



BOARD OF DIRECTORS

Thursday, July 16, 2026

Ausable Bayfield Conservation Authority Administration Centre
Morrison Dam Conservation Area

10:00 a.m.

AGENDA

1. Chair's Welcome and Call to Order
2. Land Acknowledgement Statement
3. Adoption of Agenda
4. Disclosure of Pecuniary Interest
5. Disclosure of intention to record this meeting by video and/or audio device
6. Approval of Minutes from June 18, 2026
7. Business Out of the Minutes
8. **Program Reports**
 - Report 1: (a) Development Review (O Reg 41/24) – Jaden Schoelier
 - (b) Violations/Appeals Update – Andrew Bicknell
 - Report 2: 2nd Quarter Profit & Loss Statement – Tina Crown/Brian Horner
 - Report 3: Draft Morrison Dam Conservation Area Master Plan – Nathan Schoelier
 - Report 4: Rock Glen Conservation Area – Powerline Replacement – Reese Thompson/Nathan Schoelier
 - Report 5: Draft Watershed Monitoring Strategy – Mari Veliz/Ben Riffin
9. Committee Reports
10. **Correspondence**
11. New Business
12. **Committee of the Whole** – *property matter, personnel matter*
13. Adjournment

Upcoming Meetings and Events

August 20, 2026

Budget Committee Meeting – 9:30 a.m.

September 17, 2026

Board of Directors Meeting – 10:00 a.m.

BOARD OF DIRECTORS MEETING

Thursday, June 18, 2026

Ausable Bayfield Conservation Authority Boardroom
Morrison Dam Conservation Area

DIRECTORS PRESENT

Ray Chartrand, Adrian Cornelissen, Joey Groot, Steve Herold, Jaden Hodgins (via Zoom), Dave Jewitt, David Marsh, Wayne Shipley, Marissa Vaughan

STAFF PRESENT

Andrew Bicknell, Rosalind Chang, Tina Crown, Millie Ghorbankhani, Abbie Gutteridge, Davin Heinbuck, Brian Horner, Tracey McPherson, Jaden Schoelier, Nathan Schoelier, Ellen Westelaken.

OTHERS PRESENT

Libby George - *University of Waterloo*, Ben Woodward - *University of Waterloo*

CALL TO ORDER

Chair Ray Chartrand called the meeting to order at 10:00 a.m., welcomed everyone in attendance, and read the Land Acknowledgement Statement.

ADOPTION OF AGENDA

MOTION #BD 50/26

**Moved Marissa Vaughan
Seconded by Wayne Shipley**

“RESOLVED, THAT the agenda for the June 18, 2026, Board of Directors Meeting be approved.”

Carried.

DISCLOSURE OF PECUNIARY INTEREST

There were no disclosures of pecuniary interest at this meeting or from the previous meeting.

DISCLOSURE OF INTENTION TO RECORD

None.

ADOPTION OF MINUTES**MOTION #BD 51/26**

**Moved by Joey Groot
Seconded by Wayne Shipley**

“RESOLVED, THAT the minutes of the Board of Directors meeting held on May 21, 2026, and the motions therein be approved as circulated.”

Carried.

BUSINESS OUT OF THE MINUTESRegional Consolidation of Conservation Authorities – Regional Meeting Update

Davin Heinbuck, General Manager/Secretary-Treasurer, provided an update regarding a regional meeting of the conservation authorities that will comprise the Lake Huron Regional Conservation Authority (LHRCA) after consolidation. While appointments to the Transition Committee have not yet been announced, the current Chairs and CAOs/General Managers of the predecessor conservation authorities of the LHRCA met informally to discuss how to move forward together.

In general, all conservation authorities (CAs) are prepared to work together, and the meeting laid the foundation for a relationship built on optimism and collaboration. In addition, a document of guiding principles for transition is currently in development. Some of these principles include transparent governance, fiscal responsibility, equitable representation, and local service responsiveness. All CAs agreed that the development of a watershed council for each predecessor CA would be an effective means to ensure local matters are brought forward at the regional level. All CAs also agreed that it would be ideal to have a 2027 budget approved prior to the upcoming municipal elections in October. There is still some clarity needed regarding the budget process, but it will be discussed later in July with the Transition Committee. Overall, Chairs and CAOs/General Managers were pleased with the outcome of this initial meeting.

MOTION #BD 52/26

**Moved by David Marsh
Seconded by Dave Jewitt**

“RESOLVED, THAT the Ausable Bayfield Conservation Authority Board of Directors receives this update on the inaugural Lake Huron Regional Conservation Authority planning meeting.

Carried.

PROGRAM REPORTS**1. (a) Development Review**

Jaden Schoelier, Water & Planning Technician, presented the Development Review report pursuant to Ontario Regulation 41/24 *Prohibited Activities, Exemptions and Permits*. Through the application

process, proposed developments within regulated areas are protected from flooding and erosion hazards. Staff granted permission for 6 *Applications for Permission* and 5 *Minor Works Applications*.

(b) Violation/Appeals Update

Andrew Bicknell, Water and Planning Manager, did not have an update regarding ongoing violations. However, he noted that Planning and Regulations were contacted by municipal staff regarding a potential violation, and wanted to commend the public works staff for their collaborative efforts.

MOTION #BD 53/26

**Moved by Marissa Vaughan
Seconded by Dave Jewitt**

“RESOLVED, THAT the Board of Directors affirm the approval of applications as presented in Program Report # 1 – a) Development Review, and receive the verbal Violations and Appeals update as presented.”

Carried.

2. Open House Session – Partnership with University of Waterloo Coastal Research Group

Andrew Bicknell informed the Board that the Water and Planning department at the ABCA is planning to hold an open house session within the next couple of months, in partnership with the Coastal Research Group from the University of Waterloo. Andrew had the opportunity to sit down with Ben Woodward from the University of Waterloo, one of the students involved in the Coastal Research Group, to learn more about the citizen science research that they are leading. The observational data that is being collected through these efforts is of interest to the ABCA, as it documents changes along the coastline over time. This joint open house will provide an opportunity for ABCA to engage with the public, while also promoting this citizen science program.

Libby George and Ben Woodward, from the University of Waterloo, joined the meeting via Zoom to present their program, Coastie – Georeach Citizen Science Programs, to the Board. They noted that their areas of research have expanded from several National Parks to Provincial Parks, Municipal parks and conservation areas. Special stands are erected along coastlines where citizens who are visiting the areas can place their cell phones to take photos. These photos can be uploaded to their website and are used to track changes to the coastline. Organizations can also set up an account to retrieve the photo data for their own use. ABCA Directors were very interested in the program and thought it would be a good fit for supplemental data in key locations. Staff noted that they are already in discussions to set up locations within the watershed.

MOTION #BD 54/26

**Moved by Steve Herold
Seconded by Dave Jewitt**

“RESOLVED, THAT the Ausable Bayfield Conservation Authority Board of Directors receives the report “Planning and Regulations staff to host open house session in partnership with University of Waterloo Coastal Research Group.”

Carried.

3. Risk Management Official Servicing Agreement

Andrew Bicknell reported that, since 2015, the Ausable Bayfield Conservation Authority has provided Risk Management Official services for eight municipalities to enforce the Source Protection Plans for the Ausable Bayfield and Maitland Valley Source Protection Regions. Risk Management Officials/Inspectors are certified by the Province. Municipalities may also delegate this responsibility. The current agreement in place lapses at the end of December 2026, and all eight municipalities have expressed a desire to enter into another agreement with the ABCA to provide these services. Staff have drafted up an agreement, with a cost structure based on a similar formula to the current agreement.

Staff noted that, as this is a renewal of an existing agreement and is under \$500,000, it is exempt from the guardrails put in place by the Province during the transition phase of the consolidation of conservation authorities. They recommend that the ABCA Chair and General Manager be authorized to sign the agreement with interested municipalities.

MOTION #BD 55/26

Moved by Joey Groot

Seconded by Wayne Shipley

“RESOLVED, THAT Ausable Bayfield Conservation Authority Board of Directors authorize the Chair and General Manager/Secretary-Treasurer to sign the Risk Management Official Servicing Agreement with interested municipalities.”

Carried.

4. Stewardship Funding Update

Angela Van Niekerk, Wetlands Specialist, provided an update on funding toward stewardship projects over the past year from several funders, including Canada Nature Fund (CNF), the Habitat Stewardship Program (HSP), and the Great Lakes Local Action Fund (GLLAF). The CNF funding has been available for the last eight years, and is now complete. Over the eight years, approximately 485 projects were supported by these funds. In the last year, 98 projects were completed with this funding, including 4 wetlands, 13 fragile land retirement projects, 17 erosion control projects and 54 cover crop fields. HSP funding helped to fund 1 wetland and 7 fragile land retirement projects, and the GLLAF helped to fund 6 wetlands and 19 fragile land retirement projects.

MOTION #BD 56/26

Moved by David Marsh

Seconded by Jaden Hodgins

“RESOLVED, THAT the Ausable Bayfield Conservation Authority Board of Directors receives the report *Stewardship Funding Update* for information, as presented.”

Carried.

5. Huronview Innovative Drainage Demonstration – RFP Results

Mari Veliz, Healthy Watersheds Manager, reminded the Board that funding was secured for an innovative sub-irrigation project at the Huronview Demonstration Farm. A design for the work has been finalized, and a request for proposal (RFP) sent out to three contractors previously involved with the Huronview Demonstration Farm. A tender was submitted by Parker and Parker Ltd at a price of \$110,740 (including HST). This tender met all technical requirements and falls within the approved budget from the Ontario Ministry of Agriculture, Food and Agribusiness (OMAFRA).

MOTION #BD 57/26

Moved by Joey Groot

Seconded by Marissa Vaughan

“RESOLVED, THAT the Ausable Bayfield Conservation Authority Board of Directors accept the proposal in the amount of \$110, 740 (including HST) from Parker and Parker Ltd. to complete the installation of the sub-irrigation infrastructure at the Huronview Demonstration Farm.”

Carried.

6. Rock Glen Conservation Area – AED Donation

Stacey Palen, Workplace Safety Specialist, informed the Directors that Patrick Armstrong, Executive Director of the Dave Mounsey Memorial Fund, has expressed interest in donating two Automated External Defibrillators (AEDs) to Rock Glen Conservation Area (RGCA). The donation would consist of two AEDs – one housed in an outdoor cabinet that would be mounted on the exterior of the Museum, and one in a mobile case to be housed at the gatehouse. The current unit at the RGCA gatehouse has exceeded its recommended service life and is due for replacement. The value of the donation is more than \$6000, and ABCA would be responsible for the installation costs. A quote by Sisler Electrical Inc. of Arkona quoted the installation at \$689 plus HST.

MOTION #BD 58/26

Moved by Steve Herold

Seconded by Wayne Shipley

“RESOLVED, THAT the Ausable Bayfield Conservation Authority Board of Directors accepts the donation of two Automated External Defibrillators and two housing units for Rock Glen Conservation Area from the Dave Mounsey Fund.”

Carried.

PRESENTATION

Angela Van Niekerk presented an update on the wetlands program at the ABCA. She noted that this program has been in place for 18 years, and was established in 2008 with the Ausable River Recovery Strategy. This strategy focused on improving water quality in the Ausable River to help the many species-at-risk. Since that time, over 120 landowners have participated in the creation of wetlands, and 174 wetlands have been established. Staff have worked with over 26 partners and groups to do this work. Staff have worked with contractors to ensure a proper design process, and use native plants and seed mixes for vegetation around the wetlands. Funding secured for these projects have come from larger provincial or federal funding programs, as well as other programs such as the Huron Clean Water Project, Ducks Unlimited Canada and ALUS (Alternative Land Use Services) Middlesex.

GENERAL MANAGER'S REPORT

Davin Heinbuck provided a brief report outlining the progress of various projects, staff training, upcoming meetings and events, as well as general activities of ABCA staff.

MOTION #BD 59/26

**Moved by Wayne Shipley
Seconded by Steve Herold**

"RESOLVED, THAT the Ausable Bayfield Conservation Authority Board of Directors receives the General Manager's Report for information, as presented."

Carried.

COMMITTEE REPORTS

None.

CORRESPONDENCE

None.

NEW BUSINESS

None.

COMMITTEE OF THE WHOLE**MOTION #BD 60/26**

**Moved by Adrian Cornelissen
Seconded by Joey Groot**

“RESOLVED, THAT the Ausable Bayfield Conservation Authority Board of Directors go into Committee of the Whole at 11:40 a.m., with Nathan Schoelier, Davin Heinbuck and Abbie Gutteridge remaining in attendance.”

Carried.

MOTION #BD 61/26

**Moved by David Marsh
Seconded by Marissa Vaughan**

“RESOLVED, THAT the Ausable Bayfield Conservation Authority Board of Directors rise and report at 12:18 p.m.”

Carried.

MOTION #BD 62/26

**Moved by Dave Jewitt
Seconded by Steve Herold**

“RESOLVED, THAT the Ausable Bayfield Conservation Authority Board of Directors advise staff to proceed as discussed regarding the property matter.”

Carried.

ADJOURNMENT

The meeting was adjourned by Marissa Vaughan at 12:18 p.m.

Ray Chartrand
Chair

Abigail Gutteridge
Secretary

*Copies of program reports are available upon request.
Contact Abigail Gutteridge, Corporate Services Coordinator*

ABCA Program Report

To: Board of Directors
Date: July 16, 2026
From: Andrew Bicknell, Manager of Water and Planning
Subject: Applications for Permission
Ontario Regulation 41/24 – Prohibited Activities, Exemptions and Permits

Recommendation:

THAT the Ausable Bayfield Conservation Authority Board of Directors affirm the approval of the permits issued by ABCA staff as outlined in the *Applications for Permission* Program Report.

The following *Applications for Permission* have been issued by staff since the last Board of Directors Meeting.

*A Coastal Assessment was provided as part of the application

**Work commenced without a permit

Major Permits

- (1) PERMIT #2025-18-A (Renewal)
NAME: Municipality of West Perth
ADDRESS: Lot 29, Concession 1, West Perth (Hibbert)
MUNICIPALITY: West Perth (Hibbert)
PERMISSION TO: Conduct work in accordance with Section 78 of the Drainage Act
COMPLETED APPLICATION RECEIVED ON DATE: May 27, 2026
PERMISSION GRANTED BY STAFF DATE: June 10, 2026
NUMBER OF BUSINESS DAYS TO REVIEW: 10
STAFF NAME: Jaden Schoelier

- (2) PERMIT #2026-25-A
NAME: Roger Lewington
ADDRESS: 77187 Bayfield Highlands Drive
MUNICIPALITY: Central Huron (Goderich)
PERMISSION TO: Alteration of the lake bank
COMPLETED APPLICATION RECEIVED ON DATE: June 4, 2026
PERMISSION GRANTED BY STAFF DATE: June 18, 2026

NUMBER OF BUSINESS DAYS TO REVIEW: 10
STAFF NAME: Jaden Schoelier

(3) PERMIT #2026-25-B
NAME: Chris Carradine
ADDRESS: 77189 Bayfield Highlands Drive
MUNICIPALITY: Central Huron (Goderich)
PERMISSION TO: Alteration of the lake bank
COMPLETED APPLICATION RECEIVED ON DATE: June 4, 2026
PERMISSION GRANTED BY STAFF DATE: June 18, 2026
NUMBER OF BUSINESS DAYS TO REVIEW: 10
STAFF NAME: Jaden Schoelier

(4) PERMIT #2026-25-C
NAME: Estate of James Boone
ADDRESS: 77183 Bayfield Highlands Drive
MUNICIPALITY: Central Huron (Goderich)
PERMISSION TO: Alteration of the lake bank
COMPLETED APPLICATION RECEIVED ON DATE: June 4, 2026
PERMISSION GRANTED BY STAFF DATE: June 18, 2026
NUMBER OF BUSINESS DAYS TO REVIEW: 10
STAFF NAME: Jaden Schoelier

(5) PERMIT #2026-24
NAME: Stephanie & Ganesh Persaud
ADDRESS: 72321 Cliffside Drive, Dashwood
MUNICIPALITY: Bluewater (Hay)
PERMISSION TO: Construct sunroom addition
COMPLETED APPLICATION RECEIVED ON DATE: June 8, 2026
PERMISSION GRANTED BY STAFF DATE: June 19, 2026
NUMBER OF BUSINESS DAYS TO REVIEW: 8
STAFF NAME: Jaden Schoelier

(6) PERMIT #2026-23
NAME: Peter and Laurie Engel
ADDRESS: 11293 Argyle Street, Ailsa Craig
MUNICIPALITY: North Middlesex (East Williams)
PERMISSION TO: Construct an inground pool

COMPLETED APPLICATION RECEIVED ON DATE:	May 28, 2026
PERMISSION GRANTED BY STAFF DATE:	June 04, 2026
NUMBER OF BUSINESS DAYS TO REVIEW:	6
STAFF NAME:	Millie Ghorbankhani

Minor Permits

- (1) PERMIT #MW2026-37-A to F
NAME: Gosfield-Quadro Communications
ADDRESS: Various locations east of Dublin, ON
MUNICIPALITY: West Perth (Logan & Hibbert)
PERMISSION TO: Install fibre optic cable via directional drill

COMPLETED APPLICATION RECEIVED ON DATE:	June 2, 2026
PERMISSION GRANTED BY STAFF DATE:	June 4, 2026
NUMBER OF BUSINESS DAYS TO REVIEW:	2
STAFF NAME:	Jaden Schoelier
- (2) PERMIT #MW2026-43
NAME: Karla & Darryl Button
ADDRESS: 33 Lakeshore Drive, Grand Bend
MUNICIPALITY: South Huron (Stephen)
PERMISSION TO: Construct stone walkway and associated landscaping

COMPLETED APPLICATION RECEIVED ON DATE:	May 28, 2026
PERMISSION GRANTED BY STAFF DATE:	June 22, 2026
NUMBER OF BUSINESS DAYS TO REVIEW:	17
STAFF NAME:	Jaden Schoelier
- (3) PERMIT #MW2026-44
NAME: Enbridge Gas Inc.
ADDRESS: Ontario Street Bridge, South of Main Street, Grand Bend
MUNICIPALITY: Lambton Shores (Bosanquet)
PERMISSION TO: Install new gas main along bridge

COMPLETED APPLICATION RECEIVED ON DATE:	June 12, 2026
PERMISSION GRANTED BY STAFF DATE:	June 23, 2026
NUMBER OF BUSINESS DAYS TO REVIEW:	7
STAFF NAME:	Jaden Schoelier
- (4) PERMIT #MW2026-46
NAME: VanderMolen Homes

ADDRESS: 60 Greene Street, Exeter
MUNICIPALITY: South Huron (Stephen)
PERMISSION TO: Develop vacant lot
COMPLETED APPLICATION RECEIVED ON DATE: June 25, 2026
PERMISSION GRANTED BY STAFF DATE: June 26, 2026
NUMBER OF BUSINESS DAYS TO REVIEW: 1
STAFF NAME: Jaden Schoelier

(5) PERMIT #SCR2602
NAME: Municipality of Bluewater
ADDRESS: Lot 17, Concession LRE, Bluewater (Hay)
MUNICIPALITY: Bluewater (Hay)
PERMISSION TO: Conduct work in accordance with Section 74 of the Drainage Act
COMPLETED APPLICATION RECEIVED ON DATE: June 19, 2026
PERMISSION GRANTED BY STAFF DATE: June 30, 2026
NUMBER OF BUSINESS DAYS TO REVIEW: 7
STAFF NAME: Jaden Schoelier

(6) PERMIT #MW2026-41
NAME: Dale McCarthy
ADDRESS: 3780 Perth Road 180, Dublin
MUNICIPALITY: West Perth (Hibbert)
PERMISSION TO: Construct an agricultural storage shed
COMPLETED APPLICATION RECEIVED ON DATE: June 02, 2026
PERMISSION GRANTED BY STAFF DATE: June 04, 2026
NUMBER OF BUSINESS DAYS TO REVIEW: 2
STAFF NAME: Millie Ghorbankhani

(7) PERMIT #MW2026-42
NAME: Michael Ivanchenko
ADDRESS: 39945 Dinsley Terrace
MUNICIPALITY: Bluewater (Stanley)
PERMISSION TO: Replace a septic system
COMPLETED APPLICATION RECEIVED ON DATE: June 11, 2026
PERMISSION GRANTED BY STAFF DATE: June 11, 2026
NUMBER OF BUSINESS DAYS TO REVIEW: 1
STAFF NAME: Millie Ghorbankhani

Statement of Profit & Loss
January through June
Accrual Basis

Table 1A: Consolidated - Projected

	2025 Actual	2026 Annual Budget	2026				% of Budget
	1st Six Months	Budget	1st Qtr	2nd Qtr	Total Six Months	Projected Dec 31 '26	
Revenue							
Grants and Contributions	1,043,400	1,377,654	834,953	391,383	1,226,335	1,731,935	126%
Operating Levy - Category 1	564,289	1,156,423	0	578,210	578,210	1,156,423	100%
Operating Levy - Category 1 Projects	88,014	191,461	0	95,732	95,732	191,461	100%
Operating Levy - Category 3	86,309	168,056	0	84,028	84,028	168,056	100%
Capital Levy	10,024	40,095	0	20,048	20,048	40,095	0%
Levy, Special Benefit	0	92,965	0	0	0	92,965	100%
Levy, Special Benefit, WECl	0	13,896	0	0	0	0	0%
Rental	41,549	68,480	26,171	16,354	42,525	68,275	100%
Conservation Area User Fees	47,102	162,600	2,111	38,402	40,513	162,600	100%
Sales & Service	527,250	913,353	280,721	214,134	494,854	891,055	98%
Donations	12,643	0	2,881	549	3,430	3,430	100%
Interest	30,776	78,201	10,206	7,320	17,526	78,526	100%
Deferred from Prior Year - Revenue	1,268,133	1,330,460	1,328,622	0	1,328,622	1,328,622	100%
Deferred to Future Year - Expense	0	(728,028)	0	0	0	(780,000)	107%
Total Revenue	3,719,489	4,865,616	2,485,664	1,446,158	3,931,822	5,133,442	106%
Expense							
Purchased Services	167,121	500,223	122,279	72,966	195,244	444,761	89%
Advertising	3,790	9,388	2,458	2,380	4,837	9,675	103%
Memberships, Dues, Licenses	39,385	65,349	22,357	28,171	50,528	71,919	110%
Maintenance and Repair	24,211	47,198	20,484	26,238	46,722	64,652	137%
Property Taxes	25,167	55,000	13,586	12,435	26,020	52,041	95%
Office Operations	70,308	137,537	33,381	34,146	67,528	122,325	89%
Rental	6,748	13,689	3,189	3,706	6,895	13,790	101%
Staff Development	11,476	40,919	5,947	13,471	19,418	38,836	95%
Travel Costs	7,250	23,034	2,381	7,628	10,010	20,020	87%
Utilities	23,512	45,586	12,728	11,663	24,391	48,782	107%
Vehicles and Field Equipment	57,011	115,184	18,034	32,495	50,529	113,589	99%
Program	576,563	616,882	492,282	238,865	731,147	907,672	147%
Board Of Director's	19,651	25,751	3,723	7,378	11,101	22,201	86%
Wages and Benefits	1,440,260	3,202,332	727,748	774,885	1,502,633	3,255,704	102%
Total Operating Expense	2,472,451	4,898,072	1,480,578	1,266,426	2,747,003	5,185,967	106%
Net Operating Income	1,247,038	(32,456)	1,005,087	179,732	1,184,819	(52,525)	
Other (Income) Expense							
Capital	41,955	92,760	20,174	58,665	78,839	78,839	85%
Amortization	80,962	160,845	42,208	42,507	84,715	166,111	103%
Investment Income - Earned	(98,372)	0	(27,563)	(43,333)	(70,896)	0	0%
Investment Income - Unearned	(140,343)	0	32,322	(367,085)	(334,763)	0	0%
From Reserve - Revenue	(125,469)	(180,529)	(45,132)	(56,190)	(101,322)	(191,587)	106%
Reserves - Expenses	38,315	55,313	4,525	27,206	31,731	63,461	115%
Total Other Expense	(202,951)	128,389	26,534	(338,231)	(311,696)	116,824	91%
Net Income	1,449,990	(160,845)	978,553	517,963	1,496,516	(169,350)	

Statement of Profit & Loss

January through June

Accrual Basis

Table 1: Consolidated

	2025	2026				% of
	Actual	Total		Annual	% of	
	1st Six Months	1st Qtr	2nd Qtr	Six Months	Budget	Budget
Revenue						
Grants and Contributions	1,043,400	834,953	391,383	1,226,335	1,377,654	89%
Operating Levy - Category 1	564,289	0	578,210	578,210	1,156,423	50%
Operating Levy - Category 1 Projects	88,014	0	95,732	95,732	191,461	50%
Operating Levy - Category 3	86,309	0	84,028	84,028	168,056	50%
Capital Levy	10,024	0	20,048	20,048	40,095	50%
Levy, Special Benefit	0	0	0	0	92,965	0%
Levy, Special Benefit, WECl	0	0	0	0	13,896	0%
Rental	41,549	26,171	16,354	42,525	68,480	62%
Conservation Area User Fees	47,102	2,111	38,402	40,513	162,600	25%
Sales & Service	527,250	280,721	214,134	494,854	913,353	54%
Donations	12,643	2,881	549	3,430	0	100%
Interest	30,776	10,206	7,320	17,526	78,201	22%
Deferred from Prior Year - Revenue	1,268,133	1,328,622	0	1,328,622	1,330,460	100%
Deferred to Future Year - Expense	0	0	0	0	(728,028)	0%
Total Revenue	3,719,489	2,485,664	1,446,158	3,931,822	4,865,616	81%
Expense						
Purchased Services	167,121	122,279	72,966	195,244	500,223	39%
Advertising	3,790	2,458	2,380	4,837	9,388	52%
Memberships, Dues, Licenses	39,385	22,357	28,171	50,528	65,349	77%
Maintenance and Repair	24,211	20,484	26,238	46,722	47,198	99%
Property Taxes	25,167	13,586	12,435	26,020	55,000	47%
Office Operations	70,308	33,381	34,146	67,528	137,537	49%
Rental	6,748	3,189	3,706	6,895	13,689	50%
Staff Development	11,476	5,947	13,471	19,418	40,919	47%
Travel Costs	7,250	2,381	7,628	10,010	23,034	43%
Utilities	23,512	12,728	11,663	24,391	45,586	54%
Vehicles and Field Equipment	57,011	18,034	32,495	50,529	115,184	44%
Program	576,563	492,282	238,865	731,147	616,882	119%
Board Of Director's	19,651	3,723	7,378	11,101	25,751	43%
Wages and Benefits	1,440,260	727,748	774,885	1,502,633	3,202,332	47%
Total Operating Expense	2,472,451	1,480,577	1,266,426	2,747,002	4,898,072	56%
Net Operating Income	1,247,038	1,005,088	179,732	1,184,820	(32,456)	
Other (Income) Expense						
Capital	41,955	20,174	58,665	78,839	92,760	85%
Amortization	80,962	42,208	42,507	84,715	160,845	53%
Investment Income - Earned	(98,372)	(27,563)	(43,333)	(70,896)	0	100%
Investment Income - Unearned	(140,343)	32,322	(367,085)	(334,763)	0	100%
From Reserve - Revenue	(125,469)	(45,132)	(56,190)	(101,322)	(180,529)	56%
Reserves - Expenses	38,315	4,525	27,206	31,731	55,313	57%
Total Other Expense	(202,951)	26,534	(338,231)	(311,696)	128,389	-243%
Net Income	1,449,990	978,554	517,963	1,496,517	(160,845)	

Statement of Profit & Loss

January through June

Accrual Basis

Table 2: Drinking Water Source Protection

	2025	2026			Annual Budget	% of Budget
	Actual 1st Six Months	1st Qtr	2nd Qtr	Total Six Months		
Revenue						
Income						
Grants and Contributions	201,617	103,100	103,100	206,199	309,299	67%
Interest	1,870	1,071	935	2,006	3,887	52%
Deferred from Prior Year - Revenue	34,721	99,418	0	99,418	89,933	111%
Deferred to Future Year - Expense	0	0	0	0	(86,861)	0%
Total Revenue	238,208	203,588	104,034	307,623	316,258	97%
Expense						
Purchased Services	15,356	5,634	2,831	8,464	26,382	32%
Advertising	0	0	0	0	820	0%
Memberships, Dues, Licenses	160	78	86	165	435	38%
Maintenance and Repair	0	0	0	0	0	100%
Property Taxes	0	0	0	0	0	100%
Office Operations	10,593	3,976	4,066	8,041	21,313	38%
Rental	3,820	1,851	1,729	3,581	7,583	47%
Staff Development	96	0	0	0	666	0%
Travel Costs	149	0	658	658	3,075	21%
Utilities	690	345	345	690	1,415	49%
Vehicles and Field Equipment	726	48	0	48	1,228	4%
Program	0	0	41	41	513	8%
Board of Director's	3,065	0	2,489	2,489	13,018	19%
Wages and Benefits	90,472	41,516	45,579	87,095	239,810	36%
Total Operating Expense	125,126	53,447	57,824	111,271	316,258	35%
Net Operating Income	113,082	150,141	46,211	196,352	0	
Other (Income) Expense						
From Reserve - Revenue	0	0	0	0	0	100%
Reserves - Expenses	0	0	0	0	0	100%
Total Other Expense	0	0	0	0	0	100%
Net Income	113,082	150,141	46,211	196,352	0	

Statement of Profit & Loss
January through June

Accrual Basis

Table 3: Excluding Drinking Water Source Protection

	2025	2026			Annual	% of
	Actual	Total	Annual	% of		
	1st Six Months	1st Qtr	2nd Qtr	Six Months	Budget	Budget
Revenue						
Grants and Contributions	841,783	731,853	288,283	1,020,136	1,068,355	95%
Operating Levy - Category 1	564,289	0	578,210	578,210	1,156,423	50%
Operating Levy - Category 1 Projects	88,014	0	95,732	95,732	191,461	50%
Operating Levy - Category 3	86,309	0	84,028	84,028	168,056	50%
Capital Levy	10,024	0	20,048	20,048	40,095	50%
Levy, Special Benefit	0	0	0	0	92,965	0%
Levy, Special Benefit, WECl	0	0	0	0	13,896	0%
Rental	41,549	26,171	16,354	42,525	68,480	62%
Conservation Area User Fees	47,102	2,111	38,402	40,513	162,600	25%
Sales & Service	527,250	280,721	214,134	494,854	913,353	54%
Donations	12,643	2,881	549	3,430	0	100%
Interest	28,906	9,135	6,385	15,520	74,314	21%
Deferred from Prior Year - Revenue	1,233,413	1,229,204	0	1,229,204	1,240,527	99%
Deferred to Future Year - Expense	0	0	0	0	(641,167)	0%
Total Revenue	3,481,281	2,282,076	1,342,124	3,624,200	4,549,358	80%
Expense						
Purchased Services	151,765	116,645	70,135	186,780	473,841	39%
Advertising	3,790	2,458	2,380	4,837	8,568	56%
Memberships, Dues, Licenses	39,225	22,279	28,085	50,364	64,914	78%
Maintenance and Repair	24,211	20,484	26,238	46,722	47,198	99%
Property Taxes	25,167	13,586	12,435	26,020	55,000	47%
Office Operations	59,715	29,406	30,081	59,486	116,224	51%
Rental	2,928	1,337	1,977	3,314	6,106	54%
Staff Development	11,380	5,947	13,471	19,418	40,253	48%
Travel Costs	7,101	2,381	6,970	9,352	19,959	47%
Utilities	22,822	12,383	11,318	23,701	44,171	54%
Vehicles and Field Equipment	56,285	17,986	32,495	50,481	113,956	44%
Program	576,563	492,282	238,824	731,106	616,369	119%
Board Of Director's	16,586	3,723	4,889	8,612	12,733	68%
Wages and Benefits	1,349,788	686,232	729,306	1,415,537	2,962,522	48%
Total Operating Expense	2,347,325	1,427,129	1,208,602	2,635,731	4,581,814	58%
Net Operating Income	1,133,956	854,947	133,522	988,468	(32,456)	
Other (Income) Expense						
Capital	41,955	20,174	58,665	78,839	92,760	85%
Amortization	80,962	42,208	42,507	84,715	160,845	53%
Investment Income - Earned	(98,372)	(27,563)	(43,333)	(70,896)	0	100%
Investment Income - Unearned	(140,343)	32,322	(367,085)	(334,763)	0	100%
From Reserve - Revenue	(125,469)	(45,132)	(56,190)	(101,322)	(180,529)	56%
Reserves - Expenses	38,315	4,525	27,206	31,731	55,313	57%
Total Other Expense	(202,951)	26,534	(338,231)	(311,696)	128,389	-243%
Net Income	1,336,908	828,413	471,752	1,300,165	(160,845)	

ABCA Program Report

To: Board of Directors
Date: July 16, 2026
From: Nathan Schoelier
Subject: Draft Morrison Dam Conservation Area Master Plan
Report Type: ACTION REQUIRED

Recommendation:

THAT the Ausable Bayfield Conservation Authority Board of Directors approves the draft Master Plan update for Morrison Dam Conservation Area to be made available for public and stakeholder feedback.

Background:

The recreation budget included funds for updating the Morrison Dam Conservation Area (MDCA) Master Plan. The Master Plan was last updated in 2004.

Appended to this report is the first draft of the Master Plan update for MDCA. One of the primary goals that staff had for the update was to reintroduce institutional knowledge to the master plan. Reintroducing this information allows decisions to be made that consider historic information, alongside new tools and resources.

The update is being completed according to the process approved at the March 20, 2025 Board of Directors meeting. The next step is to make the plan available for public and stakeholder feedback. Staff have identified the following stakeholders:

- County of Huron
- Exeter Lions Club
- Friends of South Huron Trail
- Municipality of South Huron
- Residents of Exeter and surrounding area
- South Huron Optimist Club

Staff will utilize various engagement methods and tools to complete meaningful engagement within the organization's capacity and resources. Upon completing engagement, any necessary changes will be reflected in the final draft of the plan, and it will return to the Board of Directors for approval as recommended by staff.

Preface

The Morrison Dam Conservation Area Master Plan is the guiding document for the management of this conservation area which is owned and managed by the Ausable Bayfield Conservation Authority. The recommendations in this master plan are intended to help direct property management that considers the needs of the environment, and the needs of the community.

This master plan was developed using the goals, objectives, and considerations described in ABCA's Conservation Lands Strategy (CLS), approved November 21, 2024. This master plan includes the collective input from stakeholders and the community.

This master plan was approved by ABCA's Board of Directors on _____ (approval date to be include in the final approved plan) _____.

Acknowledgements

Placeholder: This section will be incorporated into the final draft of this Master Plan.

Land Acknowledgement

Ausable Bayfield Conservation Authority acknowledges the original stewards of this land, the Haudenosaunee and Anishinaabe. We recognize the Huron Tract Treaty signed in 1827. We recognize this territory was subject to the Dish with One Spoon wampum, under which multiple nations agreed to care for the land and resources, including plants and animals, in peace. As shared stewards of this land and water, ABCA is grateful to work in this territory.

Executive Summary

The Ausable Bayfield Conservation Authority (ABCA) has updated the Morrison Dam Conservation Area (MDCA) Master Plan, building on the 2004 Master Plan. This update reflects current usage and management challenges, offering a progressive framework that balances conservation goals with sustainable operations. The plan was guided by the Conservation Lands Strategy (2024).

Located at 71108 Morrison Line, near Exeter, Municipality of South Huron, MDCA is a 44-hectare (108-acre) conservation area formed through several land acquisitions in 1956, as well as in 1984. The initial land acquisitions in 1956 were to construct Morrison Dam; acquisitions in 1984 expanded the conservation area and further protected the natural corridor.

Based upon data collected by the County of Huron in 2024, MDCA is estimated to be ABCA's busiest conservation area. MDCA is primarily used for passive, nature-based recreation such as hiking, birdwatching, and accessing the Morrison reservoir for fishing, canoeing, and kayaking. Although not maintained in the winter, the trails are used throughout the year. MDCA is also a primary site for ABCA's Conservation Education department to host education programs and is a conservation area that is regularly used to host community-based events.

MDCA is linked to MacNaughton Park in Exeter by the accessible South Huron Trail (SHT). The MacNaughton – Morrison section, completed between 2002 and 2004, reflects a strong, community-led initiative supported by partners including the ABCA, Ausable Bayfield Conservation Foundation (ABCF), Exeter Lions Club, the Municipality of South Huron, local landowners and donors. The Friends of South Huron Trail (FoSHT) continue to support the trail through cleanups, events, and fundraising, while promoting accessibility and responsible use.

Although this Master Plan focuses only on the MDCA, east of Morrison Line, it recognizes the conservation area as a fundamental part of the SHT. The plan emphasizes strategies that balance public access with ecological integrity, promoting nature appreciation through experience. ABCA works to adapt to the needs of the environment, and the needs of the community, using the best available information at the time; therefore, the master plan will be updated every ten years.

Master Plan Process

Placeholder: This Master Plan is being updated according to the process approved by the ABCA Board of Directors at its March 20, 2025, meeting. In the final draft of this Master Plan, this section will describe how that process was applied to this specific plan update.

What We Heard – Engagement Summary

Placeholder: This section will be incorporated into the final draft of this Master Plan.

Conservation Lands Strategy

The development of this master plan was directed by the goals, objectives, and management considerations detailed in the CLS (2024) and reinforced by the Watershed Based Resource Management Strategy (2024). While all goals are connected to MDCA to some degree, the proximity of MDCA to a growing community; its natural environment features within an agriculturally dominated landscape; and the recreation and educational opportunities it provides highlight the relevance of the following goals:

- To integrate ABCA properties as part of a sustainable watershed, supporting a balance between the demand for public use and need for protecting ecological function
- To encourage healthy living by providing access to natural areas for safe, enjoyable and sustainable outdoor recreation opportunities
- To foster environmental appreciation amongst the watershed community through conservation education

Management Goal

The Ausable Bayfield Conservation Authority and its partners are dedicated to protecting the ecological integrity of Morrison Dam Conservation Area while offering compatible recreation, education and low-impact events that foster nature appreciation and community connection.

Background

Land Acquisition and Disposition

In 1955, the Ausable River Conservation Authority's Board of Directors received an engineer's report proposing the Exeter-Usborne Dam, following discussions with the Town of Exeter and Exeter Public Utilities Commission (PUC) who identified interests in building a dam for flood control and water supply east of Exeter. The Board then determined the Exeter-Usborne Dam be known as the Morrison Dam in recognition of the service rendered to the Ausable River Conservation Authority by its then chair, John Morrison. The Morrison Dam was approved as 'Scheme No. 4' of the Ausable River Conservation Authority in February 1956. The Board subsequently approved a special Advisory Board to purchase the land required for the proposed dam.

In 1956, the Ausable River Conservation Authority acquired most of the lands that are now known as MDCA to facilitate the construction of the Morrison Dam. In 1984, additional properties were acquired to expand the conservation area.

No property disposition has occurred at MDCA.

Connections with Other Publicly Accessible Lands

MDCA is encompassed within the SHT; an accessible trail that links MacNaughton Park in Exeter to the MDCA. The MacNaughton – Morrison section of the SHT, which provides the link between Exeter, and MDCA, was constructed between 2002 and 2004. The SHT is an example of a progressive, community-based initiative led by the volunteer group, The Friends of South Huron Trail (FoSHT). This collaboration is successful due to the partnership that includes the ABCA, ABCF, Exeter Lions Club, Municipality of South Huron, local landowners, and other donors, including service organizations, businesses, and individuals.

Although the MDCA is encompassed within, and is a fundamental part of the SHT, this Master Plan focuses only on the MDCA. Recognizing this connection, the Master Plan identifies considerations for developing a cohesive Master Plan for the SHT, in collaboration with the Municipality of South Huron.

It is important to note that the access and permitted activities at the properties listed in this section may change. Individuals planning to visit any of these properties should consult official resources related to the specific property for the most up-to-date information.

Land Use History

This section focuses on the period documented by ABCA through aerial imagery and past master plans, beginning in 1955.

The riparian areas that now make up MDCA, ranged from livestock pasture ground within the floodplain, to upland forest in varying states of succession. Surrounding land-use was predominantly agricultural, though at a smaller, family-owned mixed farm scale than is typical

across the landscape today. The 1955 aerial image (Figure 1) shows the area shortly before the Ausable River Conservation Authority acquired the lands and created the Morrison Dam.



Figure 1 1955

Upon the approval of Morrison Dam by the Ausable River Conservation Authority, construction began in 1956 and was completed by 1959. The area quickly transitioned from forested riparian areas and pasture to a reservoir. By the early 1970's (Figure 2) the Morrison Dam resembled the landscape present today.

Open areas of the property that were not affected by the dam that was in progress were planted with trees. Between 1957 and 1959 approximately six acres of MDCA was reforested using red pine, white ash, white spruce and white pine.

During this time, the conservation area also began to support outdoor recreation. A pedestrian trail, small parking lot and picnic pavilion were created to facilitate this use.

Across southern Ontario, including the area around Morrison Dam also went through a significant period of transition during this time as small, family-owned mixed farms gave way to larger, more automated agricultural practices. This agricultural transition modified the landscape to adapt to new technologies, larger equipment and changing markets. This transition is evident by the removal of windrows to create larger, more uniform fields.



Figure 2 1972

During the late 1980's, ABCA's Administration Centre and Workshop were constructed at the conservation area, a pivotal point for the conservation area, and the organization. The 1989 aerial image (Figure 3) shows the presence of the Administration Centre, Workshop, and expanded parking lot to service these areas.

The property continued to grow as an outdoor recreation destination. To help facilitate this growth, a parking lot was added to the south side of the reservoir, and the picnic pavilion was moved from its original location on the north side of the reservoir when the Administration Centre was constructed.



Figure 3 1989

In 2001, a light commercial improvement harvest was completed on approximately 30 acres of natural deciduous forest at the east end of the MDCA. The commercial harvest was completed using the single tree selection system. Information on the number of trees and volume of wood removed is incomplete, but it is known that the timber was sold for \$18,464.

In the early 2000's, southern Ontario was impacted by Emerald Ash Borer (EAB) resulting in the decline and death of ash trees. In the early 2010's EAB began impacting the health of the ash trees at MDCA. In 2014, several hundred declining ash trees were removed from MDCA to maintain safe trail conditions. To accomplish this in a safe and efficient manner, the removal was conducted by a contractor using a mechanical tree harvester who completed the work in two days. The logs were harvested for firewood as the size of the logs limited their use for sawlogs; the project was revenue neutral. A two-acre section of the forest, east of the parking lot south of the reservoir, was affected by EAB the most. This area was planted with alternating rows of Eastern White Pine and White Ash in the 1950's. Some tree planting occurred following the harvest; however, the forest recovered mainly on its own with residual white pine, and naturally regenerating species. The forest composition at the property tells the story of its past land uses. Early successional species dominate areas that were once devoid of trees or were disturbed by agricultural practices, such as livestock pasturing. Over time, these pioneer species gradually give way to longer-lived, shade-tolerant species, including hard maple. Areas that were already forested when Morrison Dam was constructed continue to mature into an excellent example of a maple-dominated upland forest community. Growth ring counts on a windfall hemlock tree cut for trail maintenance indicate trees at least 170 years of age. Through ongoing stewardship, the forest will continue to progress through its natural succession.

The trail at MDCA was expanded by establishing the Deer Run Loop, which provided the opportunity for a longer trail at MDCA, and enhanced the visitor experience by introducing a new trail type, a single-path natural surfaced trail.

In 2004, the SHT was completed, connecting the MDCA to the community of Exeter via the Morrison-MacNaughton section of the SHT. The completion of the SHT was a monumental achievement by the community, led by the FoSHT volunteer group. This work greatly enhanced the MDCA as a community-oriented, outdoor recreation asset, and it remains largely the same today (Figure 4).



Figure 4: 2025 aerial image

Staffing

MDCA does not have dedicated staff; however, ABCA's staff are primarily based at the Administration Centre, located within MDCA, making staff readily available to manage the conservation area.

The FoSHT provide support through maintaining a presence within the MDCA and surrounding community, contributing to fundraising efforts, and participating in volunteer-led trail maintenance and cleanup events.

Through a partnership between the ABCF, ABCA, FoSHT, and Municipality of South Huron; trained volunteers operate a large golf cart, deemed *The Trail Mobile*, to provide rides for visitors with mobility challenges, supporting continued access to the trail system. The Trail Mobile is a unique service that is rarely found across the country, and was made possible through contributions from local families, along with municipal and ABCF support. Volunteer drivers are essential to the success of this valued service.

Permitted Activities

Birdwatching	Fishing	Walking dogs on leash
Bicycling*		
Canoeing and Kayaking	Geocaching	Snowshoeing
Cross-country skiing	Hiking	Picnicking

*Bicycling permitted on enhanced surface (i.e. stone dust) pathway only

Programs and Services

MDCA is a key part of ABCA's conservation lands, and passive recreation programs. It supports the organizations broader mandate by contributing to several core programs and services, including:

- **Biomonitoring**
 - MDCA offers access to the Ausable River, and the reservoir, for long-term monitoring of fish and mussel species. It hosts a long-term index station for both fish and benthic invertebrates.
- **Conservation Education Program**
 - MDCA is a primary site for hands-on, nature-based learning that fosters environmental awareness and appreciation.
- **Corporate Services**
 - MDCA is the primary location of ABCA's operations, hosting its Administration Centre, Annex, and Workshop
- **Flood Forecasting and Warning Program**
 - MDCA is a site where snow depth and water equivalent measurements are collected, contributing critical data for assessing flood risk throughout the watershed.

Beyond these defined programs, MDCA plays a vital role in integrated watershed management. Natural areas support essential ecological and hydrological functions, which support the core mandate of conservation authorities: protecting people and property from flooding and other natural hazards.

Infrastructure

MDCA contains infrastructure that supports outdoor recreation activities, this includes parking areas, a pavilion, a privy washroom, trails, pedestrian bridges, docks, canoe/ kayak launch, and a boardwalk. The infrastructure at MDCA is an asset to its operations, helping balance recreation opportunities with the ecological integrity of the property.

The Morrison Dam offers recreational opportunities, which are secondary benefits to its original intention. Although this Master Plan recognizes these recreational opportunities, it does not include specific references or recommendations regarding the dam infrastructure. ABCA's Dam Maintenance Manual and Capital Asset Management Plan (2024) guide the operation and maintenance of this infrastructure.

Unless specifically addressed in the recommendations of this Master Plan, existing infrastructure is considered an asset to both the conservation area and the organization. Its maintenance, rehabilitation or replacement will be guided by ABCA's Capital Asset Management Plan and will be integrated into financial forecasts and annual budget preparations to ensure existing infrastructure remains safe and continues to support a high level of visitor satisfaction.

Visitor and Community Use

Visitor Numbers

In 2024, the County of Huron's Economic Development Department worked in partnership with the Regional Tourism Organization 4 (RTO4) to capture visitor data for the SHT, utilizing georeferenced cellphone data, through a platform called Propulso. This survey encompassed the entire SHT, providing meaningful information to guide management and investment, including insights that also support the MDCA specifically. It is important to recognize that this data reflects only one year; this Master Plan includes recommendations to enhance visitor data collection to better guide management and investment. The data received from the County of Huron is summarized below.

Stat(s)	The SHT hosted 20,877 individuals in 2024
Notes	• The highest number of unique visitors per month was in January and February; this suggests the trail is used year-round by repeat visitors who are only counted once at the start of the year • Except for January and February, the trail sees the highest number of unique visitors from April to July, with the annual low occurring in August
Considerations	• The distribution of unique visitors across the year suggests that ABCA and its partners may consider hosting outreach events between April and July to effectively reach the most individuals • The distribution of unique visitors across the year suggests that ABCA could plan trail work that has service disruptions in August to disrupt the fewest number of unique visitors
Stat(s)	The SHT was visited a total of 91, 064 times in 2024 Approximately 45% of visitors visit the SHT once per month
Notes	• The SHT was visited the most in July (9877 visits) followed by December, and April, respectively. March saw the fewest number of visits (6521 visits).
Considerations	• The frequency of use, combined with travel distance information demonstrates how well the community values MDCA and the SHT • This information demonstrates the value of maintaining and investing in high-quality access points to the trail for community, both today and as it continues to grow
Stat(s)	Approximately 52% of visitors travelled less than 19km to visit the SHT The average distance travelled to visit the SHT was 37km
Notes	
Considerations	• The distribution of visitors suggests that outreach campaigns could be strategically expanded to communities guided by the data. This outreach may be completed in partnership with local organizations

	(e.g., Exeter BIA) to promote other local attractions alongside the SHT.
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Stat	65% of visitors spent 29 minutes or less per visit on the SHT The average visit duration was 30.3 minutes
Notes	This information is expected to be largely reflective of the various loops that may be completed along the MacNaughton – Morrison section of the SHT
Considerations	Although this information is thought to be more reflective of the MacNaughton – Morrison section of the SHT, it suggests that prioritizing investment in existing trail infrastructure may provide greater value than pursuing opportunities for trail expansion.

Events

MDCA provides an important place for community connection, supporting both connection between people and the environment, and with one another in the community. This connection is evident through the number of community-led events that are hosted at MDCA; MDCA hosts the most events relative to any of ABCA's conservation areas.

Events include but are not limited to family-oriented events hosted by local community service groups (e.g., South Huron Optimist's Easter Egg Hunt, and Exeter Lions' Fishing Derby); fundraising trail runs (e.g., Terry Fox Run, SHT Run); dedication ceremonies (e.g., Haskett Funeral Home's Memorial Tree Planting Dedication Ceremony); and environmental outreach events (e.g., Huron Stewardship Council's Turtle Release). The ABCA, and ABCF are active partners in many of these events, and support local community groups, organizations, and individuals with hosting compatible events at the MDCA.

Cultural and Heritage Resources

While the Ausable Bayfield watershed is rich in cultural and heritage resources, this plan only focuses on the MDCA within the time that ABCA has stewarded the area.

The creation of the Morrison Dam was a significant change to the local landscape, and how the community connected with it. The dam was completed in 1959, rapidly altering the landscape and providing a new feature that supported local industry, municipal operations, and provided outdoor recreation opportunities that did not exist prior to then. Since the creation of the dam, its use has changed significantly, but it remains a key place for the community to connect with the landscape around them.

Natural Areas

Watershed Context

MDCA is located within the Ausable River watershed, in an area of the watershed referred to as the 'Ausable Headwaters' sub-watershed. MDCA is located approximately fourteen kilometres straight-line distance from where the Ausable River begins.

The surrounding, and upstream land use is dominated by agricultural production. The ABCA Watershed Report Card (2023) identifies forest cover within the Ausable Headwaters sub-watershed to be approximately ten percent. The MDCA is located near the Town of Exeter, which is the largest community within the rural Ausable Bayfield watershed, with a population of approximately 5000 people. While the broader watershed is dominated by agricultural land use, MDCA is part of a small natural corridor that exists along the Ausable River, as it flows into, and through the Town of Exeter.

Site Characteristics

MDCA's natural environment characteristics are primarily shaped by its setting within an area of intensive agricultural production and by the presence of a dam that forms a reservoir. The property boundary generally coincides with the boundary of the natural area encompassing the river and reservoir and is identified by the division between natural habitat and forested land.

The forest forms a relatively narrow natural corridor, ranging in width from approximately twenty-five metres up to two hundred metres on either side of the river and reservoir. The corridor is characterized by well-vegetated valley slopes in various stages of succession, and a rolling topography intermixed with occasional steeper slopes and marshy areas. In one location, adjacent forested lands on a privately owned parcel augment the forest, forming a larger forest ecosystem.

The Ausable River has a characteristically low summer flow and provides a habitat for a wide variety of warm water fish (e.g., bass, crappie, northern pike), mammals, and waterfowl. During rain and melt events, the water level is extremely high, but for the remainder of the year, stream flow is often diminished. As a result of low water levels, and surrounding land use practices, aquatic vegetation is abundant in the summer months. Due to these factors, the dam and reservoir may increase water temperatures and affect oxygen levels for the water downstream in the Ausable River.

ABCA Biologist conducted fisheries monitoring of the MDCA Reservoir in 1986, 2005, 2015 and 2025. The surveys help evaluate changes in the fish community, as well as evaluate aquatic habitat characteristics (e.g., water clarity, dissolved oxygen, and water temperature at various depths). The following outlines key findings from the 2025 survey:

- Through the surveys in 2005, 2015 and 2025, eleven species of fish have been documented that were not detected in the 1986 surveys.
- Since 1986, twenty-two species of fish have been documented through ABCA surveys.

- In 2025, Northern Pike and Iowa Darters were documented, which had not been documented through prior sampling efforts.
- In 2025, some species, including White Crappie, historically a common species in MDCA, were not documented in 2025.
- Common carp, which are potential threat to the aquatic habitat at MDCA, remain undocumented through ABCA survey efforts.

ABCA's *Long-term Fisheries Monitoring of Morrison Dam Reservoir: Summary of 2025 Results* contains a comprehensive summary of the findings.

Adjacent to the dam is an area approximately two acres in size that serves as an emergency spillway. This area is maintained as open space, free of natural or built obstructions.

Environmental Designations and Protections

Environmental designations and protections are an important component of conserving the ecological integrity of MDCA. This master plan may not present a comprehensive inventory of environmental designations and protections.

Conservation Authorities Act

Areas of MDCA are subject to *Ontario Regulation 41/24: Prohibited Activities, Exemptions and Permits* under the *Conservation Authorities Act*. Ontario Regulation 41/24 directs development away from natural hazards, supporting the core mandate of conservation authorities of managing watershed resources and protecting life and property.

Municipal Zoning By-Law

The Municipality of South Huron Municipal Zoning By-Law establishes and regulates land use by implementing the general policies from the Municipality of South Huron's Official Plan. The zoning regulation applicable to MDCA is Natural Environment Zone 2 (NE2).

Forest Conservation By-Law

The forested areas of MDCA are subject to regulation under the County of Huron's Forests Conservation By-Law. The Forests Conservation By-Law aims to promote good forestry practices, and conserve forest habitat, and forest resources for future generations.

Natural Heritage Augmentation

The ecosystem benefits provided by the natural areas at MDCA extend beyond property boundaries by contributing to overall ecosystem health.

Although some excellent "back-forty" woodlots occur throughout the fragmented landscape of the Ausable Headwaters sub-watershed, few contiguous stretches of habitat or natural corridor exist. The MDCA is a component of a small natural corridor that begins at the easterly limit of MDCA, and is largely present along the Ausable River, until the westerly limit of the Town of Exeter. The corridor exists amongst current, expanding and future residential areas of Exeter,

providing important natural space amongst a growing community. This corridor is described in greater detail in ABCA's *Exeter-Morrison Corridor Master Plan* (1983).

The watershed model recognizes the direct link between land management and aquatic health. The natural areas at MDCA, along with adjacent natural areas, play a positive role in supporting healthy aquatic ecosystems. This contribution is both in the aquatic ecosystems adjacent to the terrestrial ecosystems, as well as throughout the larger, downstream areas of the Ausable River.

Species at Risk

Ontario's Natural Heritage Information Centre (NHIC) provides species-at-risk (SAR) data using one-kilometre grids, three of which apply to MDCA. Several SAR have been documented within this area.

It is essential that staff are aware of these species, or their potential presence, and manage the site accordingly. Staff maintain detailed records and monitor for new occurrences. Responsible management not only supports terrestrial species but also protects and enhances conditions for nearby and downstream aquatic species.

To help safeguard SAR from potential threats, detailed information is not published in this plan.

Summary of Prior Management Plan Implementation

Action Item	Status
Manage aquatic and terrestrial resources to provide habitat for species, including species at risk.	Implemented/ Ongoing.
Update the aquatic and terrestrial ecosystems inventory and develop a fisheries management plan for the reservoir.	Implemented/ Ongoing. Ongoing aquatic and terrestrial monitoring will be complete at return intervals and as resources allow.
Encourage fishing practices that will improve the health of the reservoir fishery.	Ongoing. The ABCA supports a temporary public fishing closure to ensure high-quality experiences for youth during community fishing events. The ABCA also encourages the responsible disposal of fishing gear.
Encourage good land use upstream of the reservoir to improve and protect water quality for aquatic species and recreation.	Implemented/ Ongoing. ABCA's Healthy Watersheds and Stewardship Teams work to engage with landowners, and connect them with technical and financial support to implement best management practices.
Develop a complete 10km trail system suitable for a competitive run by upgrading the Deer Run loop at the east end of the property and developing a nature trail on the	Not proceeding. Visitor and trail use data do not support this recommendation as an investment that will meet the community's needs.

north side of the Ausable River (463970, 4800980 to 464970, 4800700).	
Acquire land or establish an easement agreement for the purposes of trail development (464790, 4800850 to 465000, 4800880).	Not proceeding. Visitor and trail use data do not support this recommendation as an investment that will meet the community's needs.
Strengthen the "Friends of MacNaughton and Morrison" including developing a relationship with area Scouting/ Guiding groups.	Implemented/ Ongoing.
Demonstrate good forest management and riparian management.	Implemented/ Ongoing.
Manage the reservoir levels to augment flow in the Ausable River.	Not proceeding. This Action Item does not align with ABCA's Dam Operation Manual.
Expand the Commemorative Woods site west of Morrison Line.	Implemented.

Management Statements

To support the Management Goal for MDCA, the ABCA provides the following management statements:

- To preserve and protect the unique natural resources for the benefit of present and future generations.
- To foster appreciation through experience by providing opportunities for low-impact, passive recreational activities and educational programs.
- To support MDCA as a primary hub for outdoor education through ongoing management and investment.
- To uphold and recognize the community's investment in MDCA through the SHT by preserving barrier-free access to nature and maintaining access without day-use fees.
- To foster and support partnerships that align with the management goal.

Implementation

The following recommendations support implementation of the Master Plan in line with management goals and the CLS (2024). The recommendations propose enhancements and operational changes at MDCA, with existing operations assumed to continue unless specifically addressed.

Partnerships

Recommendation 1.1: Use this Master Plan as a supporting document to initiate a collaborative effort within the community to develop a cohesive Master Plan for the South Huron Trail.

Description: This Master Plan guides the management of Morrison Dam Conservation Area, which is a component of the larger, South Huron Trail; a vibrant outdoor recreational asset within the community of Exeter. This plan should be used as a foundational document to guide the development of a cohesive vision for the South Huron Trail, in collaboration with the South Huron Trail's landowners, stakeholders, the community, and the Municipality of South Huron. The cohesive plan must reflect both the current patterns of use and the values that define the trail today, as well as provide a forward-thinking framework that anticipates the needs, opportunities and pressures associated with a growing and evolving community.

Recommendation 1.2: Establish partnerships with local secondary schools to promote youth involvement in the Friends of South Huron Trail volunteer group.

Description: The Friends of South Huron Trail were instrumental in establishing the Morrison – MacNaughton Trail, creating the South Huron Trail that exists today. Their dedicated efforts led to a strong partnership, promoting, shaping and managing the South Huron Trail, including Morrison Dam Conservation Area. Friends of South Huron Trail provides a framework for partnerships with local secondary schools, encouraging youth involvement. This new partnership will bring new perspectives, generate succession opportunities, and offer meaningful opportunities for local youth to engage with their community.

Recommendation 1.3: To collaborate with the Ausable Bayfield Conservation Foundation, Friends of South Huron Trail and other community partners to encourage and diversify the fundraising efforts to maintain and enhance the trail.

Description: The Friends of South Huron Trail, Ausable Bayfield Conservation Foundation and Ausable Bayfield Conservation Authority have a long-standing history of fundraising initiatives to support capital, and operational investment in the South Huron Trail, including Morrison Dam Conservation Area. Fundraising for capital expenditures is often met with excitement from the community, and exemplary success. Fundraising for operational expenditures is often more challenging, but critical to day-to-day operations. As fundraising climates, and the interests that the community has in charitable events pivot, it is fundamental to the success of the trail to encourage and diversify fundraising efforts (e.g., special events, built off the success of the jointly hosted Owl Prowls). Diversifying efforts also provides the opportunity to reach new audiences and offer engaging outdoor experiences.

[Visitor Numbers, Activities, and Programming](#)

Recommendation 2.1: Establish a partnership with the County of Huron to support ongoing visitor data collection to guide management decisions and investment.

Description: The South Huron Trail, including Morrison Dam Conservation Area, was known to be one of busier conservation areas. However, the data collected by the County of Huron suggests that it is the busiest conservation area owned and managed by the Ausable Bayfield Conservation Authority. This data was helpful to provide a snapshot of current trail use; the data

could be enhanced through a partnership that continues to collect the data to evaluate trends that help guide management and investment.

Environmental

Recommendation 3.1: Manage existing populations of invasive species within the forested ecosystems (e.g., Norway maple, oriental bittersweet, common buckthorn).

Description: The forested areas at Morrison Dam Conservation Area have several species that are considered invasive, and threaten biodiversity, and overall ecological health of the forest. These invasive species should be managed to promote long-term succession of the forested ecosystems. Management efforts will be prioritized based upon the invasive tendencies of the species; the pressure that the invasive species exhibit on sensitive species (e.g., adjacent or nearby species-at-risk) and the resources available to manage the invasive species.

Invasion of species that are not currently present will be detected and managed accordingly through annual invasive species monitoring (*Recommendation 3.2*).

Recommendation 3.2: Complete annual invasive species monitoring by trained staff to ensure the 'Early Detection and Rapid Response' (EDRR) framework for detecting and managing invasive species is utilized.

Description: EDRR is recognized as the most effective, and cost-effective approach for managing invasive species. Staff who are trained to identify invasive species will monitor their presence, and if invasive species are detected, management will be employed accordingly. Invasive species management may be prioritized at the direction trained staff; species of greater concern for ecological health and risk management (e.g., Dog strangling vine, Giant hogweed, invasive phragmites, oak wilt, oriental bittersweet) will be prioritized.

Recommendation 3.3: Facilitate citizen science opportunities to track biodiversity, and habitat succession.

Description: Citizen sciences involves public participation and collaboration in scientific research initiatives. Modern tools, such as iNaturalist and photo monitoring stations, provide opportunities to engage visitors in the collection and tracking of ecological data while fostering environmental awareness, and appreciation of Morrison Dam Conservation Area's natural values.

Infrastructure

Recommendation 4.1: Establish an accessible access point to the trail at Morrison Dam Conservation Areas, from the parking lot of the Administration Centre (71108 Morrison Line).

Description: The parking area at the Administration Centre serves as a primary access point to Morrison Dam Conservation Area; however, it offers limited opportunity for accessible access to the trail. An accessible access point may be established by connecting the parking area to the trail through a link parallel to the Morrison Dam spillway, immediately south of the

Administration Centre. This connecting link would enhance accessibility at the primary access point to Morrison Dam Conservation Area.

Recommendation 4.2: To collaborate with the Municipality of South Huron to establish pedestrian crossings where the trail intersects with Morrison Line.

Description: The trail at Morrison Dam Conservation Area connects with the Morrison-MacNaughton Trail to form the South Huron Trail. To form this connection, and to create a loop at Morrison Dam Conservation Area, the trail crosses Morrison Line on the south, and north side of the reservoir. Visitor satisfaction and safety may be enhanced by installing pedestrian crossings at these locations.

Recommendation 4.3: Implement natural playground features to create a linear play space adjacent to the trail, enhancing youth activities and experiences.

Description: The Morrison Dam section of the South Huron Trail features several play structures that are in varying states of repair, with some having been removed due to their deteriorating condition. Since the trail was constructed, natural playgrounds have become increasingly more common and widely accepted, with linear play elements designed to be integrated alongside trails. Linear features (e.g., balancing beams, logs, and stepping stones) could be incorporated to replace the experience provided by the existing equipment while encouraging youth engagement and fostering an all-ages trail experience.

ABCA Program Report

To: Board of Directors
Date: Thursday, July 16, 2026
From: Reese Thompson, Field Services
Nathan Schoelier, Stewardship & Lands Manager
Subject: Rock Glen Conservation Area – Powerline Replacement
Report Type: ACTION REQUIRED

Recommendation:

THAT the Ausable Bayfield Conservation Authority Board of Directors awards the Rock Glen Conservation Area Utility Pole Replacement (RFQ-26-RGCA-01) to D&D Electric Ltd. in the amount of \$17,350.00 plus HST.

THAT, the Ausable Bayfield Conservation Authority Board of Directors approves the use of property management reserves to fund the balance of the project.

Background:

Request for Quote Process and Bids

The Ausable Bayfield Conservation Authority (ABCA) is replacing the utility pole line at Rock Glen Conservation Area (RGCA) that is original to the construction of the Arkona Lions Museum.

The ABCA distributed the Request for Quote (RFQ) opportunity to contractors who had previously bid on similar projects at other Conservation Authorities; ABCA made the opportunity available on its website concurrently. Two mandatory site meetings were offered to interested contractors; three contractors attended the meetings.

Nathan Schoelier and Reese Thompson reviewed the bids on Tuesday, June 30th. The following bids were received:

Bidder	Sub-Total	HST	Total including non-refundable HST
D&D Electric Ltd.	\$17,350	\$2255.50	\$17,655.36
RJ Jackson Powerline Ltd.	\$18,250	\$2372.50	\$18,571.20

To complete this work, ABCA was required to request a Service Demand Layout from Hydro One. During this process, ABCA was made aware that Hydro One had several requests for their equipment, that was hosted on ABCA-owned poles:

1. Upgrade the meter base that services the pole line to current standards

2. Replace the transformer; upgrade the pole to a Class 4 pole suitable for carrying the weight of a new transformer
3. Remove the switch that is currently located on the first pole owned by ABCA, and have it installed on Hydro One's pole, located along Rock Glen Road
 - a. To facilitate this, Hydro One must upgrade the height of the pole to ensure adequate clearances between the existing lines, and added switch

The work identified by Hydro One is a combination of requirements that ABCA staff included in the RFQ for the successful contractor to complete and work that Hydro One will complete at the expense of ABCA. The work identified by Hydro One are unforeseen expenses, not accounted for at the time of ABCA's 2026 budget preparation. The total cost of the work required by Hydro One is \$20, 030.45 with ABCA receiving \$8559.44 in credit from Hydro One, towards the work, for a total expenditure of \$11,471.01 plus HST.

Funds to Support the Work

The following table describes the available funds, as well as the incurred and expected expenditures:

Source	Revenue
ABCA Budget	\$20, 000
Total Funds Available	\$20, 000
Service	Expense
D&D Electric Quote	\$17,655.36
Hydro One Service Upgrade	\$11,672.90
Contingency for Unforeseen Expenses	\$3000.00
Total Expense	\$29,328.26
Surplus/(Deficit)	(\$9,328.26)
Contingency for Unforeseen Expenses	\$3000.00
Surplus/(Deficit)	(\$12,328.26)

ABCA Program Report

To: Board of Directors
Date: July 16, 2026
From: Mari Veliz, Healthy Watersheds Manager
Subject: Watershed Monitoring Strategy (2026 – 2030)
Report Type: ACTION REQUIRED

Recommendation:

THAT the Ausable Bayfield Conservation Authority Board of Directors approves the Ausable Bayfield Watershed Monitoring Strategy (2026 – 2030).

Background:

Appended to this report is the final draft of the *Watershed Monitoring Strategy (2026 – 2030)*, (Summary and Comprehensive Documents).

Staff utilized past watershed strategies and institutional knowledge to prepare the documents to guide the monitoring program for the Ausable Bayfield Conservation Authority.

Upon Board of Directors approval, the Monitoring Plan will be made available on Ausable Bayfield Conservation's website, on the Watersheds page (<https://www.abca.ca/watersheds/>).

Watershed Monitoring Strategy

2026 - 2030

DRAFT

Traditional Territory Acknowledgement

Ausable Bayfield Conservation Authority (ABCA) acknowledges the original stewards of this land, the Haudenosaunee and Anishinaabe.

We recognize the Huron Tract Treaty signed in 1827. We recognize that this territory was subject to the Dish with One Spoon wampum, under which multiple nations agreed to care for the land and resources including plants and animals, in peace.

As shared stewards of this land and water, the ABCA is grateful to have the opportunity to meet and work in this territory.

Table of Contents

INTRODUCTION	4
Rationale and Scope of this Strategy	4
Goals of the Current Programs	5
Recommendations	5
Current Monitoring Program Summary	8
WATER AND CLIMATE	10
Meteorological Monitoring	10
SURFACE WATER QUANTITY	11
Hydrometric Network	11
Ontario Low Water Response	12
SURFACE WATER QUALITY	14
Baseline Water Quality Monitoring: Advantages and Limitations	14
Water Quality Monitoring at Multiple Scales	15
Provincial Water Quality Monitoring Network	15
Enhanced Monthly Stream Monitoring	16
Pesticide Initiatives	16
GROUNDWATER	20
Provincial Groundwater Monitoring Network	20
Sinkhole Study	21
Huron Sentinel Wells	21
AQUATIC BIOMONITORING	22
Fish and Mussel Biomonitoring	22
Benthic Biomonitoring	23
MONITORING TO MANAGE	25
Huronview Demonstration Farm	25
Rural Stormwater Management	27
Old Ausable Channel	28
Beach Sampling for Escherichia Coli (<i>E. coli</i>)	29
Documenting Coastal Resilience	29
Water Monitoring with Data Loggers	30
GIS and Data Analysis	30
CONCLUSION	31

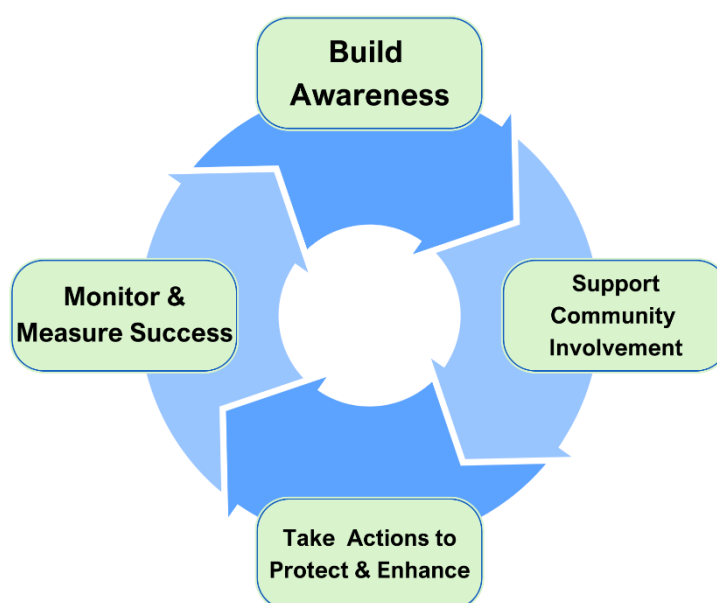
INTRODUCTION

In 1946, the municipalities drained by the Ausable River formed the Ausable River Conservation Authority (ARCA) to address serious local flooding, soil erosion, water quality and supply issues. The Bayfield watershed was added to the ARCA's area of jurisdiction in 1971, and ARCA grew to become the Ausable Bayfield Conservation Authority (ABCA). Water quality has been a focus of ARCA since its inception nearly 80 years ago. Monitoring programs have grown and adapted over the years as new science and knowledge have been applied to watershed management and planning. Throughout this long history, monitoring has remained a key part of ABCA's mission to 'protect, improve, conserve, and restore the watershed in partnership with the community'.

ABCA's Conservation Strategy (2011) and Watershed-Based Resource Management Strategy (2024) both use monitoring and research as a means of ensuring that we are meeting our mission and vision.

Rationale and Scope of this Strategy

There are many indicators of environmental quality. The physical terrain, chemical and biological systems are connected; but water is the ultimate tell-tale sign. It runs over and through the land, absorbing everything it touches which makes it a **cumulative indicator of the health of our watershed**.



Getting an accurate picture of our water requires a **team effort**. Field technicians collect the samples, while GIS specialists and data analysts turn raw data into information. We don't collect data for the sake of it; we use it to make **informed management decisions**.

This strategy outlines ABCA's monitoring programs and explains how we use long-term data to measure our progress and adapt our practices. There is also a recommended path forward with the community and more regional partners to continue to **evaluate conservation efforts**.

This strategy describes the history, focus, and study design of current water monitoring programs, including some rationale for site selection and study design. Integration of programs is described. This document does not elaborate on data collection or analytical methods. Detailed protocols for data collection may be found in other technical documents.

Goals of the Current Programs

The goals of current water monitoring programs are to:

- Detect imminent threats of flooding and erosion
- Provide spatial and temporal conditions of water quantity and quality, watershed or ecosystem health (e.g., species diversity, species-at-risk, and habitat conditions)
- Identify long-term changes in our environment
- Determine the effectiveness of our land use and management practices including Best Management Practices (BMPs) at both field and watershed scale

There is more to monitoring than sampling. The collected data needs to be sorted and analysed to tell a story.

Recommendations

This strategy outlines ABCA's monitoring programs and explains how we use long-term data to measure our progress and adapt our practices. It is also a recommended path forward to inform our local community and more regional partners of the important monitoring and data management program that currently exists and is necessary for healthy watersheds. Healthy watersheds meet our human needs in balance with the needs of the natural world.

The following suggestions would enhance our robust monitoring program.

1. Understand soil and water linkages

Our lands and our waters are fundamentally connected. The health of our rivers depends entirely on the forests, wetlands, the soil and fields that surround them. How we manage these landscapes directly impacts water quality, controls erosion, and builds climate resilience. While there are some projects that link land management practices to water (The Old Ausable Channel Management Plan, The Huronview Demonstration Farm, the integrated monitoring station at Parkhill), more effort to understand forest, wetland and soil conditions in more locations would help to inform decisions about important natural assets. There is an exceptional volume of data generated at the Parkhill and Huronview sites. More effort to: 1) understand how climate variability and land management on different land topographies affect water; and 2) conduct cost benefit analyses that may be required for best management practice uptake.

2. Maintain strategic relationships

There is more to monitoring than sampling. The collected data needs to be sorted and analysed to tell a story. Data analyses at ABCA requires ongoing strategic relationships.

Strictly collecting monitoring data will not provide us with important insights on management. Data can be analysed and perhaps show trends over time; however, ecosystem models are needed to play with different scenarios to address the question of why we see (or do not see) trends. What happens if best management practices are not on the landscape, or are on the landscape in the most strategic locations? The models need good water and land management monitoring data.

Monitoring and modelling are expensive. Society cannot do the evaluation everywhere, but it needs to be done somewhere. For Healthy Lake Huron, the five study watersheds along the southeast shore of Lake Huron (one in the St Clair Region, two in Ausable Bayfield, one in the Maitland Valley and one in

the Saugeen Valley) make up just 0.7 percent of the landscape. Even though it was a small area, lessons learned in these small areas were applied more regionally with resounding success. For example, current thinking is that storm events move water, and sediment and nutrients. Monitoring is needed during storm events and there is a hierarchy of best practices to help manage stormwater. Soil health needs to be improved, and the landscape needs to grow more cover crops. These lessons have been reinforced in the local watershed studies.

Complex issues require complex relationships. There can be polarization for some issues, and it is important for studies to have multiple stakeholders involved in the study. Some studies are discounted because people feel the research is too one-sided. For example, coming only from ag-industry or alternatively only from the conservation perspective. Watershed based evaluation programs, such as ONFARM provide a forum for discussion and data sharing so that society can better understand the interconnected challenge.

Another consideration is that some of the downstream consequences of past land use and economic development decisions are beginning to have real costs for more individuals. Flooding is a concern in Canada for approximately 1.5 million homes. Ten percent of the Canadian residential housing market are in high-risk flood zones and are ineligible for flood insurance. A recent Canadian Standards Association (CSA) Group report, authored by the Intact Centre on Climate Adaptation provides recommendations for federal, provincial, local, and Indigenous governments, to address river flooding through watershed nature-based solutions. <https://www.csagroup.org/article/research/managing-flooding-and-erosion-at-the-watershed-scale/>

Past evaluation work has already highlighted that socio-economic factors are considerations in the uptake of best practices and further understanding of measuring the costs and benefits at the individual and society level scale will be helpful to support more stewardship across the landscape.

Finally, society wants responsibility and accountability for environmental issues. From a scientific and pragmatic perspective, evaluating watersheds with a multi-disciplinary team of people is only going to be more important as more extreme weather events are addressed. In the past, local watershed agencies might have been one of the few organizations undertaking integrated, adaptive management within an ecosystem context. More sectors in society are taking leadership roles to address environmental degradation. In fact, this will be critical as society moves to address the interconnected agricultural and urban development environmental issues. The watershed context helps to keep a systems approach to addressing the complex issues.

3. Fill gaps in our monitoring network

a. Groundwater

Future sampling for groundwater should focus on seasonal and/or event-based sampling of the areas affected by karst geology, or other susceptible geological formations.

b. Stream gauge

The existing hydrometric network at the Ausable Bayfield Conservation Authority is comprehensive. Additional water information from the Nairn Creek subwatershed would help to improve flood forecasting and water quality and habitat information for the Ausable River.

c. Biomonitoring

Due to our species at risk program, with funding from Fisheries and Oceans Canada, we have very good information about the biology in the Ausable and Bayfield Rivers and some of our shoreline tributaries. There is a paucity of information for the Parkhill Creek that outlets in Grand Bend. Resourcing biomonitoring in this watershed may not be forthcoming from more regional partners. Some initial investment from the Ausable Bayfield organization is recommended.

The fisheries assessment information collected for the Municipal Drain Program should be used to inform the need for best management practices and natural infrastructure to reduce the burden on Municipal Drainage infrastructure.

d. Shoreline

Consider partnering with innovative, community-based monitoring programs that track shoreline changes. For example, Coastie is a photographic monitoring program whereby individuals place their cell phone on a stand at participating locations. The ensuing photographs are of a consistent location and provide coastal managers and researchers at the University of Waterloo with data. Analyses of the landscape feature provide an understanding the rates of change and resiliency of our coastlines in response to climate variations.

Regularly review and update the shoreline recession rates and the Shoreline Management Plan to ensure that its policies address changes in more regional agencies priorities.

e. Natural Assessment Management Planning

Asset management planning is a process that enables organizations to account for services provided by their assets and invest in the management of the assets to ensure that they provide services cost-effectively while managing risks such as asset failure. While assets may mean anything that delivers value to an organization and their constituents, we can think of infrastructure that reduces the risk of flooding and erosion. Traditionally, flood and erosion risk management has relied on “grey” built infrastructure such as flood walls, dikes, and river channel modifications. Nature-based solutions such as restoring wetlands or upland forests, can be used to manage river flooding and erosion in a way that is less costly and provides benefits for both people and nature.

Asset management planning is a process with key components:

- 1) Inventory and valuation
- 2) Level of service
- 3) Life Cycle Costing and Plan
- 4) Financial Strategy

It is recommended that the Ausable Bayfield initiate a process to provide an inventory of the natural areas that we own or manage.

4. Move beyond baseline monitoring

Monitoring long-term baseline conditions allows us to evaluate current conditions, track environmental shifts over time, and measure the true effectiveness of local stewardship programs. If an unexpected

environmental issue arises, having an historical baseline is what allows for the detection and actions to address the emerging issue.

While our baseline data is robust, environmental monitoring must constantly evolve. We recognize the need to improve information sharing and expand beyond routine schedules. While routine monitoring tells us the "everyday" story; targeted, event-based sampling (such as after intense rainstorms) and site-specific evaluations are critical to understanding watershed processes.

Ultimately, diagnosing a water quality issue may be simpler than implementing the landscape-scale solution to fix it. Ongoing management will require continued collaboration with local and regional partners. The analysed data will help to guide important landscape level decisions.

5. Ongoing staff development and training

The evolution of the monitoring technologies will mean that staff will need to make opportunities for training and development. This is particularly the case for the use of models to predict flooding and erosion risks.

Municipally led and community-driven, we must continue to translate our science into clear, shared knowledge. It is only in partnership with our local communities, and with the continued support of our municipal, provincial, and federal governments, that we can confidently protect and improve our watersheds.

Current Monitoring Program Summary

Maintaining healthy watersheds is a collective responsibility. By leveraging community and more regional interests, the ABCA maintains a robust monitoring program for the Ausable, Bayfield and shoreline tributaries. Admittedly, a reliance on partnership funding has meant that some of the monitoring has been opportunity-based. This strategy provides a summary of our exceptionally comprehensive monitoring program.

The watershed-based resource management plan (2024) outlined four strategic priorities for watershed management.

- Protecting life and minimizing property damage from flooding and erosion.
- Improving the health of the Ausable Bayfield Conservation Authority watersheds.
- Managing land holdings in a responsible and sustainable way.
- Protecting sources of drinking water for current and future generations.

Except for managing land holdings that is under the purview of the Land Management Strategies being developed, our current monitoring program (Table 1) addresses monitoring for flooding, erosion, improved watershed health and protecting sources of drinking water.

Table 1: Current Monitoring Program Summary

Focus	Programs	Purpose of Information Collection
Surface water quantity	Hydrometric Network Snow Course Meteorological and Level Logger Stations Volunteer Rain Gauge Network	Watershed Management - Flow Regimes - Low Water Response - Flood Forecasting - Water Budgets - Planning and Regulations; preventing flooding, erosion and property damage Climate Change Evaluations
Surface water quality	Provincial Water Quality Monitoring Network (PWQMN) Enhanced Monitoring Rural Stormwater Management <i>E. coli</i> sampling at Lake Huron beaches	Watershed Management - Information about Water Pollution (mostly nutrients, bacteria, metals) - Evaluation of land management practices - Recreational water quality Addressing Community Interests Climate Change Evaluations
Groundwater quantity	Provincial Groundwater Monitoring Network (PGMN)	Groundwater Levels Watershed Management - Water Budgets - Inform groundwater recharge requirements under development review Climate Change Evaluations
Groundwater quality	PGMN Huron Sentinel Wells	Watershed Management - Information about Water Pollution (mostly nutrients, bacteria, metals) Drinking Water Source Protection Planning
Biomonitoring	Fish community sampling and Municipal Drain Classification Benthic invertebrate surveys Mussel surveys	Watershed Management - Habitat conservation Addressing Community Interests Climate Change Evaluations

WATER AND CLIMATE

Climate and water are fundamentally connected. Longer-term changes to our climate will affect both the availability and quality of freshwater and intensify floods, droughts, and other water-related issues for freshwater plants and animals.

Water data are valuable. Long-term datasets allow us to detect subtle, long-term shifts in weather patterns, water availability, and habitat health. By tracking these indicators over decades, ABCA can help our communities adapt to a changing landscape and protect our shared resources.

Since 2012, ABCA has operated an integrated water and climate monitoring station near Parkhill. The Parkhill station is the most complex in Ontario, with 29 sensors measuring 33 different indicators, including meteorological conditions, water quantity and quality, and soil properties.

Table 2. Surface water and climate monitoring framework.

Focus	Program	Goals	Location Rationale	Sampling Frequency	Indicators
Surface water quality Climate monitoring	Integrated water and climate monitoring	Climate change detection and adaptation	Determined to be one of the most sensitive watersheds to climate change in Ontario, according to the 'Climate Change Monitoring Networks Review Project (2009)'	Water quality monitoring: one sample once per month April through November Additional samples throughout year during storm events and spring melt	E. coli, nutrients, metals, suspended solids Wind speed Air and water temperature Precipitation

Meteorological Monitoring

In addition to the Parkhill integrated water-climate monitoring station, Ausable Bayfield staff currently operate three weather monitoring stations including one in the Gully Creek subwatershed, one along the Old Ausable Channel, and one at the Morrison Dam Conservation Area in the Upper Ausable subwatershed. These stations collect climate-related information including precipitation, moisture, temperature, and wind data.

Ausable Bayfield staff also help manage a volunteer rain gauge network of over 20 locations across the ABCA area. Volunteers in this network report on rainfall amounts based on rain gauges located on their properties. Soil moisture probes are also located in three locations across the watershed. These probes link precipitation data to soil moisture, which may reflect environmental conditions such as drought.

During the winter months snow accumulations across the landscape are monitored. Our region typically sees the highest water levels in spring from melting snow that may be increased by rainfall (e.g., rain on snow events). Snow depth measurements and springtime water quantity measurements contribute to flood forecasting models to protect people and property.

SURFACE WATER QUANTITY

Collecting water quantity data is a top priority to ABCA. We collect water level data at hydrometric gauge stations and with water level data loggers. The gauge stations are located at hydrologically important points across the watershed due to their important role in flood forecasting. Gauge stations allow staff to see water levels in real time. Historically, these connections were linked to the ABCA office through telephone lines, but they are being transitioned to satellite connections while keeping phones lines as a back-up. This real time data is important for flood forecasting where rain and melt events can rise rapidly and real time data can be crucial in decision making scenarios.

The water level data loggers are a cost-effective alternative to gauge stations. In many places we do not need real time data at research sites or in water systems that do not pose high flood risks and instead download logged data on a schedule (e.g., every two months). The loggers use atmospheric pressure to record water levels at intervals set to reflect project needs. For instance, a logger in a drainage tile for best management practice research may log every five minutes to capture the flash water rise of rain.

Water level data are converted to stream discharge values with rating curves developed for each site. The real time level data combined with snowmelt and precipitation data from the climate and meteorological stations are used to forecast stream flows and potential flooding and erosion risks.

Water quantity measurements contribute to several other ABCA programs including water quality monitoring, and biomonitoring. For instance, discharge data combined with water quality data determine nutrient and sediment loading.

Hydrometric Network

With support from the Ministry of Natural Resources (MNR) and the Canada Water Agency (CWA, Water Survey Canada), the ABCA maintains and operates 13 gauging stations. Monitoring precipitation and water quantity ensures that we have early indications of any potential flooding (or low water conditions) so that Flood Messages or Low Water Advisories can be provided to our watershed municipalities in a timely manner.

Table 3: Hydrometric Network framework.

Goals	Location Rationale	Sampling Frequency	Indicators
Flood forecasting & warning, climate change evaluation, relate flow to water quality	10 Water Survey of Canada network locations related to Flood Damage Centres and the Ontario Low Water Response program 2 additional stations: Port Franks and Parkhill Dam 1 additional station in North Gullies linked to Rural Stormwater Management Model (RSWMM) project	Data logged every 5 to 15 minutes at 13 monitoring stations Water Level - 13 locations Flow - 11 locations Precipitation - 10 stations Air Temperature - 9 stations ~20 rain gauge readers (volunteer rain gauge network)	Precipitation, temperature, water level, meteorological conditions

Ontario Low Water Response

The Ontario Low Water Response Program was created in response to drought conditions experienced in 1998 and 1999 in various parts of the province and provided guidance for local response to drought related issues. This program relies on flow and precipitation to indicate the severity of low water or drought conditions to water managers. If comparisons with historic data indicate that low water conditions are severe enough, water conservation advisories and restrictions may be put in place by the Water Response Team. Over-consumption of water may have serious consequences should dry conditions persist. Management of water consumption can reduce overall impacts to people and ecosystems.

Table 4. Ontario Low Water Response program framework.

Goals	Location Rationale	Sampling Frequency	Indicators
Ensure preparedness & prevent over-consumption of water during drought conditions (water budget)	Indicator stations in the Ontario Low Water Response Program	Monthly averages at 3 sites: Springbank (Lower Ausable), Exeter (Upper Ausable), and Varna (Bayfield River)	Flow, precipitation



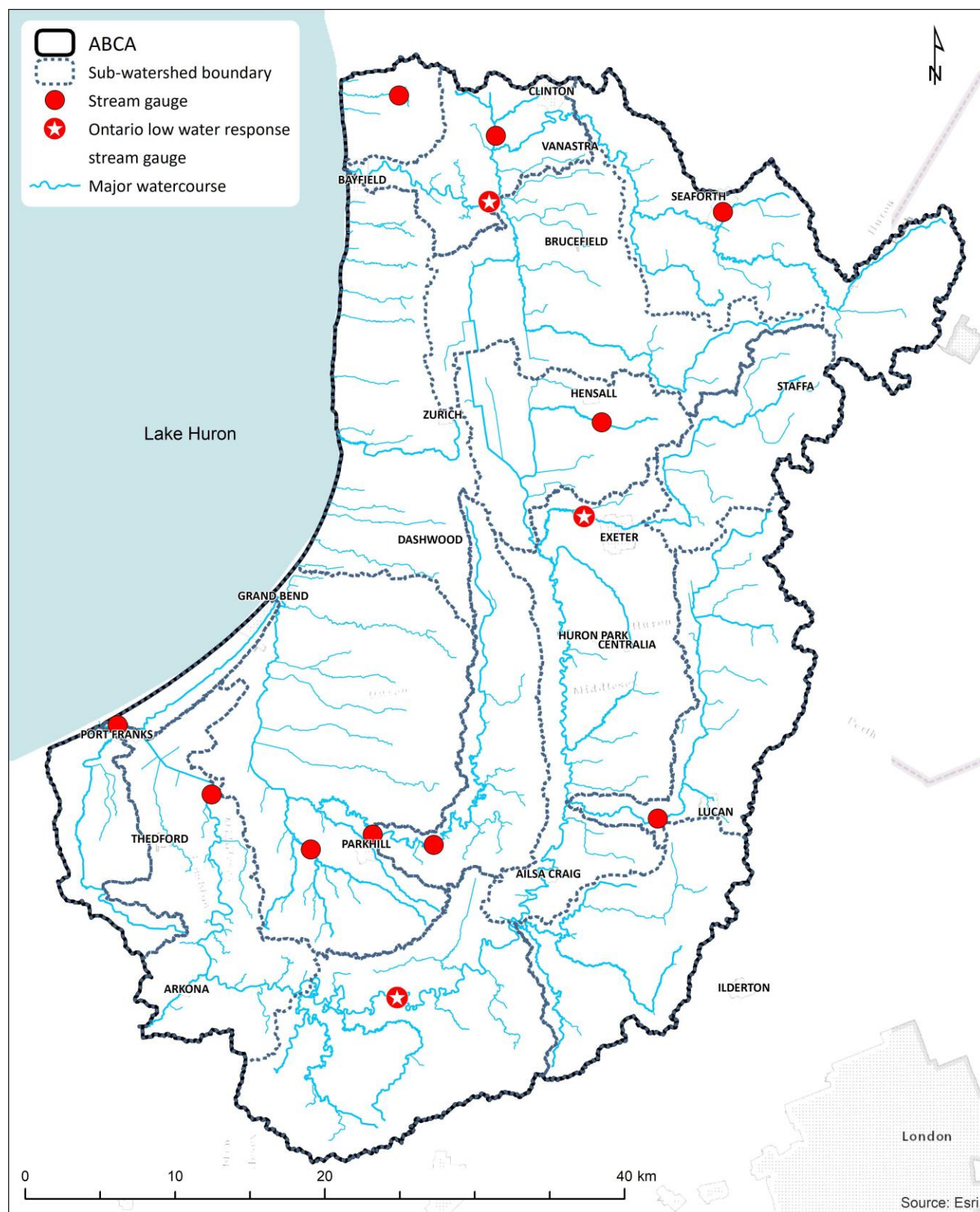


Figure 1. Map of stream gauge locations.

SURFACE WATER QUALITY

There have been many surface water quality initiatives at ABCA to help fulfill the mission and vision of healthy watersheds. Early research at ABCA in the 1980s and 90s focused on manure and nutrient management storage and handling practices, E. coli survival and detection, manure application practices and tile drains, and pollution source identification.

We are now entering a fourth decade of conducting research, collecting data, and participating in programs that help local communities understand and manage water quality. Currently, ABCA programs have expanded beyond a focus on nutrient management to include surface water sampling at over twenty stream sites, E. coli sampling at Lake Huron beaches, and subwatershed-based evaluations that help us understand that there can be site-scale effects of some practices and a different watershed response from the same practice. Whenever possible, efforts have been made to integrate monitoring with other disciplines to know as much as possible about multiple aspects of a site. Efforts have also been made to incorporate new science and research questions, such as monitoring indicators that relate to climate. Adaptive decision-making about the focus of programs allows ABCA's monitoring to remain relevant and at the forefront of new science and issues that affect the watershed and community.



Baseline Water Quality Monitoring: Advantages and Limitations

Monitoring of baseline conditions allows us to determine current conditions, track change relative to this baseline, and identify emerging water quality issues. ABCA staff monitor baseline water quality through the Provincial Water Quality Monitoring Network (PWQMN), according to standard protocols followed throughout the province. In our region, PWQMN sampling tends to occur in downstream sections of large rivers and streams. Watersheds created by these rivers and their tributaries can cover a very large land area. Monitoring at these sites therefore reflects land management across a large upstream land base. Data from these programs are also used in our *Watershed Report Card*, which is produced every five years and summarizes water quality across ABCA's sixteen subwatersheds. Knowledge of baseline conditions allows us to track our progress as we work toward improving water quality in local watersheds. Should new issues arise, baseline data can help us detect and identify any emerging concerns.

Baseline monitoring does have some notable limitations. Water sampling for baseline programs occurs on scheduled dates, which are often free of precipitation in the summer months. Sampling during dry weather periods may underestimate the impacts of surface runoff and erosion events that occur during storms, snowmelt, and high flows. Most examples of water quality issues in our area are due to the cumulative impacts of many non-point sources, such as rainfall or snowmelt moving across the ground to local waterways. Best land management practices help to reduce these sources, but the impacts of individual actions—such as the use of BMPs to control surface runoff—can be difficult to detect through baseline programs that operate at a coarse scale. Water monitoring that incorporates multiple perspectives and different geographic scales (e.g., edge-of-field, or subwatershed studies) are needed to fully evaluate water quality and understand human impacts on ecosystem health.

Water Quality Monitoring at Multiple Scales

Water issues like flooding, erosion, and habitat loss don't occur only once, in one location. They spread across the landscape, creating challenges that can't be solved by individual properties or projects alone.

That's why we monitor water at multiple scales, from individual fields and local ravines to the entire Lake Huron shoreline. By linking local data with watershed-wide monitoring, we can identify effective solutions, apply them more broadly, and improve the health of the entire watershed. Example locations of a field to watershed scale examination include the stormwater management study in the Gully Creek watershed, and water quality monitoring at the Huronview Demonstration farm. Monitoring at a more local scale with a higher frequency of data collection can help us to detect changes that may be missed if only conducting baseline monitoring.

Provincial Water Quality Monitoring Network

Since the 1960's, the ABCA has partnered with the Ontario Ministry of the Environment (currently Ministry of the Environment, Conservation and Parks; MECP) to take surface water samples through the PWQMN. This network consists of 433 sites across Ontario [Map: Provincial \(Stream\) Water Quality Monitoring Network | ontario.ca](https://www.ontario.ca/en/gov/service/provincial-water-quality-monitoring-network), nine of which are currently in the ABCA area. Valuable long-term information is now known about many of these sites, with several integrated with other monitoring programs such as stream gauges, climate monitoring, or benthic biomonitoring. Approximately 35 indicators are measured at five stations, and nine indicators at the remaining four stations.

Table 5. Provincial Water Quality Monitoring Network program framework.

Goals	Location Rationale	Sampling Frequency	Indicators
Determine baseline conditions, identify trends, inform Ministry compliance, assessments, policy and decision-making	Length of record, type of water quality being monitored (point source vs. non-point), collection of other data (e.g., benthic, stream gauge), location in subwatershed (e.g., located downstream in watershed)	Nine watercourses sampled on the third Tuesday of each month March to November Winter sampling following rain events: January to February	Nutrients, metals (at select sites), chloride, <i>E. coli</i> , suspended solids; full suite in Table 8

Enhanced Monthly Stream Monitoring

Eight surface water monitoring sites were added under an ‘Enhanced’ program in 2003, with a ninth site added in 2007. These sites were added because many areas of the ABCA jurisdiction were under-sampled with the PWQMN network alone. Details about site selection may be found in the ‘Ausable Bayfield Conservation Authority Water Quality Network Design’ report (2007).

Table 6. Enhanced stream monitoring program framework.

Goals	Location Rationale	Sampling Frequency	Indicators
Determine baseline conditions, identify trends, inform watershed management	Fill gaps in PWQMN site network, evaluate agricultural BMPs, fill knowledge gaps about small tributaries, plus criteria for PWQMN site selection	Nine watercourses sampled on the third Tuesday of each month	<i>E. coli</i> , nutrients, suspended solids; full suite in Table 8.

Pesticide Initiatives

Pesticide sampling at ABCA first began in 2007 through a partnership with Environment Canada. Sampling took place at four stations already part of the PWQMN (Little Ausable River [MALIT2], Parkhill Creek [MPMCIN1], Ausable River [MAEXE1], Bayfield River [MBVAR1]). An assay was designed to detect four commonly used pesticides (2,4-D, Atrazine, Glyphosate, and Metolachlor).

In 2011, the MECP and the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) partnered with ABCA to measure pesticide concentrations in Decker Creek; one of nineteen stream sites selected across Ontario for monitoring at the time. Decker Creek has been a PWQMN site since 2000. While the program initially screened approximately 30 pesticides (with samples analyzed by the University of Guelph), the modern screen has expanded to detect over 500 different pesticides.

The program expanded further in 2018 when ABCA partnered with Agriculture and Agri-Food Canada (AAFC) to collect monthly sediment and surface water samples at four specific locations: two PWQMN stations, one enhanced station, and one climate station ([MABLA2], [MBVAR1], [HBSTEEN1], and [MPMCGUF1]).

Most recently, in 2025, ABCA partnered with Health Canada’s Pesticide Management Regulatory Agency (PMRA) to launch a high-frequency monitoring program. This intensive effort included twice-weekly surface water sampling, multi-week passive cartridge (O-DGT) deployments, and targeted rainfall event sampling at the Huronview tiled fields for eight months during 2025. The twice-weekly surface water program continues through 2026, screening for over 200 pesticides to inform national priorities.

Table 7. Pesticide monitoring program framework.

Goals	Location Rationale	Sampling Frequency	Indicators
Determining trends of pesticides in surface water, detecting emerging issues with pesticide use including potential impacts on aquatic life	Site selected with input from OMAFRA, ABCA, and MECP. Criteria included: a site already monitored for PWQMN, small watershed, highly agricultural, within Lambton County (a previously under-sampled County)	1 sample once / month April to November in Decker Creek	Pesticides
Inform Health Canada sustainable agriculture decisions	Core climate/PWQMN sites for broad tracking, paired with specific edge-of-field tracking at Huronview tile drains	2025: Twice-weekly surface water (8 months), 4 month-long passive sampler deployments, and wet-weather tile runoff events. 2026: Ongoing twice-weekly surface water samples.	Over 200 pesticides, Glyphosate; passive accumulation via o-DGT cartridges.



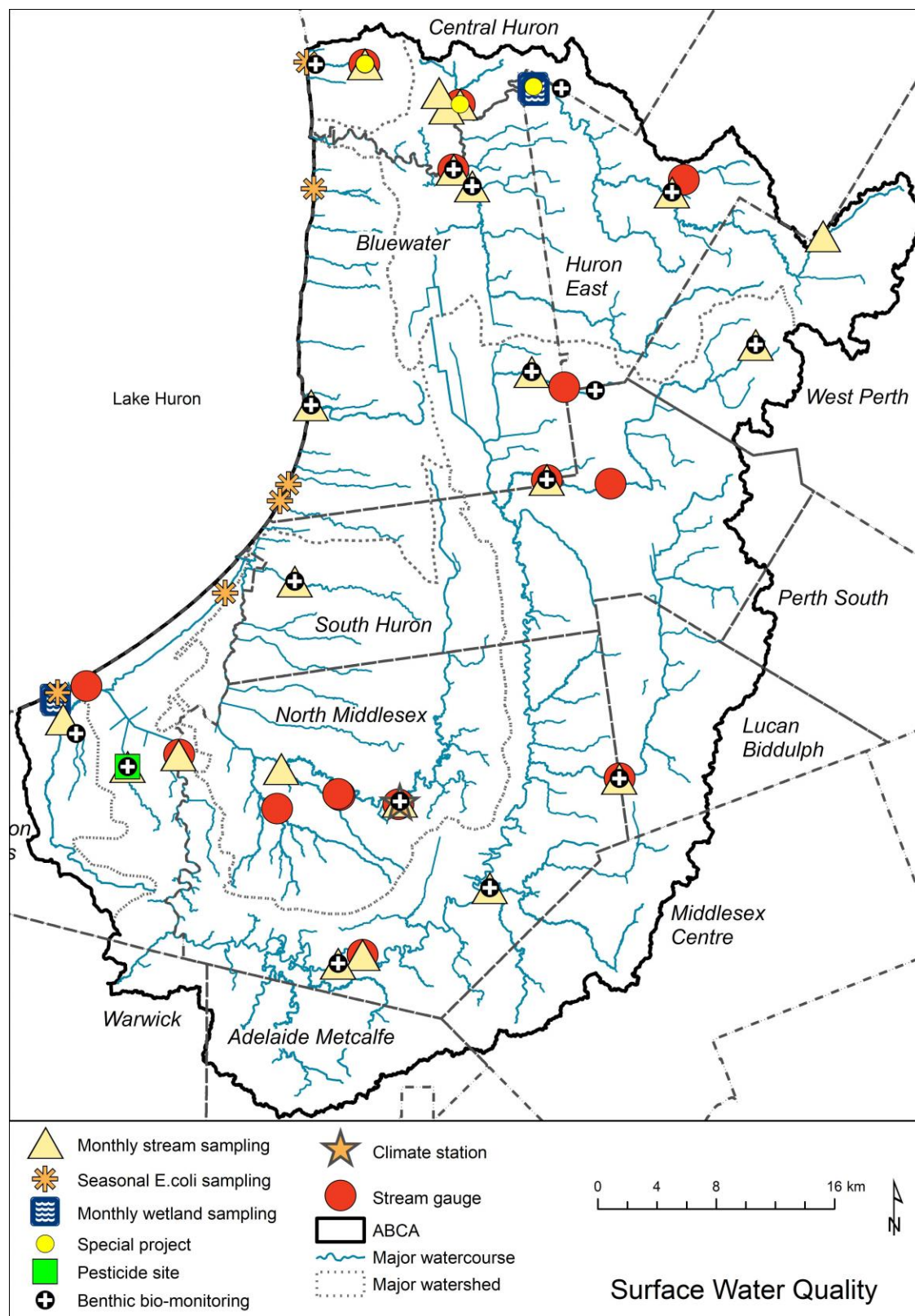


Figure 2. Map of surface water quality monitoring sites.

GROUNDWATER

ABCA has been monitoring groundwater quantity and quality for over two decades to support the protection and sustainable management of groundwater resources across the watershed. Through partnerships with provincial and county programs, monitoring efforts have focused on establishing baseline groundwater conditions, identifying long-term trends, and improving understanding of how natural features and land-use activities influence groundwater systems.

ABCA currently participates in several groundwater monitoring initiatives, including the Provincial Groundwater Monitoring Network (PGMN), monitoring in sinkhole-prone areas, and the Huron County Sentinel Well program. These programs collect groundwater level and quality data from a network of monitoring wells and private wells across the region.

Together, these efforts help improve understanding of groundwater systems, provide early warning of potential water quality concerns, and support decision-making related to groundwater protection, drinking water safety, and watershed management. As new questions and priorities emerge, ABCA continues to adapt its monitoring programs to ensure groundwater data remains relevant for understanding environmental change and supporting healthy watersheds.

Provincial Groundwater Monitoring Network

The Ontario Ministry of the Environment, Conservation and Parks (MECP) have been partnering with conservation authorities and their member municipalities on a provincial groundwater monitoring network (PGMN) since 2000.

The PGMN has been established to collect and maintain ambient (baseline) groundwater level and quality information from more than 450 wells, representing major aquifers across the province. Data from the monitoring network provides an early indicator for potential emerging issues such as climate change, water usage demand changes, and changes to water quality from both human-made and natural causes.

Ausable Bayfield Conservation Authority (ABCA) currently monitors water levels and quality at 16 locations across the ABCA watersheds. Five of these wells are bedrock and 11 are overburden wells. Groundwater quality has been monitored since 2003. Exceedance notices are issued to the landowner, Municipality, and local health unit when water quality parameters exceed the Provincial guidelines.

Groundwater quality and quantity data are uploaded to the MECP's public website and are freely available [Map: Provincial Groundwater Monitoring Network | ontario.ca](https://www.ontario.ca/environment/groundwater-monitoring-network).

Table 9. Summary of groundwater quality and quantity monitoring framework.

Program	Goals	Location Rationale	Sampling Frequency	Indicators
Provincial Groundwater Monitoring Network	Determining baseline conditions and long-term trends, comparison with Provincial guidelines	Significant aquifers in watershed (selected by ABCA, MECP, consultants) Sampling of shallow overburden and deep bedrock aquifers	Minimum once per year at 16 wells Additional samples collected at 3 sites in spring and 1 site in summer Water levels logged hourly	Metals, nutrients, bacteria, additional parameters (see website), water level
Sinkhole Study	Monitor water quality, determine baseline conditions and trends, investigate sinkhole impacts on water quality	Sampling sites are identified in the “Sinkhole investigation study for areas mainly within the municipalities of Huron East and West Perth (2004)”	Historically: monthly sampling of 5 private wells (4 near Chislehurst Sinkhole clusters, 2 near Tuckersmith Sinkhole clusters), surface water samples from 2 drains that outlet into sinkholes	Fecal coliform, chloride, fluoride, nitrogen, sulphate, alkalinity, phosphorus, metals, turbidity
Huron Sentinel Wells	Determining baseline conditions and long-term trends, comparison with Provincial guidelines	Significant aquifers in watershed (selected by ABCA, MECP, consultants) Sampling of shallow overburden and deep bedrock aquifers	Annual sampling at 6 wells in August	Metals, fluoride, nutrients, bacteria

Sinkhole Study

The ABCA landscape includes several sinkholes, particularly in the southwest corner of West Perth, and the southwest corner of Huron East. Between 2001 and 2004 water quality issues were investigated at the Chislehurst and Tuckersmith sinkholes.

The well near the Chislehurst sinkhole has become a Provincial Groundwater Monitoring Network (PGMN) monitoring well, and occasional surface and groundwater sampling takes place at both sinkholes. It is recommended that future sampling focuses on seasonal and/or event-based sampling as there remain many questions regarding water quality in this area.

Huron Sentinel Wells

The Huron County Sentinel Well program was initiated following recommendations from the *Groundwater Quality Assessment* carried out for Huron County in 2001 (Golder, 2001). This is an innovative program developed to sample rural well properties to monitor drinking water quality in areas without detailed study. As a result of this preliminary study, representative wells, called “sentinel wells” from six (6) clusters were chosen for long-term monitoring.

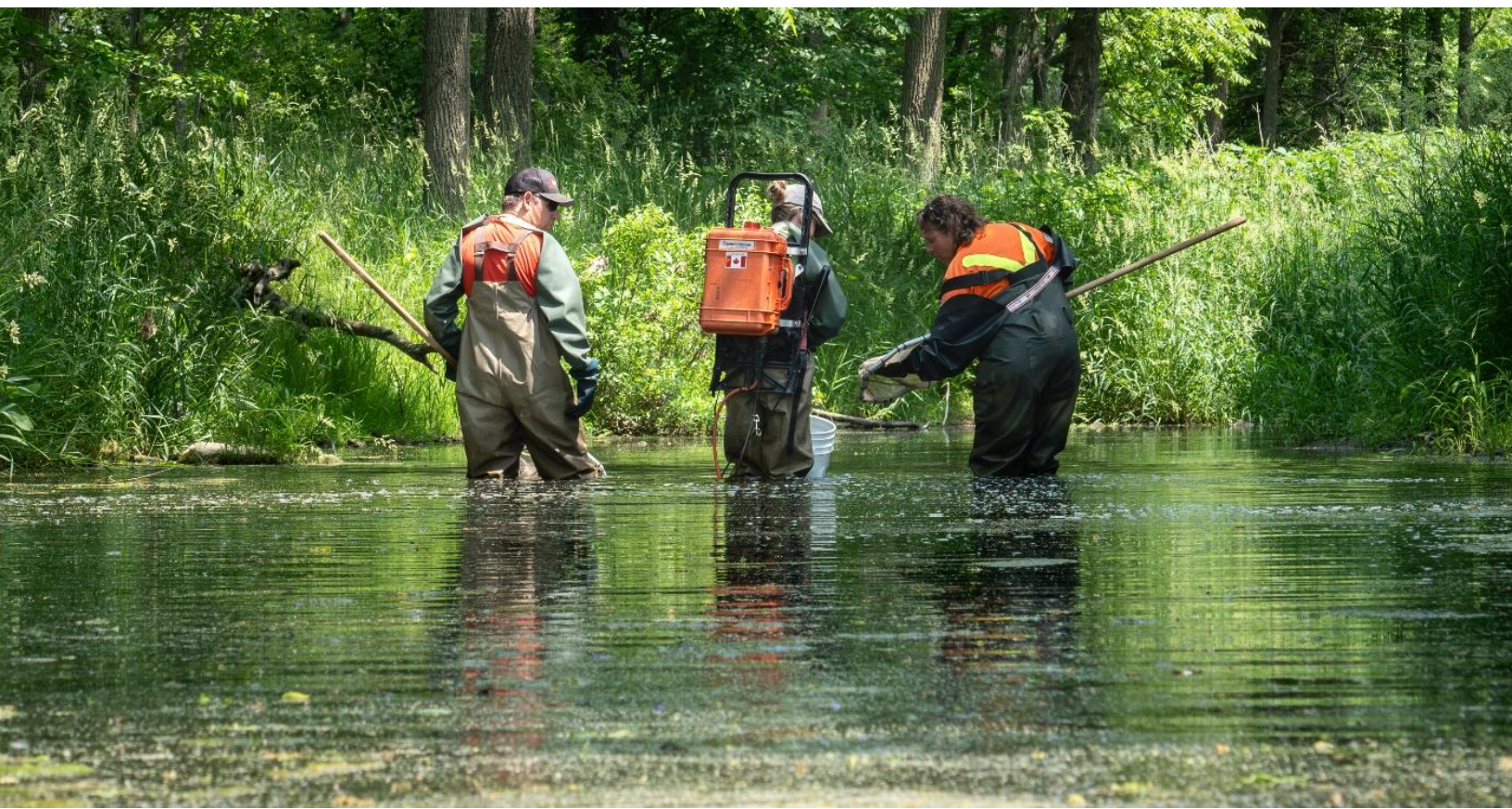
AQUATIC BIOMONITORING

Biomonitoring programs for aquatic species (fish, mussels, and benthic invertebrates) track the abundance and diversity of species, and the presence or absence of at-risk or sensitive species. This information informs management decisions and helps to evaluate stewardship efforts in alleviating threats. Nutrient enrichment, sediment loads, low oxygen concentrations, and invasive species are some of the factors that can threaten local aquatic populations. Fish, mussels and benthics can act as bio indicators to provide information about aquatic ecosystem health.

Fish and Mussel Biomonitoring

Currently biomonitoring programs for fish and mussels focus on identifying locations of species at risk, tracking changes in fish and mussel communities over time, and classifying watercourses based on the aquatic community. Mussels require fish species as a host for the completion of their reproductive cycle and therefore freshwater fish and mussel studies can complement each other.

Some of the fish and mussel species found in the Ausable Bayfield watersheds are rare and have been assessed by the Committee on the Status of Endangered Wildlife in Canada as Endangered, Threatened or Special Concern, with some protected under the federal Species at Risk Act (SARA). The Ausable River supports one of the most diverse and unique assemblages of aquatic fauna for a watershed of its size in Canada. Due to its rich biodiversity the Ausable River watershed has been monitored more extensively than other watersheds within our jurisdiction. At least 28 species of freshwater mussels are known in the Ausable River watershed. Freshwater mussels are among the most endangered organisms in North America. They play an important role in aquatic ecosystems by acting as a living filter improving water quality and providing food for other wildlife. They are threatened by habitat degradation and invasive species. Freshwater fish species diversity within Canada is the highest in Ontario and this includes the Ausable River where at least 90 known species have been found. Fish species presence and diversity can indicate changes in the health of aquatic ecosystems.



Benthic Biomonitoring

Benthic macroinvertebrates are living organisms that inhabit the bottom substrates of watercourses. These insects are good indicators of aquatic ecosystem health since they are sensitive to the effects of their chemical and physical environment. In 2000, the ABCA established a long-term program whereby 30 sites within the watershed were monitored on a biannual schedule (15 per year).

Currently, 18 sites are monitored every year. Additional sites were monitored in the past, and new sites may be added if needs and priorities change. The current 18 sites were selected to provide long-term knowledge about at least one monitoring stream site per subwatershed.

Table 10. Summary of freshwater animal monitoring framework.

Program	Goals	Location Rationale	Sampling Frequency	Indicators
Fish Index Sites	Track changes in the aquatic community over time to evaluate recovery efforts (e.g. stewardship) in alleviating habitat threats, provide information for management decisions	Representative locations for subwatersheds and habitat (cold vs warm water)	Once index stations are established, ideally, they would be revisited every 4-5 years. Certain areas of the ABCA watersheds are targeted based on schedule	Abundance of common species and species at risk Diversity of species
Drain Classification (Fish)	Classify “not rated” drains based on DFO categories. Drain classifications will help guide and streamline drain maintenance activities.	Not rated or unclassified drains are sampled to classify all drains	Once to determine classification, may be resampled on a case-by-case project basis for re class	Presence of species, in particular sensitive species
Mussel Index Sites	Track changes in the aquatic community over time which will help to evaluate recovery efforts (e.g. stewardship) in alleviating habitat threats, provide information for management decisions	Representative locations for subwatersheds	Once index stations are established – ideally revisited every 4-5 years. Certain areas of the ABCA watersheds are targeted based on schedule	Abundance of common species and species at risk Diversity of species
Benthic Biomonitoring	Baseline conditions and trends in water quality, species community composition	Minimum of one site per subwatershed, collection of other data (e.g., PWQMN site), location related to land use (e.g., landfill site)	One sample once per year at 18 sites; sampled in October	Species assemblage

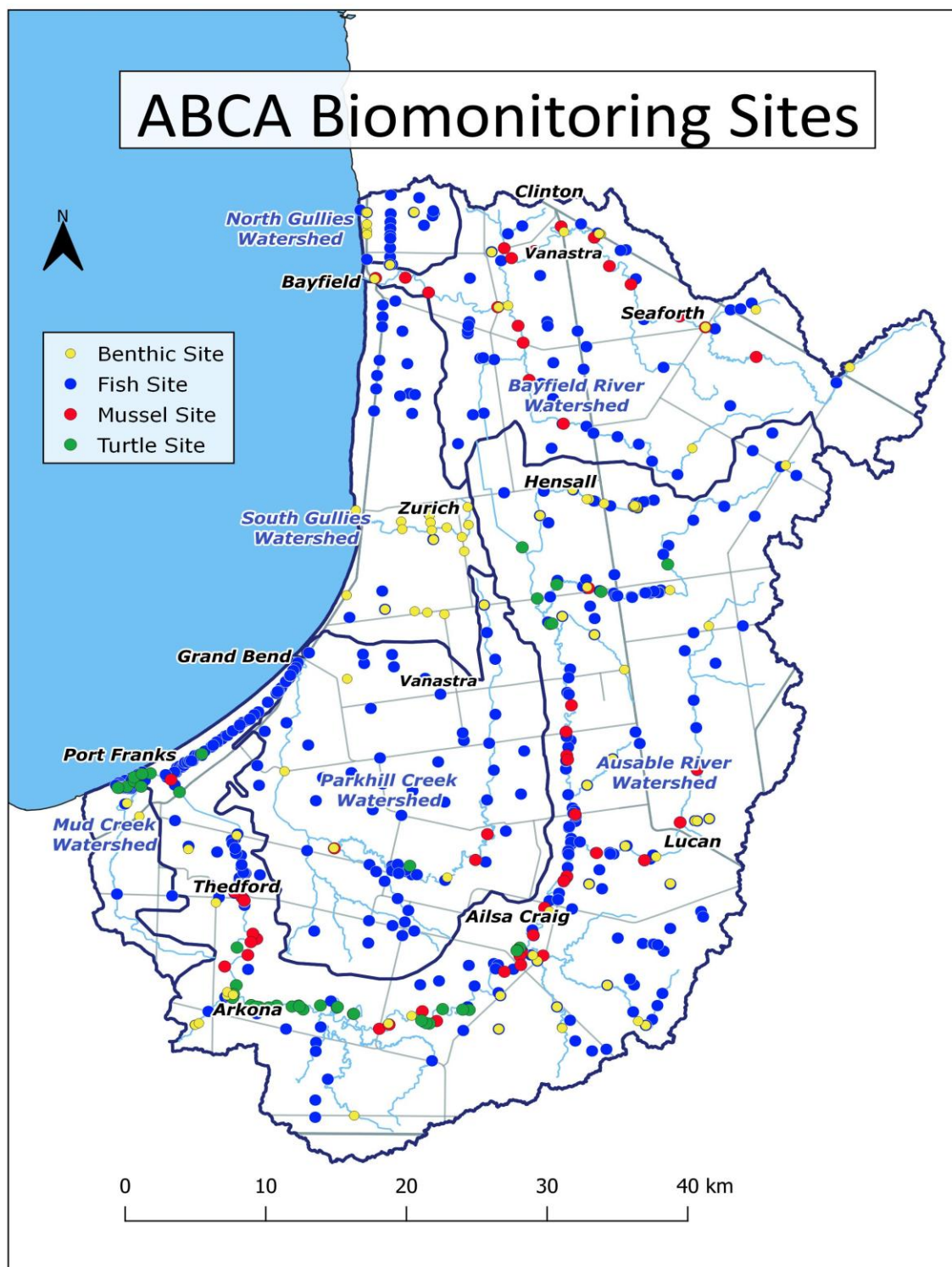


Figure 3. Map of ABCA biomonitoring sites.

MONITORING TO MANAGE

Environmental issues are always multi-faceted. Some projects allow us to investigate local concerns from multiple perspectives. Many of these projects relate to environmental sustainability, as they consider the balance between the environment and economy. Agriculture is the dominant land use across our watershed, so studies that consider both economic and ecological perspectives are especially relevant to our local environment and community.

Measuring water quantity and quality indicators at the site and small watershed scale, along with comprehensive soil, topography, and land management information give us insight to the effects of some land use and management decisions. Further, when environmental costs and benefits are unequally distributed in time, space and between individuals and society, it is also helpful to collect costs associated with different practices. Environmental and economic costs and benefits of Best Management Practice (BMP) are necessary to understand the trade-offs.

Huronview Demonstration Farm

Water quality, quantity, and soil health are monitored intensively at the Huronview Demonstration site, just south of Clinton, ON. This project is a partnership between the Huron Soil and Crop Improvement Association (HSCIA), County of Huron, and ABCA. The 47-acre property had been experiencing low soil fertility, soil erosion, and water quality issues after many years of intensive farming on its rolling hills. In 2015, the property was rented to HSCIA from the County of Huron for a 10-year lease at a dollar a year. The purpose was to use Huronview as a demonstration site for sustainability.

Innovative subsurface tile drainage was installed in 2019, including contour tiling, control gates, pattern tiling, and diversion terraces. Other best management practices include wetlands, vegetative buffer strips, cover crops, and reduced tillage. Water monitoring takes place monthly and after rain events to evaluate the effectiveness of these practices. Water quality sampling includes water from field-runoff, subsurface tile drainage, and water stored in wetlands connected to drainage systems. Groundwater monitoring wells were installed in February 2023 to better understand groundwater quantity and quantity at an agricultural site with tile drainage.

Through a partnership with the more regional Ontario Soil and Crop Improvement Association (OSCIA), a focus for this site is on understanding links between soil properties and water quality.

Table 11. Overview of Huronview Demonstration Farm framework.

Goals	Location Rationale	Sampling Frequency	Indicators
Evaluate agricultural best management practices in partnership with Huron County and the Huron Soil and Crop Improvement Association	Two sites to sample subsurface tile drainage water (contour vs. pattern) Two weirs in agricultural fields to sample surface runoff Additional sites to monitor flow or water quality including wetlands and edge of forest	Rain events Baseline monthly samples from wetland, forest, and subsurface tile systems (as water levels permit)	E. coli, nutrients, suspended solids

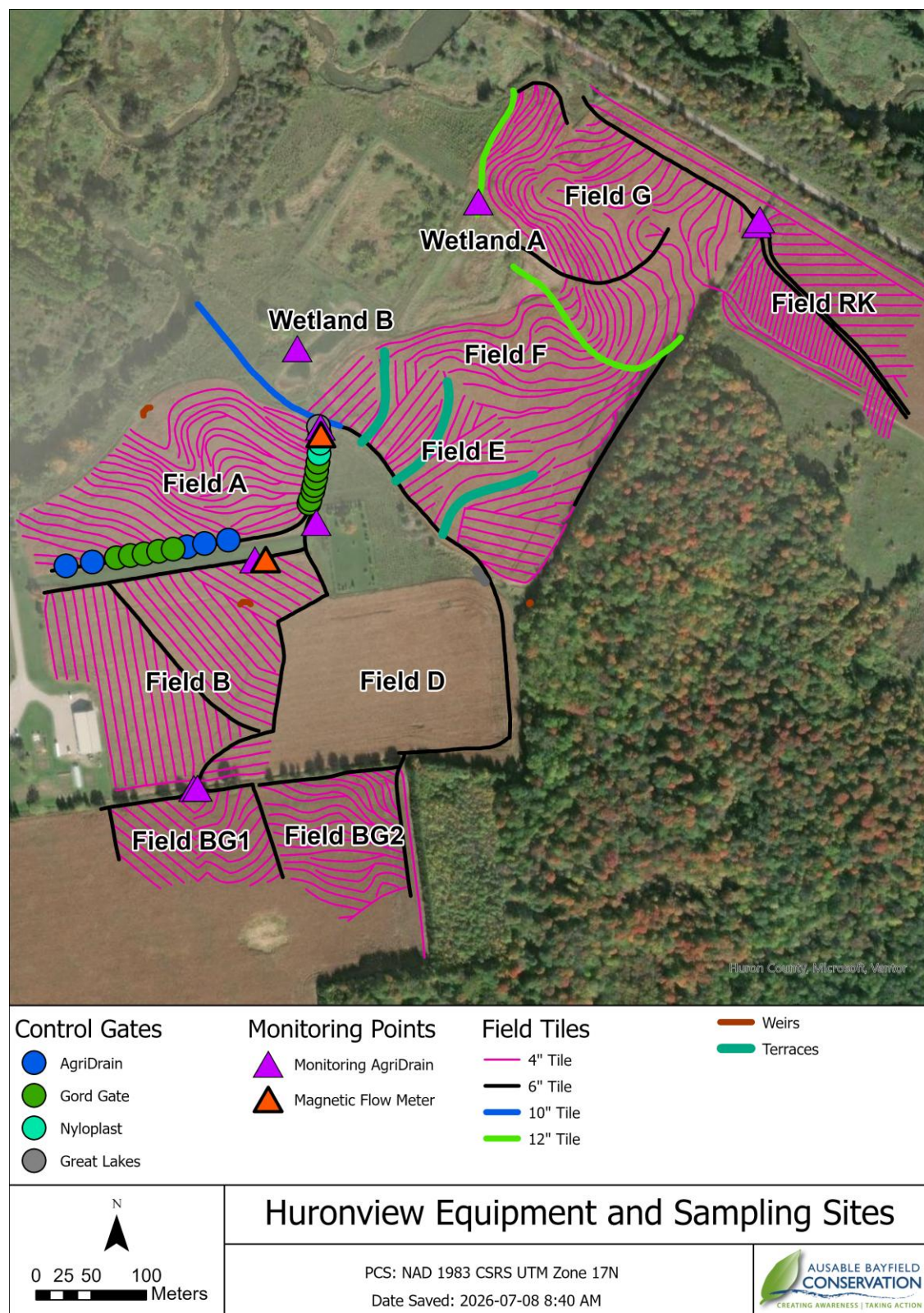


Figure 4. Map of monitoring sites at the Huronview Demonstration Farm.

Rural Stormwater Management

As a result of the Healthy Lake Huron Initiative, comprehensive water quality and land management practices are monitored at Gully Creek and Trick's Creek. The initiation of this data collection process was under the Rural Stormwater Management Model (RSWMM) Project. With continued support from the OSCIA, Gully Creek has an extensive BMP implementation and evaluation program. In partnership with the University of Guelph, the water quality benefits of BMPs such as conservation tillage, cover crops, nutrient management, and water and sediment control basins have been studied at the field and larger watershed scales.

Table 12. Rural Stormwater Management framework.

Goals	Location Rationale	Sampling Frequency	Indicators
Determine baseline conditions, identify trends, inform watershed management	Evaluate agricultural BMPs, type of water quality being monitored (point source vs. non-point), collection of other data (e.g., benthic, stream gauge), location in subwatershed (e.g., located downstream in watershed)	2 watercourses (Trick's Creek, Gully Creek) sampled once per month Rain events	E. coli, nutrients, suspended solids



Old Ausable Channel

The Old Ausable Channel (OAC) is a disconnected portion of the Ausable River and is recognized as an ecosystem gem (Figure 4). It is no longer part of a flowing river and consequently is characterized by clear water and dense aquatic vegetation. The OAC provides Critical Habitat to two Species at Risk (SAR) fishes listed under the federal Species at Risk Act (SARA): Pugnose Shiner and Lake Chubsucker. The OAC is undergoing natural succession (from a riverine habitat to more wetland like conditions) that may be accelerated by anthropogenic activities in the watershed. The northern portion of the OAC is bordered by subdivisions, however most of it falls within Pinery Provincial Park boundaries. Documented winter fish kills, nutrient inputs, aquatic vegetation growth, low dissolved oxygen concentrations and low water levels over recent years have negatively impacted SAR fish populations and their habitat in some areas of the OAC. To evaluate the status of SAR fish habitat and provide information for future management decisions data is collected including - nutrient concentrations through water sampling, and the use of data loggers to record dissolved oxygen concentrations and water levels. With the sensitive fish present and ongoing management options being tested, continuous dissolved oxygen, water level and water quality records are necessary.

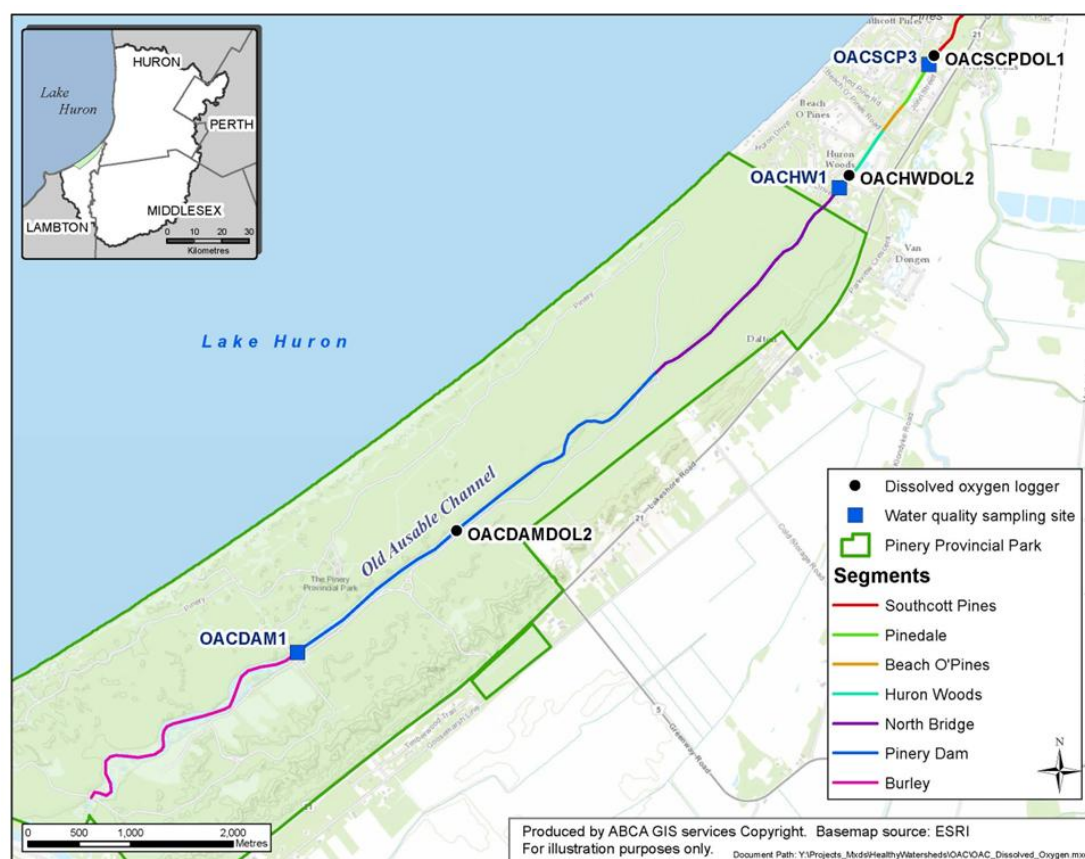


Figure 5. Map of Old Ausable Channel water monitoring sites.

Beach Sampling for Escherichia Coli (*E. coli*)

Water testing for *E. coli* counts in Lake Huron track concentrations of fecal bacteria that may be harmful while swimming.

Sampling for *E. coli* takes places near five Ontario lakeshore communities: Pork Franks (Mud Creek), Turnbull’s Grove, Ridgeway, Wildwood, and Bayfield (Gully Creek) through a partnership with the Bluewater Shoreline Residents’ Association (BSRA). Several other beaches in the area are monitored regularly by Huron Perth Public Health or Lambton Public Health.

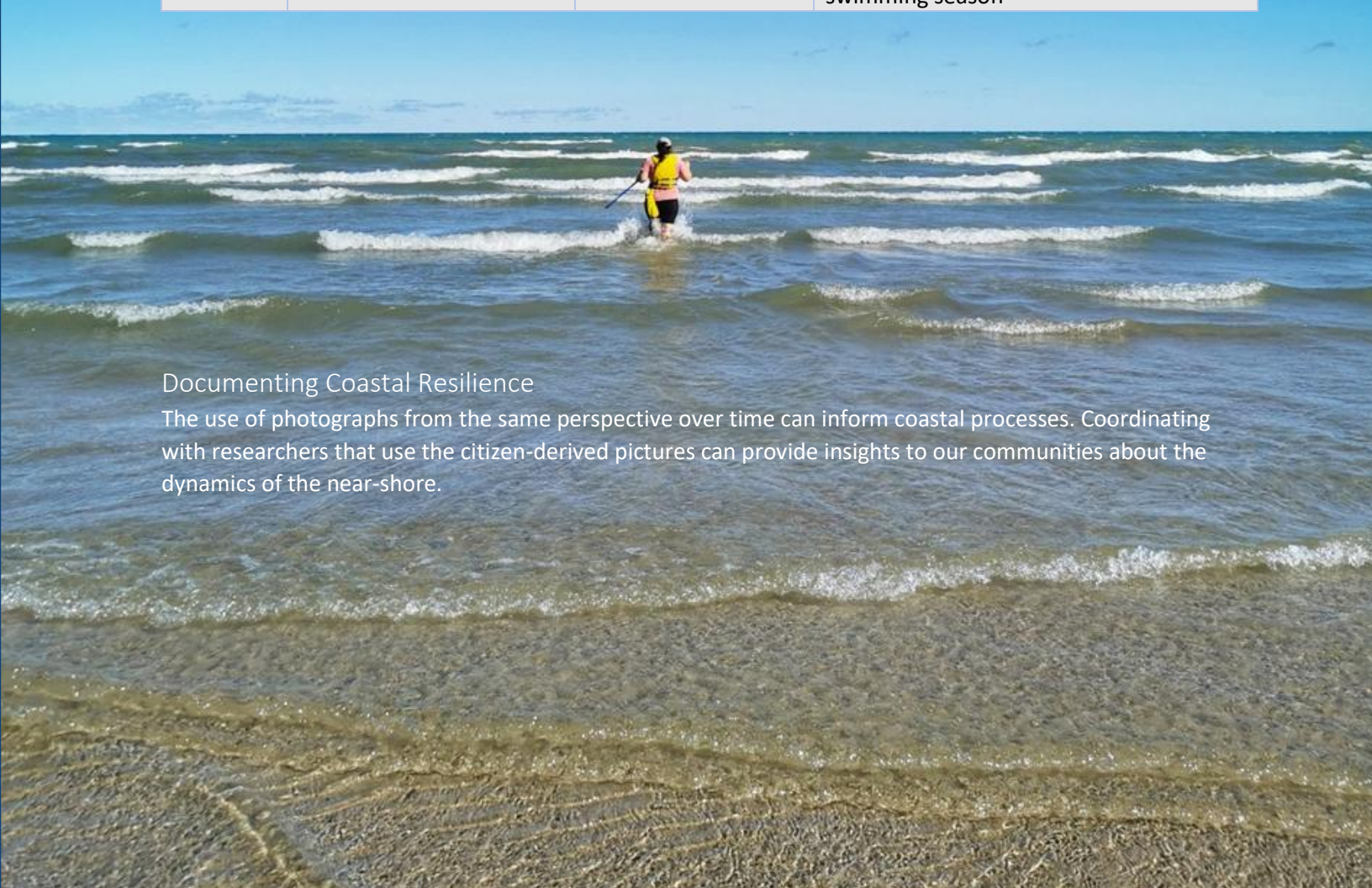
Opportunities to support Microbial Source Tracking with the University of Guelph have been coordinated since 2025.

Table 13. Beach sampling program framework.

Program	Goals	Location Rationale	Sampling Frequency
Beach sampling for <i>E. coli</i>	Determine baseline conditions, identify trends, identify opportunities for water quality improvement, compare against recreational water quality guidelines	Recreational standards for swimming	One day per week from mid-June to late August
		Ravine watercourses	Six samples per day at five sites (in lake at ravine mouth, two north, two south), one within each ravine
			All beaches and ravines are sampled on the same day on a weekly basis during swimming season

Documenting Coastal Resilience

The use of photographs from the same perspective over time can inform coastal processes. Coordinating with researchers that use the citizen-derived pictures can provide insights to our communities about the dynamics of the near-shore.



Water Monitoring with Data Loggers

An important distinction in our monitoring program is the use of data loggers. In some places, some indicators are continuously measured. Data loggers enable collection of continuous time-series data allows for monitoring of conditions when staff are not directly on-site.

As mentioned, water level monitoring is conducted using automatic dataloggers at several groundwater, stream, wetland, and agricultural sites. Data from loggers can be used to produce hydrographs of stream or drain levels, which shows the water level over time. By knowing the volumes of water moving through the water system, we can begin to move beyond concentrations at a given moment and calculate mass loads of environmental pollutants (e.g., kg of phosphate per year moving through a drain or river). Estimating sediment and nutrient loads is an important part of a comprehensive water quality assessment. Data collected from continuously monitored locations can be used in combination with our other data that is more temporally limited. The comprehensive and more simple data provides a cost-effective approach to monitoring.

Other indicators that are monitored more continuously at some locations in our watersheds include soil moisture, temperature and dissolved oxygen.

GIS and Data Analysis

Effective data management is the backbone of our monitoring program, ensuring the hundreds of thousands of records generated annually remain accurate, accessible, and actionable. We maintain strict quality assurance and quality control protocols to ensure every sample, measure, observation, and spatial record is verified and reliable. By centralizing this data into secure, organized databases, we protect baseline data from decades past. This careful management ensures our data remains trustworthy, allowing analysts to confidently identify long-term trends and create information to share with our partners and our community.

Data tells us what is happening at a single point in time. GIS allows us to see the bigger picture. By mapping our landscape features such as topography, soil characteristics, and land use, water quantity and quality data can be transformed into visual, actionable information.

The use of continuous data with spatial analyses allows us to 1) predict and model active hazards such as flooding and erosion and 2) map pollution pathways. To ensure our digital models match reality we verify data with field observations. Spatial modeling helps to identify prime locations for conservation practices, such as wetland enhancements. This mapping can also identify other projects that will have the greatest impact on water quality and help reduce flooding and erosion.

Information belongs in the hands of the community, not hidden in databases or spreadsheets. We translate technical monitoring data into clear meaningful information. This information can be delivered in flood messages, occur in reports on our website, or be presented at public events. By sharing our watershed's story transparently, we build local trust, celebrate conservation successes, and inspire residents to become involved in stewardship on the landscape.

CONCLUSION

The health and long-term resilience of the Ausable, Bayfield, and shoreline watersheds depends on a collective, multi-jurisdictional commitment to robust environmental monitoring. Through resourceful navigation of diverse funding streams and strategic leverage of regional partnerships, the Ausable Bayfield Conservation Authority has established an exceptionally comprehensive monitoring program.

Our current operational framework successfully integrates continuous surface water quantity and in some locations water quality sampling, and seasonal snow course measurements with advanced GIS and data analytics. By collaborating with universities, municipalities, and local communities, the ABCA maintains biological indices, monitoring fish, freshwater mussels, benthic invertebrates, and vulnerable turtle populations. While our reliance on external partnership funding has necessitated an opportunities-based approach to expanding these initiatives, it has ultimately formed an agile, adaptive organization capable of aligning available funding with immediate community and ecological needs.

Moving forward, the ABCA must strategically focus on clear communication, relationship management, and workforce adaptability. Because our programming relies on an evolving network of collaborators, the ABCA must excel at articulating the value of data (and information) to ensure existing partnerships remain strong while adapting as specific partners, funding priorities, and community interests naturally shift over time.

Capitalizing on new, unexpected funding requires a team that is ready to act. Therefore, we must commit to the continuous training of our staff. By ensuring our personnel are highly capable and well-versed in emerging field technologies, automated data collection systems, and modern analytical tools, the ABCA will remain positioned as a lead watershed management organization.

Through open communication, resilient partnerships, and a forward-thinking, technically skilled workforce, we will ensure our watershed monitoring remains uninterrupted, scientifically rigorous, and fully prepared for whatever opportunities arise next. More importantly, the people in the Ausable Bayfield jurisdiction will have a watershed with a “story to tell”. This information will help decision makers continue to protect, improve, conserve, and restore the watershed in partnership with the community.

