



Watershed Walk

2021

MARSH RUN PART 1

Marsh Run is the waterway that carries the water through the Marsh Run **Watershed**^a. Marsh Run starts in White Township, north and east of the borough, flows south through Indiana Borough, and then returns to White Township where it joins with Stoney Run near the Kovalchick Convention and Athletic Complex (KCAC).

1 The tour begins at the stormwater detention **basin**^b at the corner of Water Street and Gabriel Avenue. Water from the top of St. Bernard hill and the cemetery flows into pipes that carry the water to this stormwater control feature. Additional water arrives at this basin from East Pike Road from as far as East Pike Elementary School by flowing under Route 286. During heavy rains, this detention basin will fill with water, which helps to slow down the water that goes into Marsh Run. This basin is owned and maintained by a joint agreement between Indiana Borough and White Township. The plants in the detention basin help remove water over time by taking up water that gathers in the detention basin during storms to use for plant growth. The plant growth is controlled through maintenance so that there is room for water to pond during a storm.

2 Walk about ½ halfway up Gabriel Avenue toward Philadelphia Street where you will see two features of importance to Marsh Run. The first is the concrete dam structure with a drain in the bottom that forms the end of the detention basin. This structure holds back the water in the basin and allows water to flow through the 36" drain opening. The second feature is a silver corrugated metal pipe that directs water into Marsh Run. This pipe is under Gabriel Avenue and is part of the control system that connects the stormwater in the detention basin with Marsh Run.

3 Follow the map to 2nd Street where you can see Marsh Run flowing along McGregor Park. Walk along Marsh Run - why is **Marsh Run**^c called this and not **Marsh Stream**^d? As you walk along Marsh Run, notice the amount of water flowing today since it will vary depending on what is happening with the weather. After a rain or in the spring when the snow is melting, there will be more water flowing. Other times the water flow will be low like in August when it usually rains less often and the weather is hot which evaporates the water faster.

4 In 2017, the Western Pennsylvania Conservancy added a riparian **buffer**^e planting along Marsh Run in this area of McGregor Park. The benefits to the stream are that the roots of the plants help to hold the soil from falling into the stream. Maybe you heard of "siltation" in a stream or a need to "dredge" a stream. These are the effects of soil entering a stream. What happens is that the soil falls into the stream and fills the stream. When this happens there is less room for the water (smaller capacity) to flow through the stream and the stream is more likely to overflow during a large storm. This riparian buffer is a mix of trees and shrubs.

Another benefit is the plants along the stream help to keep the water cool. The cooler water is best for the fish and other creatures that live in the stream. Pollution is reduced because the riparian buffer acts as a filter that captures pollutants before flowing into the stream.

As you can see there are a lot of benefits to adding plants along a stream plus it reduces the amount of mowing needed. Less mowing means more time to do other walking tours!



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WATERSHED WALK PART 1 CONTINUED

5 Continue back to Water Street then turn left toward 4th Street. At the corner of North Cherry and Water Streets you can see a small waterway. This is also water from the Marsh Run watershed. This water flows from the hill in Chevy Chase and joins the water from the St. Bernard part near the Rite Aid. When two waterways come together it is called a **confluence**^f.

6 In 2020, a new **culvert**^g was added in this location by the Rite Aid. When the previous culvert was replaced, it was enlarged to allow for more water to flow. Notice the wide opening under Philadelphia Street. Because the confluence of the two areas of the watershed meet right before this culvert, the wider opening allows the water to flow more slowly reducing erosion. Please note that the bottom of the culvert is now the stream bottom and not the bottom of a pipe. This type of culvert has a natural stream bottom, which provides more places for fish and creatures to live (habitat) and connects to the whole stream.

7 As you walk back to the detention basin at Water Street and Gabriel Avenue, 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**^h, 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?

Thanks for taking this tour along Marsh Run to see the detention basin, riparian buffers, and a new culvert. To learn more, reach out to the Stormwater Education Partnership at www.facebook.com/IndianaPaSEP or www.indianapasep.com

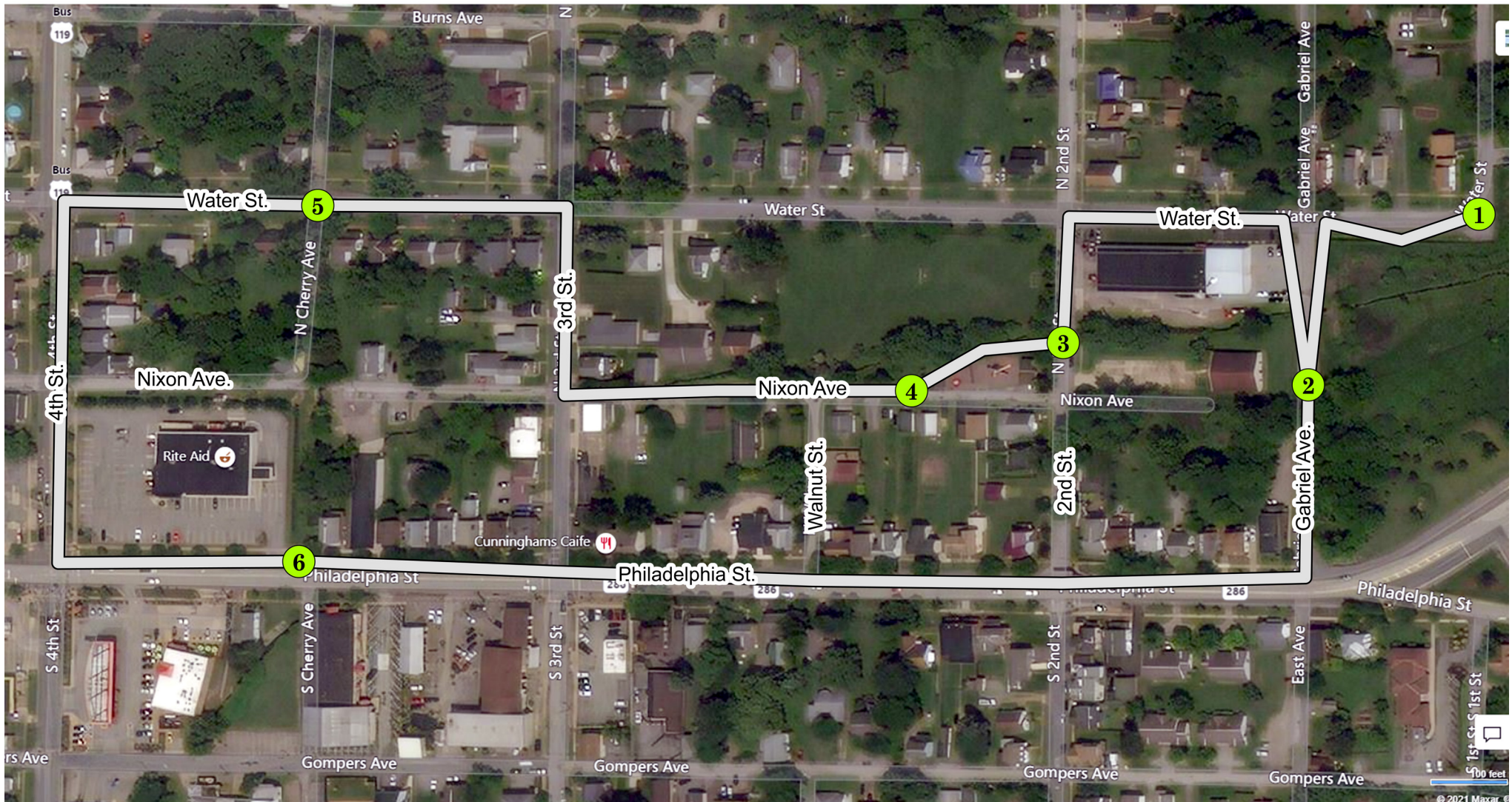


Glossary

- a) A **watershed** is defined as the area that drains all the water to the same place or common outlet. Everyone lives in a watershed, even in towns where water needs to flow under roads and around houses to prevent flooding and protect property.
- b) A **stormwater detention basin** is a large, dry pond that has an opening in the bottom that collects water during a heavy storm and slowly drains into the watershed.
- c) The term "**run**" is the name used for streams that are small.
- d) Water in **streams** comes from precipitation (rain and snow) that flows across the land (also known as stormwater) as well as water from underground (like springs).
- e) 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. Native plants that naturally grow in a riparian area are often planted.
- f) A **confluence** is when two streams, rivers or other waterways flow together.
- g) A **culvert** is a tunnel that a stream flows through under a roadway.
- h) **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.

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*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.