

Vernal Pool Management



Spotted Salamander



Natural Vernal Pool



Jefferson Salamander laying eggs

You want to increase the habitat value of your new vernal pool? *Great!*

Constructed vernal pools are an excellent way to increase the habitat diversity of your forests, after all, many of our natural vernal pools “disappeared” as a result of our efforts, it’s only fitting that we help put some of them back. A few easy ways to help jump-start your new vernal pool include:

Woody Debris: There are two kinds of “woody debris” that help improve the usability of new vernal pools.

- 1) Branches and Twigs Added to the Pool - Thin, (about half the thickness of a pencil) but long (several feet) branches offer salamanders and frogs favored egg laying sites - a must have for breeding amphibians. Replenish this woody debris every year, as it tends to quickly break down into the detritus layer that makes up the bottom of the pool. Branches can be added at any time, but be sure they are in the pool by March to catch the prime egg laying time (March-May).
- 2) Large Woody Debris Added to the Surrounding Forest - Logs (from 10 inches on up) laying on the forest floor help to provide moist, protected cover for many types of amphibians to hide under before entering the pool to breed. These logs will also be used as cover for amphibians as they travel through the forest. Very large logs are ideal and generally take a whole lot longer to break down.

Detritus: Adding the raw materials for vernal pool detritus (accumulated material on the bottom of the pool) is an important step in helping a new vernal pool develop more mature characteristics. Gathering leaves and twigs from the surrounding forest is a perfect source of detritus for your pool.



Wood Frogs resting on large woody debris



Drying pool shows detritus
Adding detritus to a new pool



Photo: Tom Brabighauser

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Adding Structure to the Surrounding Forest: Vernal pools do not stand on their own, the area surrounding the pool can be just as critical to the pool's success as the actual pool. Adding structure to the surrounding area will increase the quantity and diversity of animals using the pool and can be done by simply collecting native material from throughout the forest. **Toad Houses** are built by strategically piling larger rocks at the edge of a pool and will provide needed cover and a refuge from predators for amphibians. **Brush Piles** and **Rock Piles** add habitat and cover for a variety of animals from mammals to reptiles and everything in between.

Post Construction Suggestions:

- Pick up trash and litter
- Remove non-native plants
- Prevent erosion around the pool by sowing with native plant seed and mulching with straw
- Keep livestock and ATVs out of and away from the pool
- Loosen compacted soil around the pool with a hand rake
- Remove ruts from motor vehicles

Additional Resources:

Biebighauser, Thomas R. (2011), *Wetland Restoration and Construction, a Technical Guide*, (Upper Susquehanna Coalition) 186 p.

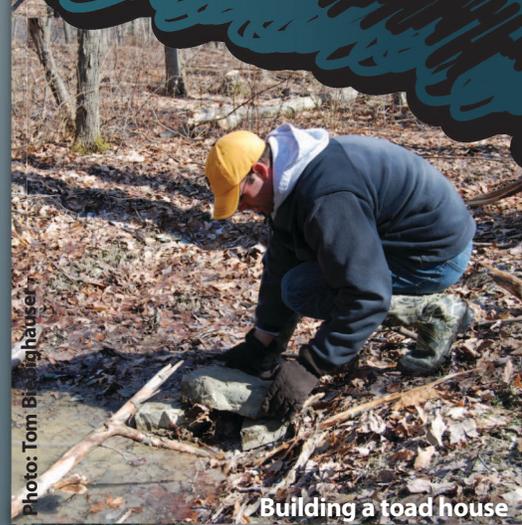


Photo: Tom Biebighauser

Building a toad house



Photo: Tom Biebighauser

Mulching a new pool



USC Fact Sheet

Landowner's Guide to Improving Vernal Pool Habitat



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