



SOUTHERN ONTARIO WATER CONSORTIUM

LE CONSORTIUM POUR L'EAU
DU SUD DE L'ONTARIO

A PLATFORM FOR RESEARCH,
DEVELOPMENT, TESTING &
DEMONSTRATION OF WATER
TECHNOLOGIES AND SERVICES



OVERVIEW OF GUELPH FACILITY

FOR RESEARCH AND DEMONSTRATION OF WASTEWATER TECHNOLOGIES



- ↻ Located at the Guelph Wastewater Treatment Plant
- ↻ Total building footprint ≈ 3750 ft²
- ↻ Access: 12'W x 12'H to main testing area; 8'W x 7'H to sludge room
- ↻ On-site parking
- ↻ Remote controlled pumps
- ↻ 5 testing stations available (Three main stations: ≈ 18'L x 14'W; Two sludge room stations: ≈ 14'L x 13'W)
- ↻ Access 24 hours per day, 7 days week

- ↻ Up to 0.16 MGD (US) of effluent delivered to the platform via 3 pipes:
 - Pipe 1: Secondary or Tertiary Effluent (50 usgpm)
 - Pipe 2: Raw Sludge (9 usgpm) or Waste Activated Sludge (20 usgpm)
 - Pipe 3: Raw Wastewater or Primary Effluent (40 usgpm)
- ↻ On-site ecotoxicology research facility
- ↻ Sample preparation space
- ↻ Winter heating and summer ventilation
- ↻ Potential for formal collaborations with researchers across SOWC
- ↻ Built in partnership with University of Guelph

Each station equipped with:

- ↻ A variety of wastewater streams available via 3 pipes; wastewater availability based on a first-come, first-served basis; one stream/station.
- ↻ Dedicated power connections: 120V; 208V, 30A, 3-Phase; 600V, 30A, 3-Phase
- ↻ Data and telephone ports
- ↻ Potable water connection (1" supply line)
- ↻ Instrument air connection

Electrical Safety Authority Field Evaluation is required

Additional services available:

- ↻ Sample transport analysis
- ↻ Report preparation
- ↻ Technical assistance/trouble-shooting
- ↻ Access to bench space in analytical labs
- ↻ GC/MS
- ↻ TOC Analyzer
- ↻ Real-time PCR machine
- ↻ Respirometer
- ↻ Microplate Reader

Lab Equipment

Two newly renovated SOWC Wastewater labs, located at the University of Guelph, are equipped with:

- ↻ GC/MS
- ↻ TOC Analyzer
- ↻ Real-time PCR machine
- ↻ Respirometer
- ↻ Spectrophotometer
- ↻ Microplate Reader
- ↻ Digital Fluorescence Microscope
- ↻ Millipore Water System
- ↻ Incubator/Incubator Shakers
- ↻ Bio-Safety Cabinet
- ↻ AirClean Systems Workstation
- ↻ Centrifuge
- ↻ Walk-in cold room, low and ultra-low temperature freezers for sample storage

For more information:

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Storage Room

Rest-room

Prep Room

MAIN PREPARATION A104

Testing Station

Main Testing Area

Testing Station

Main Testing Area

RESEARCH AREA A105

Testing Station

Main Testing Area

Prep Room

Ecotox Room

PREP RM STORAGE AREA A109

ECOTOX ROOM A108

MOP SINK (REFER TO MECH DWGS)

OUTLINE OF OVERHEAD DOOR

FLUORESCENT STORAGE CABINETS

STRUCT. FRAME

STRUCT. FRAME

PIPE ALARM ANNUNCIATOR PANEL (SEE ALSO ELEC DWGS)

Testing Station

Sludge Room

LANDING (SEE MECH DWGS)

SLUDGE RM A107

CLOSET (SHABET)

Testing Station

Sludge Room

RAISED WOOD FLOOR +1350mm AFF.

(4) 100K100K2400 LONG PRESSURE TREATED SLEEDS BOLTED TO FLOOR

(2) 100K100K1200 LONG PRESSURE TREATED SLEEDS BOLTED TO FLOOR

MECH RM A106

WATER TANK