

Watershed Training Certificate



Earn a Watershed Management Training Certificate!

You can document your learning by meeting the requirements for the Watershed Academy's **Watershed Management Training Certificate**. The certificate program recognizes website visitors who complete **15 required modules** and pass their self-tests with grades of 70% or higher.

Hundreds of people from throughout the United States and many foreign countries have completed the certificate program. They include scientists and non-scientists, local, state and federal agency staff, community leaders, consultants, college students, active citizens, and others.

After completing certificate requirements, provide your full name and mailing address to wacademy@epa.gov. We will mail you a signed certificate to add to your resume.

For more information on watershed protection, see <http://www.epa.gov/owow/>

About the Watershed Academy

The Watershed Academy was started by the EPA's Office of Water in 1994 to provide training courses and educational materials on the basics of a watershed approach. Our target audience includes local, state, tribal, and federal officials as well as citizens and private practitioners of watershed management. The Watershed Academy has four main components:

- Live watershed training courses.
- Distance learning via Internet or CD.
- Information Transfer Series publications.
- State/Tribal watershed program assistance.

Watershed Academy Web now available on CD!

A set of 44 training modules from Watershed Academy Web are now available on a free CD. Single copies of the CD are available by requesting "Watershed Academy Web on CD" publication no. EPA 841-C-03-001 from the following distributor:

By Email:
ncepimal@one.net

By Mail:
U.S. Environmental Protection Agency
EPA Publications Clearinghouse
P. O. Box 42419
Cincinnati, Ohio 45242

Phone:
1-800-490-9198 (Toll-Free)
1-513-489-8190 (Local)



Watershed Academy Web

Online Watershed Management Training



Watershed Academy Web

Training in watershed management fundamentals

Courses won't fit in your schedule?

Can't get funding for watershed training?

Instead, why not learn online?

Watershed Academy Web is a comprehensive training course on watershed management that you can take for free, anytime and at your own pace, on your home or work computer.



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<http://www.epa.gov/watertrain>

Introducing Watershed Academy Web

Nationwide, even worldwide, thousands of people want watershed training. Many obstacles stand in the way: few course offerings, rigid training schedules vs. busy jobs, tuition and travel costs, narrow coverage of topics, limited time in classroom. As an alternative to classroom learning, EPA's **Watershed Academy Web** offers self-paced training modules through the Internet, providing a basic but broad introduction to the many facets of watershed management.

These modules cover the most important watershed management topics—those subjects about which watershed managers, local officials, involved citizens, decision makers, and others should have an introductory level of knowledge.

Our goal is to make this basic but broad introduction to watershed management available to anyone who has access to the Internet or a computer with a CD drive. The length and complexity of each module varies, but most are at the college freshman level of instruction. Students and citizens new to the watershed field can use Watershed Academy Web as basic training. More experienced watershed practitioners may use it for review, study specific modules to fill gaps, or use the modules for introducing watershed principles to others. Professors have used the modules in college courses.

Modules feature color graphics, narrative text, glossaries, numerous hot links, and interactive tests.



<http://www.epa.gov/watertrain>

Watershed Academy Web began as the first online, interactive “watershed textbook/lecture series” for the public. Our website now has **over 48 modules** and more continually under development. Many were authored by well-known figures in watershed management. Most modules have 25 to 50 color illustrations and photos, unlike an average technical paper. Many have interactive exercises, related links and references, and self-tests. Our web-based training doesn't duplicate a live class, but it has the following strengths:

Public access, no cost

There is no charge and it is available anytime, anywhere in the world. No registration is required—just go online and start learning.

Coverage of key topics

Web-based training is not limited to what can fit in a short course; there's weeks of material here.

Self-paced instruction and review

Students control their own pace to fit their browsing style and work schedules, and can review modules at any time.

A Typical Point Source Modeling Problem

- Steady-state
- Low flow conditions

Predicted DO Concentration (mg/l)

River Mile

OUTFALL

MINIMUM DO Standard

BACK NEXT

shown in the graphic, we can apply a steady-state water quality model to estimate the dissolved oxygen (DO) depletion associated with this source at a design low flow condition in the receiving water (e.g., the [7Q10](#) flow).

In this case, the steady-state [EPA model QUAL2E](#) was applied. River miles increase in the upstream direction, by convention. The outfall of interest is at river mile 17. As the oxygen-demanding waste is carried downstream it begins to deplete oxygen within the river. This effect increases as river velocity slows, decreasing aeration, below river mile 14. The analysis was made at design conditions consisting of proposed new

Watershed Academy Web Topics

We've organized the modules around these six themes that span the watershed management field:

Introduction/Overview

These modules introduce the principles of the watershed approach and the value of working at a watershed level.

Watershed Ecology

These modules show that watersheds are natural systems that provide substantial benefits to people and the environment when key natural functions are maintained.

Watershed Change

These modules describe both natural and human-induced changes in watersheds, and contrast normal variability with changes of concern.

Analysis and Planning

These modules address how watershed planning, monitoring, and assessment are important steps toward finding solutions.

Management Practices

These modules show how watershed management challenges like urban runoff, cropland management, forestry and other issues are addressed by techniques that reduce environmental impacts.

Community/Social/Water Law Modules

These modules concern society's interactions with watersheds, including laws and regulations, decision-making, communications and outreach, and lessons learned.

Work with us...

Are you an educator? Use our modules as the framework for a watershed course and add your own lectures, discussions or readings. Or, send us ideas for more modules. Email: wacademy@epa.gov or write:
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