

# Watershed Walk

2021

## MARSH RUN PART 2

Welcome to Part 2 of the Watershed Tour along Marsh Run! Water from the Marsh Run Watershed is carried to the Ohio River, then to the Mississippi River, and eventually all the way to the Gulf of Mexico. The Marsh Run watershed is approximately 1,520 acres (59.8% is developed land and 25.6% is forested land).

8 Begin this tour at the corner of 4th and Church Street. Here you can see a **riparian buffer** of trees and shrubs that protects Marsh Run in this area. At the corner, Marsh Run disappears into a **culvert**. In a watershed, water generally flows along the lowest point so you might notice as you walk along Marsh Run the land around you is higher. A lot can be learned by observing the land around you and also by looking in the water. Did you know that since 2016, Dr. Katie Farnsworth with the IUP Geology Department and her students have been monitoring Marsh Run to learn about the storm events affecting Indiana Borough?

9 Along 4th Street just before School Street, Marsh Run appears, disappears then reappears on the other side of School Street. As the stream plays hide and seek through this watershed, water flows easiest in a straight line. Sometimes like here at School Street there is a culvert with a “dog leg” shape which means an angle instead of a straight line. One of the problems that can happen during a heavy storm near a “dog leg” is that the water collects so quickly that the “dog leg” causes small flooding in the area. You might notice during a heavy storm that water sometimes flows across 4th Street due to the back up of water at the “dog leg”.

10 As you walk to the corner of S. Coulter and Poplar Avenues, see if you can follow Marsh Run where it flows between the houses. S. Coulter Avenue ends here because Marsh Run is allowed to flow without a culvert. Imagine if a riparian buffer was planted in this area. It would cool the water, the plants would help absorb the water and control pollution from entering the run.

11 Elm Street near 5th is an interesting area where the normal street pattern is changed from a straight road to a curve in Elm Street, turning to join Grant Street. This street, like Coulter Avenue, was adjusted to allow Marsh Run to flow through this area without a pipe. When you're in other parts of Indiana or other towns, notice the changes in street patterns as it may be because of a stream in the area.



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For more information,  
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at Indiana County Walking Decathlon  
or online at [ICOPD.org](http://ICOPD.org)



## WATERSHED WALK PART 2 CONTINUED

12 There is one more stop as we walk back to the beginning of our tour at 4th and Church Streets. While walking, you might want to look for examples of ways that people are helping to reduce the flow of water into Marsh Run during rain events. Some examples are **rain barrels**<sup>k</sup>, gravel driveways or garden spaces that hold water or trees that helps to absorb water in the ground. Gravel driveways allow water to be absorbed into the ground and not run off like it does on paved driveways. Removing pavement and buildings opens up ground to absorb water and slow the flow of water into the streams. Are there open spaces that could be changed to slow the flow of water into the streams?

13 Indiana Borough's first **bioswales and rain gardens**<sup>l</sup> are located in the recently updated parking lot at 8th and Church Streets. Water is directed to the bioswales and rain gardens by the ground sloping toward them. Notice how the parking lot is sloped toward the stone planted areas and that wheelstops instead of curbs are used to allow water to flow into these areas.



Water stored in the bioswales and rain gardens during a storm helps to reduce possible flooding downstream by delaying the time it takes for the water to reach local streams.

As you cross the streets on your way back to your destination, look for **catch basins**<sup>m</sup>. The grids that cover the catch basins allow people and cars to safely cross them, and they catch larger trash that would enter our streams.

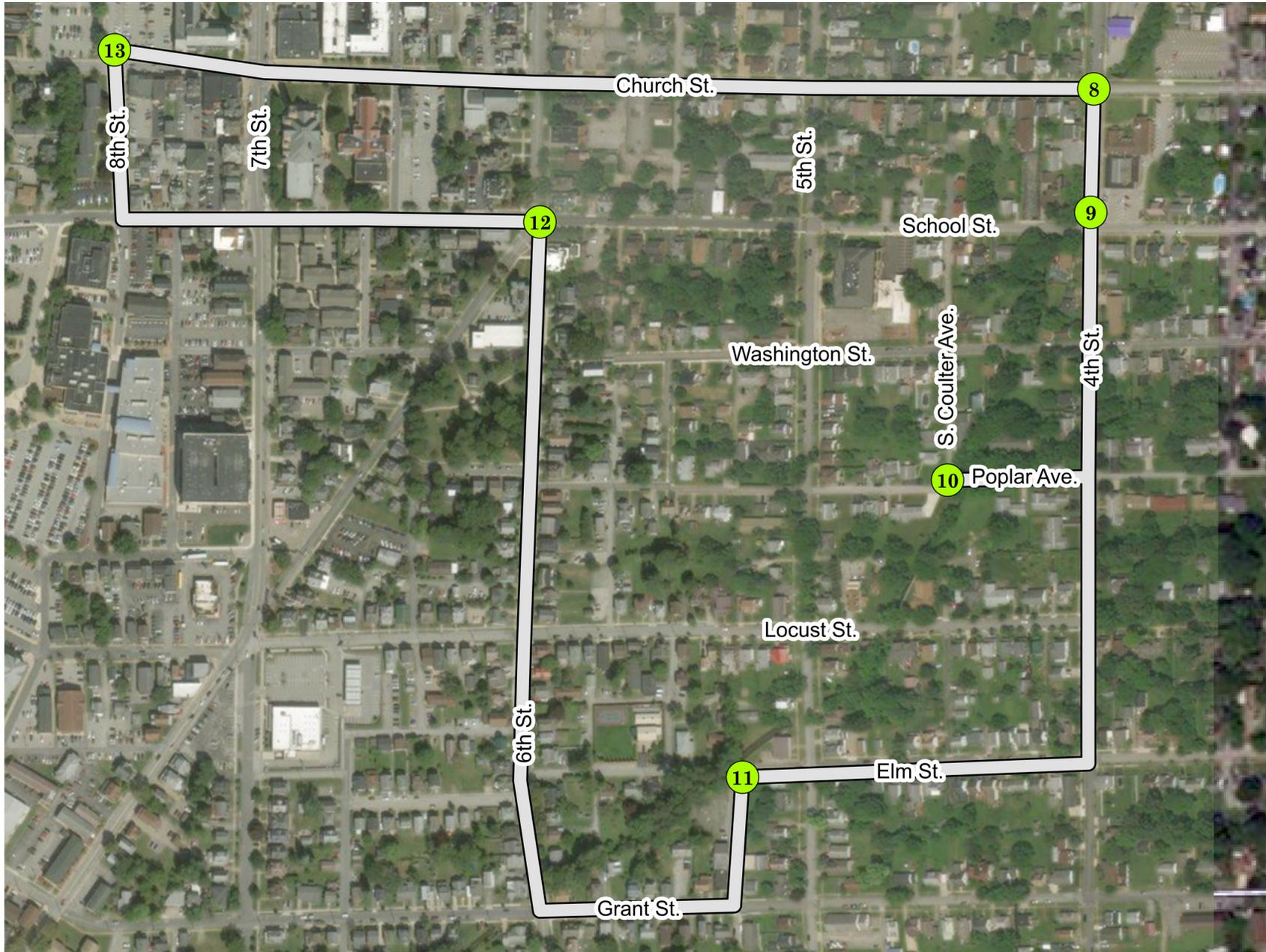
Thanks for taking this tour along Marsh Run to see the culverts, riparian buffers, rain gardens and bioswales. To learn more, reach out to the Stormwater Education Partnership at <https://www.facebook.com/IndianaPaSEP/> or <https://www.indianapasep.com/>

### Glossary

- i. A **riparian buffer** is a planting of trees and shrubs along a waterway that adds benefits to the stream and to people, animals and insects. Many times, native plants that naturally grow in a riparian area are planted.
- j. A **culvert** is a tunnel that a stream flows through under a roadway.
- k. **Rain barrels** catch water from downspouts on houses then hold water for a period of time during and after the rain to be used or emptied after the rain.
- l. **Bioswales and rain gardens** act like sponges when it rains as they absorb the stormwater that is later released slowly into the local streams or is stored and used by the plants growing in the stone where the water is stored. Individual landowners could add rain gardens or bioswales or just plant more trees to help absorb and store rain water during a storm to help to reduce the water flowing to streams at the same time.
- m. **Catch basins** are openings in the street that stormwater enters and is directed to the stream.

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## MARSH RUN PART 2



\*Please note that Marsh Run should be viewed from the public streets or parks. Do not walk onto private property when taking this self-guided tour.