GRCA Metadata

Name: **Surface Hydrology - Waterbody**

Production

General Description

Full Name	WATERBODY
Abstract	The Grand River Conservation Authority (GRCA) maintains a large-scale, fully connected, 3D network representing surface water hydrology in the Grand River watershed. The Waterbody layer represents surface water hydrology features such as ponds, reservoirs, wide sections of a watercourse (double-line stream), and more. Some uses of this layer include showing surface water drainage features, and area/volume estimates for modeling. As well, a subset of these features are considered 'Regulated Watercourse' as described in Ontario Regulation 41/24. An associated 'Regulation Flag' attribute is included to identify these features. Also includes, where available, waterbody name. Refer to the Attributes section of the metadata for details. The Waterbody layer complements the Watercourse layer, a fully connected, 3D linear network representing hydrologic flow through the Grand River watershed. IMPORTANT NOTE: The text of Ontario Regulation 41/24 supersedes the mapping as represented by the 'Regulated Watercourse' subset. In the event of a conflict a site specific determination may be made by GRCA staff.
Feature Type	Polygon
Location	SDE_GRCA
Geographic Extent	GRCA Watershed
Maintenance Status	Quarterly

Georeferencing and Accuracy

Horizontal Datum	North American Datum 1983 (EPSG: 6269)
Vertical Datum	CGVD28 (EPSG: 5114-datum)
Spatial Projection	NAD83 UTM Zone 17N (EPSG: 26917)

Data Sources and Restrictions

Access Constraint	GRCA Open Data Licence v2
Use Constraint	None - in accordance with licence agreement
Citation	Produced using information under License with the Grand River Conservation Authority © Grand River Conservation Authority, 20** [** insert year of publication of IP].
Agency Originator	Grand River Conservation Authority (GRCA)
Agency Distributor	Grand River Conservation Authority (GRCA)
Online Link	https://data.grandriver.ca/downloads-geospatial.html
Methodology	The data capture approach is partially based on MNRF's "Large Scale Data Capture Specification for Hydrographic Features" technical documentation. The main hydrographic classes are "watercourse" and "waterbody". Water features that meet minimum width requirements (>30m wide continuous) are captured as waterbodies (polygons); otherwise they are captured as watercourses (line). In addition, most waterbodies have one or more watercourse ("virtual flow") features within them, to provide continuity to the flow network. Surface hydrology is digitized in a 3D stereo viewing system using DAT/EM Summit Evolution softcopy, Planar stereo monitor, and a 3D mouse coupled with ArcGIS.
Supplemental Info	Data available for download via data.grandriver.ca is 2D.
Related Documents	Data Capture Specifications for Hydrographic Features [internal] Large Scale Hydrology Data Capture User Guide [internal] GRCA Surface Hydrology and Regulations v4 [internal]

Attributes

Full Name	Alias name	Description and Values
OBJECTID	Object ID	System-managed unique identifier

Full Name	Alias name	Description and Values
WATERBODY_TYPE	Waterbody Type	The nature of a body of water defined according to its water velocity and usage. • Beaver Pond: A pond area created by beaver activity • Canal: An artificial body of water serving as a navigable waterway or to channel water • Lake: A natural and usually flat, open body of water (does not include marshes, bogs, fens, etc.) • Liquid Waste: Liquid waste or discharge from an industrial complex, mine tailings, slurries from quarry activities, or sewage treatment plant • Ocean: A coastal waterbody (e.g., James Bay, Hudson Bay) • Pond: A body of standing water, usually smaller than a lake. This feature type is to be used to differentiate non-lake features from lakes, including irrigation ponds, old gravel pit or quarry, etc • Reservoir: A wholly or partially manmade body of water for storing and/or regulating and controlling water • River: A natural body of water through which water may flow. This feature type is captured as a polygon due to its width being greater than 15m (continuous) • Side Channel: A channel providing an alternative flow route adjacent to a flowing body of water. Is also referred to as a diversion channel • SWM Pond: Storm Water Management pond • Tidal River: A natural body of water in which flow and water surface elevation are affected by the tide
CAPTURE_METHODOLOGY	Capture Method	Capture methodology (Acquisition technique) - Aerial refers to raw scans used in 3D software - Ortho refers to processed (orthorectified) imagery used in GIS software. • Brant 2017 Ortho: Brant 2017 Ortho • GPS: GPS • KWCG 2019 Ortho: KWCG 2019 Ortho • KWCG 2021 Ortho: KWCG 2021 Ortho • Other: Other • RMOW 2018 Ortho: RMOW 2018 Ortho • SWOOP 2006 Aerial: SWOOP 2006 Aerial • SWOOP 2006 Ortho: SWOOP 2006 Ortho • SWOOP 2010 Aerial: SWOOP 2010 Aerial • SWOOP 2010 Ortho: SWOOP 2010 Ortho • SWOOP 2015 Aerial: SWOOP 2015 Aerial • SWOOP 2015 Ortho: SWOOP 2015 Ortho • SWOOP 2020 Aerial: SWOOP 2020 Aerial • SWOOP 2020 Ortho: SWOOP 2020 Ortho • Unknown: Unknown
SOURCE	Source	To capture the individual or data source of the digital information • GRCA: Grand River Conservation Authority • GTA: Greater Toronto Area
GENERAL_COMMENTS	Comments	Comments for hydrology editors
SHAPE	Shape	Feature Geometry
COMMON_NAME	Common Name	Known waterbody name
REGULATION	Regulation 41/24	Flag determining if the feature should be considered Regulated based on the text definition of Regulation 41/24 (formerly O.Reg.150/06) • 0: Non-regulated feature • 1: Regulated feature

Update History, last 5 (yyyy-mm-dd)

2026-09-28	Data Update: Site specific updates
2026-06-29	Data Update: Site specific updates
2025-11-28	Data Update: Various site specific updates
2025-09-28	Data Update: Site specific updates
2025-06-23	Data Update: Site specific updates

Contact Information

Contact	Supervisor of Geomatics

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