

# Centerville Mills Permeable Paver Demonstration Project



## How do these permeable pavers work?

Rain travels between the joints of permeable pavers into layers of underlying stone. The water slows down as it flows through the layers of stone, and pollutants are removed. Some of this water soaks into the ground beneath the stone, and some is slowly released to a perforated pipe underdrain that carries it to a tributary of Smith Creek. Smith Creek is a coldwater habitat stream, which is fed by groundwater and home to sensitive fish species like redbreast dace.



Permeable pavement at Centerville Mills Park installed in 2016.



Water soaks in best when the subgrade is flat. Because this area is sloped, a terraced subgrade was used to promote infiltration.



The permeable pavement system also treats runoff from the asphalt drive lane.



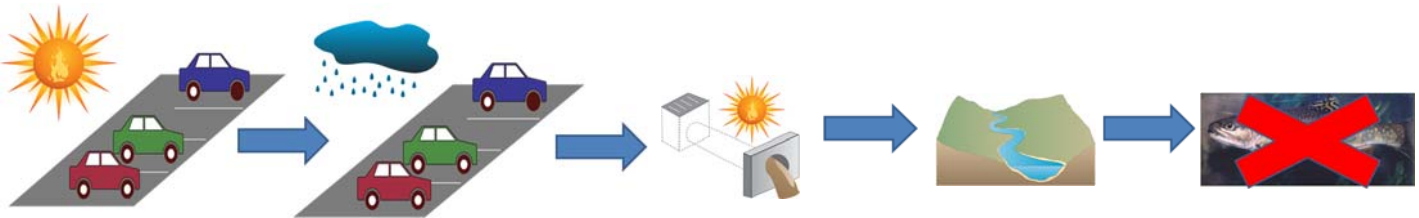
This permeable pavement system helps Smith Creek to stay a high quality coldwater habitat stream.



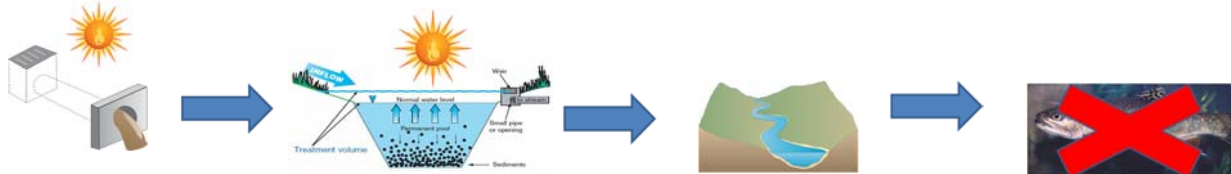
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## How does permeable pavement protect coldwater fish?

Heated runoff coming off of parking lots harms sensitive coldwater fish species by making streams too warm.



Traditional stormwater ponds aggravate this problem by allowing water to heat up even more before it reaches streams.



Permeable pavement reduces the temperature of stormwater runoff and reduces the volume of runoff reaching streams. A smaller volume of runoff means that even if the runoff is warmer than ideal, it will have a smaller impact on the streams. Both of these mechanisms protect sensitive coldwater species.



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