

# BLUE® Practices: How They Protect Your Family and Property from Polluted Waters



Simply follow the “Basic” level practices to become BLUE® Certified!

## **Basic**

**(1a) Septic System Legally compliant with current law and maintained every 3-5 years**

Septic systems need to be periodically inspected and maintained because a malfunctioning system can leak its contents into the ground, causing pathogens and excess nutrients to enter waterways and waterbodies. Such pathogens and excess nutrients can cause illness (and even death) in people, pets and wildlife. A malfunctioning septic system can also smell strongly of sewage.

**(1b) Utilize Phosphorous-free detergents**

Committing to using detergents without Phosphorous is important to help reduce nutrient pollution. Excess nutrients in surface waters can cause algal blooms, which may limit recreational use of water and can also release toxins that are harmful to humans, pets, and wildlife.<sup>i</sup>

**(1c) Personal Care Products, Pharmaceuticals, and all toxic substances, including automotive vehicle fluids, are recycled or disposed of in accordance with EPA-recommended practices**

Pharmaceuticals, personal care products, and toxic substances, including automotive related fluids, should be disposed of according to EPA-recommended practices because the contents of such items cannot be treated by current wastewater treatment facilities. These chemicals then enter waterways and waterbodies, and can negatively affect drinking water and wildlife habitats.<sup>ii</sup>

**(1d) Utilize only fertilizers that soil tests indicate are needed**

Fertilizers should only be used when they are needed, as excess nutrients can runoff your property and into surface waters, contributing to algal bloom growth throughout waterways and waterbodies.<sup>iii</sup> Some algal blooms can release toxins that are harmful to humans, pets, and wildlife, and can suffocate aquatic life by depleting water oxygen levels.

**(1e) Commit to a pesticide-free lawn while using no other pesticides within 100 feet of receiving water**

Pesticides should not be used because they can easily be swept away from a lawn during a rain storm or snowmelt, directly feeding harmful chemicals into waterways and waterbodies that can cause illness in pets, animals, and humans.<sup>iv</sup>

**(1f) Grass clippings left in place or properly disposed of and lawn mowed no shorter than 3 inches**

Cutting grass at least 3 inches high is important because it helps filter debris and nutrients from overland stormwater runoff.<sup>v</sup> Leaving grass clippings where they fall or properly disposing of them helps prevent the clippings from entering surface water and can improve soil quality. In return, this standard can improve the health of lawns and decrease algal blooms.

**(1g) No trash or other manmade refuse stored within 50 feet of bank or shore**

Trash and manmade refuse should not be disposed of or stored within 50 feet of a waterway’s bank or shore since such materials often contain toxic substances or excess nutrients. High flow events can even carry such materials into surface waters.

**(1h) All animal waste is collected and disposed of in the trash or composted or buried a minimum of 50 feet from shore or wetland boundary, 100 feet if composting/disposal area slopes toward waterway or waterbody**

Animal waste, such as dog and cat waste and litter, should be disposed of or buried at least 50 feet away from shores or wetland boundaries, or at least 100 feet away if the disposal area is sloping towards the shore or wetland boundary because of the high amount of bacteria and nutrients in the waste that can degrade water quality.<sup>vi</sup>

**(1i) Stormwater maintained on site via retention ponds, swales, rain gardens, dripline trenches, and barrels, as appropriate, plus:**

Retention ponds, swales, rain gardens, dripline trenches, and rain barrels can help decrease the amount of runoff from your property, which reduces possible pollutants from entering waterways and waterbodies while helping recharge ground water.

**(1j) Buildings**

Redirect downspouts, sump-pump drainage, perimeter drains to maintain water onsite

Using design techniques that infiltrate, store, evaporate, and detain water onsite is important for reducing the amount of water runoff, which helps keep nutrients, debris, and potential pathogens from entering waterways. Water can be collected for purposes such as watering lawns and gardens as well, which can reduce your home water usage substantially.

**(1k) Paved surfaces**

Use of approved environmentally friendly sealers

Environmentally friendly sealers should be used on paved surfaces because conventional sealers contain coal tar and petroleum that can leach into runoff, reaching waterways and waterbodies, causing health problems in both animals and humans.<sup>vii</sup>

## **Advanced**

**(2a) Employ low-flow fixtures throughout dwellings and structures**

Low-flow fixtures are important because they reduce the total amount of water that is used, which lowers water bills, including hot water bills, and reduces the amount of water that is discharged into your septic system or local water treatment facility.

(2b) Commit to a 50-foot naturally vegetated buffer along all water sources, existing or restored if necessary

A strip of vegetation along waterways and waterbodies is important because it helps slow stormwater runoff and filter nutrients and pollutants, which can cause algal blooms or harm humans and animals if in water sources.<sup>viii</sup>

(2c) Erosion control implemented to correct past practices, if necessary

Correcting past practices that have affected erosion control is important so that erosion is minimized. Erosion can often lead to polluted or unfavorable water conditions, such as high turbidity, which can harm or kill wildlife, as well as humans and pets.

(2d) Organic matter providing fish habitat remains in place or if has been previously removed habitat is restored

Fish habitat comprised of organic matter is vital to the survival of fish, as it provides shelter, feeding habitat, and a place to nest. Restoring removed organic matter in a waterway or waterbody will help improve fish populations and other species that rely on organic substrates for their survival.

(2e) Properly sized culverts are in place and well maintained

Properly sized and maintained culverts are essential for preventing erosion and ensuring continuity of aquatic habitats. If prevented from passing through, fish and other aquatic animal populations can suffer due to lack of access to breeding or feeding habitat.

(2f) Proper crowning and ditching of private roads and driveways

Proper crowning and ditching methods help control the flow of water runoff, which decreases erosion and reduces the amount of sediment that enters waterways and waterbodies. Such methods also increase the safety and lifespan of dirt and Sure-Pak surfaces.<sup>ix</sup>

### **Leader**

(3a) Dishwasher, washing machine, and water heater Energy Star® rated

Having an Energy Star® rated dishwasher, washing machine, and water heater is important for reducing the amount of water and energy that you use, which will save money and reduce the amount of water that goes into your septic system or local water treatment facility.

(3b) If former wetlands existed on the property, they should be restored as long as doing so does not result in property damage to structures

Restoring former wetlands is important for water quality since wetlands function as natural water holding tanks while they slow and filter water.

(3c) All forestry practices conducted according to BMPs/AMPs

Forestry Best Management Practices (BMPs) (also known as Acceptable Management Practices (AMPs)) help minimize the impacts of forestry activities on waterways and waterbodies.

(3d) Remove stream bank hard armoring if present and replace with bio-engineered practices

Bio-engineering practices used along the banks of waterways are important to use rather than hard armoring because bio-engineering practices create more natural situations where runoff is controlled better, water flow takes a more natural course, and aquatic habitats are much more ideal. Sometimes, simply leaving a bank alone is the best course of action for the flow of a waterway.

(3e) Replace all impervious pavement with pervious asphalt, concrete or paver alternatives

Replacing impervious pavement with pervious asphalt, concrete or a paver alternative reduces water runoff that often pollutes waterways and waterbodies, and allows water to run through the top surface and soak into the soil below and regenerate the water table.<sup>x</sup>

(3f) All driveway surfaces must be at maximum 9 feet wide, shorter than 20 feet in length

Driveways need to be kept to a minimum width because they provide a lot of surface area for water to flow off of. This water runoff can sweep excess nutrients and small objects that can be harmful to such water sources into waterways and waterbodies.

(3g) Structures not on foundations moved to maintain a minimum setback of 25 feet from water source

Structures within 25 feet of surface water need to be moved at least 25 feet away from that water source because structures often increase stormwater runoff. The structure also needs to be set outside of any naturally vegetated buffers, if applicable.

### **Citations**

<sup>i</sup> US Department of Health and Human Services, Centers for Disease Control and Prevention <http://www.cdc.gov/hab/>

<sup>ii</sup> US Environmental Protection Agency <http://www.epa.gov/ppcp/>

<sup>iii</sup> US Environmental Protection Agency <http://www.epa.gov/waterscience/criteria/nutrient/>

<sup>iv</sup> US Geological Service <http://ga.water.usgs.gov/edu/pesticidesgw.html>

<sup>v</sup> US Department of Agriculture <http://www.nrcs.usda.gov/feature/highlights/homegarden/lawn.html>

<sup>vi</sup> US Environmental Protection Agency [http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet\\_results&view=specific&bmp=4](http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view=specific&bmp=4)

<sup>vii</sup> Bryer, Pamela J., Elliott, Jan. N., and Willingham, Emily J. "The Effects of Coal Tar Based Pavement Sealer on Amphibian Development and Metamorphosis." *Ecotoxicology*. Volume 15, Number 3 (2006): 241-247.

US Geological Service [http://water.usgs.gov/hawqa/pah\\_faq.html#concerns](http://water.usgs.gov/hawqa/pah_faq.html#concerns)

<sup>viii</sup> US Environmental Protection Agency [http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet\\_results&view=specific&bmp=82](http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view=specific&bmp=82)

<sup>ix</sup> US Environmental Protection Agency <http://www.epa.gov/owow/nps/unpavedroads/ch1.pdf>

<sup>x</sup> Office of Water, US Environmental Protection Agency. "Storm Water Technology Fact Sheet: Porous Pavement." EPA 832-F-99-023. (1999). <http://www.epa.gov/npdes/pub/pubs/porouspa.pdf>

<sup>xi</sup> Low-Impact Development Design Strategies: An Integrated Design Approach." June, 1999. [http://www.lowimpactdevelopment.org/pubs/LID\\_National\\_Manual.pdf](http://www.lowimpactdevelopment.org/pubs/LID_National_Manual.pdf)