**Otter Creek Watershed Management Plan Steering Committee Meeting Notes**

May 18, 2018 3:00 p.m.

Fellowship Hall, North Terre Haute Christian Church, Terre Haute, Indiana

Attendees: Josh Brosmer, Dana Gadeken, Sue Berta, Adam Grossman, Larry Owen, Evan Boyer, Brad Smith, Michelle Payne, Jim Speer

The committee finalized a draft mission and vision from the options below. The draft mission and visions are as follows:

Mission options for consideration:

* ~~Otter Creek Watershed is sustainable for multiple uses.~~
* ~~Otter Creek Watershed is a source of pride.~~
* Ottershed (otter creek watershed) residents improve Otter Creek water quality and build community connections through education and awareness for future generations

Draft Vision:

* Improved water quality in the Otter Creek Watershed for future generations.

**Watershed Inventory Review**

The committee reviewed the draft watershed inventory and provided the following comments:

* Septic soil limitations are pervasive – are there options for requiring septic improvements when houses are sold – consider ordinance options as part of implementation
* E coli source – do we know if the issue is human (septic or poor connections), domestic animal (manure from CFO or small farms), or wild animal populations?
  + Options for source tracking are getting more high tech with DNA sample collection with analysis for vertebrate animals as the best current option. Cost is $100/sample with several suggestions for sampling monthly at one location (outlet) or one sample collected at each sample point within the watershed.
  + Josh confirmed that IDEM cannot fund sample analysis with 319 funds. If the steering committee can identify a source of funding, these analyses can be used as matching funds.
* NRCS recently updated 7-day inundation maps for much of southern Indiana – are these available for Otter Creek’s watershed and if so, how do they compare with floodplain maps?
* Invasive species are likely to pose a maintenance concern with relation to implemented projects; this should be considered when developing implementation recommendations
* Steep banks are increasingly common in forested areas – the combination of reduced water infiltration and the presence of highly erodible soils are created large gullies where there used to be small, intermitted channels
  + Are there options to implement zoning and planning requirements to protect woodland areas allowing individuals to develop in a more sound manner (cluster development) or limit development of forested parcels smaller than 10 acres in size
* Noted concerns added to the concerns list:
  + Highly erodible/potentially highly erodible soils density
  + Septic soils – too many residences are sited on unsuitable soils; when compared with the sewered areas and high density housing, it is obvious that human sources of E. coli and nutrients are likely due to these residences and the unsuitable soils
  + Invasive plant impacts to native species including quail and other native plants
  + Streambed erosion as a source of instream sediment and erosion – internal sources of sediment may be causing issues in the otter creek watershed just as much as overland flow
  + Stormwater infiltration – slowing the flow of water is required to increase water infiltration, infiltration is necessary to reduce the rate at which water is flowing across easily erodible soils carrying water into stream channels causing down cutting and bed and bank erosion

Options for overlaying several GIS layers to better analyze concerns were discussed. Initial suggestions include population, septic soils, dense housing areas, animal operations. These needs will be discussed further at the next steering committee meeting.

**Water Quality Targets**

Options for water quality targets were discussed and the following targets selected. Targets will be reviewed after the current monitoring program is complete to determine if they need to be shifted.

* Dissolved oxygen: >4 or <12 mg/L (IAC standard)
* Temperature (IAC standard) based on month
* pH: 6-9 (IAC standard)
* Conductivity: 1050 mohs/s (IAC standard translated for total dissolve solids)
* Turbidity: 5.7 NTU
* Nitrate-nitrogen: 0.5 mg/L (more stringent than Ohio EPA biological suggestion)
* Ammonia-nitrogen: 0-0.21 mg/L (IAC standard based on pH and temperature)
* Total phosphorus: 0.02 mg/L (more stringent than Ohio EPA biological suggestion)
* E. coli: 235 col/100 mL (single sample IAC standard); 125 col/100 mL (geometric mean IAC standard for 5 samples collected within 30 days)
* Total suspended solids: 15 mg/L (Waters 1999; biologically based standard for reproduction)

**Education and outreach discussion**

* Hoosier Riverwatch training: occurred May 12th with 6 participants; fall training will be scheduled.
* Cleanup options: After much discussion of issues associated with private property rights and stream access, the committee suggested partnering with existing groups to conduct a roadside or land-based cleanup rather than an instream cleanup. Sara will reach out to suggested options re: partnering for fall 2018 and spring 2019 events.
  + Keep Terre Haute Beautiful: Jane Santucci with the option of focusing on North Terre Haute
  + Roadside clean up options with road signs and/or shirts promoting Keep Otter Creek Clean message
  + Markle Mill site clean up
  + Fontenet group which regularly schedules clean up events
  + Solid Waste Management District focusing on small, community-based clean up events
* Workshops – septic, cover crops/ag practices, forestry practices – committee is in favor of holding off on these until year 2 with the goal of highlighting practices that will be the focus of implementation efforts.

Next meeting date: July 20 at 3 pm at the North Terre Haute Christian Church