



**ALBERTA WATER & WASTEWATER
OPERATORS ASSOCIATION**

**48th Annual
Operators Seminar**

March 13 - 17, 2023

Banff Park Lodge, BANFF

ALBERTA WATER & WASTEWATER OPERATORS ASSOCIATION

2022 - 2023 EXECUTIVE

Sandra Kotch, Chair

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AWWOA STAFF

Dan Rites, Executive Director

Kirstin Mihaychuk, Program Manager

Jenna Horning, Membership Services

Erin Ciezki, Seminar Technical Program Coordinator

MONDAY - March 13, 2023

**Pre-Seminar Workshops (PRE-REGISTRATION REQUIRED)
Rocky Mountain Resort, 1029 Banff Avenue**

Workshop #1 - 8:30 – 12:00 Noon (0.3 CEUs)

“From Clipboards to Computers” - Transformation of Water and Wastewater Operations Programs utilizing GIS Based Mobile Technology

In this workshop, Utilities personnel will guide you through the journey of what was to what is, sharing many informative examples of innovation and best practices.

Presenters: Khem Aryal, Brian Brost, and Sheldon Heaton, The City of St Albert

Workshop #2 - 8:30 – 12:00 Noon (0.3 CEUs)

Odour and Corrosion Control in Municipal Collection Systems

In this workshop we present the background information that operators need to understand why odours are generated, why they are a problem and how to treat.

Presenters: David Speed, BioMaxx Environmental and Derek Probst, Strathcona County

12:00 - 8:00 pm - Seminar Registration – BPL Hotel Lobby

Workshop #3 - 1:00 – 4:30 (0.3 CEUs)

Pumping & Hydraulics Introductory

This workshop will be focused on pump types and how they are used in applications with a focus on troubleshooting and problem solving for pumping equipment.

Presenters: Stefan Fediw, John Brooks Company Ltd.

Workshop #4 - 1:00 – 4:30 (0.3 CEUs)

Iron and Manganese Removal Using Granular Media Filters

This workshop will explore the process options for iron and manganese removal, the various granular media filter types available, and the required maintenance.

Presenters: David Hambley and Brett Hambley, AWI

3:00 - 9:00 pm Trade Show Displays - Open for Viewing

Silent Auction - Pine Room

5:00 - 9:00 pm Trade Show Reception

NOTES:

TUESDAY - March 14, 2023

8:00 - 4:00 pm – Seminar Registration – BPL Hotel Lobby

**Pre-Seminar Workshops (PRE-REGISTRATION REQUIRED)
Rocky Mountain Resort, 1029 Banff Avenue**

Workshop #5 - 8:30 – 12:00 (0.3 CEUs)

**Root Cause Analysis – Water and Wastewater Facilities
“what truly caused the problem”**

This workshop will review the Root Cause Analysis concepts and processes, while offering attendees a chance to interact with some live examples and a walk-through of a Root Cause Analysis used in an actual event.

Presenters: Grant Dixon, Owen James and Robyn Casement, Associated Engineering

Workshop #6 - 8:30 – 12:00 (0.3 CEUs)

Mobile Apps, Artificial Intelligence (AI), Machine Learning (ML) and Digital Twins – What’s in it for Water, Wastewater Operators?

This workshop discusses digital tools that can enhance the day-to-day functions of a water and wastewater operator.

Attendees will also get insight on potential future competencies that will become expected in the W&WW industry.

Presenter: Lalith Liyanage, WSP Canada Inc

10:00 - 4:00 pm Trade Show Displays - Open for Viewing

10:00 - 5:00 pm Silent Auction - Pine Room

**12:00 - 1:30 pm Delegate Lunch - In Display Area
Sponsored by Aquatech Diving & Marine Services Ltd and MPE Engineering**

5:15 - 6:00 pm Silent Auction Item Pickup - Pine Room

**6:00 – 7:00 pm WOMEN IN WATER - NETWORKING
EVENT for women in the industry
Hosted by AWWOA
Elk & Oarsman Pub, 119 Banff Avenue**

**7:00 - 10:00 pm PUB NIGHT NETWORKING EVENT -
Sponsored by Algae Control Canada
Elk & Oarsman Pub, 119 Banff Avenue**

NOTES:

WEDNESDAY - March 15, 2023

8:30 - Noon **REGISTRATION** – Hotel Lobby

9:00 – 9:45 am **Official Opening** – Main Ballroom
Sandra Kotch, AWWOA Chair

Greetings from Western Canada Water
Andy Barr, WCW Past President

AWWOA Awards Presentations

- The Gerald Samuel, Operator of the Year Award
- The Ron Bayne, Service Award
- The Steve Blonsky, Life Member Award
- AWWOA – NAIT Achievement Awards

9:45 – 10:00 am **Presentation - Water Movement
Celebrating the Contributions of
Operators, Acknowledging Indigenous
Water Operator Day**
Nathan Neudorf, Alberta Deputy Premier
and Minister of Infrastructure

10:00 – 10:30am **Alberta Environment and Protected Areas**
Terence Ko, Jeffrey Wu, Christine Donovan

10:30- 10:45 am **COFFEE - Alpine Meadows**

10:45 - 11:10 am **The Water School Update**
Dave Ericson, The Water School

11:10 - 12:00pm **Keynote Speaker**
**The Changing Workforce in Canada and
Alberta**
Nolan Crouse, Crouse Developments Inc.

12:00 - 1:30 pm **LUNCH**

1:30 - 2:15 pm **PRESENTATIONS:**

SESSION A **AI for Coagulation at the Lethbridge Water
Treatment Plant, City of Lethbridge:**
Tyler Bennett and Cody Hofman,
City of Lethbridge

SESSION B **BNR Optimization at the Banff WWTP:
Adjusting to a Global Pandemic in a Tourist
Town:** Nathan Vis, Town of Banff

SESSION C **IPD Speaks Louder than Traditional Project
Deliveries:** Aura Robinson, ISL Engineering &
Land Services

SESSION D **Give Pressure the Respect it Deserves:**
Brandon Pater, Pacific Flow Control Ltd.

WEDNESDAY - March 15, 2023

2:15 – 2:45 pm PRESENTATIONS:

SESSION A (More) Lessons Learned from a Northern WTP Evaluation: Sarah Larlee, Associated Engineering

SESSION B Neerlandia Lagoon Expansion, A Functional Small System Upgrade: Travis Wierenga, County of Barrhead

SESSION C Effective Management of Workplace Chemical Exposure Injuries: Justin Pellerine, Levitt-Safety

SESSION D Leak and Infiltration Mitigation for Municipal Water & Sewer Mains: Larry Young, Total Containment Inc.

2:45 – 3:00 pm COFFEE – Alpine Meadows

3:00 – 3:30 pm

SESSION A A Tale of Ten Thousand Straws: Overview of Hollow Fiber Nanofiltration for Canadian Water Treatment Applications: Mark Lewis, Delco Water

SESSION B Bioaugmentation for the Environment: An Operators Perspective: Colin Brushett and Norm Grexton, Waste Go Canada and Nancy McAteer, Town of Penhold

SESSION C Mitigating Risk to Your Water and Wastewater Utility with ISO/IEC 17025:2017: Klas Ohman, Associated Engineering and Kevin McKinley, CALA

SESSION D Sustainable Delivery of Major Projects in Small Communities: Ryan Laboucan, Fort McMurray First Nation and Andrew Tenham, McElhanney

3:30 pm **Alberta Environment Q&A Session**
Christine Donovan, EPA
Session Room D

3:45 - 4:45 pm **AWWOA ANNUAL GENERAL MEETING**
Summit Room
Executive Election Results
AWWOA - Three Door Prize Draws
Find the Hydrant – Two Draw Prizes

7:30 - 10:30 pm **CASINO NIGHT NETWORKING EVENT**
Sponsored by Wolseley Waterworks, Mueller Canada and Reed
Main Ballroom, Banff Park Lodge
Games & Prizes – Name Tag Required

THURSDAY - March 16, 2023

8:30 - 10:15 am **Registration** – Hotel Lobby

9:00 - 9:30 am **PRESENTATIONS:**

SESSION A **Nature's Water Purifiers: The Role of Biofiltration in Groundwater Treatment:**
Andrew Sheroubi, Delco Water

SESSION B **How the Operator is Truly Understood During Design & Construction:** Deon H.J. Wilner and Landon Code, ISL Engineering

SESSION C **2023 AWWOA Banff Modern Magnetic Flowmeter:** Dean Rudd, Endress+Hauser Canada

SESSION D **Data Integration and Consolidation: Easy as Pi:** Brittany Fehr and Amanda Bron, EPCOR - Drainage (SCADA) Operations

9:30 - 10:15 am

SESSION A **EPCOR WTP Phosphoric Injection for Lead Mitigation:** Kendra Carlson, Stantec Consulting Ltd. and Tim Yii, EPCOR Water Solutions Inc.

SESSION B **Rocky View County Employs an Innovative Solution to Increase WWTP Capacity:**
Chris Howorth, Veolia

SESSION C **Harmonics - The Silent Killer (How to Manage Harmonics with Respect to Variable Speed Drives):**
Riaan van Jaarsveld and Ammar Rashid, ABB

SESSION D **Leveraging AMI Technology to Reduce Time and Streamline Operational Efficiencies:**
Keesha Dorosz-Rosario, Sensus (a Xylem Company) and Jamie Parks KTI Ltd.

10:15 - 10:45 am **COFFEE - Alpine Meadows**

NOTES:

THURSDAY - March 16, 2023

10:45 - 11:15 am PRESENTATIONS:

- SESSION A** **Oxygenation Techniques for Stormwater and Raw Water:** Ray Menard and Dhaval Vaghasiya, Algae Control Canada
- SESSION B** **The Use of Full-Scale Wastewater Treatment Validation Planning and Testing for Expansion Projects:** Andrew Frankiw, Stantec Consulting Ltd. and George Kewley, The City of Calgary
- SESSION C** **Record Keeping-An Operator's Responsibility:** Tammy Elzinga, Environment Services Consultant and Kurtis Horvath, Alberta Environment
- SESSION D** **Lift Stations the Ins and OUTs:** David Benke, ISL Engineering and Land Services Ltd.

11:15 - 12:00 pm

- SESSION A** **Test Water Samples for Bacteria "Anywhere by Anyone" with VeloCens™ + Fully Digital Data Management System:** Amirreza Sohrabi, Roshan Water Solutions
- SESSION B** **Clean Chemistry Lowers the Cost to Treat Wastewater by Improving Treatability: A Case Study on Nanobubble Pre-treatment:** Don Ebenal and Jason VerHoef, Clearwater Controls with Moleaer Inc.
- SESSION C** **Smart City Water - Helping you define IOT:** Gareth Price, Mueller Systems
- SESSION D** **Canadian Elimination of Corrosion in Municipal Services:** Dave Brewer, Utility Supply Corporation

12:00 - 1:30 pm LUNCH

NOTES:

THURSDAY - March 16, 2023

1:30 - 2:00 pm PRESENTATIONS:

SESSION A **From Source to Sink: How are Utility Staff Protecting Water Safety through Risk Management?:** Emma Wells, University of Colorado Boulder

SESSION B **Wastewater Operator Training on Regulatory Approvals at The City of Calgary:** Brenda Casella and Sandra Kotch, The City of Calgary

SESSION C **Disaster Recovery:** Marty Ivy, Mayfield Electric & Water Systems

SESSION D **Crafting Simple but Efficient Pumping Optimization Strategies to Control Odors at Lift Station Discharge Points – Crafting Simple but Efficient Pumping:** Bappi Chowdhury, EPCOR

2:00 - 2:45 pm

SESSION A **Inlet Filter Bed Flow Measurement by Non-Intrusive Ultrasonic Technology:** Tim Jones, Vanko, Analytical & Instrumentation Specialists

SESSION B **A Wastewater Operators Journey into Power Plant Operation:** Morgan Briggs and Zach Lijdsman, The City of Calgary

SESSION C **An Operator's Perspective on the Chetamon Wildfire:** John Greathead and Trevor Escott, Municipality of Jasper

SESSION D **On-Site Sodium Hypochlorite Generation: A Safe and Reliable Disinfection Alternative to Bulk Sodium Hypochlorite and Gas Chlorine:** Ethan Brooks, UGSI Solutions

2:45 – 3:00 pm COFFEE - Alpine Meadows

NOTES:

THURSDAY - March 16, 2023

3:00 – 3:30 pm PRESENTATIONS:

SESSION A Local Testing of a New Online Chlorine Instrument: Max Wong, Capital H2O Systems Inc.

SESSION B Using Digital Solutions to Optimize Water & Wastewater Treatment Operations through Operator Coaching: Kevin Reilly, Pani

SESSION C CLOSED

SESSION D Sanitary Sewer Condition Assessment Program - CCTV Inspections and Reporting: Ted Larson, Stantec and Alexa Levair, Town of Pincher Creek

3:30 – 4:00 pm

SESSION A D-AM: Enter the Unreal Dataverse: Tim Ainscough, Mountain View Regional Water Services Commission and Garnet Dawes, ISL Engineering

SESSION B Stratavault Soil Cells and Stormwater Management: Eric Keller, Norwood Waterworks

SESSION C CLOSED

SESSION D Walterdale's Bane: Nicholas Brownoff and Ryan Powell, EPCOR

6:00 pm RECEPTION - Alpine Meadows

7:00 pm Annual Banquet – Main Ballroom
Tickets Required
AWWOA - Past Chair Award

9:00 pm ENTERTAINMENT
Comedian – Chuck Byrn



After the Seminar, an evaluation will be emailed to you.

AWWOA values your feedback.

Your input will make the seminar experience even better next year.

FRIDAY - March 17, 2023

MORNING WORKSHOP SESSION – Main Ballroom

Attendance required for 0.3 CEUs

8:30 - 11:30 am Operator Involvement in Projects - When is the Right Time?

Delegates will learn from the experience of the City of Wetaskiwin as they share several undertakings and the importance of W&WW operator involvement.

This presentation will cover multiple examples and projects from staff shortfalls to the operation of infrastructure all the way from the design and construction.

Pausing at every milestone to ensure operator input was received, attendees will get a glimpse into the processes used.

Presenters: Sue Howard, City of Wetaskiwin; Sam Johnson, Graham; Lora Mattie, Aquatera; Daniel du Toit and Grant Dixon, Associated Engineering

11:30 am CLOSING REMARKS
Mike Bureaud, AWWOA Chair

PAST AWARD RECIPIENTS

From last year's seminar award ceremony

**2021 GERALD SAMUEL OPERATOR
OF THE YEAR AWARD**

**Chris Flaherty
Town of Taber**

2022 RON BAYNE SERVICE AWARD

**Mike Bureaud
EPCOR**

**2021 STEVE BLONSKY HONORARY
LIFE MEMBERSHIP AWARD**

**Darrell Nelson
and
Jim Hepler**

For a complete list of past award recipients visit
awwoa.ca/awards-scholarships

List of Exhibitors

Willow Room	AWWOA		
Pine Room	Silent Auction		
Maple Room	Wajax		
1	MoveWater Inc	68	NAIT
2	National Process Equipment Inc	69	Utility Supply Corp. West
3	Mueller Canada	70	Cambridge Brass
4	Greatario Engineered Storage Systems	71	infraStruct Products
5	Elemental Bioremediation	72 & 73	Acti-Zyme
6	Evoqua Water Technologies	74	Norwood Waterworks
7 & 8	Mequipco Ltd	75	Ipex Inc
9 & 10	Clear Water Controls	76	Waste Go
11	Stormtec Water Management	77	Robar Industries Ltd
12	Terminal City Iron Works	78	EnviroTrace
13	Trojan Industries	79	Metercor Inc
14	McKay Water Works	80	Truxor Canada/Seahorse Aquatic Vegetation Harvesting
15	Advance Diving Projects	81	UGSI Solutions
16	SRP Control Systems	82	Integral High Performance Coatings
17	ClearTech Industries	83	Winters Instruments
18	Top Shot Concrete Inc	84	REED Manufacturing Co
19	Cam-Trac Inspection Services Ltd	85	Romac Industries
20	GF-Urecon	86	BettsM Controls Inc
21	Lambourne Environmental	87	APWA AB Chapter
22	Novamen Inc	88	CD Nova Instruments
23	Metropolitan Pump Co. Ltd	89	Pond Pro Canada
24	Aquateck West	90	DWG Process Supply Ltd
25	Procon Systems Inc	91	Ramtech Environmental Products
26	Carbon Controls Ltd	92	Nexom
27	Wolseley Canada	93	Pro-Line Fittings
28	Accu-Flo Meter Service	94	Ford Meter Box
29	Victaulic	95	John Brooks Company
30	Electrogas Monitors	96	Clow Canada
31	Superior Equipment Sales	97	Alberta Wilbert Sales
32	Donison & Associates Ltd	98	Spartan Controls
33	Delco Water	99	Denso North America
34	Alberta Enviro. & Parks	100	IVIS Construction
35	EPCOR	101	Endress+Hauser Canada
36	WJF Instrumentation Ltd	102 & 103	Summit Valve and Controls
37	ICONIX Waterworks	104	ISL Engineering
38	Westpower Equipment Ltd	105	Westech Industrial Ltd
39	CARO Analytical Services	106	Taber Solids Control
40	CB Process	107	Hetek Solutions Inc
41	Aqua Clear Environmental	108	Engineered Pipe Group
42	SAIT	109	Mountainview Systems
43	Hydrasurvey Ltd	110	Target Products
44	Calgary Sewer Scope	111	Hach Sales and Service
45	Chem International	112	RIDGID
46 & 47	Vanko	113	Arndt Motor and Pump Service
48 & 49	North Fringe Industrial	114	Liberty Pumps
50 & 51	Aerzen Canada	115	Fernco/S1E/Pipe Patch
52	Tecumseth Group Ltd	116	Clean Harbors
53	ALS Global	117	AWI (Anthratech Western)
54 & 55	Netzsch Canada Inc	118	Chamco
62 & 63	Algae Control Canada	119 & 120	Xylem Canada
64	Capital H2O Systems Inc	121 & 122	SEGO Canada Inc
65	Fabco Plastics Limited	123	Aquatech Diving & Marine Services Ltd
66 & 67	Klearwater Equip & Technologies Corp		

List of Exhibitors

- | | |
|---|--|
| 124 EMCO Waterworks | 136 VEGA Instruments
Canada |
| 125 N.S. Pawliuk & Son
Contracting | 137 Westvac Industrial Ltd |
| 126 TDH Fluid Systems Inc | 138 Intrepid Group |
| 127 Aquatera Utilities | 139 McElhanney |
| 128 Veolia Water Technologies
Canada | 140 Camenex Control
Systems Ltd |
| 129 Georg Fischer Piping
System | 141 Unified Alloys |
| 130 Hayward Flow Control | 142 Wachs Canada Ltd |
| 131 H2 Solutions Inc | 143 & 144 Linestar Utility
Supply Inc |
| 132 Pacific Flow Control Ltd | 145 Telematic Controls |
| 133 BioMaxx Environmental | 146 Kings Energy Services |
| 134 Toray Membrane USA | 147 ESG Filtration Ltd |
| 135 Waste'n WaterTech Ltd | 148 SFC Energy |
| | 149 Joe Johnson Equipment |

*The Alberta Water & Wastewater
Operators Association
wishes to thank all of our sponsors
for their generous support!*

Algae Control Canada

Aquatech Canadian Water Services

Aquatech Diving & Marine Services

Aquateck West

Aquatera Utilities

EPCOR

Ford Meter Box

ISL Engineering

Master Meter Canada

McElhanney

MPE Engineering Ltd

Mueller Canada

Pacific Flow Control Ltd

Pond Pro Canada

Reed Tool

Seahorse Aquatic Vegetation Harvesting

SEGO Canada Inc

Stantec

Taber Solids Control

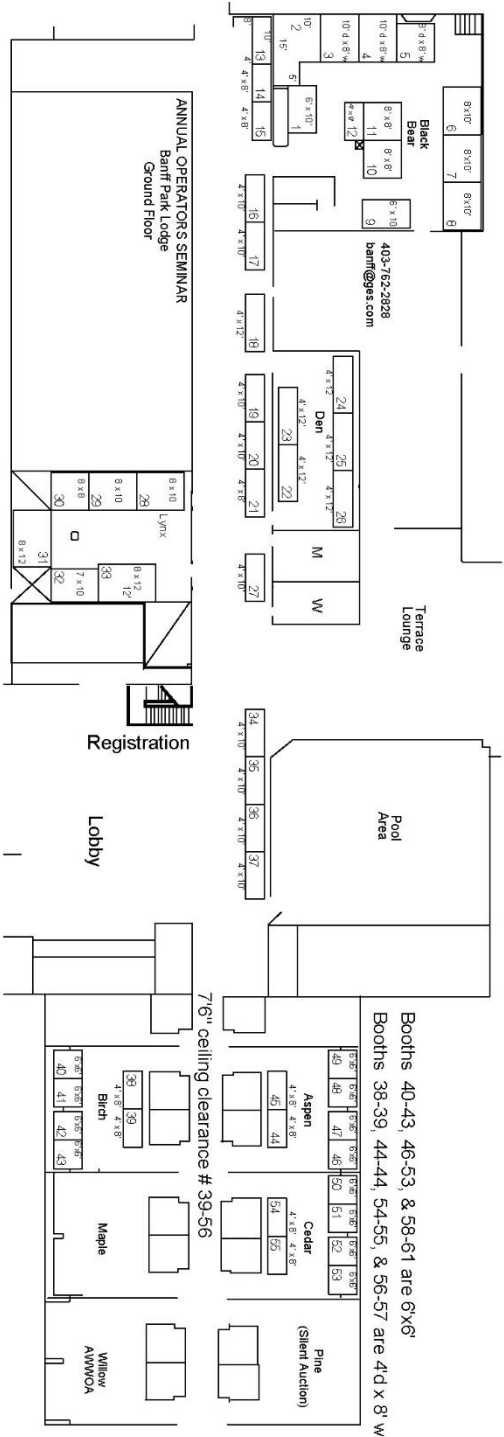
The City of Calgary

Toray Membrane USA

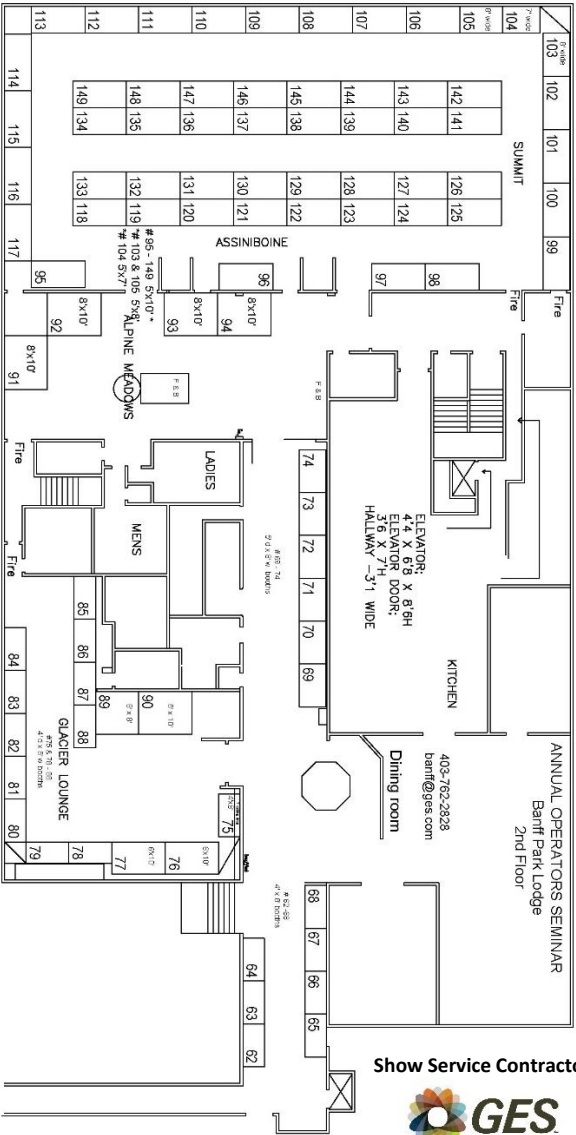
Total Containment

Wolseley Waterworks

Banff Park Lodge Lower Level



Banff Park Lodge Upper Level



Trade Show Display Times
 Monday: 3:00 – 9:00 p.m.
 Tuesday: 10:00 a.m. – 4:00 p.m.



ALBERTA WATER & WASTEWATER OPERATORS ASSOCIATION

48th Annual Operators Seminar

SPONSORED BY:



Fundraising Events

- Two **50/50** events, Monday and Tuesday. Tickets will be sold by the Charitable Donations Committee.
- **Silent Auction**, in the Pine Room on:
Monday: 3:00 - 9:00 p.m.
Tuesday: 10:00 a.m. to 5:00 p.m.

All funds raised are in support of
The Water School

Social Media

Alberta Water & Wastewater Operators Association

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