

May 2009

Biocriteria Certification Under the Voluntary Action Program

Introduction

Ohio's Voluntary Action Program (VAP) was created to give businesses and property owners a way to investigate possible environmental contamination due to hazardous substances or petroleum releases, clean up the property if necessary and receive a covenant not to sue; that is, a promise from the State of Ohio that no more cleanup is needed.

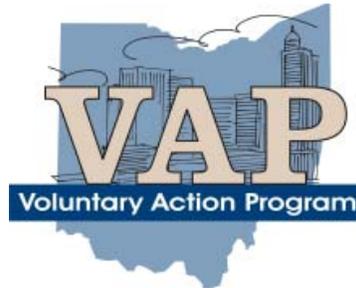
The VAP maximizes resources and expertise in the private sector by using qualified and experienced professionals such as engineers and scientists certified by Ohio EPA as certified professionals (CP).

When a CP determines after site investigation and, if necessary, cleanup that the property meets the standards contained in the program rules (OAC Chapter 3745-300), he or she can prepare what is called a No Further Action (NFA) letter. This document, which must be submitted in a prescribed format developed by the VAP, describes the environmental problems found at the site, how those environmental problems were investigated and how the site was cleaned up.

Sediment Contamination

The CP is qualified to conduct and oversee the preparation of the NFA letter without further certification, with one exception. When preparing an NFA letter with potential sediment contamination, there are certain conditions when the CP must conduct a biological assessment to evaluate sediment toxicity. These conditions occur when:

- An important ecological resource is potentially impacted. (See Ohio Administrative Code 3745-300-01).



- The CP has not sampled the sediment and compared chemicals of concern with the reference values provided by Ohio EPA.
- The CP has sampled sediment and standards are not being met.
- There are no biological data collected and interpreted by Ohio EPA available for use that was collected less than ten years prior to the issuance of the NFA letter.

In order to conduct the biological assessment, the CP or the CP's designated representative must have biocriteria certification.

Biocriteria and Biological Assessment

Biological criteria (biocriteria) are narrative descriptions or numeric values that describe the biological condition of aquatic communities inhabiting waters of a designated life use. Biocriteria are based on the numbers and kinds of organisms present and are regulatory-based biological measurements. These criteria are used to determine if waters are affected by chemical pollution or other factors.

There are several indices used to conduct biological assessments:

- The Qualitative Habitat Evaluation Index (QHEI) is a physical habitat index.
- The Index of Biotic Integrity (IBI) is an ecologically based index.
- The modified index of well-being (MIWB) is a calculation of fish mass and density.
- The invertebrate community index (ICI) is similar to the IBI and measures the health of the macroinvertebrate (insects, aquatic worms, snails, clams, crayfish, etc.) community.

Biocriteria Certification

As the indices for biological assessment indicate, two separate assessments are involved – a fish assessment and a macroinvertebrate assessment. Qualification to perform either of these assessments takes several years of training and experience. Ecologists normally specialize and become certified in one or the other due to the extensive qualification requirements. The physical habitat assessment does not require as much training and can be taught with the qualifications for fish or macroinvertebrate assessment.

The CP or the CP's designated representative must conduct the biological assessment according to the procedures contained in Ohio EPA's biocriteria and surveillance methods manuals published by the Division of Surface Water (DSW). In addition, the CP or the designated representative must complete Ohio EPA's biocriteria training and receive the biocriteria certification. The training is offered on an as-needed basis, usually every few years.

Biocriteria certification expires two years after the issuance of the certification.



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Biocriteria Recertification

An individual who has received biocriteria certification can extend their original two-year certification three additional years (for a total of five years).

Valid certifications are based on the individual providing reports to Ohio EPA that document the use of the certified fish or macroinvertebrate assessment methods as detailed in the following documents:

- Biological Criteria for the Protection of Aquatic Life, Volume II: Users' Manual for Biological Field Assessment of Ohio Surface Waters
- Biological Criteria for the Protection of Aquatic Life, Volume III: Standardized Biological Field Sampling and Laboratory Methods for Assessing Fish and Macroinvertebrate Communities
- Users' Manual for Biological Field Assessment of Ohio Surface Waters

Up to three, one-year certification extensions are allowed for physical habitat assessments. Again, valid certifications are based on the individual providing reports to Ohio EPA that document the use of the certified physical habitat assessment method using:

- Biological Criteria for the Protection of Aquatic Life, Volume III: Standardized Biological Field Sampling and Laboratory Methods for Assessing Fish and Macroinvertebrate Communities.

At least one study from the previous calendar year needs to be submitted to Ohio EPA for each extension. Reports need be submitted at least 30 days prior to the expiration of the certificate to maintain continuous certification. Mail all reports to:

Dave Altfater
Ohio EPA, DSW
Ecological Assessment Unit
4675 Homer-Ohio Lane
Groveport, OH 43215

Renewal Requirements After the Extension Period

After the five year period, the individual must re-sample the original test site(s) from the biocriteria training course or new test sites and provide the raw data results to the Ohio EPA DSW/Ecological Assessment Unit. Index scores will be calculated from the raw data and compared to Ohio EPA generated results. As with the existing biocriteria certification program, a passing score of 80 percent is required to maintain the appropriate certification. If the professional receives a score below 80 percent, they will be required to attend the field portion of the biocriteria

certification course pertaining to the certification method in question and pass the practical exams. Additional information concerning test sites for re-sampling will be provided prior to the expiration of the individual's five-year extension period.

Renewal Requirements when a Certification Lapses

After a certification lapse of greater than one year, an individual must attend and successfully complete the full Ohio EPA biocriteria certification course. If certification has lapsed for a period of time of one year or less, a person may recertify by meeting the requirements contained under the "Renewal Requirements After the Extension Period" listed above. It is important to note that if an individual lets their certification expire, they cannot conduct biocriteria testing in support of a voluntary action unless their certification is renewed according to the above requirements.

Questions?

Please contact Dave Altfater at (614) 836-8786 or Amy Yersavich at (614) 644-2285 for questions concerning VAP recertification requirements for biocriteria testing.