

# From Creek to Tap: What happens to your water before it gets to your home?

The Wilmington water system draws its water supply from Brandywine Creek. Untreated river water enters a **Raceway** on the south side of Brandywine Creek through a head gate and flows through a screen house, removing floating debris, to **Brandywine Pumping Station**. From there it is sent to one of two filter plants, the **Brandywine Filter Plant**, which is directly adjacent to the pumping station or the **Porter Filter Plant**, a few miles to the north on Concord Pike.

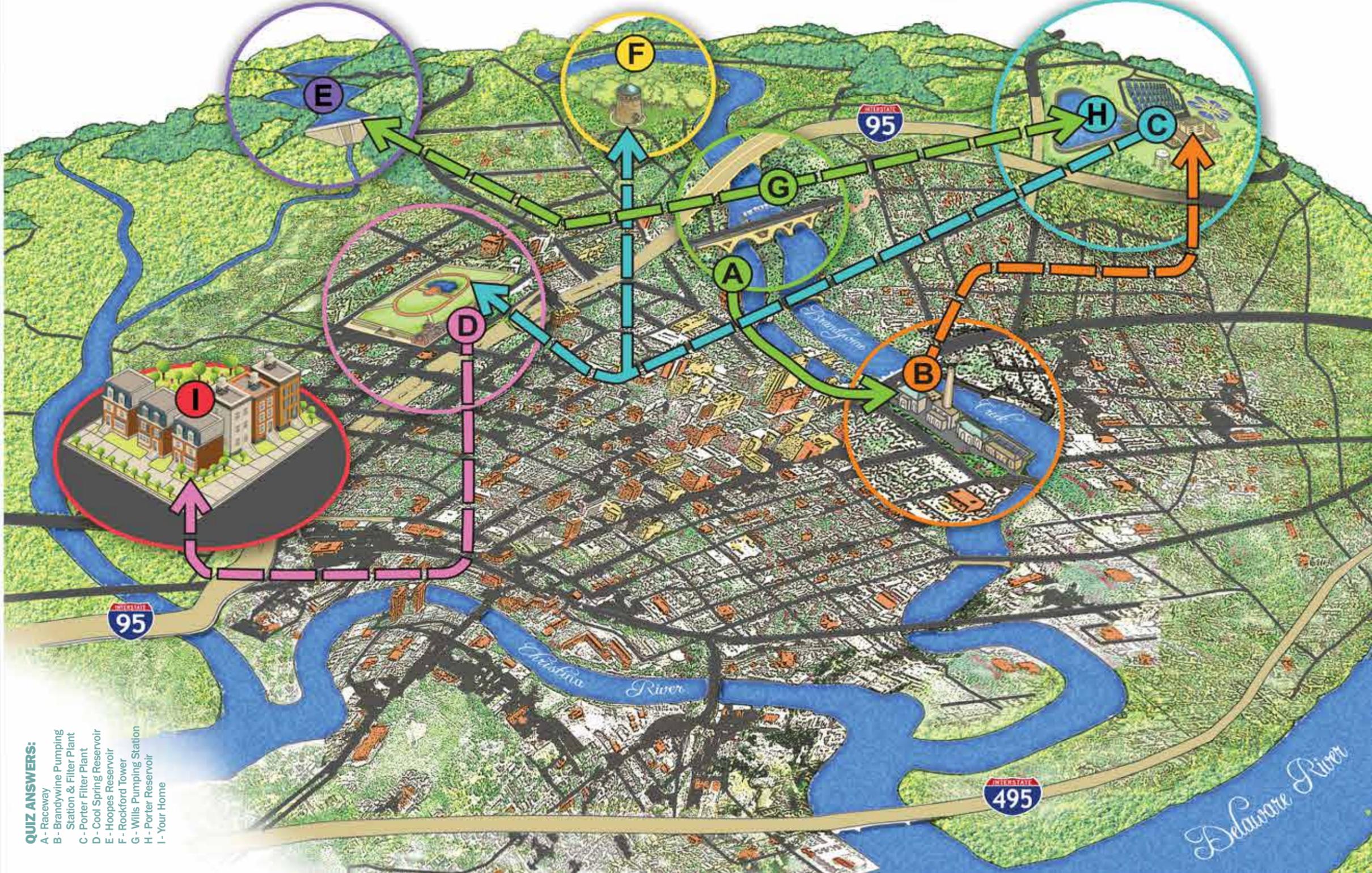
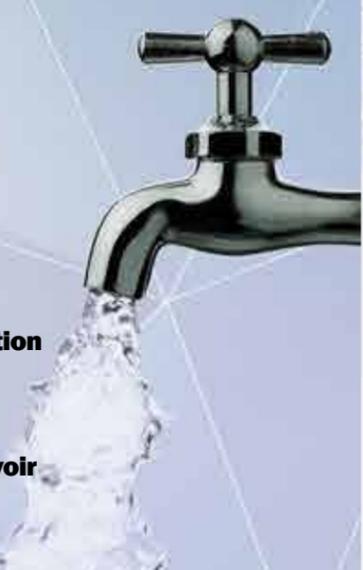
At the filter plants the water is treated using these procedures: coagulation, where an agent is added that attracts tiny impurities which clump together; settling, which removes the now larger and heavier impurities that settle to the bottom where they can be separated from the water; and filtration, where the water passes through sand or membrane filters which remove the remaining impurities. Finally, the water is chlorinated to disinfect and kill germs (such as viruses) leaving clean, potable (meaning safe to drink) water. The City of Wilmington also adds a corrosion inhibitor to the water to protect the water pipes and home plumbing systems. Fluoride is also added to the water to benefit public health.

The water is then pumped from the filter plant through the underground mains to one of the water storage facilities (or can go directly into distribution to the homes and businesses of the City's customers). A water storage facility is a safe place to store water that is ready to be distributed to people who need it. Two examples of water storage facilities within the City are **Rockford Tower** and **Cool Spring Reservoir**. However, potable water is not the only kind of water that gets stored. In order to keep a healthy reserve of water to serve the City's water needs safely though

any drought, untreated water is also pumped directly from the Brandywine Creek via **Wills Pumping Station**, to the **Porter Reservoir** and the **Hoopes Reservoir** where it can be kept in reserve and pumped to the filter plants for treatment as needed.

Now that you are an expert on how water gets from the creek to your tap, let's test your knowledge. This illustration shows all of the water treatment facilities we just learned about. Each one has a letter next to it. See if you can match the letter to the correct facility name by drawing lines connecting them together. You can check your answers in the lower left corner of the illustration (no peeking!).

- A**      **Brandywine Pumping Station & Filter Plant**
- B**      **Hoopes Reservoir**
- C**      **Rockford Tower**
- D**      **Raceway**
- E**      **Porter Filter Plant**
- F**      **Porter Reservoir**
- G**      **Wills Pumping Station**
- H**      **Your Home**
- I**      **Cool Spring Reservoir**



**QUIZ ANSWERS:**

- A - Raceway
- B - Brandywine Pumping Station & Filter Plant
- C - Porter Filter Plant
- D - Cool Spring Reservoir
- E - Hoopes Reservoir
- F - Rockford Tower
- G - Wills Pumping Station
- H - Porter Reservoir
- I - Your Home