

SAVING OUR WATER

Hundreds of years ago, this area was mostly covered with prairie (tall grasses and flowers with deep roots). When it rained, the prairie acted like a big sponge, catching the rainwater where it fell and absorbing it into the soil.



Over time, people built over the prairie with streets, roads, houses, buildings and farms.

So what happens to the rainwater when it hits the ground now?

Hard surfaces, like roofs and streets, prevent water from soaking into the ground. Instead the water flows downhill, picking up pollution like dirt and oil as it goes. This fast moving water, called stormwater runoff, can erode stream and river banks, destroy wildlife habitat and carry pollution to downstream rivers and lakes.



We use water from those rivers and lakes for drinking, cooking and playing in, so it's important to keep the water clean and healthy.

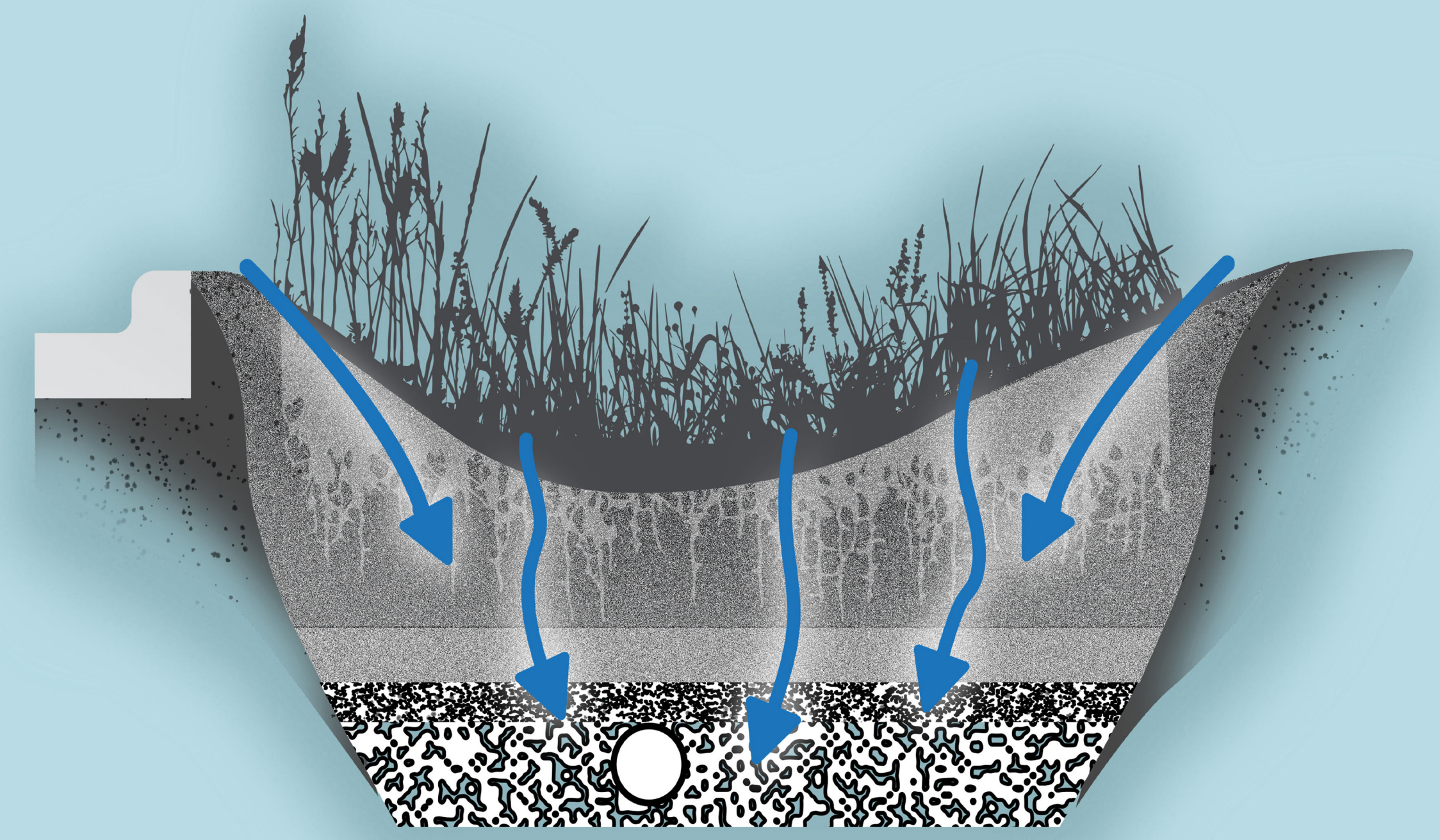
There are ways to slow down the water, collect it, absorb it like a sponge and clean it before it flows downstream . . .

Waukee Public Library uses 3 methods to collect and clean rainwater:

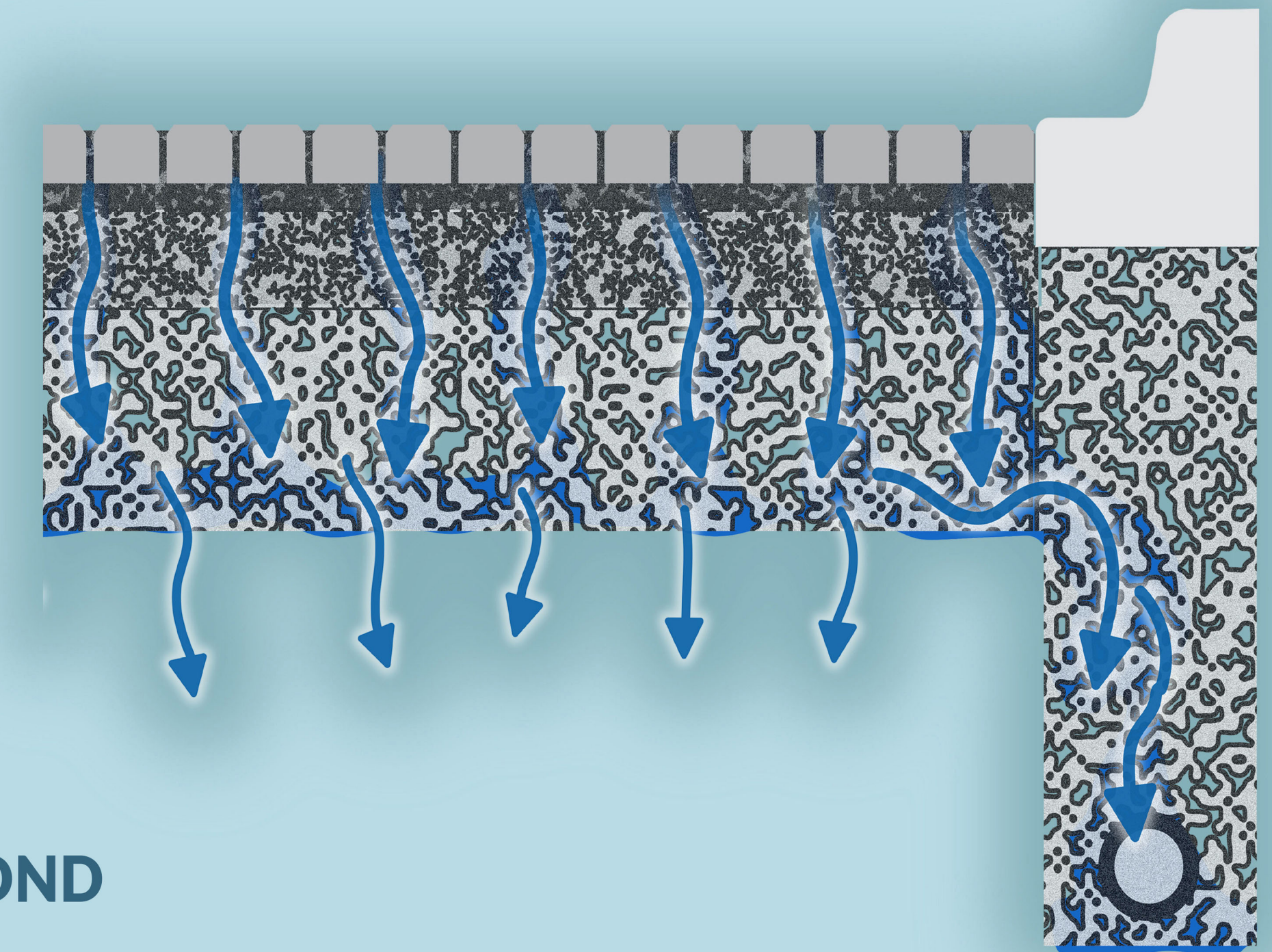
- RAIN GARDENS
- PERMEABLE PAVERS
- BIORETENTION POND

RAIN GARDENS

Rain Gardens and Permeable Pavers collect 90% of annual stormwater runoff from the library parking lot and surrounding neighborhoods, filter pollutants and slowly release cleaner water to downstream.

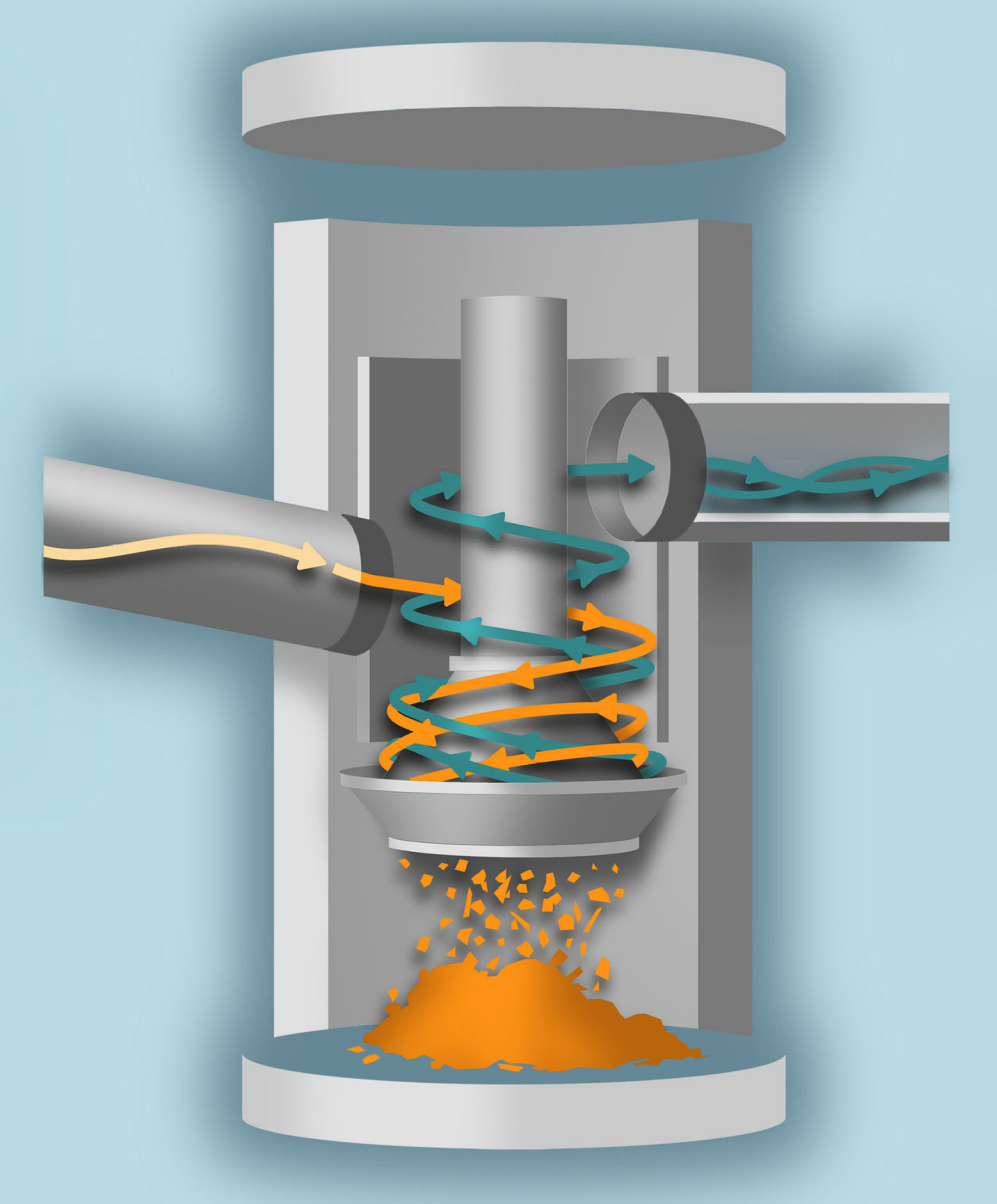
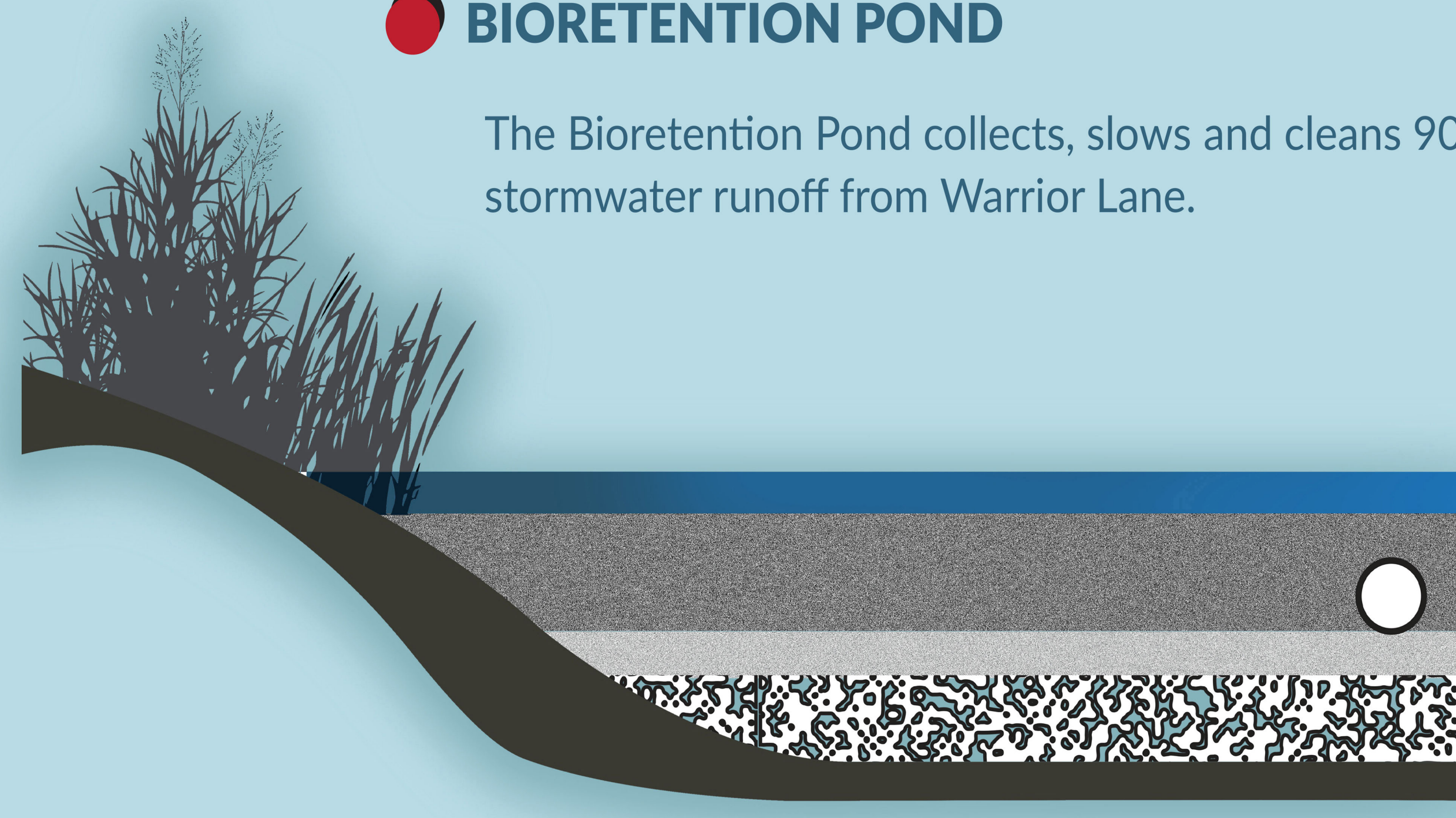


PERMEABLE PAVERS



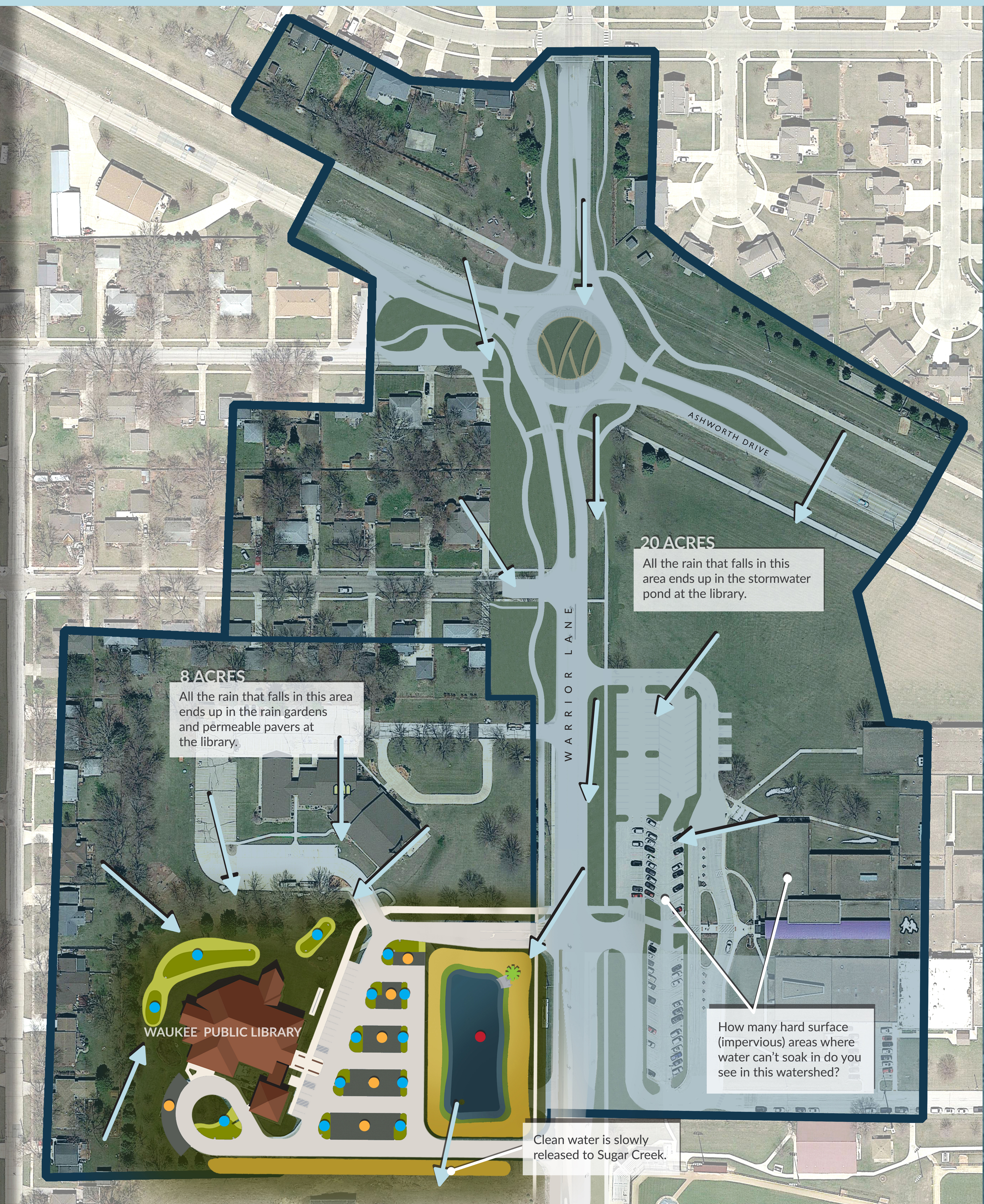
BIORETENTION POND

The Bioretention Pond collects, slows and cleans 90% of annual stormwater runoff from Warrior Lane.



First, polluted runoff is collected by the storm drains and routed through a **hydrodynamic separator**, an underground tank which creates a vortex to remove chemicals and debris by centrifugal force. This water then enters the pond where additional pollutants, like dirt suspended in the water, can settle out to the bottom of the pond. Finally, the cleaned surface water is slowly released to downstream.

HYDRODYNAMIC SEPARATOR



LIBRARY WATERSHED