

MBSS Benthic Macroinvertebrate Sampling and Laboratory Processing /Subsampling Certifications Frequently Asked Questions

I want to collect, process and identify stream benthic macroinvertebrates in Maryland and have been asked to comply with the MBSS certification process. What is required?

The requirements are:

1. Sample Collection: The *individual* sampling benthos is certified in MBSS benthic macroinvertebrate sampling.
2. Laboratory Processing/Subsampling: The *individual* processing and subsampling the benthic macroinvertebrate sample OR the *lab manager/supervisor* overseeing sample processing and subsampling in their lab is certified in MBSS laboratory processing and subsampling.
3. The *individual* taxonomist identifying the macroinvertebrates is Society for Freshwater Science (SFS) certified in Group 2 (Ephemeroptera, Plecoptera, and Trichoptera) genera and Group 3 (Chironomidae) genera.

What is involved in MBSS Benthic Macroinvertebrate Sampling certification?

1. You must register for and attend MBSS Spring Training. Attendance will be documented.
2. You must be present during the PowerPoint presentations given at MBSS Spring Training.
3. You must be present at the benthic macroinvertebrate sampling field demonstration at MBSS Spring Training.
4. Using your own equipment and supplies, you must collect a MBSS benthic macroinvertebrate sample using standard MBSS protocols with oversight from a MBSS Quality Control Officer prior to sampling other sites.
5. You must complete a written test administered at the end of the MBSS Spring Training.

What specifically is involved in laboratory processing and subsampling certification?

1. You must attend a brief training on MBSS benthic macroinvertebrate processing administered at the DNR Benthic Lab in Annapolis.
2. You must demonstrate proficiency in benthic sample processing and subsampling. This will include a hands-on subsampling test. You will also complete a benthic subsample that will be compared to a subsample completed by MBSS benthic laboratory staff.
3. You must complete a written laboratory processing and subsampling test.
4. NOTE: Requirements 1-3 will be completed on the same day at the DNR BENTHIC IAB in Annapolis. The applicant and DNR staff will schedule the certification at a mutually-agreed upon time.

How do I get certified in MBSS benthic macroinvertebrate taxonomy?

DNR will consider you certified in taxonomy if you've passed and are currently certified in Group 2 (Ephemeroptera, Plecoptera, and Trichoptera) and Group 3 (Chironomidae) genera by the Society for Freshwater Science certifications. Click [HERE](#) for more information.

There are several types of benthic macroinvertebrate subsampling trays. Must I use the MBSS-style tray to conduct MBSS-certified benthic lab work?

Yes. Plans for constructing the MBSS subsampling tray are available from DNR (Email Neal Dziepak, neal.dziepak@maryland.gov).

Is certification intended for every individual conducting sampling or working in a lab?

- The *individual* sampling benthos must be certified in MBSS benthic macroinvertebrate sampling.
- The *individual* taxonomist identifying the macroinvertebrates must be Society for Freshwater Science (SFS) certified in Group 2 (Ephemeroptera, Plecoptera, and Trichoptera) genera and Group 3 (Chironomidae) genera.
- Laboratory Processing/Subsampling: If the lab manager or supervisor is certified in MBSS laboratory processing and subsampling, they may direct uncertified individuals under their supervision to work on laboratory processing and subsampling of benthic samples, provided that the manager/supervisor ensures that these individuals adhere to the established MBSS laboratory processing/subsampling protocols.

Must I pursue certification in both field and lab protocols?

No. MBSS certification is *a la carte*. You can choose which MBSS certifications to pursue.

How much will the certification cost?

The MBSS Benthic Macroinvertebrate Sampling certification will cost \$700 for individuals from for-profit companies and \$300 for government agency, NGO personnel, and academic personnel. The laboratory processing and subsampling certification will cost \$425 for individuals from for-profit companies and \$125 for government agency, NGO, and academic personnel.

How can I pay for certification?

Payment for MBSS trainings and certifications may be made via credit card on DNR's online store. Payment for training must be made in advance (see website for deadlines). No registration payments will be accepted at the door and we cannot admit walk-ins. Do not submit certification payments prior to your audit. DNR will not accept payments for certification fees from individuals who register for benthic macroinvertebrate sampling or laboratory processing/subsampling certification until **after** the written tests (administered at training) have been passed. Once written tests are passed, DNR will begin scheduling field or lab audits and accepting the payments for these services. If the written test is not passed the applicant cannot be certified, and no audit or certification payment is required.

Can I attend MBSS training without certification? If so, what are the costs?

Yes. MBSS training will continue, as in previous years, to be open to those who are not seeking certifications. Please check the MBSS training website for current registration costs.

Will MBSS trainings continue to be open to non-professionals?

Yes. However, MBSS training registrations will continue to be accepted on a first come-first served basis.

If I submit payment for registration or certification but then cannot attend the training (field or lab), can I get a refund?

Training fee refunds will be approved on a case-by-case basis. To eliminate the need for certification fee refunds, DNR will only accept payment for certifications after written certification tests are passed and a field or lab audit is complete.

How long is the certification valid?

Benthic Macroinvertebrate Sampling certification is valid through December 31 of the third year following certification. Attendance at annual MBSS spring trainings is required to maintain this certification. The Lab certification is valid for three years from the date of laboratory certification.

What will I receive if I pass all requirements for certification?

Following completion of the MBSS Benthic Macroinvertebrate Certification, your name and affiliation will be posted with your permission on the MBSS Certification Registry on the DNR website <http://dnr.maryland.gov/streams/Pages/mbsregistry.aspx>. MBSS certification may qualify you to work on certain stream-related projects in Maryland. Some state and county agencies are considering making MBSS certification a requirement for working on certain projects.

Does DNR offer certification for other MBSS protocols besides benthos?

Yes. Fish Crew Leader, Fish Taxonomy and Physical Habitat Assessment certifications are also being offered. Other MBSS protocol certifications may be added during future years.

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