from one end of the powerhouse to the other, measured in metres along the longest side.				
POWERHOUSE_WIDTH	NUMBER(10,2)	No	PH_WIDTH	
The distance from one side of the powerhouse to the other, measured in metres along the shortest side.				
TOTAL_NUMBER_OF_TURBINES	NUMBER(2,0)	No	NUM_TURB	
The total number of turbines located in the waterpower generation station.				
INSTALLED_POWER_CAPACITY	NUMBER(10,2)	No	CAPACITY	
The sum of the capacities in a power plant or power system, as shown by the nameplate ratings of similar kinds of apparatus, such as generating units, turbines, or other equipment. It is measured in Megawatts (MW).				
PRODUCTION_AVERAGE	NUMBER(10,2)	No	PROD_AVE	
The average amount of electricity produced measured in GWh.				
ANNUAL_GENERATION	NUMBER(10,2)	No	ANNUAL_GEN	
The total amount of electricity produced at the generation station over the course of one year measured in GWh.				
WPOWER_RESERVOIR_ID	NUMBER(13,0)	No	RESERV_ID	
The system generated identifier, unique at the application level corresponding to the waterbody on which the reservoir is located.				
SOURCE_DETAIL	VARCHAR2(254)	No	SRC_DETAIL	
LOCATION_ACCURACY	VARCHAR2(25)	Yes	ACCURACY	Not Applicable, Over 10,000 metres, Within 1 metre, Within 10 metres, Within 10,000 metres, Within 100 metres, ... (See LOCATION_ACCURACY_LIST table)
The degree of conformity or closeness of a measurement within the database to its true value in the world.				
GEOMETRY_UPDATE_DATETIME	DATE	No	GEO_UPD_DT	
Date/time the geometry was created or last modified in the source database.				
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	
Date/time the record was created or last modified in the source database.				
SHAPE	SDO_GEOMETRY	No	SHAPE	

Geometry attribute.

CLASS_DATABASE_REFERENCE

A link to an external database or an internal object in the same database.

Column Name	Column Type	Mandatory	Short Name	Valid Values
OGF_ID	NUMBER (13,0)	Yes	OGF_ID	
A unique numeric provincial identifier assigned to each object.				
INTERNAL_EXTERNAL_FLG	VARCHAR2 (10)	Yes	INT_EXT	Internal, External
A flag indicating if the database being referenced is internal (NRVIS/LIO) or external.				
DATABASE_REFERENCE_IDENT	VARCHAR2 (50)	Yes	IDENT	
Identifier of a reference that is linked e.g. Land Use Permit Number, LIS Number, the FMF Object ID of a Concrete Class.				
CLASS_SHORT_NAME	VARCHAR2 (8)	Yes	CLASS_NAME	
Static short name that will be used by for the concrete class.				
DATABASE_REFERENCE_DETAIL	VARCHAR2 (2000)	No	DETAIL	
Details on the rationale, use, dependency, or comments on the database reference. If a dependence on other data class geometry exists, this can be identified in this field.				
RELATED_CLASS_SHORT_NAME	VARCHAR2 (8)	No	CLASS_NAME	
The static short name that is used by the related concrete class.				
EXT_REF_TYPE_CODE	VARCHAR2 (8)	No	EXT_TYPE	
The type of external database that the identifier pertains to e.g. LUPS, LIS, etc.				
TYPE_OTHER_DESCR	VARCHAR2 (60)	No	OTH_DESCR	
A full description of the type when set to "other".				
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	
Date/time the record was created or last modified in the source database.				

LOCATION_ACCURACY_LIST

List of valid LOCATION_ACCURACYs.

Column Name	Column Type	Mandatory	Short Name	Valid Values
LOCATION_ACCURACY	VARCHAR2 (25)	Yes	ACCURACY	
The accuracy of the location of the feature at an OBM scale. The degree of conformity or closeness of a measurement to the true value.				
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	
Date/time the record was created or last modified in the source database.				
EXPIRY_DATETIME	DATE	No	EXP_DATE	

Date/time that the record was expired from use.

WPOWER_RESERVOIR

A reservoir is a natural or man-made body of water, replenished by rain and river or stream flow, which is formed after a dam is built on a river, and is used for the collection and storage of water. A dam is a structure formed to hold water back, and is generally built near uncontaminated water collection sources in order to provide a drinking water supply to the surrounding communities. In addition to providing municipal water supplies, reservoirs provide recreational areas, are used for irrigation, hydroelectric and flood control.

Column Name	Column Type	Mandatory	Short Name	Valid Values
OGF_ID	NUMBER (13,0)	Yes	OGF_ID	
System generated identifier, unique at the application level.				
RESERVOIR_NAME	VARCHAR2 (100)	Yes	NAME	
The name of the reservoir.				
RESERVOIR_PURPOSE	VARCHAR2 (25)	No	PURPOSE	Flood Control,Navigation, Waterpower, Irrigation,Municipal Water Supply, Industrial Water Supply,Recreation
The purpose of the reservoir.				
OPERATIONAL_FLOW_LIMITATIONS	NUMBER (10,2)	No	FLOW_LIMIT	
Restrictions on the rate of water being discharged from the dam reservoir measured in cubic meters per second as part of the normal dam functions.				
LICENCED_FLOW_RESTRICTIONS	NUMBER (10,2)	No	FLOW_REST	
Restrictions on the rate of water being discharged from the dam reservoir measured in cubic meters per second as part of the license agreement for the production of hydro power.				
LICENCED_FLOW_RATIONALE	VARCHAR2 (2000)	No	FLOW_RAT	
Reason for the restricted flow for the dam reservoir as part of the hydro power licensing agreement.				
LICENCED_DRAWDOWN_RATIONALE	VARCHAR2 (2000)	No	DRAWD_RAT	
Reason for the restricted drawdown levels for the dam reservoir as part of the hydro power licensing agreement.				
NORMAL_DRAWDOWN_LEVELS	NUMBER (10,2)	No	DRAWD_NORM	
The distance that the water surface elevation of a storage reservoir is lowered from a given or starting elevation as a result of the withdrawal of water to meet some project purpose (i.e., power generation, creating flood control space, irrigation demand, etc.). It is measured in metres.				
LICENCED_DRAWDOWN_RESTRICT	NUMBER (10,2)	No	DRAWD_REST	
Restrictions in the amount of drawdown (difference between static and operating surface water levels) that can be used due to hydro power licensing. It is measured in metres.				
SURFACE_AREA	NUMBER	No	AREA	

(10,2)

The area of the surface of the headpond or reservoir measured in hectares.

HEADPOND_OR_RESERVOIR_VOLUME	NUMBER (10,2)	No	VOLUME
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Amount of space occupied by the headpond or reservoir as measured in cubic units (metres).

CATCHMENT_AREA	NUMBER (10,2)	No	CATCH_AREA
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The area drained by a river or body of water. It may be measured in ha or km2.

CATCHMENT_AREA_UNIT_OF_MEAS	VARCHAR2 (10)	No	CATCH_MEAS	ha,km2
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The list of possible units of measure for the Catchment Area. e.g. km2 for square kilometres, ha for hectare.

AREA_FLOODED_BY_DAM	NUMBER (10,2)	No	AREA_FLOOD
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Area downstream from a dam that potentially could be flooded if the water flow exceeded the capacity of the dam. It is measured in hectares or square kilometres.

AREA_FLOODED_UNIT_OF_MEAS	VARCHAR2 (10)	No	AREA_MEAS	ha,km2
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The list of possible units of measure for the area flooded by the dam. e.g. km2 for square kilometres, ha for hectare.

LIVE_STORAGE_VOLUME_AVAILABLE	NUMBER (5,0)	No	VOL_AVAIL
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The volume of a reservoir that is available for power irrigation, flood control, or other purposes. Active storage excludes flood surge. All values are multiples of 10^6 m³. For example, a value of 427 equates to 427×10^6 m³.

LIVE_STORAGE_VOLUME_UTILIZED	NUMBER (5,0)	No	VOL_UTIL
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The volume of a reservoir presently used for power production. All values are multiples of 10^6 m³. For example, a value of 427 equates to 427×10^6 m³.

WATERBODY_MEAN_DEPTH	NUMBER (5,2)	No	MEAN_DEPTH
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The mean depth of the waterbody measured in metres (m).

WATERBODY_MAXIMUM_DEPTH	NUMBER (5,2)	No	MAX_DEPTH
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The maximum depth of the waterbody measured in metres (m).

YEAR_BUILT	NUMBER (4,0)	No	YEAR_BUILT
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The year the facility was built.

RESERVOIR_ELEVATION	NUMBER (10,0)	No	ELEVATION
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Amount in metres that a geographic entity is above mean sea level.

WATERBODY_ID	NUMBER (13,0)	No	WBODY_ID
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The system generated identifier, unique at the application level corresponding to the waterbody on which the reservoir is located.

EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE
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Date/time the record was created or last modified in the source database.

WPOWER RESERVOIR OPERATOR

Column Name	Column Type	Mandatory	Short Name	Valid Values
WPOWER_RESERVOIR_ID	NUMBER (13,0)	Yes	RESERV_ID	
The FMF Object Id of the associated Reservoir.				
RESERVOIR_OPERATOR	VARCHAR2 (50)	Yes	OPERATOR	
The operator of the reservoir.				
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	
Date/time the record was created or last modified in the source database.				

WPOWER_STATION_LEASE

A form of tenure used to authorize the "footprint" of the waterpower facility. Water Power Lease Agreements (WPLA) are issued under the authority of Section 42 of the Public Lands Act, and at present, all WPLAs are required to have a signed Order in Council approving their terms and conditions.

Column Name	Column Type	Mandatory	Short Name	Valid Values
WPOWER_GENERATION_STATION_ID	NUMBER (13,0)	Yes	STATION_ID	
The FMF Object Id of the associated Waterpower Generation Station.				
LEASE_IDENT	VARCHAR2 (10)	Yes	IDENT	
A numeric business identifier in Land Information System.				
LEASE_TYPE	VARCHAR2 (30)	Yes	TYPE	Waterpower Lease Agreement, Waterpower Lease, Crown Lease, Water Lot, Land Use Permit (LUP)
The type of waterpower tenure. Valid Values: Waterpower Lease Agreement, Waterpower Lease, Crown Lease, Water Lot, Land Use Permit (LUP)				
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	
Date/time the record was created or last modified in the source database.				

WPOWER_STATION_OWNER

The owner of the waterpower generation station.

WPOWER_STATION_PENSTOCK

A penstock is a conduit that conveys water from a reservoir, forebay, or other source to a hydraulic turbine in a hydroelectric powerplant.

Column Name	Column Type	Mandatory	Short Name	Valid Values
WPOWER_GENERATION_STATION_ID	NUMBER (13,0)	Yes	STATION_ID	
The FMF Object Id of the associated Waterpower Generation Station.				
PENSTOCK_NUM	NUMBER (4,0)	Yes	NUM	
A number used to identify a penstock at a waterpower generation station.				
PENSTOCK_TYPE	VARCHAR2 (25)	No	TYPE	Flume,Pipe,Tunnel
The type of penstock that is being used to convey water from a reservoir, forebay, or other source to a hydraulic turbine in a hydroelectric powerplant.				
PENSTOCK_MATERIAL	VARCHAR2 (25)	No	MATERIAL	Concrete,Wood,Metal
The material that a penstock is constructed of.				
PENSTOCK_LENGTH	NUMBER (10,2)	No	LENGTH	
The length of the penstock from the reservoir to the turbine(s) in the waterpower generation station. It is measured in metres.				
PENSTOCK_DIAMETER_WIDTH	NUMBER (10,2)	No	DIAM_WIDTH	
The width or diameter of the penstock measured in metres.				
PENSTOCK_DEPTH	NUMBER (10,2)	No	DEPTH	
The depth of the penstock measured in metres.				
PENSTOCK_PRESSURE_RATING	NUMBER (10,2)	No	PRESSURE	
The pressure rating for a penstock. It is measured in kPA.				
PENSTOCK_COMMENTS	VARCHAR2 (2000)	No	COMMENTS	
Unstructured description, additional notes, or further explanation.				
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	
Date/time the record was created or last modified in the source database.				

WPOWER_STATION_PLANT_EQUIPMENT

The equipment that is installed in a waterpower generation station for the purpose of generating electricity. If there is a turbine there is usually an associated generator.

Column Name	Column Type	Mandatory	Short Name	Valid Values
OGF_ID	NUMBER (13,0)	Yes	OGF_ID	
System generated identifier, unique at the application level.				
WPOWER_GENERATION_STATION_ID	NUMBER (13,0)	Yes	STATION_ID	

The FMF Object Id of the associated Waterpower Generation Station.

TURBINE_INSTALL_YEAR	NUMBER (4,0)	No	TURB_YEAR
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The year that the equipment was installed.

TURBINE_TYPE	VARCHAR2 (50)	No	TURB_TYPE	Impulse Turbine,Pump Turbine (Reversible Turbine),Reaction Turbine
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The type of turbine installed in the waterpower generation station. Potential types include: Impulse Turbine: A turbine which utilizes the kinetic energy of a high velocity water jet to produce power. Pump Turbine (Reversible Turbine): A hydraulic turbine, normally installed in a pumped-storage plant, which can be used alternately as a pump and prime mover (turbine). Reaction Turbine: A turbine which utilizes both kinetic energy and the pressure of the water column for producing power. Francis, Kaplan, and fixed-blade turbines are all reaction turbines.

TURBINE_MACHINE_SPEED	NUMBER (10,2)	No	TURB_SPEED
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Rotational speed of the turbine in RPM.

TURBINE_DISCHARGE_CAPACITY	NUMBER (10,2)	No	TURB_CAP
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The maximum flow of water that can pass through the turbine. It is measured in cms (cubic metres per second).

TURBINE_MANUFACTURER	VARCHAR2 (50)	No	TURB_MANUF
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The name of the manufacturer who built the turbine.

GENERATOR_TYPE	VARCHAR2 (50)	No	GEN_TYPE	Synchronous Generator,Induction Generator
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The type of generator installed in the waterpower generation station. Potential types include: Synchronous Generator : the synchronous generator is synchronized to the power system voltage, frequency, and phase angle before the generator is tied into the power grid. Synchronous generators are used in power systems where the generator output provides a significant portion of the power system load. Most generators larger than 2 MW are synchronous because they are capable of correcting the power factor of the system caused by inductive loads (rotors). Induction Generator: the induction generator also consists of two parts, a rotor and a stator. The major difference between the induction and synchronous generators is that the induction generator cannot generate while disconnected from the power system, because it is incapable of providing its own excitation current. Induction generators and their associated electrical equipment are less expensive than synchronous generators but are generally limited to capacities of less than 5 MW.

ORIGINAL_NAMEPLATE_CAPACITY	NUMBER (10,2)	No	ORIG_CAP
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The capacity of the generator as shown on the original nameplate measured in kW.

GENERATOR_MANUFACTURER	VARCHAR2 (50)	No	GEN_MANUF
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The name of the manufacturer who built the turbine.

GENERATOR_INSTALL_YEAR	NUMBER (4,0)	No	GEN_YEAR
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The year the generator was installed.

EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE
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Date/time the record was created or last modified in the source database.

WPOWER_STATION_WATER_FLOW

Values describing the flow of water through a dam. All flows are measured in cubic metres per second.

Column Name	Column Type	Mandatory	Short Name	Valid Values
WPOWER_GENERATION_STATION_ID	NUMBER (13,0)	Yes	STATION_ID	
The FMF Object Id of the associated Waterpower Generation Station.				
SEASON_START_DATE_DESCR	VARCHAR2 (50)	Yes	START_DATE	
Describes when the first season will start. For example: May 11 (2nd Sat) This field may also contain "Open All Year" if the fishing season is inclusive from Jan 1 to Dec 31. If a season is open all year except for 1 day, such as Dec 24 then it is recommended that Fishing Season should be entered as 2 seasons. (Jan 1 - Dec 23 and Dec 25 - Dec 31).				
SEASON_END_DATE_DESCR	VARCHAR2 (50)	No	END_DATE	
Describes when the first season will end. For example: May 31 (last Sat)				
WATER_FLOW_CONSTRAINT	VARCHAR2 (100)	No	CONSTRAINT	
Describes the constraints that may in place.				
MINIMUM_WATER_FLOW_RATE	NUMBER (10,2)	Yes	MIN_FLOW	
The minimum rate of flow of water in cubic metres per second through the dam.				
MAXIMUM_WATER_FLOW_RATE	NUMBER (10,2)	Yes	MAX_FLOW	
The maximum rate of flow of water in cubic metres per second through the dam.				
RAMPING_RATE	NUMBER (10,2)	No	RAMP_RATE	
Ramping rate is the rate of change of flow either increasing (up-ramping) or decreasing (down ramping) and is analogous to the rising and falling limbs associated with a rain event on a natural hydrograph. It is measured in cubic metres per second.				
RIPARIAN_FLOW	NUMBER (8,2)	No	RIPAR_FLOW	
Riparian flows are overbank events that occur with a frequency of between 1:2 and 1:20 year return period (that is, an event that occurs once every two to twenty years) (MNR 1994). It is measured in cubic metres per second.				
BANKFULL_FLOW	NUMBER (8,2)	No	BANK_FLOW	
Bankfull flow is the discharge at which water just begins to enter the floodplain (Annable 1996). This discharge, and its magnitude, duration and timing, represents the dominant or channel forming flow that characterizes the channel morphology (MNR 1994). Bankfull discharge occurs with a frequency of 1:1 or 1:1.5 years (yearly or every year and a half) depending on the stream type and basin condition (MNR 1994). It is measured in cubic metres per second.				
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE	
Date/time the record was created or last modified in the source database.				

WPOWER_STATION_WATER_LEVEL

Description of water level for operating a dam or reservoir.

Column Name	Column Type	Mandatory	Short Name	Valid Values
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WPOWER_GENERATION_STATION_ID	NUMBER (13,0)	Yes	STATION_ID
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The FMF Object Id of the associated Waterpower Generation Station.

SEASON_START_DATE_DESCR	VARCHAR2 (50)	Yes	START_DATE
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Describes when the first season will start. For example: May 11 (2nd Sat) This field may also contain "Open All Year" if the fishing season is inclusive from Jan 1 to Dec 31. If a season is open all year except for 1 day, such as Dec 24 then it is recommended that Fishing Season should be entered as 2 seasons. (Jan 1 - Dec 23 and Dec 25 - Dec 31).

SEASON_END_DATE_DESCR	VARCHAR2 (50)	No	END_DATE
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Describes when the first season will end. For example: May 31 (last Sat)

WATER_LEVEL_CONSTRAINT	VARCHAR2 (100)	No	CONSTRAINT
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Describes the restrictions for water levels for a dam or reservoir. These may include flood allowance, energy emergency operations, winter period, pickerel spawning range etc.

MAXIMUM_WATER_LEVEL	NUMBER (10,2)	Yes	MAX_LEVEL
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The maximum water level (m) for a dam for a specific period.

TARGET_WATER_LEVEL	NUMBER (10,2)	No	TARG_LEVEL
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The target water level (m) for a dam for a specific period.

MINIMUM_WATER_LEVEL	NUMBER (10,2)	Yes	MIN_LEVEL
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The minimum water level (m) for a dam for a specific period.

COMMENTS	VARCHAR2 (2000)	No	COMMENTS
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Unstructured description, additional notes, or further explanation.

EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE
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Date/time the record was created or last modified in the source database.

LIO Lookup Table Values:

LOCATION_ACCURACY_LIST

LOCATION ACCURACY	EXPIRY DATETIME
Not Applicable	
Over 10,000 metres	
Within 1 metre	
Within 10 metres	
Within 10,000 metres	
Within 100 metres	
Within 1000 metres	
Within 2 metres	
Within 20 metres	
Within 200 metres	
Within 2000 metres	
Within 5 metres	
Within 50 metres	
Within 500 metres	
Within 5000 metres	
AC Accurate (to 10m)	2007-01-12
AP Approximate (to 500m)	2007-01-12
GE General (to 10,000m)	2007-01-12
MO Moderate (to 1000m)	2007-01-12
RE Reliable (to 100m)	2007-01-12
VA Very Accurate (to 2m)	2007-01-12
VG Vague (to 100,000m)	2007-01-12
^ Data Load	2007-01-12