Brown County Council

December 17 , 2018

Brown County Regional Sewer District

- June 2004 Brown County Council petitioned IDEM to establish the Bean Blossom Regional Sewer District
- July 2006 IDEM authorized the formation of the BBRSD to provide for the collection, treatment, and disposal of sewage inside and outside the district.
- April 2013 Brown County Commissioners requested BBRSD to expand area of service to include the entire unincorporated areas of Brown County not already served by existing municipal utilities
- 2015 name changed to Brown County Regional Sewer District (BCRSD)

Brown County Septic Ordinance

- 1st State-wide Septic Ordinance passed in 1977
- ISDH started requesting Soil Analysis in 1990's
- Brown County amended their Septic Ordinance in 1997 to require Soil Testing
- Currently BC Board of Health re-writing the 1997 Septic Ordinance = several subcommittees:

Assessment	Organization
Remediation	Technology
Enforcement	Point of Sale

Septic and Sewers

- Septic Systems aka On-Site Sewage Systems (OSS) are prevalent in Brown County:
  - Approximately 8,400 households in BC
- Limited homes and businesses served by public sewers in Brown County:
  - Approximately 700 served by public sewers

BCHD Tests

- In 2004, 35 dye tests conducted in Bean Blossom Creek Watershed area = 10 failures

(Reported by Hoosier Environmental Council, 2010)

- In 2005, BCHD surveyed Coffey Hill, Orchard Hill Drive, and Orchard Hill Road:
  - ✓ 9/19 with Septic Failures (3 inconclusive) on Coffey Hill
  - ✓ 10/13 with Septic Failures on Orchard Hill Drive
  - ✓ 1/8 with Septic Failures (5 inconclusive) on Orchard Hill Road

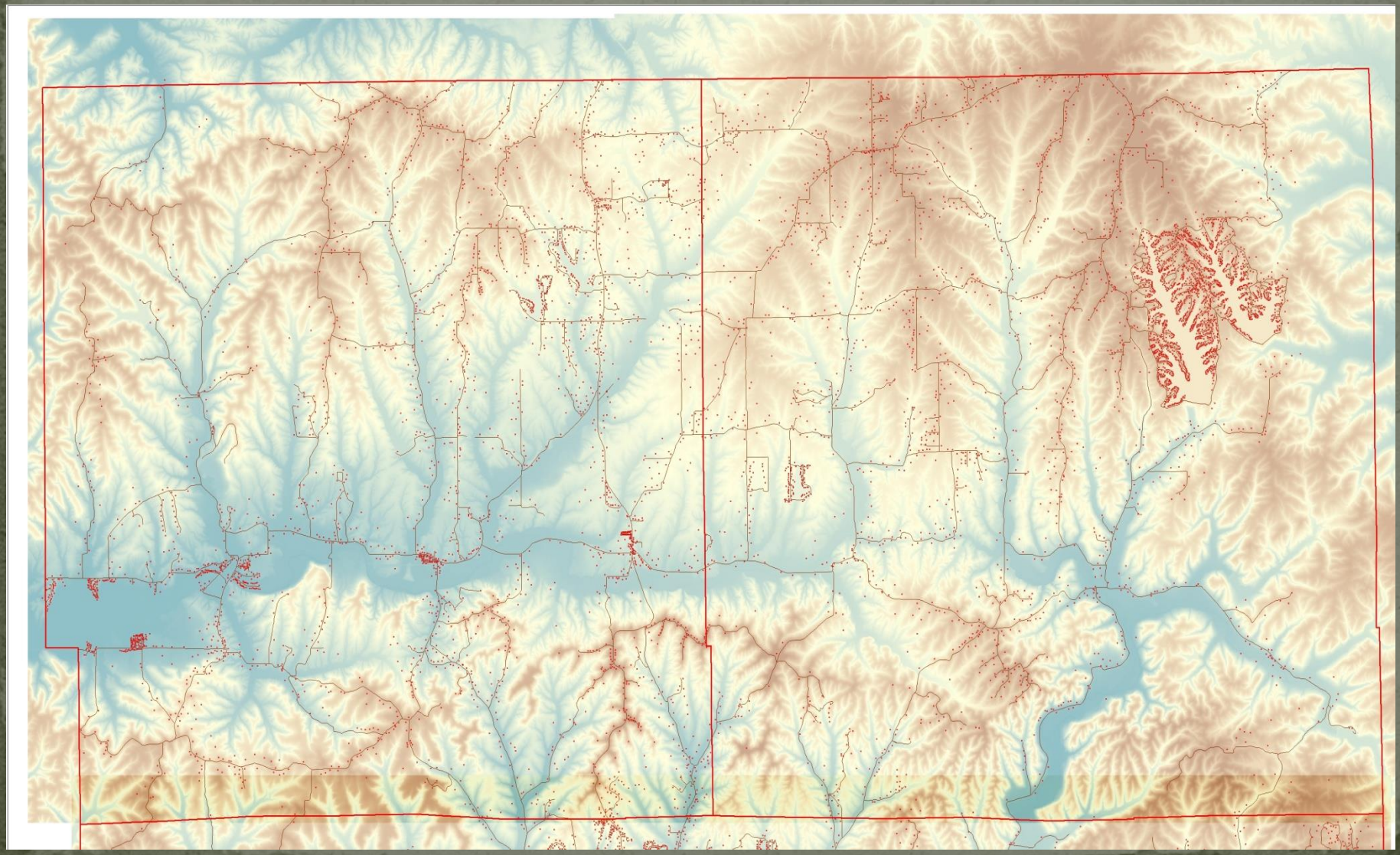
Soil Suitability for Septic Systems

- According to Purdue University's Census of Wastewater Disposal in Indiana:

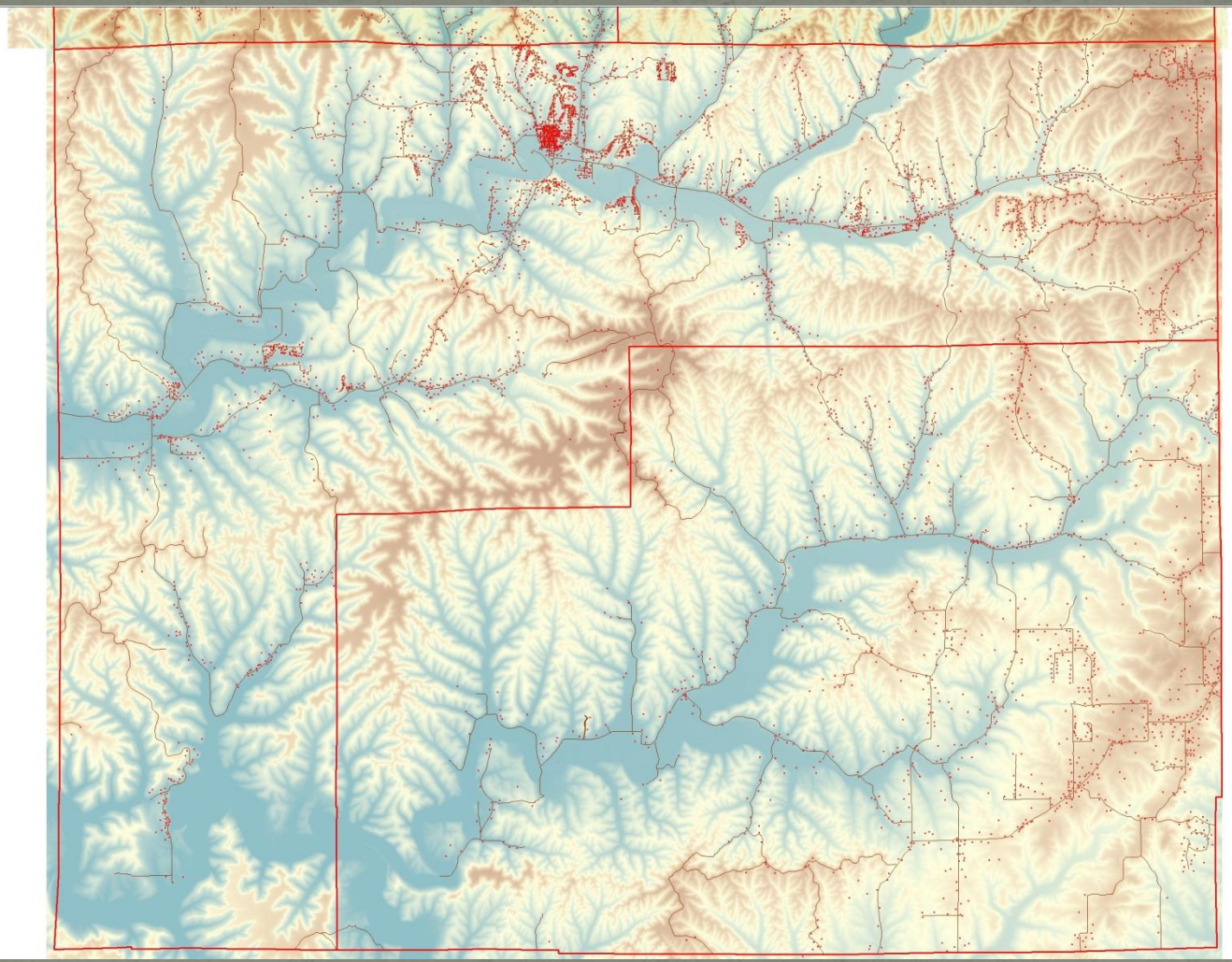
"All Brown County Soils have severe limitations for septic systems."

- The soil information is based on Natural Resources Conservation Service (NRCS) Soil Survey

Jackson & Hamblen Townships



Washington and Van Buren Twps



Assessment: Interim Findings

- Incomplete records for Brown County Septic systems.
- BCHD has researched 811 properties to date in the Bean Blossom Creek Watershed:

  180 Vacant parcels

  631 Properties with homes:

  361/631 (57%) have septic records on file with BCHD

  270/631 (43%) have NO septic records on file

BCHD researched 631 Property Records for Age of Septic Systems

New to 10 years old Septic Systems	11 to 20 years old Septic Systems	21 to 30 years old Septic Systems	31 to 40 years old Septic Systems	Over 40 years old Septic Systems	No records at all in the BCHD files
57 (9%)	90 (14%)	109 (17%)	48 (8%)	57 (9%)	270 (43%)

Assessment: Interim Findings

- BC Soils are poorly suited for Septic Systems with lateral fields.

  USDA Soil Classification as "Severe" for Septic Systems
- Many older Septic Systems installed prior to soil testing (1990's):

  147/361 (41%) on record are newer than 20 years

  157/361 (43%) on record are 21 – 40 years old

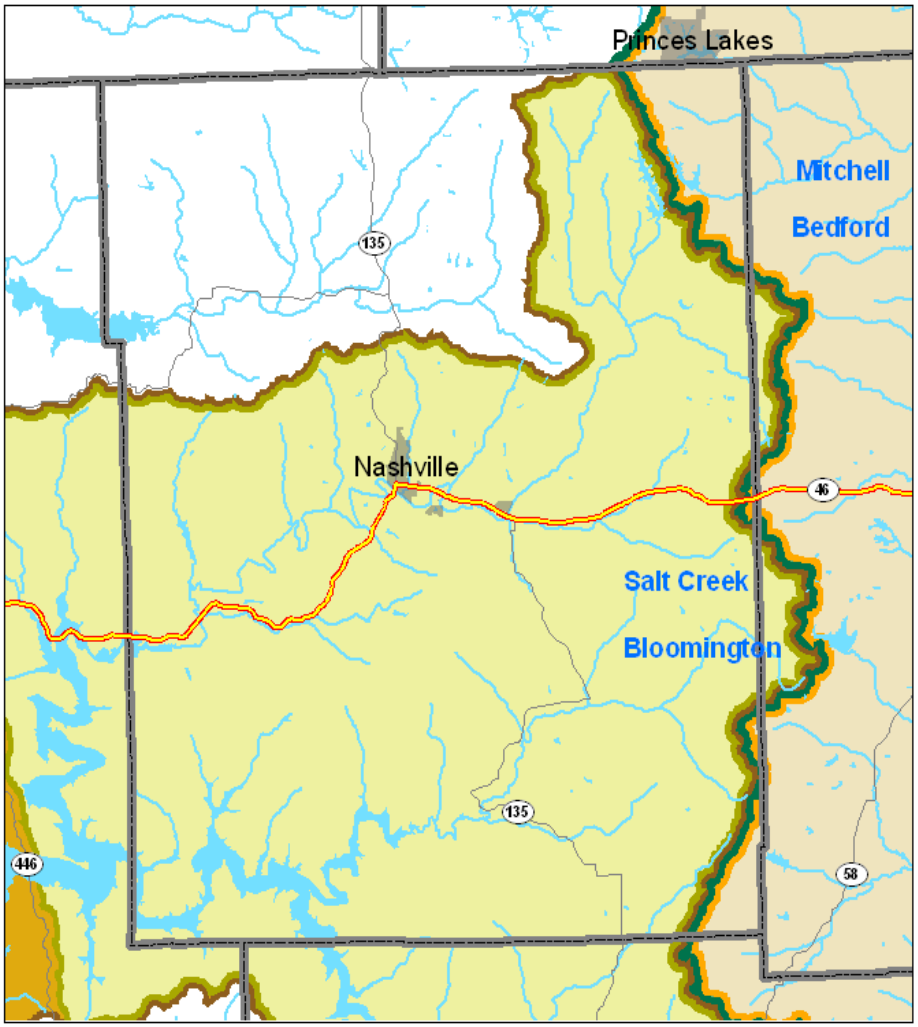
  57/361 (16%) on record are older than 40 years

Improperly Installed (*FAILURE*)

- 361 Properties with Homes:

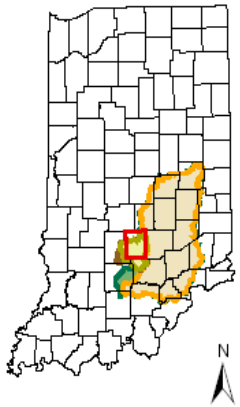
- 76 records (21%) of Septic Lateral Fields Not-to-Code:
  - **13** (4%) Installed below Ground Water Table
  - **25** (7%) Installed within 6" of GWT
  - **38** (11%) Installed within 24" of GWT violating 410 IAC 8.6-3 requirements !

Bean Blossom & Salt Creek Watersheds

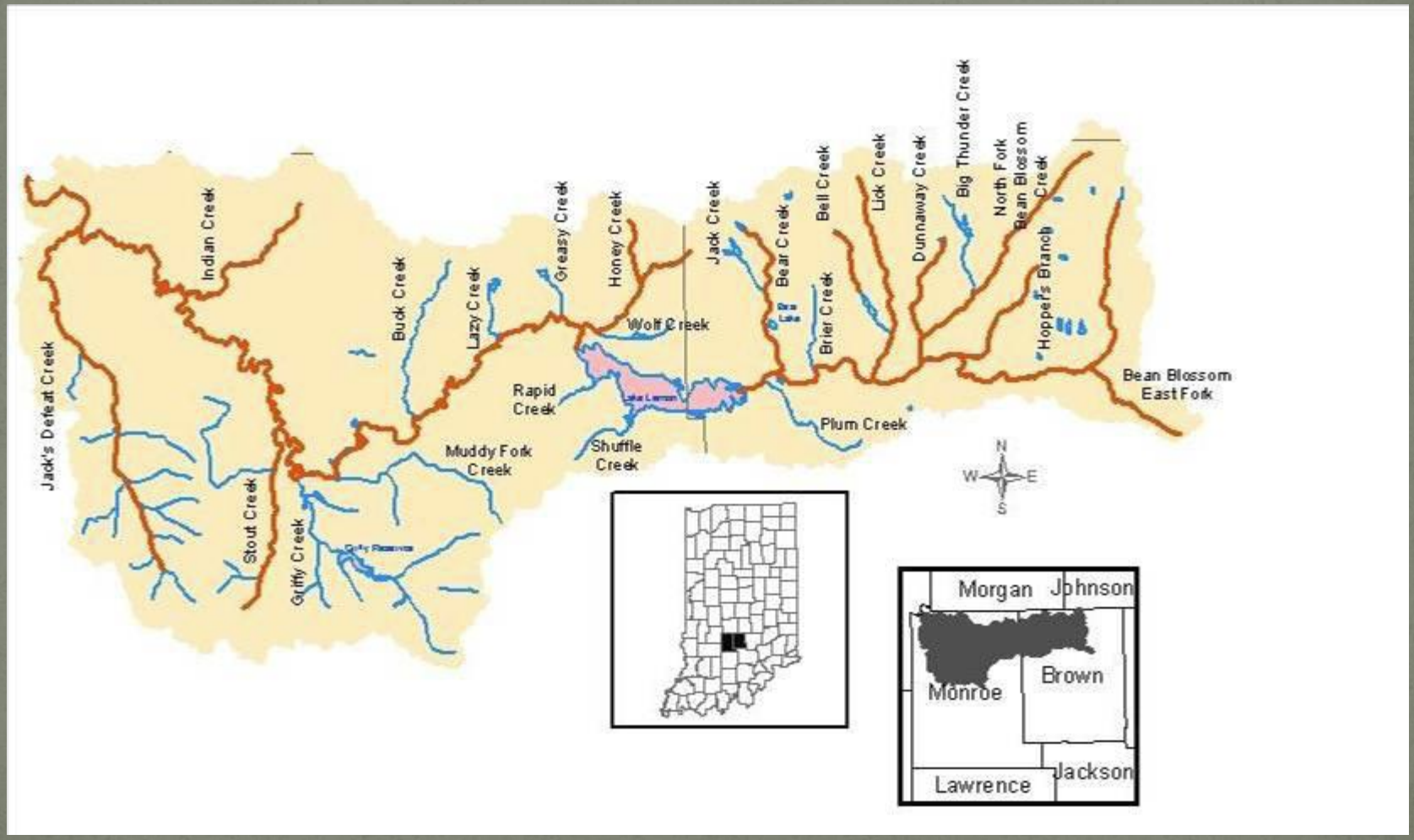


Brown County Watersheds Used for Public Drinking Water

- Salt Creek Watershed (Monroe Reservoir)
- Bloomington Watershed (Monroe Reservoir)
- Mitchell Watershed (East Fork White River)
- Bedford Watershed (East Fork White River)



Bean Blossom Watershed



Assessment: Interim Findings

- IDEM lists Bean Blossom Creek as "Impaired"
  - High levels of E. coli in Bean Blossom Creek
- IDEM identifies pathways for E. coli to enter waters
  - Septic Systems falling into disrepair
  - Straight pipes from home wastewater directly to creeks and ponds
  - Waste from deer, geese, and other wildlife
  - Agricultural runoff from farm animals

IDEM Data and CWA 303(d) List

	Impaired Waters	
County	Name	Parameter
Brown	Bean Blossom Creek Headwaters	E. coli
Brown	North Bear Fork	E. coli
Brown	Lick Creek	E. coli
Brown	Bean Blossom Creek	E. coli
Brown	Bell Creek	E. coli
Brown	Bear Creek	E. coli
Brown	Bean Blossom Creek (2)	E. coli

Total Maximum Daily Load Standards (TMDL)

2006 = IDEM set a TMDL for E. coli in Bean Blossom Creek watershed = pollution budget, or a target for the water quality goal for E. coli in the streams

125 colony forming units (cfu's) / 100 ml sample

As the Geometric Mean based on 5 samples equally spaced over a 30 day period

Or, if a single sample, the standard is not to exceed **235** cfu's/ 100 ml

E. Coli Baseline Data (from IDEM)

Bean Blossom Creek & Tributaries E. coli Data	Geometric Mean Levels (cfu's/100 ml)
Sprunica Road	185
Gatesville Road	442
SR 45 Bean Blossom	388
Bean Blossom at Helmsburg	1731
SR 45 Bean Blossom at Helmsburg Road	165
East Fork	172
Hoppers Branch	744
North Fork	268
Lick Creek	258
Plum Creek	168
Wolf Creek	Too numerous to count
Honey Creek	223
Indian Creek	1779
Jack's Creek	393

Assessment: Interim Findings

- Stream Sampling Program under development to differentiate animal vs human E. coli:

  - ✓ BCHD developing and managing Program
  - ✓ IDEM developing Stream Sampling Protocol
  - ✓ ISDH Lab providing Sampling Kits and analysis
  - ✓ Local volunteers performing field sampling

Personal, Environmental and Financial Health for You and Your Community

1) Untreated household wastewater poses significant health risks for anyone who comes into contact with it (Enteric Diseases).
2) If your septic system is not functioning properly, and needs repair or replacing, your system may be discharging untreated waste onto your yard, a neighbor's property or to a nearby creek.
3) Failed or poorly operating septic systems decline property values and the value of local recreational areas.

The “Bug”