

1. We all live in a watershed. What is a watershed?
 - a. The small streams that are not named
 - b. An area of land that drains into a common lake, river, and/or stream**
 - c. Small tributaries that only flow into the Atlantic Ocean
 - d. Headwater streams that flow into larger watershed basins
2. Land use changes from permeable to impermeable cover presents what issue in the watershed?
 - a. A sharp increase in streamflow after a precipitation event**
 - b. Rapid infiltration of the flow
 - c. Flow changes in direction
 - d. Less occurrences of flooding
3. We use surface and groundwater sources for our homes and communities, agriculture, and industry. Which of the following natural processes affect the amount of available water for human use in Northeast Ohio?
 - a. Evaporation, evapotranspiration, and precipitation
 - b. Infiltration and groundwater recharge
 - c. Melting glaciers and snowpack
 - d. Both a and b**
4. Where would there be a good location for a rain garden at the Working Woods building?
 - a. The ground with the highest elevation
 - b. Down-grade of the building with the downspouts directed to it**
 - c. In the parking lot
 - d. Adjacent to the stream
5. Ohio EPA requires all municipal entities to write, implement, and enforce a plan to address nonpoint source pollution. What are these plans called?
 - a. Watershed Plan
 - b. Manure Management Plan
 - c. Retention Pond Plan
 - d. Stormwater Management Plan**

6. What source does not cause nonpoint source pollution?
- a. Soil erosion,
 - b. Fertilizer runoff
 - c. Industrial pipe with specific drainage**
 - d. Storm drain discharge
7. Which of the following is regulated under the Clean Water Act of 1972?
- a. Discharges of pollutants into navigable waters from point sources**
 - b. Air emissions from factories and vehicles
 - c. Use of pesticides on agricultural crops
 - d. Extraction of groundwater for private wells
8. The carbon containing compounds in the soil can be washed into bodies of water through what biogeochemical process?
- a. Runoff
 - b. Leaching**
 - c. Weathering
 - d. Uplifting
9. Bioretention practices achieve a certain amount of pollutant removal. In which layer of the bioretention cells do most of the pollutant removal occur?
- a. Hardwood mulch.
 - b. Soil.**
 - c. Gravel.
 - d. Underdrain.
10. At the Working Woods building, what helps to capture stormwater and minimize runoff from an impervious surface?
- a. Rain barrels**
 - b. Leaf piles
 - c. Sanitary Sewers
 - d. Paved picnic area

11. There is an area of stream bank erosion near the gravel drive marked with a white flag. What could be installed to prevent further erosion and stabilize the bank?

- a. A larger vegetated buffer
- b. Lower the grade of the existing slope
- c. Add more stone and soil.
- d. Both A and B are correct**

12. Shredded hardwood mulch is installed to a minimum depth of 3 inches on the surface of a bioretention practice. The mulch serves all the following functions except:

- a. Protect from erosion.
- b. Provide avian habitat.**
- c. Promote biological growth.
- d. Create organic atmosphere.

13. BMPs (Best Management Practices) help to control the delivery of nonpoint source pollution to water bodies. Which of the following is not true:

- a. BMPs reduce pollutants available
- b. BMPs slow the transport of pollutants by reducing water flow
- c. BMPs are only installed by conservation agencies**
- d. BMPs may use chemical or biological means to treat polluted water

14. Why is it important to protect flood plains in the watershed?

- a. They provide grazing in the watershed
- b. They are a good place to build houses
- c. They slow water flow during heavy rain events and reduce flooding**
- d. They are a good place to store pollutants beside the stream

15. Where is the riparian corridor located in the watershed?

- a. The only area that contributes nonpoint source pollution to the stream
- b. The area at the highest elevation that drains to the stream
- c. The area underground in the watershed that provides our drinking water
- d. The area adjacent to the stream with natural vegetation**

16. The porous and varied terrain of natural landscapes (such as forest and grasslands) allow rainfall and snowmelt to slowly run off or filter into the ground. In Urban areas where we have roads, parking lots, and rooftops, the surfaces are impervious and the rainfall and snowmelt remain above the surfaces. What is the most common way Urban areas address this issue?
- a. Pass ordinances to address the amount of runoff
 - b. Install natural filters to slow the runoff
 - c. Install storm drain systems that carry the water directly to a water body**
 - d. Ask residents to get involved to find solutions to nonpoint source pollution
17. What is one way to prevent nonpoint source pollution in an Urban environment?
- a. Pick up litter on your property to keep it out of the storm drain**
 - b. Wash your car on the blacktop so the rinse water runs into the storm drain
 - c. Hose spilled oil into the street to allow it to enter the storm drain
 - d. Keep soil in your garden areas bare (no plants) until the spring rains have passed
18. Watershed groups are local organizations that work to protect and improve the health of a specific watershed by addressing issues such as nonpoint source pollution. What is the first step a watershed group should take to effectively address nonpoint source pollution within their communities?
- a. Ask local government agencies to address the issues
 - b. Conduct educational outreach, such as public meetings and brochures, to raise awareness
 - c. Conduct a public survey to gather ideas on how to address the issues
 - d. Assess the waterbodies within the watershed to identify specific issues and get a base line for improvement**
19. Headwater streams are defined as:
- a. Where the stream goes into another stream
 - b. The end of the stream
 - c. The middle portion of the stream
 - d. The beginning of the stream**

20. The Cation Exchange Capacity (CEC) is the measure of a soil's ability to absorb pollutant particles. Over time, as storm water filters through a Bioretention Area, the soil's CEC will:
- a. Increase.
 - b. Decrease.**
 - c. Remain the same.
 - d. Become irrelevant.
21. Which of the following is not a form of non-point source pollution?
- a. Oil drips from vehicles in the parking lot
 - b. Wastewater piped from bathrooms to the nearby stream**
 - c. Sediment runoff from the gravel drive
 - d. Litter dropped on the walking trail.
22. As topography and site conditions allow, a grassed swale may be used to convey runoff instead of a storm sewer piping system. Which of the following is an advantage of using a grassed swale over a storm sewer piping system?
- a. Conveys storm water away from the structure faster.
 - b. Increase construction costs.
 - c. Decreases peak storm water flow.**
 - d. Creates a more uniform/flatter surface profile.
23. What is the number 1 pollutant in Ohio streams?
- a. Bacteria and nutrients from animal and human wastes
 - b. Litter and microplastics
 - c. Sediment from agricultural, construction, and urban land uses**
 - d. Chemical contaminants from current and historical discharges
24. Pollution from nonpoint source pollution is the single largest remaining source of water quality impairments in the United States. How do leaders and communities begin to address this challenge?
- a. Pass ordinances in small towns to require citizens to recycle grass clippings
 - b. Blame the city residents and pass regulatory laws to address the problems
 - c. Start in smaller watersheds, assess water quality and engage citizens; everyone must do their part.**
 - d. Blame the agricultural community and pass laws to ban pesticides and fertilizer

25. What type of non-point source pollutant could cause excessive algal growth downstream of the site location?

- a. Oil leaking from a lawn mower
- b. Rooftop runoff
- c. Fertilizer uses on the grounds**
- d. Wood piles