

# Drinking Water Facility Design Guidelines & Standards

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# A Brief History

- Previous versions of Design Guidelines (former RMOC, ESD: 1990) included both water and wastewater system design information
- Previous versions of Water Facilities Standard Design manual (former RMOC, ESD: 1994 to 1999) included drinking water applicable standards in 16 Division NMS format
- Current Scada Design Standards (Drinking Water), first in 1997, last revised 2016 (as ver. 5.1)
- Current Ottawa Design Guidelines – Water Distribution are generally specific to linear assets and not Water Treatment (i.e. facility or vertical) assets
- Water Services initiated an update, of the former RMOC Design Guidelines and Standards (for Drinking Water Facilities), in 2016, with the assistance of J.L. Richards & Associates Ltd., Golder Associates and several City staff
- Eslam Maher, as Project Manager, and Paul Montgomery, as Operation's Lead, finalized Drinking Water Facility Design Guidelines & Standards in 2020 (as Final Drafts)

# Scope of new Guidelines and Standards

- Applicable to new or upgraded / renewed Public (or future Public) Drinking Water Facilities, within the City of Ottawa
- Design Guidelines are not intended for renewal or upgrade projects, at the City's large Surface Water Treatment Plants (i.e. Britannia and Lemieux WPPs)
- Application of these Guidelines and Standards to private, decentralized water systems will be determined on a case-by-case basis, by the City
- Design Guidelines cover:
  - Design, Reviews, Approvals, Planning, QA/QC, General Design Considerations
  - 10 Process Sections, from Source Development to Residuals Management
- Design Standards cover:
  - Material and Equipment Standards (n.b. approximately 92 thus far, more will follow)
  - In NMS 16 Division format (n.b. provided as Standards, not full Contract Specifications)

# Other Notables

- Documents provide and make regular reference to (among others):
  - Design Guidelines for Drinking-Water Systems (MECP, 2019)
  - Recommended Standards for Water Works (10 State Standards, GLUMRB, 2018)
  - SCADA Design Standards (City of Ottawa, Drinking Water, 2016)
  - Design Guidelines – Water Distribution (City of Ottawa, 2010)
- Documents do not replace professional judgement and experience, in the design of drinking water systems

# Next Steps

- Completion of internal review with IWSD Guidelines and Standards Team
- Conversion of Final Draft Design Guideline document to AODA format
- Made available, to Design and Construction Communities, through usual channels, by Summer 2022

# Questions?

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