

Comments and Questions following the Public Hearing on July 8, 2023

Tim J. Clark

July 14, 2023

The purpose of the Public Hearing on July 8, 2023, was for the Helmsburg Regional Sewer District (HRSD) and Brown County Regional Sewer District (BCRSD) boards to present their Preliminary Engineers' Reports (PERs) to the public. Citizens were provided with "two minutes" to express comments and ask questions. Citizens were also informed they can submit written comments and questions through July 14, 2023, and they would receive a reply to their input. My additional comments and questions are included in Enclosures 1 and 2.

I support the Phase 1 project in the Western Corridor – Helmsburg to Lake Lemon. There is a valid need and overwhelming community support. This should be designated as the highest priority for funding and construction. Consideration should also be given to expanding the HRSD boundaries and expanding its board to include a representative from Lake Lemon and Bean Blossom, respectively.

I do not support the Phase 1 project in the Easter Corridor – Helmsburg to Bean Blossom to Woodland Lake. Despite a 20+ year endeavor to acquire sewer service in the Bean Blossom area, there is no direct evidence of failing or inadequate septic systems to the extent that would justify the scope and cost of the project in this corridor. The scientific method was not applied or referenced with sources to support studies to validate the theory that *"76% (2,200) systems need repairs or replacement."* Consideration should be given to an independent and objective assessment of the future role of the BCRSD.

Enclosure 1 provided background information and context on the Phase 1 projects. This includes the responsibility of citizens to ensure the review of appropriate state and federal officials in ensuring the efficient and effective use of taxpayer dollars. Enclosure 2 provides my questions.

Please let me know if there are any questions or if additional information is needed,

Tim J. Clark.

Brown County IN

Enclosures

Enclosure 1

Project Background and Summary

I attended the Public Hearing on July 8, 2023. I have been following septic and sewer-related projects in the county since 2016. I have routinely attended Helmsburg RSD board meetings, the Joint meeting of the HRSD and BCRSD boards, and regularly attend the BCRSD board meetings. This has resulted in meeting many of the individuals that are and were involved in the various efforts to expand sewers over the past 20-25 years.

I have shared what I learned in articles in the Democrat, and on social media through the Facebook group Brown County Matters. I also use a website – Independent Voters of Brown County IN that includes more in-depth information including timelines, articles, assessments, notes from meetings, and documentation. Social media supports transparency and allows for any counterarguments.

Transparency, Communication, Oversight

This Hearing on July 8, 2023, was the first public meeting where citizens were briefed on the scope, justification, and cost of the projects. The presentations were limited to just “Phase 1” of the overall strategy for the county. The downsizing of the local paper resulted in little to no recent coverage of Phase 1 and possible follow-on projects.

The BCRSD Preliminary Engineer Reports (PER) includes information primarily derived from a taxpayer-funded county-wide Wastewater Strategic Plan (WWSP) and Watershed Study (WSS).¹ The plan and study provide the basic premise for the justification of need. The cost of the WWSP and WSS study was financed with a state grant-funded project of \$118,000. It required a 10-percent match of \$11,800 which was provided by county taxpayers.

The BCRSD board *refused to present* their County Wastewater Strategic Plan and Watershed Study at a public meeting. Last fall (post-COVID), the BCRSD was planning to present the strategy at several locations throughout the county. When questioned why this option was abandoned. BCRSD Board members decided that the video presentations available on their website would be sufficient. And, if citizens had any questions, they could send an email.

Public meetings and discussion and resolution of issues and concerns could have resulted in improvements in the plan as well as gaining community support. Public meetings may have also prevented future pushback from residents on many fronts.

¹ BCRSD Strategic Plan <https://browncountyregionalsewerdistrict.wordpress.com/strategic-plan/>

In contrast, plans and strategies that affect everyone in the county, by statute, are represented in the County Comprehensive Plan. Development of this plan did require numerous public meetings and citizen input as to what they want and do want in terms of development, infrastructure, and values. A public hearing is also required before the plan was approved by the commissioners. BCRSDs' Wastewater Strategy *is not* in alignment with the intent of the County's Comprehensive Plan.

The BCRSD board includes individuals that were appointed by the commissioners or council. However, the oversight of this board is the responsibility of the Indiana Department of Environmental Management (IDEM).² The federal equivalent is the Environmental Protection Agency (EPA).

A Brief History – BCRSD

The BCRSD evolved from a local citizens group in Bean Blossom started by a realtor that supported development and sewer service for businesses. This evolved into the Bean Blossom RSD which was later transitioned into the BCRSD. The BCRSD inherited a belief that sewer service in Bean Blossom should be the top priority in the county.

The prior two BCRSD Presidents stated that there was no documented evidence of failing septic systems in the area which could be used to justify a “need” as opposed to a “want.”³ They both resigned before their terms of appointment expired. The current president is the longest-serving member of the board and has acknowledged and reinforced his commercial interests in acquiring sewer service for the Bean Blossom area. Supporting this strategy required that the area to be served be expanded. It also required developing a strategy to justify the need as opposed to a want.

The BCRSD submitted a PER in June of 2018 (with letters of support from 1998) for building a new sewer plant in Bean Blossom. To their credit during this phase, the BCRSD, with state funding, contracted for a Regionalization Assistant Planning (RAP) grant. The study was published in March 2020 to provide an assessment of wastewater treatment options for the area.⁴

The author of the RAP study, Ethel Morgan reinforced that the purpose of the study was to provide findings and “not” recommendations. Ms. Morgan stated that a *one-plant solution* for the area was not the best option.

² Regional Water Sewer and Solid Waste Districts, <https://www.in.gov/idem/cleanwater/information-about/regional-water-sewer-and-solid-waste-districts/> Internet accessed 14 July 2014.

³ Brown County Democrat - [Sewer project spending, 'proof of need' reviewed](#), By Sara Clifford, January 24, 2019, and [Resigning sewer board volunteers claim project obstruction](#), Sara Clifford – May 9, 2017

⁴ RAP Study, Ethel Morgan. <https://independentvotersofbrowncountyin.com/2019/08/14/rap-grant-home/> Internet accessed July 14, 2023

My April 3, 2020 guest column in the Democrat suggested delaying the project, gathering citizen input regarding new strategies, and aligning with the County Comprehensive Plan.⁵ “*Bean Blossom sewer plant: Delay warranted*” by Tim Clark⁶

The BCRSD then concluded that building a new plant in Bean Blossom would remain the highest priority for the county. The needed repairs and upgrades for the Helmsburg plant including expanding service to Lake Lemon were to be delayed.

When property owners refused to sell land to the BCRSD for a new plant, the BCRSD attempted to use land deeded to Parks and Recreation. This option was refused by the Department of Natural Resources DNR (March 2020). This option (new plant) was then abandoned after spending \$200,000 of county taxpayer dollars.

The BCRSD then contracted for a county wastewater strategic plan and watershed study (completed in 2022) which resulted in the conclusion that despite the suggestion in the RAP study, **a one-size fits all** strategy for Phase 1 would now be an accepted option. The Watershed Study led to the speculation that “76% (2,200) systems need repairs or replacement.” (Ref BCRSD Strategy, video presentations)

Brown County has one one-party monopoly on political power. The local party is led by individuals that have publicly acknowledged at county meetings their interest in development and development-related projects. Many candidates and appointees to offices are accommodating of this priority. A monopoly also represents a closed system. In other words, input and feedback that contradicts the prevailing narratives can be ignored without consequences in elections and appointments to county boards and commissioners. This situation results in policies and projects where the few can dictate the policy for the many.

Regarding the BCRSD’s decision *not* to present their WWSP at a public meeting, the county commissioners and council that appointed members to the BCRSD board did not challenge the decision.

Given this situation, it becomes manifest that the PERs and supporting documents be reviewed by subject matter experts at the state and federal levels that can provide an independent and objective and objective assessment on behalf of all citizens of Brown County. State and federal statutes and policies do require the application of internal controls to prevent the potential for waste, fraud, and abuse of taxpayer dollars.

⁵ Brown County Comprehensive Plan, /<https://www.browncounty-in.gov/DocumentCenter/View/141/Brown-County-Comprehensive-Plan-PDF> Internet accessed 14 July 2023.

⁶ Brown County Democrat, “Bean Blossom sewer plant: Delay warranted” by Tim Clark

<https://bcdemocrat.com/2020/04/03/guest-opinion-bean-blossom-sewer-plant-delay-warranted/> Internet accessed 14 July 2023 and Brown County Democrat on Feb. 25, 2020: “The Bean Blossom-Helmsburg sewer regionalization report is out. Here’s what it said.” <https://bcdemocrat.com/2020/02/27/the-bean-blossom-helmsburg-sewer->

What is next? Citizenship and Due Diligence

The PERs presented on behalf of the HRSD and BCRSD by their respective boards and contract engineering firms represent the largest and most expensive project in Brown County history.

As U.S. citizens, We the People are “top management” We are responsible for being informed voters and holding our elected and appointed officials accountable for the efficient and effective use of tax dollars. Citizens also serve in the role of Jurists that should assess both sides of the argument and supporting analysis before making or supporting a decision. The public hearing represented a *one-sided closing argument*. It is the only time a public meeting was held to explain the scope and impact of the projects for “Phase 1.”

In this case, citizens were limited to two (2) minutes for comments and offered the opportunity to send comments and questions via email. The HRSD and BCRSD will process the emails and provide a response. Citizens have been informed that any revisions to the PER and citizen comments/responses will be forwarded to the funding approval authorities at the State Revolving Fund (SRF). The USDA – Rural Development is also a funding source. This information is also available to the public.

In addition to serving as Jurists, citizens also have the responsibility to Appeal (challenge) any approval decisions to the appropriate state and federal agencies including expecting the involvement of elected representatives, respectively.

The overall process should result in assurance to taxpayers that the project was thoroughly vetted. Reviews could lead to identifying strengths and weaknesses and needed improvement in the existing project review and funding approval processes. Outcomes might also include new federal and state precedents for justifying the need for major wastewater projects.

Enclosure 2 – Questions

The BCRSD [Preliminary Engineering Report](#) (pg. 1), states that “The Report follows the Brown County Regional Sewer District Strategic Wastewater Plan (WWSP) dated April 2022.” The Watershed Study (WSS) is included in the Appendix.

My comment and question primarily relate to the strategy and plan that support the basis for the BCRSD PER. Ref: BCRSD Website: <https://browncountyregionalsewerdistrict.wordpress.com/>

Documentation

Comment. There are no footnotes or endnotes to support the citations referenced in the reports. This information will help identify if the information cited includes judgments derived from peer-reviewed scientific studies. The Watershed Study identifies “some” of the Literature cited

(pg. 72) but does not include a link or footnote to the source document that would provide the supporting context and detail for the respective statement.

Ref: BCRSD Website, WWSP, WSS (Appendix), and video summaries of each.
<https://browncountyregionalsewerdistrict.wordpress.com/strategic-plan/> (Internet accessed 11 July 2023).

Question. What/where are the references (sources/links) to the cited Literature and findings?

Water Quality

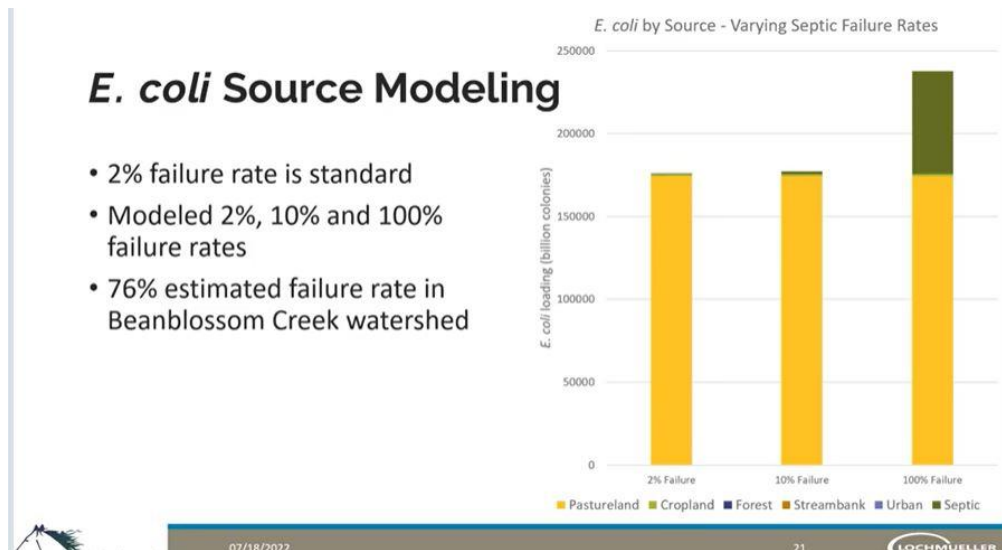
Comment: WWSP, April 2022, Executive Summary pg. iv. *“Water quality sampling over the past 15 years reveals a problem with E. coli contamination in Brown County waterways. The primary source of E. coli has been found to be from humans. Failing septic systems are likely contributors to waterway contamination in the county.”*

Question. What are the specific references in the WSS study that support this statement? There were 22 total samples. Only five (5) samples tested high for human-caused E. coli (WSS, pg. 63), e.g., *“Based on the results of these five samples, source tracking suggests that the primary source of E. coli for these sites is human in origin (Figure 31 and Figure 30)”*, WSS pg. 63.

Question. How many septic systems may be contributing to E. coli? The Pareto Principle identifies that 80% of the problem could be due to 20% of the septic systems. Can confirming this estimate and identifying solutions for the 20% be more cost-effective than a “one-size-fits-all” solution?

Question: Could a lack of sourcing be considered a material weakness in internal controls and undermine the justification for funding? Anecdotal evidence is less convincing than facts.

Comment: WSS, pg. 70. *“Figure 33 details that pastureland loads more E. coli to Brown County Streams than other sources under all modified septic failure modeling scenarios. Only if 100% of documented septic systems are failing do they contribute a significant volume of E. coli to the entirety of Brown County.”* This information is also represented graphically (below) in the video presentation:



Question: How does this information support the statement cited above that “The primary source of *E. coli* has been found to be from humans”?

Note that BCRSD Board members in their opening comments at the Public Hearing reinforced this theme related to inadequate Soils (LeBlanc), environmental health (Studabaker), and impaired waterways, 62% suspected failures of systems and human-caused *E. coli* (Hanlon). Ref: See comments and questions – BCRSD Board Members – Public Hearing, Opening Comments.⁷

Comments from two board members (Hall, Studabaker) referenced their involvement in the development of a new septic ordinance for the county on 2021. The methodology for assessing the problem and justifying changes that exceeded state requirements was challenged by several citizens and one commissioner. The state legislature, effective July 1, 2023, has voided county ordinances (including Brown County) that include requirements that exceed state requirements. Any proposed new requirements are to be approved by a technical committee.

I summarized the process and needs for improvement in my article in the Brown County Democrat “Challenges and opportunities with new septic ordinance” May 27, 2021.⁸

⁷ Audio of the meeting available at the following:
<https://independentvotersofbrowncountyin.com/2023/07/08/public-hearing-sewer-expansion-july-14-2023-deadline-for-comments/> Internet accessed July 14, 2023

⁸ Brown County Democrat, May 27, 2021. “Challenges and opportunities with new septic ordinance” by Tim Clark
<https://bcdemocrat.com/2021/05/27/guest-opinion-challenges-and-opportunities-with-new-septic-ordinance-2/>
 Internet accessed 14 July 2023.

Comment. On water quality, **this conclusion as to pastureland and cropland has been a consistent finding in water quality studies from throughout the State.**

- [Lake Monroe Watershed](https://independentvotersofbrowncountyin.com/2022/05/26/lake-monroe-watershed/) – Link:
<https://independentvotersofbrowncountyin.com/2022/05/26/lake-monroe-watershed/>

E-coli levels in all the 2020 Lake Monroe samples were well below the state standard of 235 CFU/100 ml (CFU = colony forming units of bacteria). The South Fork (**Jackson County**) sub-watershed appears to be the largest contributor of E. coli.

- [Indiana Water Quality](https://independentvotersofbrowncountyin.com/2022/03/31/indiana-water-quality/) Link:
<https://independentvotersofbrowncountyin.com/2022/03/31/indiana-water-quality/>

The major cause” of E-coli IS NOT due to the possibility of the failed septic system – it’s agricultural runoff from industries that are in compliance with federal and State laws and regulations. *“IDEM said combined sewer overflows, untreated stormwater and wastewater that discharges to nearby streams, rivers and other water bodies were the **largest sources** of E. coli bacteria, one of the impairments cited to the EPA.”*

Mar 31, 2022. [Indiana ranks highest in nation for miles of polluted waterways, report finds.](#)

- “According to the report, a major contributor to water pollution is manure and fertilizer runoff from farms. This causes the concentration of E. coli and nutrients that promote bacterial growth in waterways. “
- “Watershed Coordinator Maggie Sullivan, who works at the nonprofit Friends of Lake Monroe, said Lake Monroe suffers from nutrient contamination. Lake Monroe also has streams that feed into the lake which have elevated levels of E. coli, but levels in the lake are well below state standards. **“Our biggest concern right now is harmful algal blooms,” Sullivan said.**

Comment. WSS pg. 18. Pharmaceutical and Personal Care Products (PPCP). “A variety of PPCPs have been identified in environmental locations ...” BCRSD Board member Matt Hanson referred to this issue in his opening comments at the Public Hearing.

Regarding the detection of pharmaceuticals in the water, this topic was covered in the Brown County Democrat – *[STREAM SAMPLING: Where’s the contamination coming from?](#)* By Sara Clifford – 1/28/20. The information included in the article states: *“The highest detections in surface waters are often associated with municipal wastewater treatment plant outfalls”* and “... IDEM said that there were no standards or benchmarks for pharmaceuticals in surface water, it’s difficult to say whether the levels of any of them were “good,” “bad” or otherwise.”

Question. Any clarifying comments by BCRSD board members on this issue?

Question. Are septic systems designed to filter our PPCPs? And since there appears to be no violation of state and federal standards, what is the relevance of this topic?

Records and Useful Life of a Septic System

Comment: The WWSP video also identifies what is “estimated” to be an “average useful life” of a septic system along with the lack of records in the Health Department, to conclude the following:

- Estimated 8,000+ septic systems in the county.
- Nearly 3,0000 septic systems in Bean Blossom Creek Watershed:
 - 41% have no records on file.
 - 35% are near or past average design life.
 - An estimated 76% (2,200) of systems need repairs or replacement.

Question. Have there been any inspections or any documented evidence to support these assumptions?

The statement by BCRSD Board member Richard Hall that included the following comment: *“I feel there is a need”* reinforces the need for an independent and objective analysis as opposed to one based on emotion. A major change not only on the \$50.5+ million project costs but additional monthly costs to customers that may have a functional system but cannot afford the cost related to sewer service. A statistically valid sample of Brown County residents identified that 53.1% are in the low to moderate income level.

The Indiana Dept of Health reportedly identified that “There are nearly **1 million septic systems** in Indiana” and estimated that **20% are inadequate or failing**. Ref: *“Property owners could ‘supersede’ Indiana health officials over septic systems under House bill”* by Casey Smith, Capital Chronicle, Mar 29, 2023.

Question: What criteria does the State follow to derive the 20% estimate?

Question: Are there any scientific peer-reviewed studies that have identified that this rationale for arriving at the 76% estimate is credible? Does the rationale support over a \$50.5 million dollar investment?

Comment. The counter to anecdotal evidence as a basis for supporting decisions is the application of the **scientific method**. This method includes identifying operational definitions of key terms (such as failing and inadequate systems, useful life), statistical sampling plan, data collection, inspections, data analysis, and conclusions.

Comment. What challenges the 76% estimate is the information from Sweetwater Lake. (Ref: Watershed Study, pg. 26). *“There are 550 homes around Sweetwater Lake, which represent the largest concentration of residential septic systems in the watershed Failures” were identified as being caused by “abuse, lack of maintenance, or grandfathered installations.” No evidence of any “significant threats to water quality resulting from septic systems.”*

- Note that “potential” for problems were identified but nothing to indicate existing septic management practices would not continue to be effective.

Question: Of the 550 homes, what would the BCRSD estimate to be the failure rate given “available records” and “useful life”? Results from such a review may support or repudiate the methodology that is being used to justify the need in Bean Blossom.

Comment. Commercial systems and Records? In Table 3 *Service and Study Area Flow Estimates*, page 8 of the PER, there are 612 Residential Units identified. There were 927 commercial units identified. (Ref BCRSD PER pg. 8).

Question: What is the status of the “Records” for the commercial units? How many of these units have evidence of septic system failures?

Question: If there are septic system failures, how many have no recourse except for Pump and Haul

Note: the owners of a local restaurant in Bean Blossom do have a failed system and had to resort to Pump and Haul. For the previous owner, the State approved the installation of a Presby that failed. This was a known condition prior to the sale to the new owners. Presby (see following comments regarding Presby systems) guarantees their systems if properly installed and maintained.

Comment. To attempt to justify a solution for the Eastern Corridor (Bean Blossom) a problem had to be identified. The BCRSD created a justification for the need based on estimates of failing septic systems due to the projected age of systems, lack of records, and water samples.

Questions:

- Regarding record keeping, when (in what year) did the State require that the county maintain records? What records were needed to be kept?
- When and how did the county enforce the guidance? In what year? Is/was there an ordinance?
- How long did it take to implement the standard?
- How was/is compliance with the standard enforced?
- Commercial systems require approval by the State. What is the accuracy of the State’s records?

Useful Life of a Septic System – 20-25 years to Indefinite

Comment. The useful life of a septic system. Useful life reportedly ranges from 20-25 years to Indefinite. In a letter to prospective customers, the BCRSD referenced a report from Purdue that identified a justification of *need* based on the “age” of a system and using an “opinion” by

Purdue Extension Service that “*suggests “an” average” lifespan of a maintained system is 25 years.* (Ref. “*Technical sources including Purdue University Extension suggests 25 years as the average lifespan for a well-maintained septic system.*”

Per the Environmental Protection Agency (EPA) Fact Sheet EPA 932-F-99-075, Decentralized Systems Technology Septic Tank - Soil Absorption Systems, “*Conventional septic systems are designed to operate indefinitely if properly maintained.*”

The information further states: “*However, because most household systems are not well-maintained, the functioning life of septic systems is typically 20 years or less. In contemporary practice, it is commonly required that a second area of suitable soil be reserved at the site as a “repair area” in the event that the initial system fails to operate properly or to allow for the possibility of a future home addition project.*”⁹

The importance of residents having sufficient land for a replacement septic system is or can be reinforced when a septic permit is issued for a new or repaired system and reinforced in zoning guidance.

Presby septic systems are promoted by the County Health Department and are a common choice for new systems or systems needing replacement. **Presby systems have been identified as having an indefinite life.** With existing homes, the State and county accommodate flexibility to include the potential use of an existing septic field for homes with limited land/soil options. Presby’s do not require as deep a trench and may not interfere with existing lines in an existing field. (Ref: Discussion with an experienced engineer and septic system installer).

- Presby Systems identify that their septic systems “*treat wastewater before it is released into the ground and claim their “technology removes up to 98% of wastewater contaminants, recycling clean water into the environment and recharging natural water supplies.”*
- Per Presby’s website: “*How long does Enviro-Septic® Technology last? “If the system is designed, installed, and maintained properly, there is no limit to the life expectancy of Enviro-Septic® Technology. In the event that the System malfunctions due to abuse, AES or Enviro-Septic® may be rejuvenated in as little as 72 hours, eliminating the need for a replacement.”*¹⁰

Question. The State of Indiana has acknowledged that septic systems are a proven technology and most likely will always need to be an option in Brown County. Why is the fact that septic systems can have an indefinite life not recognized and referenced in the WWSP.

⁹ Hoover, 1999.” Ref EPA 932-F-99-075, <https://www.epa.gov/sites/default/files/2015-06/documents/septage.pdf> (Internet accessed 11 July 2023).

¹⁰ Presby, FAQ, <https://www.infiltratorwater.com/products/presby-environmental/enviro-septic/> Internet accessed 11 July 2023.

Question. Why does the WWSP ignore this technology as part of the solution?

Question. What is the education and communication strategy and related actions taken by the BCRSD and County Health Department to routinely raise awareness regarding septic system records, testing, and maintenance? Are realtors aware of what septic system information would be useful in the buying/selling of a home? Can information be routinely included in mailings such as property assessments and bills?

Comments: A non-statistically valid survey with 113 responses was referenced as supporting the need for repairs/replacements of the existing septic system. Ref: (WWSP, pg. 2-6)

Question: Any follow-up? How many needed actions identified by survey respondents may have already been completed?

Pump and Haul is another approved option in some circumstances. This option allows citizens to live in their homes and if money is an issue, apply for grants or other sources of financial support. Bill Monroe Music Park and Campground in Bean Blossom is and has been on pump a haul which is an option approved by the State.

Soils

On the topic regarding soils are not suitable for septic systems in Brown County, this is a misleading premise that is not supported by State policy.

Comment. The reference (no footnote) to Purdue's' and USDAs assessment on "soils" is repeated in the PER (pg.6) which also includes the following: *"United States Department of Agriculture (USDA) also classifies soils in Brown County as "Severe" in terms of septic system unsuitability. Despite these limitations, of the 8,400 households in Brown County, nearly 7,700 is still served by on-site septic systems."*

"According to Purdue University's Census of Wastewater Disposal by Indiana County, all Brown County soils are severely limited for septic system use. Soils data compiled by NRCS support these findings indicating that more than 99% of soils in Brown County are severely limited for on-site septic use (Figure 19)." (Ref Section 4.2.2., pg.40). [NRCS](#) – Natural Resource Conservation Service/USDA.

The water study also identifies that county soils are *"very limited in their ability to drain and treat the wastewater produced by a septic system."*

The State of Indiana, not USDA or Purdue, determines the suitability of soils. Indiana requires the testing of soils and has identified the acceptable criteria before a septic permit is issued.

Question: Can the BCRSD identify (now or at a future date) a higher standard for approving septic permits than what is allowed by the State and county?

Note: Regarding the age of a system, an assumption can also include that individuals installed a septic system using the prevalent technology at the time and repaired/replaced their system as needed without the knowledge of the health department and/or records were not effectively managed by the Health Department.