

Spring Creek Watershed Profile

Location

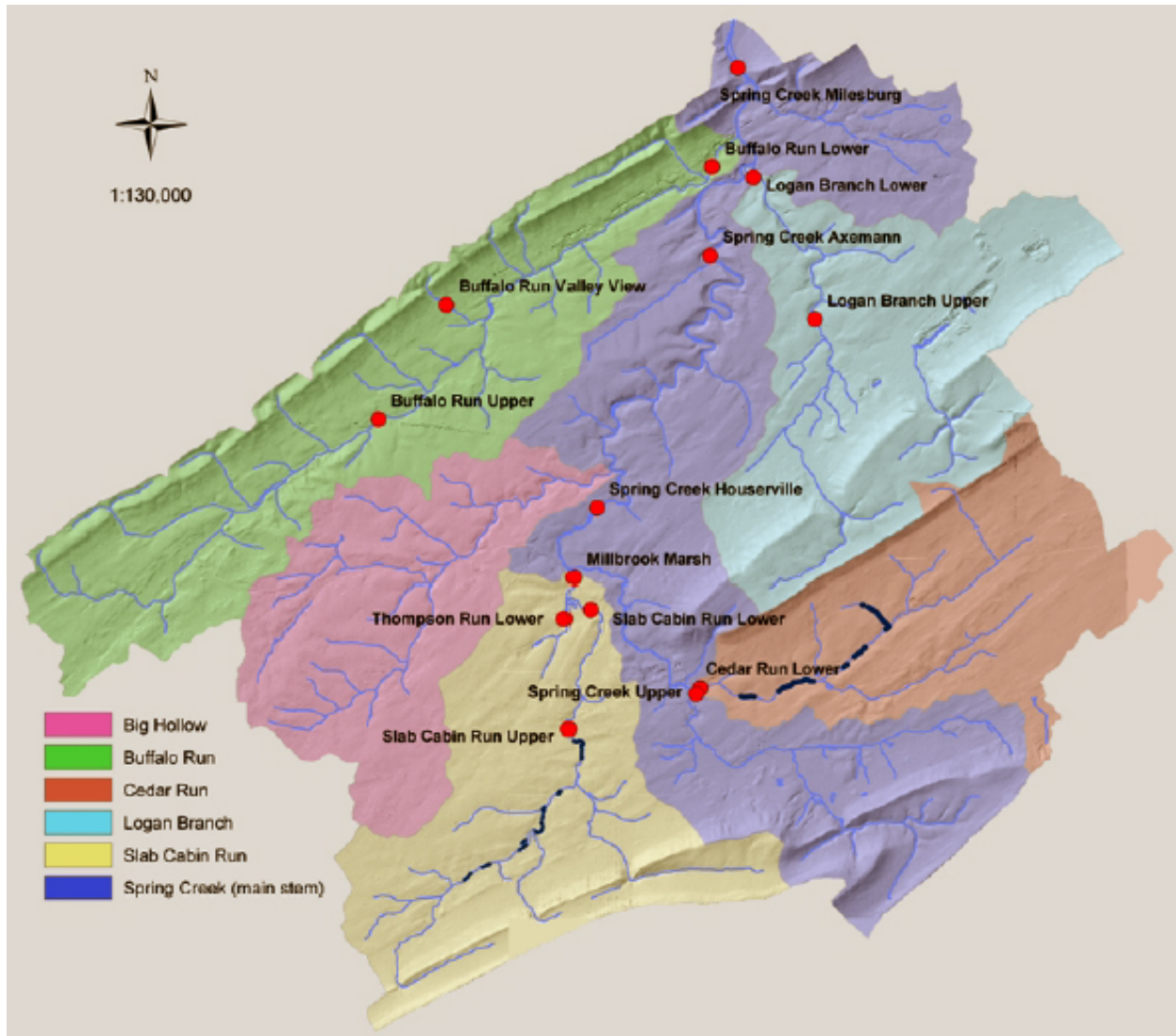
- Central Pennsylvania
- Centre County
- Municipalities:
Bellefonte Borough, Benner Township, Centre Hall Borough, College Township, Ferguson Township, Halfmoon Township, Harris Township, Milesburg Borough, Patton Township, Potter Township, Spring Township, State College Borough, Walker Township
- Tributary to Bald Eagle Creek, which drains into the West Branch Susquehanna River

Size

- Total: 146 mi² (93,440 acres, 378 km²)
- Population 140,000

Tributaries

Big Hollow
Buffalo Run
Slab Cabin Run
Cedar Run
Logan Branch



Physiographic Region

Ridge and Valley Province, Appalachian Mountain Section

Soils

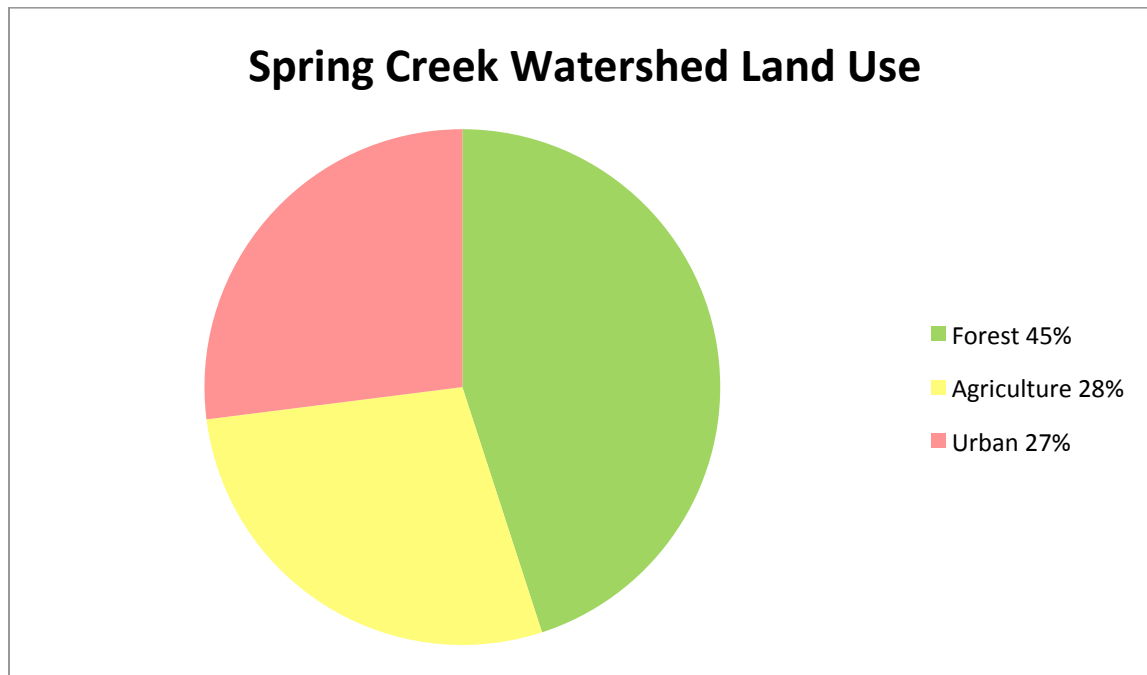
Hagerstown-Opequon-Hublerburg (deep and shallow well drained soils with underlying limestone) and Hazleton-Laidig-Andover (gently sloping to very steep, deep, well drained and poorly drained soils with underlying acid sandstone). Shale and sandstone in ridges, Big Hollow; karst geology in valley.

Land Use

28% Agriculture

27% Urban

45% Forested



Unique Environmental and Community Features

High quality wild brown trout fishery year round; home to Penn State University; innovative wastewater treatment (land application through Living Filter; UAJA high quality treatment and beneficial reuse program)

Designated Uses

- Aquatic Life: High Quality Cold Water Fishery (HQ-CWF)
- Main stem Spring Creek is designated HQ-CWF, as are the following tributaries:
upper Buffalo Run; upper Slab Cabin Run; Thompson Run; Galbraith Gap Run; McBride Gap Run; Markles Gap Run; lower Logan Branch
- All other tributaries are CWF

Impairments

Segment	Designated Use	Cause	Indicator	Sources
Spring Creek (5.4 mi)	Aquatic Life: HQ-CWF	Siltation	Macroinvertebrate Surveys	Urban Stormwater
Spring Creek (4.9 mi)	Aquatic Life: HQ-CWF	Organic Enrichment/Low DO	Macroinvertebrate Surveys	Industrial Point Sources
Slab Cabin Run (9.9 mi)	Aquatic Life: HQ-CWF and CWF	Thermal Modifications and Siltation	Macroinvertebrate Surveys	Golf Courses, Agriculture and Urban Stormwater
Logan Branch (2.1 mi)	Aquatic Life: HQ-CWF and CWF	Metals Organic Enrichment/Low DO	Macroinvertebrate Surveys	Industrial Point Sources
Buffalo Run (1.2 mi)	Aquatic Life: HQ-CWF and CWF	Siltation	Macroinvertebrate Surveys	Urban Stormwater
UNT Conewago Creek (0.9 mi)	Aquatic Life: Trout Stocked Fishery	Organic Enrichment/TSS	Macroinvertebrate Surveys	Point Source

TMDLs

None. TMDLs are to be developed by 2017 for these segments.

Links

[CEAP Spring Creek Watershed Study](#)

http://wetlands.psu.edu/products/documents/2011_BMP%20Final%20Report.pdf

[The Fishery of Spring Creek: A Watershed under Siege](#)

http://fishandboat.com/water/streams/springck_fishery.pdf

[Spring Creek Watershed Association](#)

<http://www.springcreekwatershed.org/>

[Water Resources Monitoring Project](#)

<http://springcreekmonitoring.org/>

[Spring Creek Commission](#)

<http://www.scwatershed.com/>

Proposed watershed-specific tactics and strategies for Spring Creek

1) Urban stormwater management

- a. Reducing amount of impervious surface
- b. Urban nutrient management of lawn/turf
- c. Stormwater BMPs to increase infiltration and filtration

2) Grazing and pasture management

3) “Perennialization” of vegetation

- a. Riparian buffers/setbacks in urban areas (COG riparian ordinance)
- b. Riparian buffers and stream bank fencing in agricultural areas
- c. Consider buffer widths; instream nutrient processing of forest buffers

4) Wastewater treatment

- a. Consider replacing Living Filter with WWTP discharge limits and model impacts

5) Stream restoration/legacy sediment abatement

- a. Cost effective combination of stream restoration tactics, spatially targeted (i.e., bioengineering, fluvial geomorphology natural stream design, floodplain restoration)