

FOSC Water Quality Blog – Sligo Creek’s Newest Seep

FOSC Water Quality Team

During WSSC’s recent sewer restoration program along the Sligo Creek, WSSC and M-NCPPC (Parks) took the opportunity to create new habitat for Sligo Creek Valley’s nonhuman residents; a spring seep and vernal pool system, located along the Creek’s northeastern bank, near Hartford Avenue and Bradford Road. While it may take a year or two to fully establish itself, the hope is that this area will soon be Herp City – a spring home for frogs, toads and other amphibious Creek residents.



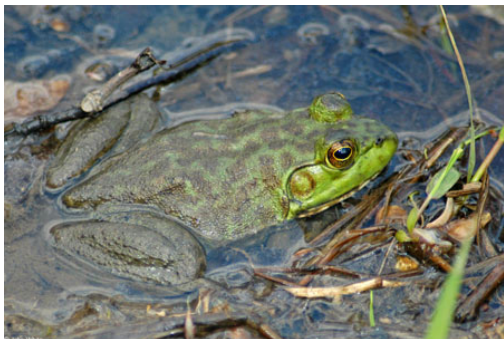
According to the EPA, spring seeps are “small wetlands typically found in sloping terrains. Groundwater reaches the surface through a distinct hole from which shallow, broad flows move outward and create a saturated zone.” In this case, the seep is water draining from the Goodacre Knolls neighborhood along the Manchester Road ridge.

As this water enters the stream valley, it slows down and collects in a newly-created extended depression that runs alongside of the Creek’s main channel. This trough will function much like a vernal pool in a floodplain. As EPA again explains, “Vernal pools are small, isolated wetlands that usually emerge in depressions in forests, in floodplains, in seasonally flooded woodlands, or as sinkhole ponds. They are seasonally inundated with water, fed by snowmelt, precipitation, and high water tables.”



Water from vernal pools gradually infiltrates back into ground water and/or flows into surface waters over the course of days, weeks or months, cleaned and clarified after its sojourn in the pool. These vernal pools do not support fish, and so can be rich centers for amphibian, reptile, insect and invertebrate life....exactly the plan for this new Sligo Creek wetland.

Parks Aquatic Ecologist Matthew Harper says the hope is to see a fully-established seasonal wetland here in the next few years. Harper says that Parks has planted wetland trees and wetland-adapted vegetation to help jumpstart development of this new ecosystem. It has also worked with WSSC to re-establish flow to the tributary feeding the pool, daylighting its flow further upstream and extending the flow path. If this restoration activity is successful, Harper believes more invertebrates and frogs could appear as early as next spring, including bullfrogs, gray frogs and wood frogs.



Bullfrog (photo by John White)



Wood Frog (photo by John White)

Some of have raised concerns that this new vernal pool could be a breeding ground for a variety of insects, including mosquitoes that could carry Zika virus and other diseases. According to Parks, however, “The species of mosquito (*Aedes albopictus* and *Aedes aegypti*) found in Montgomery County that the CDC recognizes as vectors of the Zika virus are considered container breeders. These species only breed in habitats that have small amounts of standing water....where potential predators would not be attracted...In a functioning wetland, we do not anticipate a significant increase in the number of mosquitoes, due to the predator-prey interactions at work within them.” Parks will

monitor the progress of the new vernal pool to ensure that it does become a functioning wetland and that these predator-prey relationships do take hold.

According to Michael Wilpers of the FOSC Natural History Committee, there are at least two naturally-occurring seeps remaining in the Sligo Creek Valley that interested residents can visit:

1. KEMP MILL – This seep is upland from the west side of the Kemp Mill storm water ponds. It's the only spot where Cinnamon Fern grows in the Sligo Creek Valley. There is also an expanse of smaller native ferns as well, and it is the only place along Sligo Creek where Showy Bur-Marigold grows in abundance.

2. SLIGO GORGE – A smaller seep is in FOSC Section 2, between the Carroll Avenue Bridge and the playground at the foot of Flower Ave. It emerges from the slope to the east of the hiker-biker trail and supports a small growth of Skunk Cabbage.

In addition, there is a fertile wetland between the Dennis Ave recreation buildings and the paved trail that is full of Skunk Cabbage and Sensitive Fern. And now, with some time and a little luck, there will be a newly restored spring seep/vernal pool system taking hold just downstream from Three Oaks, Sligo Creek E.S. and SSIMS. So keep a herpetologist's eye - and ear - out next spring as you walk or bike along Sligo Creek between Wayne Avenue and Piney Branch Road. As always, thanks for helping us protect Sligo Creek, its tributaries – and its newest wetland.