
WETLAND ECOSYSTEMS SERVICES PROTOCOL - ATLANTIC CANADA (WESP-AC) TRAINING COURSE

FROM: MARITIME COLLEGE OF FOREST TECHNOLOGY

SUBJECT: July 18th, 2024 Virtual Session, July 24th to 26th, 2024 WESP-AC, FIELD & CLASSROOM TRAINING

The Maritime College of Forest Technology's Department of Continuing Education is pleased to offer our **Wetland Ecosystems Services Protocol- Atlantic Canada (WESP-AC) Training Course** in Amherst, Nova Scotia, with Dr. Paul Adamus as the lead instructor via zoom. Sarah Scarlett and Melanie Juurlink (Strum Consulting) will be leading the practical in person portion.

The training will start with a mandatory Virtual Teaching Session at 10:00 AM on Thursday, July 18th, 2024 and end at approximately 4:30 PM.

The classroom sessions will be held at the Community Credit Union Business Innovation Centre in Amherst, Nova Scotia starting at 9:30 AM on Thursday, July 24th and end at approximately 2:00 PM on Friday, July 26th, 2024.

In order to be recognized as completing the course you will need to attend both the Virtual training session with Dr. Paul Adamus as well as the 3-day field and classroom portion. Please consider this before you register for the course.

Please note seats are limited, so please apply early. The cut-off date will be at 4:00 PM on Friday, July 5th, 2024.

If you have any questions, please email me at ce@mcft.ca.



Chris Fennamore, CFT, Director
Department of Continuing Education

WETLAND ECOSYSTEMS SERVICES PROTOCOL - ATLANTIC CANADA (WESP-AC) TRAINING COURSE

DATES: Thursday, July 18th (Virtual) as well as Wednesday, July 24th to Friday, July 26th, 2024 (In-person).

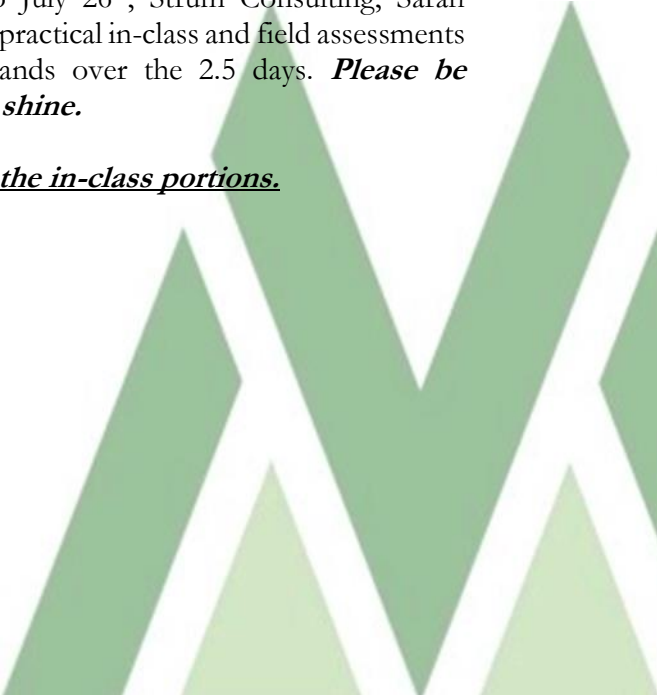
LOCATION: Amherst, Nova Scotia. Classroom sessions will be held at the Community Credit Union Business Innovation Centre located at 5 Ratchford St, Amherst, Nova Scotia, Canada B4H 1X6.

CANDIDATES: This three-day course on WESP-AC will be useful to environmental consultants and agency staff responsible for assessing wetland functions and benefits, monitoring restored wetlands, or conducting watershed assessments.

FORMAT: Authored by one of the course instructors, Dr. Paul Adamus, the field-calibrated versions of the WESP-AC data forms, manual, and spreadsheet models were released in April 2017 for each of the provinces in Atlantic Canada. They are useful for rapidly assessing the ecosystem services of wetlands, usually supporting environmental impact assessments and monitoring of restoration projects. Earlier versions of this tool are now officially required for use by the Province of Alberta and the states of Oregon and (in part) Alaska. Regionalization for resource agencies in Atlantic Canada began in 2015 in New Brunswick. It was followed by field visits to hundreds of wetlands in Nova Scotia, Prince Edward Island, and Newfoundland-Labrador, as necessary to calibrate those provinces.

On the first day, Thursday July 18th, via live feed from Oregon, Dr. Adamus will describe its origins, overall structure, and how it is being used elsewhere. He will conclude by explaining components of each model that automatically compute relative estimates of a wetland's importance for three hydrologic functions, four water quality functions, nine habitat functions, and carbon storage. On Wednesday, July 24th to July 26th, Strum Consulting, Sarah Scarlett and Melanie Juurlink, will lead practical in-class and field assessments of three (freshwater and tidal) wetlands over the 2.5 days. ***Please be prepared with field gear for rain or shine.***

Laptops or tablets are required for the in-class portions.



PRE-COURSE WORK:

Participants will be assigned materials for review before the course date.

Digital copies of the manual and species lists will be provided for the course.

If you do not have a background in wetland biology or have not taken a wetland delineation course, please read the provided documents before the October 19th session to obtain a basic understanding of wetland terminology and assessment.

AGENDA: Virtual Afternoon with Dr. Paul Adamus

- **July 18th, 2024, 10:00 AM – 4:30 PM**
 - **To receive the WESP-AC certificate, students must attend the full virtual session and the field course**
 - Topics to include tidal and non-tidal WESP-AC forms, field procedures, stressor form, online form overview and general information about the method.

10:00 to 11:00 - Introductions and Welcomes by Strum Consulting and
Dr. Paul Adamus

- Policy presentations by Nova Scotia Department of Environment &
Climate Change, New Brunswick Department of Environment &
Local Government.

11:00 to 12:00 - Lecture – Dr. Paul Adamus

12:00 to 12:30 - Lunch

12:30 to 2:00 - Lecture - Dr. Paul Adamus

2:00 to 2:15 - Break

2:15 to 3:15 - Lecture - Dr. Paul Adamus

3:15 to 3:30 - Break

3:30 to 4:30 - Lecture - Dr. Paul Adamus

DAY 1: OF Assignment (morning) and Non-Tidal WESP-AC 1 (afternoon)

Wednesday, July 24th, 2024 at the Community Credit Union Business Innovation Centre located at 5 Ratchford St, Amherst, Nova Scotia, Canada B4H 1X2

9:30 to 10:00 - Arrival to Amherst classroom (please have field gear on hand)
- Welcome, introductions (everyone in-person) and registration forms

10:00 to 12:00 – **Non-Tidal** OF Form introduction, in-class demo

12:00 to 12:30 - Overview of first wetland visit (e.g., location, instructions, more difficult questions are highlighted, and field plan discussed)

12:30 to 1:15 – Lunch Break (catered in classroom)

1:30 – Meet at first non-tidal wetland (Tyndall Rd Wetland)

1:30 to 4:00 – Non-Tidal WESP-AC assessment (*divide into 3-4 small groups with leader and go through assessment, provide students with checklist*), meet up as a group and discuss results

DAY 2: Non-Tidal WESP-AC 2 (morning) and Tidal WESP-AC (afternoon)

Thursday, July 25th, 2024

9:00 to 9:15 - Meet at second non-tidal wetland (Glooscap Trail Wetland)

9:15 to 12:00 - Non-Tidal WESP-AC assessment (done in small groups)

12:00 to 1:30 - Lunch (**Students responsible for their own lunch, time to grab lunch locally**)

1:30 to 2:00 – Meet at tidal wetland site (Southampton Rd Tidal Marsh)

2:00 to 4:00 - Tidal WESP-AC assessment (done in small groups)

DAY 3: Tidal OF Assignment and Questions with Dr. Paul Adamus

Friday, July 26th, 2024

9:00 to 11:00 - Overview of tidal visit and Tidal OF Form introduction and in-class live demo

11:00 to 11:30 - Present Scoring (non-tidal and tidal)

11:30 to 12:00 – Office Form self-guided practice questions (**bring laptop**)

12:30 to 1:30 – Lunch Break and Questions with Paul [virtual]

1:30 to 2:00 - Closing remarks, evaluation forms and hand-out certificates

This agenda may be adjusted closer to the course dates.

ENROLMENT: Enrolment will be limited to twenty-five (25) candidates per session on a first-come, first-served basis.

INSTRUCTORS: **Paul Adamus (via Zoom)**

Paul Adamus is a wetland scientist from Oregon State University, with a BSc and Ph.D. in Wildlife Science and an MS in Aquatic Biology. He is the creator of WESP-AC and similar tools he was asked to develop and field-calibrate previously for governments in Alberta, Alaska, and Oregon. He has authored over one hundred publications and recently co-authored the book “Wetland and Stream Rapid Assessments” and significant parts of the Wikipedia entry on wetlands. Before joining the university faculty, he worked in the US Environmental Protection Agency’s National Wetlands Research Program for ten years. Although retired now, he still advises graduate students, publishes, and conducts trainings like these at the request of sponsoring agencies. Before moving to Oregon, he spent 16 years in Maine. While a college student there, one summer, he assisted in Maine’s first wetlands inventory. An avid birder, he also helped coordinate and publish Maine’s first Breeding Bird Atlas Project. Years later, while in Oregon, he directed a similar project that is the most extensive wildlife inventory ever conducted in Oregon.

Strum Consulting

Strum is a local Atlantic Canada based firm comprising of 150 specialists who have been leading providers of exceptional environmental, engineering, and surveying services for corporate, private, and government clients throughout Canada since 1995.

Melanie Juurlink (MREM)

Ms. Juurlink has been in the environmental consulting profession since 2005. In her current role as Sr. Ecologist and Project Manager, Melanie is responsible for completing biophysical assessments and ecological inventories, including flora and habitat surveys, fish and fish habitat assessments, avian surveys, and species at risk evaluations. Melanie has always been drawn to aquatic ecosystems, and has focused heavily on wetland delineation and functional assessments. Melanie started using WESP-AC with Dr. Paul Adamus in 2016 completing the first version of the Nova Scotia WESP-AC calibration study, during which time she was able to help build and calibrate the tool based on local datasets. She has been both using WESP-AC and training staff internally on its usage ever since.

Sarah Scarlett (M.Sc.)

Ms. Scarlett has worked in the environmental sector since 2014, specializing in wetland and biophysical sciences. Sarah holds an M.Sc. in wetland sciences, with a focus on wetland hydrology and restoration. She has worked across Canada in as an academic researcher, provincial regulator, private industry representative and environmental consultant. and restoration initiatives. Sarah lead the first phase of the update to the Nova Scotian WESP-AC calibration study in 2021-2022, in collaboration with Dr. Paul Adamus and NSECC, and is presently coordinating the second phase of the study. She has since supported with WESP-AC training, interpretation for environmental assessments and permitting, and engages with Dr. Adamus on updates to the WESP-AC tool.

ACCOMMODATIONS:

Local hotels are as follows:

Super 8 by Wyndham

40 Lord Amherst Dr, Amherst, NS B4H 4W6•(902) 701-9853

<https://www.wyndhamhotels.com/super-8/amherst-nova-scotia/super-8-amherst-ns/overview?CID=LC:SE::GGL:RIO:National:14512&iata=00093796>

Wandlyn Inn

1539 Southampton Rd, Amherst, NS B4H 3Y4•(902) 661-0779

<https://www.wandlyninns.com/>

Brown's Guest Home Bed & Breakfast

158 Victoria St E, Amherst, NS B4H 1Y5•(902) 667-9769

<https://brownsguesthome.com/>

Comfort Inn

143 S Albion St, Amherst, NS B4H 2X2•(902) 667-0404

<https://www.choicehotels.com/nova-scotia/amherst/comfort-inn-hotels/cn247?mc=llyxcnennbl&pmf=canada>

MEALS: We will provide nutrition breaks each day and lunch on day 1 and 3. Snacks and drinks will be made available in the field.

If you have special dietary needs, please make sure to include that information in an email to us ASAP.

TUITION: Tuition for the program, including supplies, is \$1250 + HST.

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is equivalent to 14 Continuing Forestry Education Credits.



