

Lake and Stream Ecology/Water Quality Workshop

NeSoDak Environmental Learning Center – Waubay, SD

July 11-13, 2018

This workshop is designed for three audiences; resource agency personnel, lake association members and the general public who want to better understand the resources they work with or live by; teachers who want to lead their students on field trips to local water bodies to conduct water quality testing and bio-assessment; and college students earning degrees in natural resource or science fields. Participants can attend the two day workshop to learn about basic limnology or the three day workshop if interested in learning about basic limnology and bio-assessment of lakes and streams. For teachers and college students there are two options to earn Continuing Education Unit Credits (CEU) and/or under-graduate and graduate credit hours. The two day workshop (Thursday and Friday) will earn teachers 1.3 Continuing Education Units. The three day workshop (Wednesday through Friday) will earn teachers 2.0 Continuing Education Units or 1 Credit Hour for students and teachers needing under-graduate or graduate credit. Lodging and meals are provided at no cost to workshop participants. Those interested in receiving CEUs and under-graduate/graduate credit must pay a fee of \$45 for 1 credit hour and \$15 for the CEU Certification.

The three day workshop will begin at **9:30 am on Wednesday July 11th** with a unit on stream bio-assessment. Participants in this unit will be provided with invertebrate keys and a set of preserved reference specimens to take home that will include as many taxa as possible. The stream ecology unit of the workshop will include travel to one or more sites for collection of stream invertebrates, demonstrations of sampling equipment, and simple stream assessment techniques, and water quality measurements. Following the collection of stream invertebrates, the group will return to NeSoDak to sort, identify, and classify the organisms according to their pollution tolerance utilizing identification keys and references. Participants will use the collected invertebrates to assess the ecological health of the sampled streams using bio-assessment forms. The goal of the bio-assessment is to provide the participants with the knowledge and tools necessary to teach a unit on stream ecology.

On Thursday and Friday (July 12-13), two day and three day attendees will partake in classroom lectures and demonstrations on basic limnology at the NeSoDak Environmental Learning Center. Several hands-on demonstrations will be taught that participants can use to demonstrate to others limnology principles such as aquatic photosynthesis, stratification, aquatic food chains, bio-magnification, and the “Lake Game”. Workshop participants will receive a workbook and activity guide, and the “Healthy Water, Healthy People” educator’s guide.

Workshops will begin at 9:30 am on July 11 and 9:00 am on July 12 and July 13, and conclude at 5:30 pm on July 11 – 12 and 3:00 pm July 13.

The workshop will be limited to 25 people. Participants must make their own travel arrangements to NeSoDak. Travel to and from sampling sites will be provided by the workshop. Please forward the completed registration form to the Day Conservation District by **July 1, 2018**. A separate health and participation form for NeSoDak must be completed and turned in when you arrive at camp.

Evening activities may include kayaking, stand-up paddling, or canoeing on Enemy Swim Lake, and a field trip to the Blue Dog Lake State Fish Hatchery.

Participants may also bring their own boats to fish on Enemy Swim or one of several nearby lakes during the evening.

Participants will need to bring the following items;

Sleeping bag or bedding and pillow

Towels and wash clothes

Personal hygiene items (sun block and insect repellent recommended)

Closed toe sandals, water socks, hip boots or waders for wading in streams and lakes

Shorts or swim suits for wading/kayaking

Rain gear

Water bottle

Optional Items

Camera

Notebook

Hiking boots

Entertainment for after hours at camp - I-pods, DVDs (no inappropriate material please)

Laptop Computer (Wi-Fi available)

Kayaks, canoes, or paddle boards

Note: camp buildings are smoke free, no alcohol allowed anywhere on campus!

Lake and Stream Ecology and Water Quality Workshop

**NeSoDak Environmental Learning Center
Enemy Swim Lake – Waubay, South Dakota
July 11-13, 2018**

Registration Form (Deadline July 1, 2018)

Name: _____

Title: _____

Organization/School: _____

Grade: _____ Subject Taught: _____

Address: _____

City: _____

State _____

Zip Code: _____

E-mail Address

Work: _____ Home: _____

Phones: _____

Attending for:

_____ 2 Day Workshop – For Fun and Enrichment Only (July 12-13)

_____ 2 Day Workshop – 1.3 Continuing Education Unit (CEU) (July 12-13)

_____ 3 Day Workshop – For Fun and Enrichment Only (July 11-13)

_____ 3 Day Workshop – For 2.0 CEU (July 11-13)

_____ 3 Day Workshop – 1 under-graduate/graduate credit (July 11-13)

Will you require overnight lodging at the camp? (No charge for lodging)

July 10____ July 11____ July 12____

(For those arriving the evening of July 10th what is your estimated time of arrival _____ pm)

Do you have any special dietary restrictions or needs? Please describe below.

The following meals are available at no cost to participants; lunch and supper on July 11; breakfast, lunch and supper on July 12; and breakfast and lunch on July 13.

For those staying overnight on July 10 breakfast will be available the following morning (July 11).

Yes I want breakfast on July 11 _____

I hereby give permission for the Day Conservation District and representatives, to take and use: photographs and/or digital images of myself for use in grant reports, news releases, websites and/or educational materials. I further agree that my name and identity may be revealed in descriptive text or commentary in connection with the image(s). I authorize the use of these images without compensation to me. All negatives, prints, digital reproductions shall be the property of the Day Conservation District.

Name

Date

Send completed registration form to:

Dennis Skadsen
Day Conservation District
600 East Hwy 12, Suite 1
Webster, SD 57274

or e-mail a scanned copy of completed form to;
dennis.skadsen@sd.nacdnet.net

Day Conservation District

WAIVER OF LIABILITY, INDEMNIFICATION, MEDICAL RELEASE

✓ Please print and complete the following:

Name: _____
(First, Middle Initial, Last)

Mailing Address: _____
(Street, Rural Route, Box Number) City State Zip

Phone Numbers: (_____) - _____ - _____ (_____) - _____ - _____
Area Code And Home Phone Number Area Code And Cell Phone Number

Birthdate: ____/____/____
Date Of Birth (M, D, Y)

Said undersigned does hereby represent and assigns to:

- (a) Waive, release and discharge from any and all liability for participant's death, disability, personal injury, property damage, property theft or actions of any kind which may hereafter accrue to participant and his/her estate, Day Conservation District, its officers, agents, employees, and all volunteers assisting with the event; and
- (b) Indemnify and hold harmless the Day Conservation District, and its officers, agents, employees, and all volunteers assisting with the event from and against any and all liabilities and claims made by other individuals or entities as a result of participant's participation or actions during this activity or event; and
- (c) Authorize consent for medical treatment to the participant which may be deemed advisable in the event of injury, accident or illness during this activity; and

This release and waiver shall be construed broadly to provide a release and waiver to the maximum extent permissible under applicable law.

I, the undersigned, acknowledge that I have read and understand the above.

Signature of Participant: _____ Date: ____/____/____