

Stormwater Management in POTASH BROOK

Watersheds

A watershed is the all the land area from which precipitation drains into a water body. Watershed boundaries—defined by the high points that bound them—do not coincide with municipal or other human-defined boundaries (note the overlap of the Potash Brook watershed boundary with the City of Burlington in the map below), and neither do the impacts of the activities within them. The Potash Brook watershed is approximately 7.1 square miles and covers 43% of South Burlington. Potash Brook is one of five streams in the City designated by the State of Vermont Agency of Natural Resources as stormwater impaired. This means that stormwater runoff has degraded the health of the river and the ecosystems found in it.



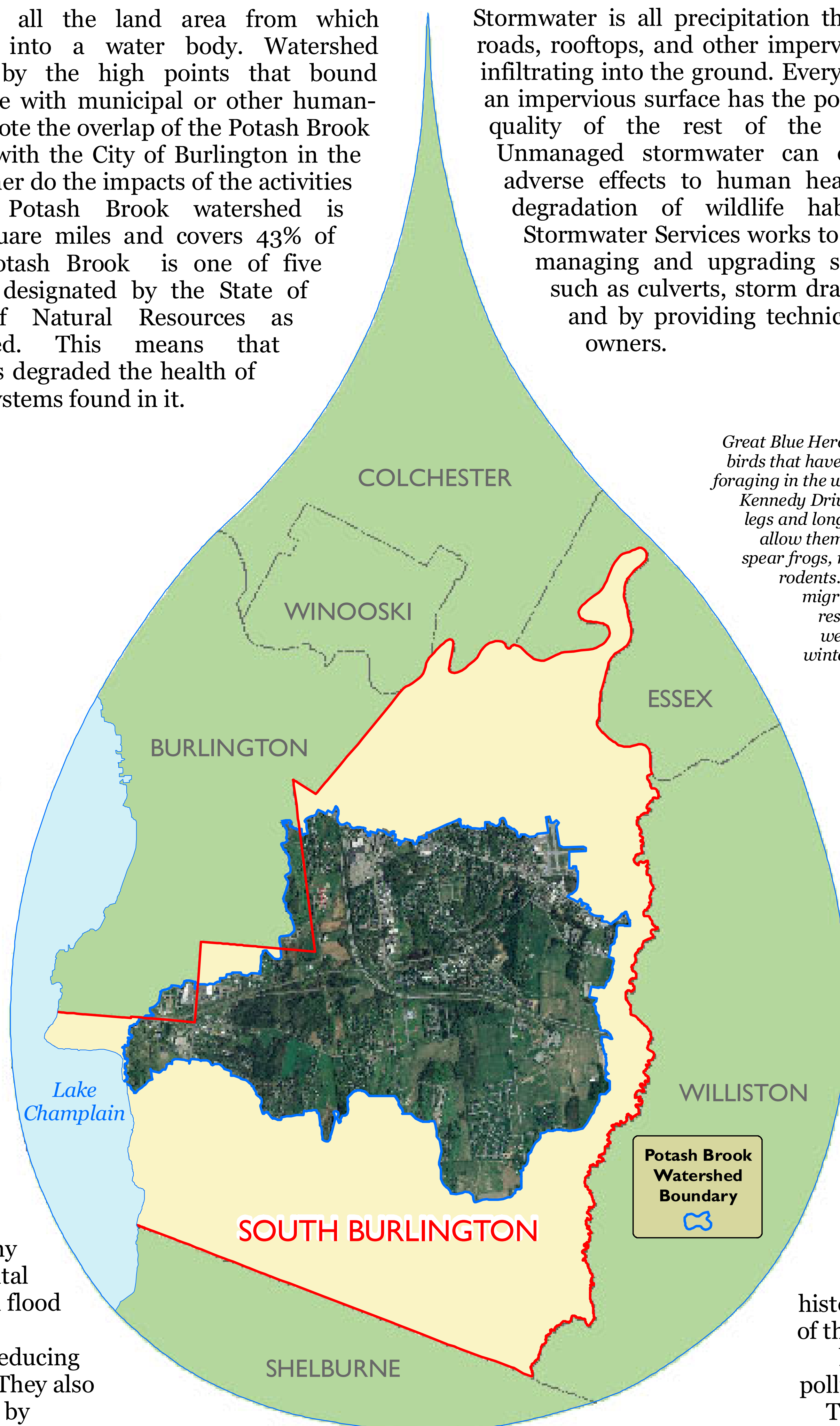
Beavers live near rivers, streams, and ponds. The dams they are known for building create wetland environments that slow the flow of water during rain storms and reduce downstream flooding. The stormwater retention ponds on Kennedy Drive provide a similar benefit to the watershed.

Wetlands

Wetlands provide many beneficial environmental functions. They detain flood waters during large precipitation events, reducing flooding and erosion. They also serve as natural filters by removing nutrients, sediments, and other pollutants from water before they flow downstream or are absorbed by the ground to recharge groundwater. Wetlands are also critical habitat for vegetation and wildlife. Stormwater retention ponds perform similar functions by detaining stormwater runoff for a short period of time before releasing it to surface waters.

Stormwater

Stormwater is all precipitation that runs off parking lots, roads, rooftops, and other impervious surfaces rather than infiltrating into the ground. Every drop of rain that falls on an impervious surface has the potential to affect the water quality of the rest of the watershed downstream. Unmanaged stormwater can cause property damage, adverse effects to human health and well-being, and degradation of wildlife habitat. South Burlington Stormwater Services works to prevent these impacts by managing and upgrading stormwater infrastructure such as culverts, storm drains, and retention ponds, and by providing technical assistance to property owners.

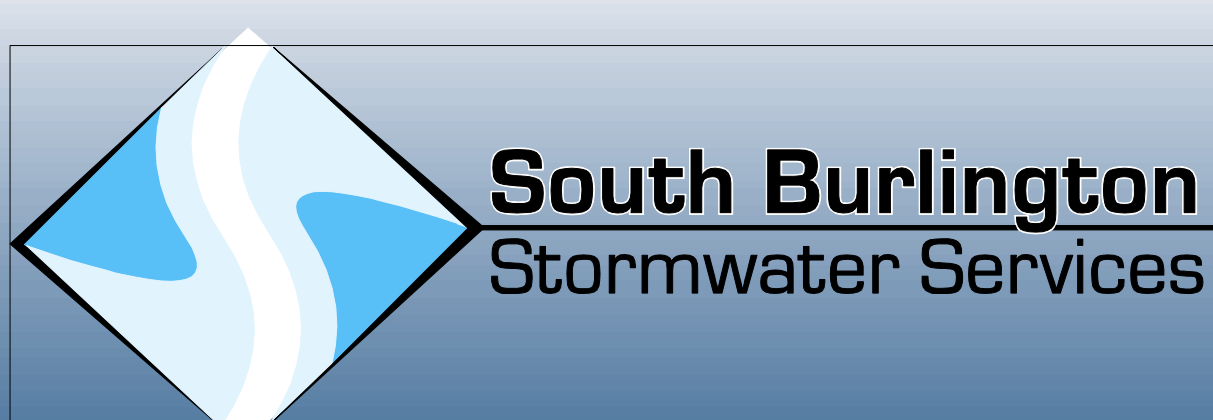


Great Blue Herons are wading birds that have been observed foraging in the wetlands along Kennedy Drive. Their long legs and long, sharp bills allow them to find and spear frogs, reptiles, and rodents. Herons are migratory birds; residents of the wetlands likely winter in Central or South America.



Kennedy Drive

Stormwater runoff from Kennedy Drive has historically entered tributaries of the Potash Brook watershed largely untreated, carrying pollutants to Lake Champlain. The road was reconstructed in 2007 to improve alignment, increase capacity, and improve safety for motorists and pedestrians. As part of this reconstruction, seven stormwater treatment facilities (see map at left) were installed to treat runoff from the roadway. South Burlington hopes to improve the health of its streams and Lake Champlain by making treatment of stormwater a priority in the city.



Vermont's First Stormwater Utility