INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

December 3, 2002

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Mr. Armin B. Apple, President
Hancock County Commissioners
9 East Main Street
Courthouse Room 208
Greenfield, Indiana 46140

Dear Commissioner Apple:

Re: FFY 2000 Section 205(j)
Project Closeout
ARN A305-1-01-291

We have received and reviewed the Final Report for the Hancock County Regional Water and Sewer District Plan and Charlottesville Preliminary Engineering Report (PER) project, however, it has been determined that contractual duties were not completed as noted below:

- the District Plan omitted the water study and the PER was not produced, therefore Duty A was not completed
- the water sampling was not performed, therefore Duty B was not completed
- the Quality Assurance Project Plan (QAPP) was submitted as an incomplete first draft, therefore Duty C was not completed
- only one public meeting was held, therefore, Duty D was not completed

Upon review of the contract duties to determine percent completion and reimbursement eligibility, weights were assigned to each duty based upon importance to the overall project. Duty A was weighted as seventy percent, Duty B was weighted as ten percent, Duties C and D were weighted as 5 percent each, and Duty E was weighted as ten percent. The reviewers reached a consensus that Duty A was only 25 percent complete, Duty B was zero percent complete, Duties C and D were each only 33 percent complete, and Duty E was 100 percent complete, for a total project completion of 31 percent.

This Section 205(j) grant project is now closed. Please note that $33,258.00 in Section 205(j) funds is being withheld based upon the discussion above. Your final invoice cannot be processed and is being returned to you with this letter. Please submit a new invoice to claim the $14, 942 for work completed. The balance of the Section 205(j) funds can no longer be invoiced. If you have any questions about this letter or your grant project, please contact your Project Manager, Bonny Elifritz, at 317/234-0922.

Sincerely,

Laura M. Bieberich

Laura M. Bieberich, Senior Environmental Manager
Watershed Management Section
Office of Water Quality

Cc: David Kieser, Beam, Longest & Neff
Lynne Newlon, IDEM
William Harkins, IDEM
Bonny Elifritz, IDEM
Michael Mendyk, IDEM

Enclosures

HANCOCK COUNTY REGIONAL WATER AND SEWER DISTRICT

DISTRICT PLAN

DRIFTWOOD RIVER AND UPPER WHITE RIVER WATERSHEDS

HANCOCK COUNTY, INDIANA

JULY 2002

PREPARED FOR:

HANCOCK COUNTY REGIONAL WATER AND SEWER DISTRICT

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BLN JOB NO.
3693

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1. INTRODUCTION

The purpose of this report is to provide a district plan for the Hancock County Regional Water and Sewer District (RWSD). RWSD has identified six communities within the District as having the most significant wastewater problems. These communities are the focus of this report.

The purpose and scope of this report are described in this section. General information about the history, location, and boundaries of the Hancock County RWSD is provided in the next section. General characteristics of the District and environmental resources within the District are identified. Population trends in Hancock County are discussed. Communities identified as having high priority for wastewater service are introduced.

The next sections discuss existing wastewater treatment systems, problems with those systems, alternative solutions for those problems, and the cost to execute those solutions. Comparison of benefits to costs is discussed briefly. This includes a discussion of operation, maintenance, and repair costs. A proposed schedule of installation and procedures for operation, maintenance, replacement, and inspection are discussed at the end of the plan.

1.1 PURPOSE

The Hancock County Regional Water and Sewer District was formed on March 13, 1996 for the purpose of "improving the health and welfare" (Petition for Organization of a Regional Water and Sewer District, March 8, 1995) of Hancock County residents living in rural, unsewered areas of the County. See Appendix A for copy of Petition. Most of the unsewered areas in Hancock County rely on individual septic systems to treat their wastewater. It appears that many of these systems are now failing, causing a potential health risk to Hancock County residents. The Hancock County RWSD expects to aid in alleviating these problems. The Hancock County RWSD also controls all territory in Hancock County that is outside municipal boundaries or currently unsewered. They have been able to use their status as a RWSD to control the expansion of municipal and private utilities within the county to prevent Hancock County citizens from being unfairly forced into paying for utilities, which they did not request. Since the RWSD must cede territory to these utilities, it gives the public a chance to comment before a change occurs. The District Plan considers wastewater systems in the six communities of Charlottesville, Eden, Maxwell, Mohawk, Willow Branch, and Woodbury because these communities are considered representative of the entire RWSD.

1.2 AUTHORITY

Hancock County RWSD entered into an agreement with Beam, Longest and Neff, L.L.C. on February 15, 2001 to prepare a feasibility study and district plan. The District was formed within the guidelines of IC 13-3-2 of which is administered by IDEM

1.3 SCOPE

This report attempts to provide a plan for abating wastewater pollution concerns in six unincorporated communities within the Hancock County RWSD. The scope of this plan is to provide a summary of a wastewater feasibility study done concurrently with this plan. The wastewater feasibility study is included as Appendix B.

2. GENERAL DESCRIPTION OF THE HANCOCK COUNTY RWSD

This chapter discusses geographical, environmental, and demographical features of the RWSD. It includes a discussion of the existing wastewater systems within the RWSD. Additional information about these features and the history of the District can be found in the Wastewater Feasibility Study in Appendix B.

2.1 LOCATION

The Hancock County RWSD is located completely within the boundaries of Hancock County, Indiana. Hancock County lies in central Indiana along the eastern border of Marion County—home of the state capitol, Indianapolis (see Appendix B, Exhibit 2-1).

The Hancock County RWSD includes all portions of Hancock County not already incorporated or sewered. The city of Greenfield and the towns of Cumberland, Fortville, McCordsville, New Palestine, Shirley, Spring Lake, and Wilkinson are excluded from the district. Also excluded from the District for sewer service are Brandywine Elementary School, Doe Creek Middle School, Eastern Hancock Junior/Senior High School, Eastway Court Apartments, Eden Elementary School, EMRO Marketing, Grandma's Kitchen, KOA Campground, Maxwell Middle School, a McDonald's, Mount Vernon Middle/High School, Mount Comfort Elementary/Junior High School, Western Hancock Utilities, Gem Utilities, Doe Creek Utilities, and Sugar Creek Utilities. See Appendix B, Exhibit 2-2 for map of District boundaries.

The following six communities within the Hancock County RWSD are addressed in this plan as representative samples of the whole District: Charlottesville, Eden, Maxwell, Mohawk, Willow Branch, and Woodbury.

2.2 TRANSPORTATION CORRIDORS

Hancock County lies in central Indiana adjacent to Indianapolis. Hancock County encompasses 306 square miles. The population for the entire county is 55,391 according to the 2000 Decennial Census prepared by the U.S. Bureau of the Census. The county seat is the city of Greenfield, which lies in south-central Hancock County between United States (US) Highway 40 and Interstate 70. It is centered on the intersection of State Road (SR) 9 and US 40.

Hancock County has an extensive transportation network. It is served by four major east/west roads and some lesser roads running north/south. The major east/west roads include SR 67—which is also US 36, I-70, US 40, and US 52. SR 67 runs through McCordsville and Fortville in northern Hancock County. I-70 runs through central Hancock County and currently forms the northern boundary of Greenfield's corporate limits. US 40 also lies in central Hancock County and is where much of the original county development occurred. US 52 runs through New Palestine in the southern part of the county. The significant north/south roads include CR 600 W, SR 9, and SR 109. CR 600 W lies in or near the towns

of New Palestine, Cumberland, and McCordsville. CR 600 W also provides access to Mt. Comfort Airport in west-central Hancock County. From Greenfield, SR 9 runs north to Pendleton and south to Shelbyville. SR 109 extends from US 36 in the north through Wilkinson in Hancock County to Knightstown in the south.

A review of the communities being studied shows that three lay along at least one of these major transportation routes. Eden lies along SR 234 and SR 9, Maxwell extends along SR 9 from CR 600 N to I-70, and Woodbury lies on SR 67 east of McCordsville.

2.3 ENVIRONMENTAL FEATURES

Environmental features of Hancock County have been obtained from the "Soil Survey of Hancock County, Indiana," published by the Soil Conservation Service (SCS) (now called Natural Resources Conservation Service (NRCS)) of the U.S. Department of Agriculture in 1978, and from the Upper White River and Driftwood River Restoration Action Strategy documents published by the Indiana Department of Environmental Management (IDEM). The physical features of the RWSD discussed in this report include soil characteristics, watershed information, and land use.

The climate for Hancock County is typical for the Midwest. Average daily summer high temperatures are around 87°F and average daily winter high temperatures are around 37°F. The average annual precipitation is about 40 inches and is evenly spaced throughout the year.

2.3.1 Geology and Soil Characteristics

Geology in Hancock County has been most recently shaped by the movement of glaciers during the last ice age. The limestone bedrock was covered by material left behind by the retreating glaciers and had little affect on the current soils in the area. Instead, the soils have been derived from glacial till, glacial outwash, lacustrine material, alluvial material, and windblown material. The Hancock County RWSD is located on a relatively flat upland area referred to as the Tipton Till Plain. Hancock County is mostly level except for valleys carved out by postglacial streams now maintained by current creeks and rivers. The entire relief across Hancock County is about 250 feet from 780 feet in elevation in the southwestern part of the county to about 1,030 feet in elevation in the northeastern portion of the county around Shirley.

Soil characteristics have been determined from the NRCS Soil Survey. See Appendix B, Exhibit 2-3 for a Soils Map of Hancock County. A review of Exhibit 2-3 shows that the Hancock County RWSD is made up of three main soil associations. The associations are Crosby-Brookston, Miami-Crosby, and Ockley-Sloan-Shoals.

Approximately 73 percent of the District is made up of Crosby-Brookston soils. These soils are nearly level upland soils formed in glacial till. Crosby soils are formed on higher areas and are somewhat poorly drained with the groundwater table usually in the range of 1 to 3 feet below the surface. Crosby soils are rated severe for use of septic systems. Brookston soils are formed in shallow depressions and are very poorly drained with the groundwater table usually in the range of 0 to 1 foot below the surface. Brookston soils are rated severe for use of septic systems.

The remainder of the District is divided between the Miami-Crosby association and the Ockley-Sloan-Shoals association. Approximately 17 percent of the District is made up of Miami-Crosby soils. These soils are nearly level to steeply sloping upland soils formed in glacial till. Miami soils are typically higher on uplands. These soils are well drained and nearly level to strongly sloping. Miami soils are rated moderate for septic systems where slopes range from 0 to 12 percent and severe where slopes are greater than 12 percent. Effluent seepage can be a problem. Crosby soils here are found in lower areas at the base of slopes. The other characteristics are the same as above.

Approximately 10 percent of Hancock County consists of Ockley-Sloan-Shoals soils. These soils are level to moderately sloping soils formed in glacial outwash and alluvium. Ockley soils are formed on higher positions along drainageways and flood plains. These soils are well drained and level to moderately sloping. Ockley soils are rated slight to moderate for septic system use. Sloan soils are formed on bottomlands of drainageways. These soils are level and very poorly drained with the groundwater table usually in the range of 0 to 1 foot below the surface. Sloan soils are rated severe for use with septic systems. Shoals soils are formed on the bottomlands of drainageways. These soils are somewhat poorly drained with the groundwater table usually in the range of 1 to 3 feet below the surface. Shoals soils are rated severe for use with septic systems.

2.3.2 Hydrology

The Hancock County RWSD covers parts of two major watersheds in Indiana. The northwestern portion of the RWSD drains to the Upper White River watershed. This encompasses about 14% of the total area in Hancock County. The remainder of the RWSD drains to the Driftwood River watershed.

The Upper White River watershed includes some small streams, which empty into Fall Creek and Geist Reservoir. Woodbury lies within this watershed. There are small areas in the 100-year floodplain in this portion of the RWSD. Most construction would take place within road rights-of-

way outside the floodplain. In this manner, wetlands would also be avoided.

The Driftwood River watershed includes the major streams in the RWSD. The streams include Buck Creek, Sugar Creek, Brandywine Creek, and Big Blue River. These streams generally flow northeast to southwest. Their courses were formed at the end of the last ice age and have since remained relatively unchanged. Charlottesville, Eden, Maxwell, Mohawk, and Willow Branch all drain into this watershed. Most wastewater improvement alternatives avoid construction in floodplain, however some transport options would be required to cross floodplain. Eden is the only community to which this would not apply. Eden lies completely within the 100-year floodplain of Sugar Creek. Most wastewater collection system construction would be underground and would not permanently affect the floodplain. Construction would be kept in road rights-of-way as much as possible. Again, wetlands would also be avoided in this manner.

There are already multiple wastewater discharges into streams in these watersheds from permitted wastewater treatment facilities. However, these streams are sufficiently large to accommodate additional wastewater discharges from the RWSD communities as long as appropriate treatment is provided.

2.3.3 Endangered, Threatened, or Rare Species

The Natural Heritage Data Center administered by the Indiana Department of Natural Resources (IDNR) was researched to determine what endangered, threatened, or rare plant and animal species may exist within the study area of each community. Some species of mollusks were found in streams near these communities, but were outside the study areas. The only endangered species found in any of the study areas was an American badger seen in Section 20, Township 16 North, Range 7 East in 1988. This is the same United States Geological Survey (USGS) section in which the intersection of SR 9 and I-70 is located. Construction in this area would be limited to road rights-of-way. Before constructing wastewater improvements in any of the study areas, the U.S. Fish and Wildlife Service should be contacted.

2.4 LAND USE

Hancock County is still predominantly agricultural. The current trend here and across the country is the conversion of land from agricultural use to commercial and residential use. This is happening especially along the western portion of the RWSD where Hancock County borders Indianapolis. It is also occurring around Greenfield and Fortville.

The current land uses in the RWSD are urban, agricultural, forest, wetland, and open water. Land uses provided in the Upper White River and Driftwood River

Watershed Restoration Action Strategies have been compared to approximate the land use percentages for the RWSD. See Table 2-1 below. Urban land use would include such common categories as residential, commercial, and industrial.

TABLE 2-1 RWSD LAND USE

Land Use	% of Total Available Land
Urban	3.4
Agricultural	83.5
Forest	10.3
Wetland	2.2
Open Water	0.6

2.5 POPULATION TRENDS AND PROJECTIONS

Population trends and projections for the RWSD are discussed in this section. Trends represent how the population has changed in the past. Projections represent how the population is expected to change in the future. It should be noted that data were not available specifically for each community in this study. Trend data were available for Hancock County, Brown Township, Buck Creek Township, Center Township, Green Township, Jackson Township, and Vernon Township. Projection data through 2020 were available for Hancock County.

Population data were obtained from several sources. Trend data were obtained from the U.S. Bureau of the Census for the 1900-2000 Decennial Censuses. Projected data for Hancock County from 2005-2020 were obtained from the Indiana Business Research Center (IBRC) at the Indiana University Kelley School of Business. Aerial photographs from the U.S. Geological Survey (USGS) taken in 1998 supplemented house counts done in the field by Beam, Longest and Neff. The population for Hancock County and its nine townships are shown in Appendix B, Exhibit 2-4. This shows the population trends from 1900 to 2000 and the projections through 2021. Exhibit 2-5 in Appendix B shows the percentage of county population that each township represents for the period 1900 to 2021.

2.5.1 Existing Population

The existing population for each community is considered as a percentage of the township(s) it lies in. U.S. Bureau of the Census only collects data for certain types of political subdivisions such as counties, townships, and municipalities. Charlottesville, Eden, Maxwell, Mohawk, Willow Branch, and Woodbury are all unincorporated communities. The U.S. Bureau of the Census does not report distinct numbers for these areas, so the population trends for these communities were assumed to generally follow the township population trend.

Community populations were estimated using house counts. The first step involved determining the population, number of households, and population per household (population density) for each township. The population density was then combined with the house counts done in the field by BLN for each community to determine an existing population. Table 2-2 provides existing population data for the county and the individual communities.

TABLE 2-2 EXISTING POPULATION DATA (2000)

Area	Political Subdivision	Population	Population Density	Households
Hancock County	--	55,391	2.65	20,718
Charlottesville	Community	318	2.81	113
Eden	Community	180	2.72	66
Maxwell	Community	1,653	2.82	586
Mohawk	Community	260	2.83	92
Willow Branch	Community	142	2.83	50
Woodbury	Community	170	2.82	60

2.5.2 Future Population

The future population for each community was based on IBRC projections for Hancock County to the year 2020. The projected growth was graphed (see Exhibit 2-4 in Appendix B) and extrapolated to the year 2021, which was done to provide a 20-year study period from 2001 to 2021. Predicting future population growth is not an exact science, so it must take into account existing trends and determine if those will continue.

Future population was determined by considering the percentage of county population each community incorporated and applying it to the IBRC projections. This method was tempered by considering factors like past growth trends of the township and nearby municipalities, urban sprawl, and proximity of major transportation routes. The projections considered what the expected growth would be for municipalities, townships, and unincorporated communities. The results for the county and communities in 2021 are provided in Table 2-3.

TABLE 2-3 FUTURE POPULATION DATA (2021)

Area	Population	Population Density	Households
Hancock County	66,000	2.65	24,906
Charlottesville	346	2.81	123
Eden	196	2.72	72
Maxwell	1,960	2.82	695
Mohawk	289	2.83	102
Willow Branch	127	2.83	45
Woodbury	190	2.82	68

Population density was assumed to remain constant over the 20-year study period. This assumption is conservative because the normal trend for density has been to decrease. Higher population density will tend to create higher wastewater flows, and will tend to mean fewer households to share the cost of wastewater improvements.

2.6 WATER SUPPLY

The District receives water predominantly from private groundwater wells. It was not in the scope of the Section 205j grant to study these individual wells. It is possible that failing septic systems are causing groundwater pollution within the same aquifers that these wells draw water. It is recommended that these aquifers be analyzed as recommended by the County Health Department to determine the extent, if any, of wastewater contamination.

2.7 WASTEWATER

2.7.1 Existing Systems

As has already been stated, the Hancock County RWSD includes all those areas that are currently unincorporated or unsewered. This means all households and businesses in the RWSD treat their wastewater in some manner other than centralized collection and treatment. The vast majority of these use on-site wastewater treatment. On-site wastewater treatment systems are designed to treat small flows typically from individual households. The most prevalent on-site wastewater system is a septic tank with a drainage field. These are the kind of systems found most frequently in the six study areas of Charlottesville, Eden, Maxwell, Mohawk, Willow Branch, and Woodbury. These systems are also used in majority of the remaining RWSD.

Septic systems consist of two major components: a tank and a distribution field. The wastewater comes out of the house into the tank. The solids settle out into the tank where they are biodegraded by microorganisms. The partially treated wastewater then overflows a weir in the tank and flows into the drainage or distribution field. There is some variation in

these drainage fields, but typically they consist of multiple pipes with small holes in the bottom over top of trenches filled with gravel. As the wastewater enters the trench, it receives further treatment from a layer of microorganisms that form at the gravel/soil interface. This layer is called a biomat. Wastewater treatment is completed by physical and chemical processes in the soil.

Based on past field investigations by the County Health Department and some site visits by BLN, it appears that some wastewater systems in these communities are not complete systems or do not exist at all. It has been observed that some homes have direct wastewater discharges into surface water. It is unclear whether the wastewater is discharged into a septic tank first, or if the wastewater discharges into the surface water directly from the residence. This partially treated or untreated wastewater poses serious health risks to anyone that comes into contact with it.

2.7.2 Failure Modes of On-Site Wastewater Systems

There are several ways on-site wastewater systems may fail and cause the contamination described in the next section.

The most common cause of septic system failure is clogging of the drainage field. The microorganisms which form the biomat accumulate over time. The biomat eventually becomes so thick that water cannot easily penetrate it. Instead of receiving treatment by passing through the biomat, the wastewater starts to fill the trench and pond at the surface.

A similar failure occurs when the septic system is poorly sited. Many soils in Indiana are rated unsuitable for septic system use. An unsuitable soil is one that drains too slowly such as clay or drains too rapidly such as sand. Based on the report "An Evaluation of On-Site Technology in Indiana" published by Purdue University in 1997, a survey of county sanitarians revealed a potential septic system failure rate of 70% statewide. A discussion with the Hancock County Sanitarian provided further evidence to support the statewide trend. The Indiana NRCS has calculated that approximately 97% (http://danpatch.ecn.purdue.edu/~epados/onsiteOnline/start) of the soils in Hancock County are unsuitable for septic system use. Related to siting, is the amount of space available for each individual drainage field. A typical standard in Indiana is that one acre is required for each septic system. In many locations throughout the state, septic systems are installed on less than one acre. Even under ideal soil conditions, this can potentially overload the absorption capacity of the soil. This problem can be exacerbated by siting a system in an area with a high groundwater table. The groundwater table keeps the soils saturated near the surface which greatly reduces the drainage field absorption capacity.

Another septic system failure mode is from poor design and construction. Some systems are built with drainage field slopes that are too steep or too shallow. This causes ponding in the trenches which lead to rapid failure.

Still another septic system failure mode is from lack of maintenance and system age. Most septic systems are completely underground with no surface structures to remind owners they are there. Since the systems are not visible, many owners do not know how to or may not believe they need to perform any maintenance on these systems to keep them functioning properly. Most septic systems actually have two sets of drainage piping. These are typically meant to be operated separately. While one drainage field is being used, the other one remains idle. These should typically be rotated every six months to one year. Also, solids build up in the septic tanks and need to be removed every three to five years according to the Purdue Residential Onsite Wastewater Disposal web site (see above reference for web site address). The lack of maintenance can be compounded by an older septic system. Older systems are more likely to have structural defects or operational problems. By not performing needed maintenance, the operating life of a septic system will be reduced.

One other "failure mode" of an on-site wastewater system in the RWSD is that there is strong evidence that many residences do not even have a complete septic system, failing or not. The reader should understand that the above paragraphs have described problems with complete septic systems. These residences do not have drainage fields and some do not even have settling tanks. These situations cause raw wastewater to be discharged directly into surface waters, which is much more harmful to the environment than even what a failing septic system may discharge.

2.7.3 Effects of Wastewater System Failures

A failing septic system may cause groundwater or nearby well contamination because wastewater is not completely treated before reaching the aquifer. Much of the fresh water supply in the RWSD comes from underground aquifers. Both large water utilities and private residential wells in the RWSD are supplied by water from these aquifers. Wastewater-contaminated aquifers would cause a serious public health risk for the residents in the RWSD.

Another result of failing or nonexistent septic systems is that wastewater can reach the ground surface and flow into surface water. This can also happen due to illegal direct connections between septic tanks and surface waters. When wastewater reaches surface water; it causes excess nutrients, oxygen depletion, and higher concentrations of bacteria. This damages the local ecosystem and endangers the public who may engage in activities like fishing and swimming. If surface water is contaminated with septic system wastewater, it could hurt or wipe out the endangered

mollusks which have been found in streams within the RWSD. People can become sick if they eat contaminated fish or contact polluted water.

One other problem associated with failing or nonexistent septic systems is ponding of wastewater on the ground. Ponded raw wastewater is a public health hazard and usually occurs in areas where people are likely to come in close contact. Such areas are frequently residential neighborhoods.

3. CAUSES OF DISTRICT PROBLEMS

Some of the leading contributors to non-point source pollution in the RWSD watersheds are failure of or lack of on-site wastewater systems. When septic systems fail or are not even installed, there are several negative effects on the local community including groundwater contamination, wastewater discharge to surface water, and wastewater ponding on the ground surface. Causes of septic system failures are discussed in the previous section. Individual septic systems have been installed on inadequate lot sizes in the past in Hancock County. No centralized maintenance plan exists for these systems and many owners do not adequately maintain their systems. Another problem is there is no central data collection or monitoring for septic systems in the District. This makes it difficult to track exactly where wastewater pollution problems are occurring. It will be important to create a tracking system so the County Health Department can determine trends and locate the worst wastewater pollution.

The two watersheds which cover Hancock County RWSD both have draft restoration action strategies which are being prepared by the Indiana Department of Environmental Management. The completed draft strategies are available as a link on the Watershed Management Section page of the Planning and Restoration Branch of the Office of Water Quality of IDEM. IDEM's home page is http://www.in.gov/idem/. As the District moves forward with its mission of reducing wastewater pollution, these restoration action strategies may be useful.

4. WORKS OF IMPROVEMENT

4.1 EXISTING WORKS OF IMPROVEMENT

The Hancock County RWSD has not yet constructed any works of improvement. As part of the current Section 205j study grant, a feasibility study was conducted for six communities in the District.

4.2 PROPOSED PROGRAM OF THE DISTRICT

Six communities within the Hancock County RWSD were studied as part of the Section 205j Wastewater Feasibility Study Grant provided by the U.S. Environmental Protection Agency, administered by IDEM. The communities include Charlottesville, Eden, Maxwell, Mohawk, Willow Branch, and Woodbury. At least four different alternatives for each community were considered along with multiple variations of those alternatives. The four alternatives were:

1. Collect and treat locally,
2. Collect and transport for treatment at an existing wastewater plant,
3. Replace on-site systems with new on-site technology, and
4. Collect and transport to new regional plant.

Each community was somewhat different. There were usually several variations for each alternative considered for each community. However, these variations were reduced to one selected alternative that was then presented in the feasibility study. This reduction process was typically based on cost. The most cost effective alternatives for each community were then presented in the feasibility study. The alternatives presented here can be researched in depth by reviewing Chapters 5-9 and 12 in Appendix B. The following is a summary of alternatives presented for each community.

4.2.1 Charlottesville

1. No Action

2. Septic System Improvements

3. Collection
   a. Conventional Gravity System
   b. Individual Grinder Pump Low Pressure System

4. Treatment
   a. Mechanical Extended Aeration Package Plant
   b. Sewage Lagoons

5. Regionalization
   a. Transport to Knightstown for Treatment

6. Onsite Innovative Systems
   a. Individual Earthtek Systems with Individual Ground Discharge
   b. Individual Earthtek Systems with Community Ground Discharge
   c. Individual Earthtek Systems with Community Surface Discharge
   d. Small Cluster BioClere Systems w/Individual (Cluster) Ground Discharge
   e. Community BioClere Systems with Community Ground Discharge
   f. Community BioClere Systems with Community Surface Discharge
   g. Community Recirculating Sand Filters w/Community Ground Discharge

Charlottesville alternatives are discussed in Chapter 12 of Appendix B.

4.2.2 Eden

1. Collect Eden's wastewater and treat it at a new local plant. (Eden Alternative 4-1, Appendix B)

2. Collect Eden's wastewater, transport it to Greenfield by way of Maxwell, and treat it at Greenfield's Wastewater Treatment Plant. (Eden Alternative 4-2, Appendix B)

3. Replace or construct Eden's failing or nonexistent septic systems with new on-site wastewater systems capable of advanced treatment. (Eden Alternative 4-3, Appendix B)

4. Collect Eden's wastewater, transport it to Maxwell, and treat it at a new wastewater plant for Eden and Maxwell. (Regional Alternative 9-1, Appendix B)

5. Collect Eden's wastewater, transport it to Maxwell, and treat it at a new regional wastewater plant for Eden, Maxwell, Mohawk, and Willow Branch. (Regional Alternative 9-2, Appendix B)

4.2.3 Maxwell

1. Collect Maxwell's wastewater and treat it at a new local plant. (Maxwell Alternative 5-1, Appendix B)

2. Collect Maxwell's wastewater, transport it to Greenfield, and treat it at Greenfield's Wastewater Treatment Plant. (Maxwell Alternative 5-2, Appendix B)

3. Replace or construct Maxwell's failing or nonexistent septic systems with new on-site wastewater systems capable of advanced treatment. (Maxwell Alternative 5-3, Appendix B)

4. Collect Eden's and Maxwell's wastewater, transport Eden's wastewater to Maxwell, and treat it all at a new wastewater plant for Eden and Maxwell. (Regional Alternative 9-1, Appendix B)

5 Collect Eden's, Maxwell's, Mohawk's, and Willow Branch's wastewater; transport it all to Maxwell; and treat it at a new regional wastewater plant for Eden, Maxwell, Mohawk, and Willow Branch. (Regional Alternative 9-2, Appendix B)

4.2.4 Mohawk

1. Collect Mohawk's wastewater and treat it at a new local plant. (Mohawk Alternative 6-1, Appendix B)

2. Collect Mohawk's wastewater, transport it south to Riley Village Homes subdivision, and treat it at Sugar Creek Utility's Wastewater Treatment Plant. (Mohawk Alternative 6-2, Appendix B)

3. Replace or construct Mohawk's failing or nonexistent septic systems with new on-site wastewater systems capable of advanced treatment. (Mohawk Alternative 6-3, Appendix B)

4. Collect Eden's, Maxwell's, Mohawk's, and Willow Branch's wastewater; transport it all to Maxwell; and treat it at a new regional wastewater plant for Eden, Maxwell, Mohawk, and Willow Branch. (Regional Alternative 9-2, Appendix B)

4.2.5 Willow Branch

1. Collect Willow Branch's wastewater and treat it at a new local plant. (Willow Branch Alternative 7-1, Appendix B)

2. Collect Willow Branch's wastewater, transport it east to Shirley, and treat it at Shirley's Wastewater Treatment Plant. (Willow Branch Alternative 7-2, Appendix B)

3. Replace or construct Willow Branch's failing or nonexistent septic systems with new on-site wastewater systems capable of advanced treatment. (Willow Branch Alternative 7-3, Appendix B)

4. Collect Eden's, Maxwell's, Mohawk's, and Willow Branch's wastewater; transport it all to Maxwell; and treat it at a new

regional wastewater plant for Eden, Maxwell, Mohawk, and Willow Branch. (Regional Alternative 9-2, Appendix B)

4.2.6 Woodbury

1. Collect Woodbury's wastewater and treat it at a new local plant. (Woodbury Alternative 8-1, Appendix B)

2. Collect Woodbury's wastewater, transport it west to McCordsville's wastewater collection system, and treat it at McCordsville's Wastewater Treatment Plant. (Woodbury Alternative 8-2, Appendix B)

3. Replace or construct Woodbury's failing or nonexistent septic systems with new on-site wastewater systems capable of advanced treatment. (Woodbury Alternative 8-3, Appendix B)

4.3 SELECTED ALTERNATIVE

An analysis of the cost for construction, operation, and maintenance of these alternatives for each community showed that residents would be paying anywhere from just under $100 per month to well over that figure. Based on this information, there are no alternatives for alleviating wastewater pollution problems on a community-wide basis considered financially feasible.

However, it is possible to implement improvements to collections of homes by making financing available to those homeowners. Hancock County has received notification of the award of a Build Indiana Fund grant in the amount of $250,000 for the community of Charlottesville. Hancock County would allow the RWSD to use this money to make wastewater improvements in Charlottesville. When this money is awarded, the District could use it as a grant and/or loan to homeowners identified by the County Sanitarian as having the worst wastewater pollution problems. The District and County Sanitarian have identified Charlottesville as having the worst wastewater pollution problems, which is why a Build Indiana Fund grant was pursued for this community first. Since Charlottesville has grant funding available, the first wastewater treatment improvements should be completed there.

BLN has identified two potential alternatives for the District to implement in Charlottesville. The first alternative would be to provide individual assistance to users in Charlottesville who have properties large enough to install individual Earthtek on-site treatment systems with effluent drip fields meeting the necessary soils requirements of the Indiana State Department of Health. The second alternative available to the users in Charlottesville would utilize these same Earthtek units for initial treatment, with a collective ground discharge effluent drip field for final treatment. This option will permit users with lot sizes too small to accommodate an effluent drip field to still utilize the Earthtek system.

It should be noted that one other option, the BioClere system, was identified as the least cost on-site wastewater treatment system for the entire community. The advantage of the BioClere system is an inexpensive centralized treatment system. It is essentially a low-cost local treatment plant using on-site treatment technology. The entire community can be served by one treatment system. Although this was the most cost effective treatment system for a community, it was still too expensive to implement on a community-wide basis. A large part of the cost is in the collection system to get the wastewater from the users to the treatment system. In situations where just a few isolated users are served, the Earthtek system provides a more cost effective approach.

Before implementing any improvements, the Sanitarian would need to identify users with the worst wastewater pollution problems. If they have large enough lot sizes, then individual systems would be recommended. If the lots are too small, then collections of homes could install individual treatment systems. The effluent from these systems would then be piped to one collective drip field system located in an open area as close to the homes as possible. Once the homes and treatment system alternatives are identified, the District could use the grant money to finance part of or all of the construction of the on-site system(s). The homeowner would be responsible for paying the cost of operation and maintenance. The Hancock County RWSD may need to provide for operation and maintenance if the on-site system manufacturer does not already provide that service.

4.3.1 Nature of the Works

The first alternative considers users with lot sizes sufficient to have their own on-site system. The following information is provided to support this recommendation for individual Earthtek systems:

1. The system would consist of an Earthtek recirculating sand filter system with a drip field. Each user would have their own treatment system and drip field installed on their lot.
2. Earthtek provides a single point of service for design, construction, and maintenance.
3. Earthtek offers a comprehensive maintenance plan which includes maintenance, monitoring, and replacement of anything in the system. The plan includes periodic maintenance checks, periodic septic tank cleaning, real-time telemetry monitoring for system failures, emergency maintenance and repair service, and replacement of anything included in the system. It is recommended that the District require users to purchase the maintenance plan. It may also be a requirement of the Indiana State Department of Health.
4. The Indiana State Department of Health has approved the Earthtek system and has recommended the unit to users with no other recourse due to soil type constraints.

The second alternative considers users with lot sizes too small to install individual systems. The following provides information to support using this system with a collection of users and explaining the steps to implement this alternative:

1. Each user would have an individual Earthtek treatment system installed on their property. However, the effluent would be piped from each individual system to one collective drip field. This drip field should be located as close as possible to the collection of users to reduce costs. Unfortunately, because a collection system is required, this alternative is more expensive than the first alternative described. Again, selection of the appropriate alternative will be dictated by lot size.
2. Determine location of collective drip field and purchase the property. This should be as close as possible to the users. The users should be chosen based on their proximity to each other. It would not be cost effective to serve 5 homes with one drip field that are in completely different parts of the community.
3. Design a collection system to transport the effluent to the offsite effluent drip field. Consider that the larger this is, the more expensive it will be.
4. Consider requiring Earthtek's maintenance plan as described in the first alternative.

Construction of an on-site wastewater treatment system for a small cluster of homes was most thoroughly analyzed in Charlottesville, which has some of the worst wastewater pollution problems in the District. These on-site wastewater systems are discussed in detail in Chapter 12 of Appendix B. The above alternatives are recommended based on the assumption that the Hancock County RWSD will have a grant to help defer construction costs. These alternatives may not be financially feasible without funding assistance from the District.

4.3.2 Scope of the Proposed Program

The Hancock County RWSD has two objectives. One objective is to alleviate wastewater pollution problems throughout its territory. The other objective is to prevent existing utilities from forcing service on the public without going through the public process of requesting a certificate of territorial authority (CTA) from the District. Because of the physical and economic limitations facing the District, it is limited in how and where it may be able to provide wastewater service.

4.3.3 Objectives Satisfied

Hancock County RWSD can satisfy the first objective by constructing wastewater improvements for small portions of communities that have been shown to have the worst wastewater pollution. This system will help

eliminate the vast majority of severe wastewater problems the District is experiencing. Due to costs, this can only be done for a small number of homes at a time, and can only be done while the District has funding to help alleviate construction costs.

One other way to satisfy the first objective is to identify homes with failing or non-existent wastewater systems, give them a deadline to correct the problem, and condemn the structure if the problem is not adequately addressed.

Hancock County RWSD is already satisfying the second objective of protecting the public interest. The District has already issued several CTA's. This means that the public in those areas had a chance to comment on being provided sewer and water service before a utility could take over an area. Before the District existed, those same people would have simply been notified after the decision had already been made by the utility.

4.3.4 Objectives Not Satisfied

The objective of preventing wastewater pollution in the District will only be partially satisfied due to financial constraints. The Plan will allow the District to remove some of the worst pollution problems, but it will only be able to do so in small steps. Also, the Plan relies on the availability of grant money to the District. The District will have to continually look for new sources of funds to pay for these small construction projects. Otherwise, the District may have to start coordinating with the County Sanitarian and begin condemning homes.

4.3.5 Environmental Benefits

There will be short-term and long-term environmental benefits by correcting wastewater pollution problems in the District. Raw wastewater will no longer pond on the surface or enter streams. This would reduce the risk of disease to the human and animal population. Unpleasant odors would be reduced, and the surface water quality in the District would improve over time. An especially important benefit would be that the groundwater supply in the District would be better protected from wastewater pollution.

5. ESTIMATED COSTS OF PROGRAM

5.1 ESTIMATED COST OF IMPROVEMENT

The Hancock County RWSD was formed in 1996. As such, the costs for formation have already been met. The District does not currently have any outstanding financial agreements except for the Section 205j contract which is being used partly to create this District Plan. A copy of the agreement between the State of Indiana and Hancock County is attached as Appendix C.

The estimated cost of construction for the first recommended alternative where the lots are large enough for a treatment system and drip field is $15,000 per user. This will cover the cost of equipment and installation for the treatment system and individual drip field. If the District used all its grant funds for this alternative, approximately 16 individual users could have fully funded units installed. Additional users could be added if the grant funds were used as partial funding.

The estimated cost of construction for the second recommended alternative where the lots are too small for an individual drip field is $20,000. The first $15,000 would go to pay for installation of the treatment system and part of a larger drip field for the entire collection of homes hooked to it. The remaining $5,000 is an estimated additional cost per user for the collection system to pipe the effluent to the new drip field. If the District used all its grant funds for this alternative, approximately 12 individual users could have fully funded units installed. Additional users could be added if the grant funds were used as partial funding.

The District could also use grant money to fund a mixture of both alternatives if that would eliminate the worst of the wastewater pollution.

5.2 ESTIMATED COST OF OPERATION, MAINTENANCE, AND REPLACEMENT

The estimated cost of operation, maintenance, and replacement (O, M, and R) for the two recommended wastewater alternative systems would be approximately $40.00 per user per month. This is based on information Earthtek has provided regarding their maintenance plan as described in the first alternative discussion.

5.3 TOTAL MONTHLY USER RATE

The total monthly user rate will depend on the amount of construction that individual users are required to pay. If the District fully funds construction with grant money, then users will only be responsible for the monthly O, M, and R fee of $40.00. If the District fully funds construction with a low interest loan or only partially funds construction, users will be responsible for a monthly debt service fee plus the monthly O, M, and R fee.

6. COMPARISON OF BENEFITS AND COSTS

6.1 AVERAGE ANNUAL BENEFITS

The benefits to installing this system would be a reduction in wastewater pollution of the communities within the District. It is not possible to accurately quantify this number.

6.2 AVERAGE ANNUAL COSTS

The average monthly costs are described in Chapter 5. If the construction is fully funded with grant money, the users will have an annual cost of 12 months times $40.00 per month or $480.00 per year. If the construction is fully funded with a low-interest loan or partially funded, then the annual cost will be somewhat higher.

6.3 BENEFIT-COST RATIO

It is not possible to calculate this ratio without a known benefits quantity. Common sense would dictate that wastewater treatment improvements are needed in the Hancock County RWSD because of continuing wastewater pollution.

7. PROPOSED SCHEDULE OF INSTALLATION

Local knowledge and testing should be used to determine which communities receive wastewater improvements first. Based on past water samples taken and first-hand knowledge of the County Sanitarian and District Board Members, Charlottesville should be considered first for improvements. A proposed schedule of installation follows:

1. Identify all users without an approved properly functioning septic system.

2. All identified users, which meet the land requirements for an individual Earthtek system, shall be required to install, and maintain a maintenance contract on this system.

3. All users, who do not meet the land requirements necessary for an Earthtek system, shall be grouped together in clusters. The clusters shall meet the approval of the State Department of Health and be required to install and maintain a maintenance contract on individual Earthtek treatment systems with one large drip field in close proximity to the cluster.

4. The District should provide all necessary assistance for land acquisition and legally enforceable cluster creation. The District may also need to provide a method for maintenance of the wastewater system if a maintenance plan cannot be contracted out.

5. The County should provide limited financial assistance to all users attempting to construct an approved treatment system. This assistance could be in the form of grants and low interest loans.

6. All users refusing to meet these requirements should have their properties condemned for habitation by the County's sanitation office.

7. If more than 50% of a community has installed some type of new wastewater treatment system, the District should consider re-evaluating the cost of placing the entire community on one large system.

Until the County Sanitarian has been able to identify the malfunctioning septic systems in Step 1, an exact construction location and schedule cannot be determined. Generally, it is recommended that the identified user or cluster of users be given six months to one year to initiate construction. Once the construction is complete, the standard state and county procedures for verifying compliance should be used to check the new system. It is not expected that more than one of these projects would occur at a time unless the District is able to find enough funding for multiple projects.

8. OPERATION, MAINTENANCE, REPLACEMENT, AND INSPECTION

8.1 OPERATION, MAINTENANCE, AND REPLACEMENT

The operation, maintenance, and replacement of the wastewater system should be addressed while considering the type of system installed. Some system manufacturers actually provide O, M, and R for their wastewater system for a set monthly fee. Other systems will require at least a part-time operator to provide the O, M, and R. If an operator is required, the District may be able to negotiate service contracts with some of the local utilities. Another option would be for the District to hire the operator and require the users to pay a monthly fee. Still another option would be to require the users to obtain their own operator. This could be enforced by tying this requirement to financial assistance from the District. The District currently has no O, M, and R agreements with anyone, since there is currently no infrastructure to operate.

8.2 INSPECTION

As with Section 8.1, the amount of inspection required will depend on the type of wastewater technology installed. Whoever is placed in charge of O, M, and R should also be held responsible for inspection of equipment and structures.

APPENDIX A

PETITION FOR ORGANIZATION OF A REGIONAL WATER AND SEWER DISTRICT

BEFORE THE WATER POLLUTION CONTROL BOARD
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IN THE MATTER OF:)
)
HANCOCK COUNTY REGIONAL WATER AND SEWER DISTRICT)

PETITION FOR ORGANIZATION OF A REGIONAL WATER AND SEWER DISTRICT

The Hancock County Commissioners hereby file this petition with the Water Pollution Control Board of the State of Indiana's Department of Environmental Management for the establishment of a regional water and sewer district pursuant to IC Section 13-3-2 et seq. In support of this petition the Commissioners state as follows:

1. The proposed regional water and sewer district shall be known as the "Hancock County Regional Water and Sewer District."

2. The principal offices of the proposed district will be located at the Hancock County Courthouse, 9 E. Main Street, Greenfield, Indiana, 46140.

3. The proposed district is necessary for the improvement of the health and welfare of the residents because, among other things, many residents are now connected to individual private septic systems that may be inadequate. The current method of sewage collection and disposal through individual and private septic systems may be creating current and future health problems for the residents of the proposed district in addition to detrimentally affecting the water quality of the area of the proposed district.

4. The proposed district is necessary for the improvement of the health and welfare of the residents because, among other things, many residents are now connected to individual wells that may be inadequate. The residents of the proposed district currently obtain their water for drinking and other personal uses from individual and private wells that can and may have been affected detrimentally by continued use of the present method of collection and disposal of the sanitary sewage of the residents of the proposed district, and which can and has produced water of inadequate quality or quantity due to the area's hydrology.

5. Development of the areas of the proposed district has been heavily impacted by the lack of centralized water service and/or centralized wastewater collection and treatment service.

6. There is currently no outstanding indebtedness for the purposes of the proposed district.

7. The area to be contained within the proposed district shall include all of Hancock County, excluding solely those areas served as at the date of formation of the proposed district by existing private, semi-public or public sanitary sewer utilities or water and sewer utilities (as described in Attachment A which is incorporated herein by reference).

8. On the date that the proposed district is approved and becomes effective, those areas served as of the formation of the proposed district by existing private, semi-public or public sanitary sewer utilities or water utilities listed in Attachment A may choose to obtain water and/or wastewater service from the proposed district by requesting the district to petition the Indiana Department of Environmental Management under Indiana Code 13-3-2-9 to be incorporated into the area of the new district after the district is formed. The Town of McCordsville has so requested as indicated by the signature of the President of the Town Council below. Upon approval of this petition, the Town of McCordsville will be included in the district.

9. The proposed district shall be governed by a Board of Trustees of five (5) members. Three members of the Board of Trustees shall be the three elected County Commissioners or other such persons as appointed by the Board of County Commissioners. The fourth member shall be appointed by the Board of County Commissioners. The fifth member shall be appointed by the Town Council of McCordsville. The initial term of office of each member of the Board of trustees shall be established as follows. The members of the Board of Trustees shall be divided into three classes. The first class shall include the member whose term as County Commissioner is the next term to expire (the "first Commissioner") or, if this County Commissioner is not appointed to the Board of Trustees, the member who is appointed by the County Commissioners in his place. The term of the trustee in the first class shall expire at the first meeting of the Board of Trustees that is after the expiration of the term of the first Commissioner as a member of the Board of County Commissioners. The second class shall include the member whose term as County Commissioner is the next term to expire after that of the first Commissioner (the "second Commissioner") or, if this County Commissioner is not appointed to the Board of Trustees, the member who is appointed by the County Commissioners in his place. The second class shall also include the fourth member appointed by the Board of County Commissioners. The term of the trustees in the second class shall expire at the first meeting of the Board of Trustees that is after the expiration of the term of the second Commissioner as a member of the Board of County Commissioners. The third class shall include the member whose term as County Commissioner is the next term to expire after that of the second Commissioner (the "third Commissioner") or, if this County Commissioner is not appointed to the Board of Trustees, the member who is appointed by the County Commissioners in his place. The third class shall also include the member appointed by the Town Council of McCordsville. The term of the trustees in the third class shall expire at the first meeting of the Board of Trustees that is after the expiration of the term of the third Commissioner as a member of the Board of County Commissioners. At each such meeting of the Board of Trustees referenced above at which the term of a member is expiring, new members shall be chosen for a term of three years to succeed those whose term expires. However, each member shall hold

office until his respective successor is appointed and qualified. In no event shall the term of a member exceed four years.

10. The proposed district intends to contract with one or more private parties for the provision of services. Those private parties will be responsible for financing all project costs, designing, and constructing the system without use of public funds or EPA construction grants, and for owning and operating the system under the oversight of the trustees who will be responsible for assuring that the contract's requirements for service are maintained and that sufficient service charges are established and collected to meet contractual obligations.

11. The initial project shall be developed in two areas of the county (as described in Attachment B which is incorporated herein by reference). Area A is approximately 26 square miles in northwestern Hancock County. Area B is approximately two square miles in and around the unincorporated town of Charlottesville in eastern Hancock County. Subsequent projects will be planned to provide water and/or sewer service in portions of the district to address the needs of existing development and potential future development. By organizing and developing the district in this way, environmental problems can be avoided in the developing areas of Hancock County. The major reasons for developing the district are:

a. The existing topography of the area makes drainage difficult. The land is generally level and provides little or no drainage relief.

b. A majority of the Hancock County soils are classified as deep, very poorly drained, moderately fine texture, nearly level soils formed in glacial till on uplands. These soils are limited for uses associated with residential development.

c. Presently in the northern part of area A there are approximately 400 single family dwellings. Potential development could bring the total number of single family dwellings in this area to 5,200. This potential development could create new problems similar to those experienced with many of the existing septic systems in the area, or potential development could be severely inhibited because of these problems.

d. Presently sewer service to the Mount Comfort Airport and surrounding area is inadequate. The potential for expansion of the airport and commercial development around the airport and the I-70/Mount Comfort Road interchange could bring the number of equivalent dwelling units to 6,000. A sewer system and centralized treatment facility are needed to adequately and efficiently serve this area.

e. The existing septic systems in area B (Charlottesville) are inadequate. A sewer system and treatment facility are needed to address the threats to the health of residents in this area.

The initial project will consist of gravity collector sewers, pump stations and treatment plants to serve areas A and B. The project is estimated to cost approximately $7.4 million. The

system in area A will be expanded in subsequent phases to provide additional capacity as development occurs, minimizing the initial capital cost. The proposed rates for this initial project could range between $35 and $55 month per equivalent dwelling unit. The proposed connection fee could range from $750 to $1,500 per equivalent unit for existing development and from $2,000 to $4,000 per equivalent unit for new development. These rates are comparable to the rates of other areas served by similar sized districts. The estimated cost of operating and maintaining the initial phase of the project ranges between $150,000 and $700,000 annually, depending on the level of wastewater flow handled by the system.

12. Authorization for entities included in this plan is provided by the Hancock County Commissioners and the Hancock County Council, which has fiscal responsibility for all areas of the county included in the plan. Authorizing signatures of both authorities are attached to this plan.

The undersigned petitioners request that the Indiana Department of Environmental Management determine this petition to be sufficient and, pursuant to IC 13-2-2-4, to appoint a hearing officer to act upon this petition as required by law.

Signed this 8th day of March 1995, by the HANCOCK COUNTY BOARD OF COMMISSIONERS, the HANCOCK COUNTY COUNCIL, and the TOWN COUNCIL OF McCORDSVILLE.

HANCOCK COUNTY COMMISSIONERS

William I. Silvey

Armin Apple

Roger Wilson

ATTEST: Marilyn W. Counts
Hancock County Auditor

HANCOCK COUNTY COUNCIL

BY: Richard M. Pickett
Richard Pickett, President

ATTEST: William I. Silvey

McCORDSVILLE TOWN COUNCIL

By: Thomas O. Silvey
Tom Silvey, President

ATTEST: Marilyn W. Counts
Hancock County Auditor

Agreement to Provide Sewer Service

Whereas on March 13, 1996, the Hancock County Regional Water and Sewer District (District) was created to provide water and sewer service to the unincorporated areas of Hancock County, Indiana, and

Whereas, the Board of Trustees of the Hancock County Regional Water and Sewer District was created to manage the affairs of the District, and;

Whereas, the Town of Fortville (Fortville) plans to significantly expand its sewage treatment plant and wishes to serve an area which is under the jurisdiction of the Hancock County Regional Water and Sewer District, and;

Whereas, Fortville has represented to the District it can best provide sewage service to the present and future residents of the area defined herein in the quickest and most economic manner;

Now, therefore, the District and Fortville agree as follows:

1. Fortville shall have the exclusive right to provide sewer service to the following area (Service Area):

   Beginning on the northern border of Hancock County and at its intersection with County Road 400 W and extending southward to a line which would be Hancock County Road 650N (if such road were to be built); thence eastward along said assumed line of Hancock County Road 650N (if such road were to be built) to Hancock County Road 50E; thence northward along Hancock County Road 50E to the Hancock-Madison County line; thence westward along said Hancock-Madison County line to Hancock County Road 400W to the point of beginning of this description. Each call in the preceding description is to the centerline of the road.

2. Fortville shall expeditiously proceed to service the subject territory as new development requiring service arises.

3. Connection fees and costs for extension of sewer lines as well as the rates charged new recipients of sewer services in the sewer area shall be determined according to the same standards and criteria which have been used in the past by Fortville within its territory.

4. Fortville not shall collect from property owners within its Service Area any fee, assessment or tax of any kind whatsoever for sanitary sewer service, including those under the Barrett Law, if they are outside of the town limits and are not connected, or have not agreed to be connected, to the sewer system.

5. Owners of property within the service area on the effective date of this Agreement who have working septic systems on their property shall not be required to connect to any extension of a collector or interceptor system installed by Fortville until such time as said septic system fails to work properly or otherwise becomes inadequate to service said property. At that time, the property owner may be required by the Hancock County Health Department, pursuant to applicable state, federal and local laws, statutes and regulations, to connect to the sewer system.

6. This Agreement shall be governed by and construed in accordance with the laws of the State of Indiana.

7. This Agreement contains the entire understanding between and among the parties and supercedes any prior understandings and agreements among them respecting the subject matter of this Agreement.

8. The terms, covenants, and conditions contained in this Agreement shall apply to and bind the successors of the parties.

9. This Agreement shall not be assigned without the written consent of all parties hereto.

10. In the event an arbitration, suit, or action is brought by any party under this Agreement to enforce any of its terms, or in any appeal therefrom, it is agreed that the prevailing party shall be entitled to reasonable attorneys fees to be fixed by the arbitrator, trial court, and/or appellate court.

11. Nothing herein shall be construed to be to the benefit of any third party, nor is it intended that any provision shall be for the benefit of any third party.

12. If any provision of this Agreement, or the application of such provision to any person or circumstance, shall be held invalid, the remainder of this Agreement, or the application of such provision persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.

13. The failure of any party to this Agreement to insist upon the performance of any of the terms and conditions of this Agreement, or the waiver of any breach of any of the terms and conditions of this Agreement, shall not be construed as thereafter waiving any such terms and conditions, but the same shall continue

and remain in full force and effect as if no such forbearance or waiver had occurred.

14. Except as otherwise specifically provided in this Agreement, any modification of this Agreement or additional obligation assumed by any party in connection with this Agreement shall be binding only if placed in writing and signed by each party or an authorized representative of each party.

15. No party to this Agreement shall be liable to any other for any loss, cost, or damages, arising out of, or resulting from, any failure to perform in accordance with the terms of this Agreement where cause of such failure shall include, but not be limited to, acts of God, strikes, lockouts, or other industrial disturbances, wars, whether declared or undeclared, blockages, insurrections, riots, governmental action, explosions, fire, floods, or any other cause not within the reasonable control of said party.

16. Each party to this Agreement warrants that the person executing this Agreement on their behalf are duly elected officers of the party for which they are signing and have been fully empowered by proper action to execute this Agreement.

17. The District shall forthwith commence proceedings and all documents necessary to transfer to Fortville the above-described portion of the District's certified territory within thirty (30) days of the execution of this Agreement.

Dated: 7-15, 2002

Signature: _____
President, Hancock County Regional Water and Sewer District Board of Trustees

Signature: _____
Member, Hancock County Regional Water and Sewer District Board of Trustees

Signature: _____
Member, Hancock County Regional Water and Sewer District Board of Trustees

Signature: _____
Toy L. Simmons
President, Fortville Town Council

Signature: _____
Ernest V. Oden
Member, Fortville Town Council

Signature: _____
Member, Fortville Town Council

Signature: _____
Member, Fortville Town Council

Signature: _____
Marvin Terrell
Member, Fortville Town Council

Approved this ____ day of _____ , 2002

Indiana Department of Environmental Management

By: _____
Commissioner

Beam, Longest and Neff, LLC
Consulting Engineers and Land Surveyors

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February 14, 2003

Ms. Bonny Elifritz
Grants Project Manager
Watershed Management Section
Office of Water Quality
Indiana Department of Environmental Management
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015

Re: Hancock County 205(j) Project
ARN A305-1-01-291

Dear Ms. Elifritz:

This letter is written in response to our meeting of January 28, 2003, regarding the above referenced project. It is our opinion that although some of the contract obligations were not fulfilled, most of the items were completed.

Our responses to each of the items discussed at the meeting are as follows:

1. District Plan and PER

The final submittal for the District Plan and Charlottesville PER was made on September 20, 2002. Based on the time line attached to the agreement between the State of Indiana and Hancock County. Only (1) final submittal was required. No detailed comments were ever received from the Indiana Department of Environmental Management with regard to District Plan draft documents or PER revisions. It is our opinion that according to the contract requirements for the preparation of the District Plan we have completed 100% of the contract obligation for this item. It is also our opinion that 90% of the contract obligations were completed for the Charlottesville PER. Please see Exhibit 1 for a task-by-task breakdown of the elements that were completed. We believe this information to be correct.

2. Quality Assurance Project Plan (QAPP) Report

A draft report was submitted to the Indiana Department of Environmental Management in May of 2002. A final report was submitted to IDEM on September 20, 2002. Based on the time line attached to the agreement between the State of Indiana and Hancock County only one submittal of this report was required. No detailed comments were received from IDEM with regard to the QAPP report.

We submitted this document later than expected on the time line for two reasons. First, in our preliminary analysis we discovered that there was not a cost effective solution for providing sanitary sewers to any of these six (6) areas so we did not want to spend any more of the project budget on the QAPP. Secondly, we knew from recent Hancock

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County Health Department records that there were documented water pollution problems in each of the six (6) areas, so the QAPP would have been a redundancy of information. In April 2002 representatives from the Beam, Longest and Neff, L.L.C. and the Hancock County Health Department went to each of the six (6) areas and collected grab samples from the water bodies located in these unsewered areas. Please find attached in Exhibit 2 a task completion summary for the QAPP report. It is our opinion that 90% of the work was completed for this task.

3. Public Meetings

Only one (1) public meeting was held to help satisfy the requirements of the 205(j) guidelines. The meeting was held in August 2002 because by this time we had finished the District Plan draft and PER revisions and determined none of the alternatives were cost-effective. The other two (2) meetings were not held because no feasible solutions could be discussed with citizens in the six (6) unsewered areas.

4. Water Sampling

Since no cost-effective alternative was reached for the six (6) unsewered areas we decided not to expend any of the remaining budget for water sampling. The Hancock County Health Department already had a lot of water sampling information for each of these six (6) areas.

5. Drinking Water Study

It was never the intent of the District plan to address drinking water supply, distribution or storage. The four (4) quarterly reports that were submitted to the Indiana Department of Environmental Management never mentions a drinking water study. During the public meeting that was held on August 13, 2002 a drinking water study was never mentioned. Please see attached meeting minutes in Exhibit 3. IDEM personnel were present at this meeting and never once mentioned a water study.

In a telephone conversation on December 5, 2001, between Bonny Elifritz and Dave Kieser the drinking water issue was discussed and concluded that drinking water would not be studied and only water quality issues that relate to failing septics would be studied. Please see the telephone memo in Exhibit 4.

On March 7, 2002 I attended a meeting of the Hancock County Commissioners with Bonny Elifritz of IDEM. Only wastewater facilities were discussed at this meeting. A drinking water study was not mentioned in the meeting. Please see newspaper article in Exhibit 5. It is our opinion that the drinking water study was not a part of the 205(j) project scope of services even though it is called the Hancock County Regional Water and Sewer District.

With respect to this issue, our contract with IDEM required only that we provide a description of problems confronting the district in terms of drinking water from residential wells. We fulfilled this requirement in our District Plan report. Neither the contract, nor the 205(j) grant guidance contemplated a drinking water study. Furthermore, in the Section 205 (j) program guidelines, drinking water studies are not

listed as an eligible funding activity. Therefore, our alleged failure to prepare such a study cannot form the basis to withhold payment.

We have attached minutes of the meeting held on January 28, 2003 between Beam, Longest and Neff, L.L.C., IDEM and Hancock County in Exhibit 6.

Until the matter of fair compensation for the work we completed on the Hancock County 205(j) grant project is resolved we do not consider this matter closed and request payment in the amount of $45,564.00 of the items completed in the contract document.

If you have any questions or need additional information, please contact us at 317-849-5832.

Very truly yours,

BEAM, LONGEST AND NEFF, LLC.

David L. Kieser

David L. Kieser
Project Manager

DLK/ce
Enclosure
xc: Lindsay Boyd, IDEM Attorney
Brian Kleiman, Hancock County Commissioner
File # 3693

EXHIBIT 1
DISTRICT PLAN AND PER
TASK COMPLETION SUMMARIES

Hancock County RWSD
District Plan
Task Completion Summary

Section	District Plan Items	Complete
Section 1	Introduction	
	Purpose of the Plan	
	-State the purpose for writing the report	100%
	Authority	100%
	Scope of the Plan	100%
	General Data on the District	
	-Formation	100%
	-Area Included	100%
	-Purposes of the District	100%
Section 2	General Description of the District	
	Physical	
	-Give the geographical location, area and any other data pertinent to the purposes of the District.	100%
	Economic	
	-Give the population of both the district and neighboring areas that would be expected to use any of the measures proposed in the district plan. Include a description of the transportation system serving the area. Describe organizational structure of governing bodies within district.	100%
	Water Supply	
	-This was not required for the Hancock County RWSD District Plan.	100%
	Wastewater	
	-Describe the present wastewater disposal systems, if any, and list its shortcomings. Health hazards and/or water pollution of surface and/or ground water should be stated. Provide a map of the District that includes boundaries of existing sewered areas within the District. Note whether the present systems do or do not meet the standards or regulations set by the Water Pollution Control Board, the Indiana State Department of Health, the County Health Dept. and the IDEM.	100%
Section 3	Causes of Problems	
	-Factors causing problems in the district should be summarized.	100%

Section 4	Works of Improvement	
	Existing Works of Improvement	
	-List the water related works of improvement that have been installed in the District. Any proposed works of improvement other than that to be undertaken by the District should be mentioned.	100%
	Proposed Program of the District	
	-State the alternative solutions that were studied or considered. Explain the method used to compare and evaluate the alternatives. Describe the proposed program and why it was selected.	100%
	-Nature of the Works	100%
	-Scope of the Proposed Program	100%
	-Objectives Satisfied	100%
	-Objectives Not Satisfied	100%
	-Environmental Benefits	100%
Section 5	Estimated Costs of Program	
	Estimated Cost of Improvement	
	-Give the estimated cost of the project.	100%
	-Give estimated user fees.	100%
	Estimated Cost of O, M, & R	
	-Give the estimated annual cost of operation, maintenance, and replacement of the structural measures.	100%
Section 6	Comparison of Benefits and Costs	
	Average Annual Benefits	
	-State total average annual benefits	100%
	Average Annual Costs	
	-Obtain the average annual costs of the project.	100%
	Benefit to Cost Ratio	
	-Calculate this ratio based on benefits and costs.	100%
Section 7	Proposed Schedule of Installation	
	-Describe the order in which the proposed measures will be installed. Provide the rationale, if any, why the order should be adhered to.	100%
Section 8	Operation, Maintenance, Replacement, and Inspection	
	Operation, Maintenance and Replacement	
	-Discuss the program for operation, maintenance and replacement of the structural measures.	100%
	Inspection	
	-Describe the program for inspection of all the structural measures.	100%

Hancock County RWSD
Charlottesville PER
Task Completion Summary

Chapter	District Plan Items	Complete	Written in PER Report Format
Chapter 1	*Project Location*		
	20 year Service Area	100%	No
	Identify Area	100%	No
	Maps	100%	No
Chapter 2	*Current Situation*		
	Collection System Needs	100%	Addressed in District Plan
	WWTP Needs	100%	Addressed in District Plan
	Contributors	100%	No
Chapter 3	*Future Situation*		
	Current Population	100%	No
	Future Population	100%	No
	Wasteloads	100%	No
	Effluent Limits	No, *PNF	No
Chapter 4	*Evaluation of Alternatives*		
	Identify a range of feasible alternatives	100%	Yes
	Description of Alternatives	100%	Yes
	Rationale for Recommended Alternative	No, *PNF	No
Chapter 5	*Evaluation of Environmental Impacts*		
	Not Initiated due to no financially feasible alternative.	0%	No
Chapter 6	*Selected Plan*		
	Describe selected plan (Note, Every plan evaluated meets or exceeds the criteria of Chapter 6 in an attempt to identify a financially feasible plan. None were identified with current fund alternatives). Only the design summary was incomplete, due to the lack of a financially feasible alternative.	100%	No
	Design Summary	No, *PNF	No
	Provide Layouts	100%	No
	Component Costs	100%	No
	Discus Contract Operations (Maintenance, Operations, Billings and repair were all evaluated)	100%	No
Chapter 7	*Legal, Financial & Managerial Capabilities*		
	Resolutions	No, *PNF	
	Land Acquisition Schedule	No, *PNF	
Chapter 8	*Public Participation*		
	Public Hearing with Transcript and Public Comments	75%	No

**PNF = Project Not Feasible*

EXHIBIT 2
QUALITY ASSURANCE PROJECT PLAN
TASK COMPLETION SUMMARY

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Hancock County RWSD District Plan
Quality Assurance Project Plan
Task Completion Summary

Section	QAPP Items	Complete
Preface	-Is your QAPP in a Document Control Format?	100%
	-Title Page with Section 205j project name & ARN #	100%
	Table of Contents	
	-Have you included all sections of the QAPP, including the distribution list?	95%
	-Have you included all figures and appendices?	100%
	-Is the page numbering correct?	100%
	Distribution List	
	-Have you included the name of everyone who will receive a copy of the QAPP?	0%
	-Have you included all key personnel involved in the implementation of your study?	0%
Section 1	Study Description	
	Historical Information	
	-Have you described the water quality problem you are studying?	100%
	-Have you included specific information about known or suspected contaminants in the system and the source of this information?	100%
	-Have you included relevant information from other studies, if available?	100%
	Study Goals	
	-Have you stated each of your study goals in a clear and concise fashion?	100%
	-Have you included specific information about how your data will be used including any decisions that will be made from your data and by whom?	100%
	Study Site	
	-Have you described the sites to be studied?	100%
	-Have you listed all the parameters to be studied?	100%
	-Have you attached a site map delineating the boundaries of the watersheds and, if applicable, the smaller areas within the watersheds you are studying?	83%, maps for 5 of 6 communities
	Sampling Design	
	-Have you described your sampling approach, including the type of monitoring you will do, when and how often you will sample?	100%
	-Have you described how this approach will meet each goal of your study?	100%

	-Have you clearly explained the rationale used in choosing each sampling location?	100%
	-Have you described what makes your sampling locations representative?	100%
	-Have you provided a summary of your methods?	100%
	Study Timetable	
	-Have you included a schedule for your study?	100%
	-Does your schedule show the start and end date for your study and all important activities related to your study?	100%
	-Is your schedule realistic?	100%
	-Have you described any potential constraints on your monitoring activities?	100%
Section 2	Study Organization and Responsibility	
	-Have you included contact information for each person/party involved in the study?	100%
	-Have you clearly described the responsibilities of each person/party involved in the study?	100%
Section 3	Data Quality Objectives	
	Precision	
	-Have you stated a specific precision goal for each parameter?	100%
	-Have you indicated how precision will be assessed/calculated for each parameter?	100%
	Accuracy	
	-Have you stated a specific accuracy goal for each parameter?	100%
	-Have you indicated how accuracy will be assessed/calculated for each parameter?	100%
	Completeness	
	-Have you stated a specific completeness goal for each parameter?	100%
	-Have you indicated how completeness will be calculated for each parameter?	100%
	-Have you described any potential problems that could occur to hamper your sample collection and analysis?	100%
	-Have you described your contingencies for these potential problems?	100%
	Representativeness	
	-Have you explained what makes your field measurements and/or samples collected for laboratory analysis representative of the conditions you are trying to measure?	100%

	-Have you explained what makes your laboratory data representative?	100%
	Comparability	
	-Have you summarized the purpose of your study?	100%
	-Have you summarized the parameters to be measured and the methods to be used?	100%
Section 4	Sampling Procedures	
	-Have you included a site map showing all sampling locations and other geographic features relevant to the study?	83%, 5 of 6 complete
	-Have you listed/described all of the sampling equipment to be used for each parameter and the cleaning and preparation methods for each?	100%
	-Have you listed/described each type of sample to be collected including volume/amount needed for each analysis?	100%
	-Have you included SOP's or detailed descriptions of the collection methods for each type of sample?	100%
	-Have you described all applicable sample preservation methods?	100%
	-Have you described all applicable sample handling and storage methods?	100%
Section 5	Custody Procedures	
	-Have you clearly described the step-by-step procedures involved in transferring samples from field to laboratory?	100%
	-Have you described the information to be recorded on transfer documentation or attached a sample chain of custody form?	0%, Sample chain-of-custody not attached
Section 6	Calibration Procedures and Frequency	
	-Have you included all the equipment to be calibrated, including both field and/or laboratory instruments?	100%
	-Have you indicated how often each instrument will be calibrated?	100%
	-Have you described the calibration procedures or attached the calibration instructions?	100%
Section 7	Analytical Procedures	
	-Have you described all the analytical methods to be used in the field and/or laboratory?	100%
	-Have you described all unusual methods to be used and/or any modifications to established methods?	100%
	-Have you described any sub-sampling and/or sample preparation required for sample analysis?	100%
	-Have you indicated the performance range/detection limits associated with each method to be used?	100%

Section 8	Quality Control Procedures	
	-Have you described/listed every QC procedure to be employed in your study?	100%
	-Have you indicated how often you will perform each check?	100%
Section 9	Data Reduction, Review, and Reporting	
	Data Reduction	
	-Have you described your methods for converting your raw data for each parameter into results?	100%
	-Have you included relevant equations and defined all the units and terms used?	0%
	Data Review	
	-Have you fully described the process by which your data will be checked for errors and/or omissions?	100%
	-Have you indicated which components of your data set are to be reviewed?	100%
	-Have you indicated when and how often during the study data review will take place and by whom?	50%, did not indicate by whom
	Data Reporting	
	-Have you described how you will translate/present your data to your target audience?	100%
	-Have you indicated when and how often you will report your results to your target audience and your Section 205j Project Officer?	0%, would only be reported once, but this was not stated
Section 10	Performance and Systems Audits	
	-Have you indicated the types of audits you will perform and how often they will be performed?	100%
	-Have you indicated specifically what procedures/results these audits will include?	100%
	-Have you indicated which audits will be conducted internally and/or externally and by whom?	0%
Section 11	Preventative Maintenance	
	-Have you described the preventative maintenance procedures for all field and laboratory equipment to be used in the study?	100%
	-Have you indicated how often these procedures will be performed?	100%
Section 12	Data Quality Assessment	
	Precision	
	-Have you described your procedure for determining whether or not you have met your goals for precision?	100%
	-Have you described your procedures for identifying outliers in your data set?	100%
	-Have you indicated how you will determine whether outliers are accepted or rejected as valid?	100%

	-Have you described how/whether you will use your data if precision problems are detected?	0%
	Accuracy	
	-Have you described your procedure for determining whether or not you have met your goals for accuracy?	100%
	-Have you described how/whether you will use your data if accuracy problems are detected?	0%
	Completeness	
	-Have you described your procedure for determining whether or not you have met your goals for completeness?	100%
	-Have you described what effects not meeting this goal will have on your study?	100%
Section 13	Corrective Action	
	-Have you described specific procedures to correct any problems with accuracy and precision that are revealed by your QC checks discussed in Sections 3 and 8?	100%
	-Have you described contingencies for any sampling constraints described in Section 3 under completeness?	0%
Section 14	Quality Assurance Reports	
	-Have you indicated what your QA reports to the IDEM will include and how often you will send them?	100%
References	References Cited	
	-Have you included information for every reference you cited in the text of your QAPP?	0%
	-Have you included enough information to allow someone to located the publication in a library or on a website?	100%

EXHIBIT 3
PUBLIC MEETING MINUTES
AUGUST 13, 2002

PLEASE SIGN IN

Hancock County Regional Water and Sewer District
District Plan Public Hearing

Tuesday, August 13, 2002 – 6:30 p.m.

Attendees

Printed Name	Town/Affiliation	Telephone Number
Michael Hall	Charlottesville	(317) 936 5830
Susan Joyce	Charlottesville	(317) 5954393
Christopher Bryant	Paragon Development	317-577-1177
Richard Block	" "	" "
Leslie Lechenden	Co. Council	462-6285
John Harrold	Cumberland Town Council	894-3595
DAVE MIKKELSON	Cumberland Town Manager	894-6213
Steve Reilly	Gem Utilities	462-7797
Robert Scott	Gen Utility Representative	686-5217
Mike Dale	Hc Area Plan Commission	462-1134
Don Engeren	Cumberland	894 4006
Harold Dungan	Maxwell / Twin Oaks	326 7714
Kyle Schrink	HEALTH DEPT.	462-1127
RON KERRIGAN	TWIN OAKS	326-7094
Tom Roney	Hancock Co. Council	326-2278
Lynne Newlon	IDEM	317-233-0476
Bonny Elifritz	IDEM	317-234-0922

Attendees

Printed Name	Town/Affiliation	Telephone Number
JACK HEIDEN	Co Commissioners	485-5669
David Kresin	Beam, Longest & Neff	317-849-5832
Jeremy Schmidt	Beam, Longest & Neff	317-849-5832

Public Hearing Minutes

District Plan
Hancock County RWSD

August 13, 2002 @ 6:30 p.m.

Attendance: See attached sign in sheet

Dave Kieser introduced himself and Jeremy Schmitt and stated that they were from Beam, Longest and Neff, L.L.C. He also introduced each County Commissioner along with the County Sanitarian, Attorney for the District, Area Plan Commission Director, and representatives from the Indiana Department of Environmental Management.

Dave stated that the notice was published in the Greenfield Reporter on Thursday, August 1, 2002, and went on to read the public notice – see attached Public Hearing Notice.

It was noted that several different entities were present from around the county and that territory would not be discussed. The focus of the meeting was on six (6) areas of concern that are within the district plan.

Dave stated that the District Plan (study) was submitted to the County last week. He stated that within the study BLN—along with the County Health Department and the Regional Sewer District Board—has identified several areas that have severe septic failures. Those six (6) areas of concentration being Charlottesville, Eden, Maxwell, Mohawk, Willow Branch and Woodbury.

Dave K. stated that in early 90's, he assisted the Town of McCordsville with addressing their septic problems with the installation of new sanitary sewers and a new WWTP.

The County Health Department and the Regional Sewer District Board have determined that the next area of major concern was Charlottesville.

Dave asked Kyle Schrink, Hancock County Sanitarian, to discuss items that he and his staff have concluded as problems out in Charlottesville area.

Kyle stated the following as problems within this area: several direct discharges into the creek; over the years have had numerous septic repairs; lots are too small; drainage is poor; have tested surface water on various occasions and have had test showing over 100,000 colonies/100 mL of *E.coli.*

Dave stated that a Preliminary Engineering Report for installing a conventional gravity sewer system in Charlottesville was completed in 1994, but due to costs was not feasible.

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Dave stated that the new District Plan would be available at the Auditors office and the public library over the next four weeks should anyone want to review it.

Dave gave some background information on the formation of the Hancock County RWSD. It was noted that there was a potential health risk from the failing septic systems within the county. It was the goal of the Hancock County RWSD to get sewers to rural areas that currently don't have sewers in the most cost effective measure.

Dave read a background on the history and formation of the Hancock County RWSD from the District Plan.

Dave stated that the plan was funded by a Section 205j Grant provided through the EPA and administered by the Indiana Department of Environmental Management. The County received a $48,200 grant to perform the Regional Sewer District Plan. The Grant expires August 28, 2002.

Dave gave some historical background on the septic system problems facing communities throughout Indiana. One example of a problem was that some residents in one community claimed their wells had gone dry after the installation of sewer systems. Dave stated that the installation of sewers hindered the recharge of their wells, because the septic systems were supplying water to their wells. This happened because the septic systems were too close to the wells. It was noted that not installing sewers would be a health and safety issue for the drinking water quality within the area. This is just one example of septic system problems being experienced throughout the State.

Dave stated that he and the Hancock Department of Health did surface water sampling in May 2002 for all six study areas and found high *E.coli* counts and water pollution problems with the main stream channels.

Dave discussed the PER prepared in 1995 for Charlottesville. It showed different options for Charlottesville and that it was not cost effective as far as a user stand point to install a system. It would cost approximately 67-70 to 120 dollars per user.

Dave turned the hearing over to Jeremy Schmitt to give details of the District Plan and different options that were investigated.

Jeremy stated that they looked at many different options for each area. Those options included: different ways of collection including gravity and low pressure systems; treating wastewater at a new local treatment plant; replacing all on-site systems with newer technology; pumping to an existing wastewater treatment plant (eg. Greenfield); and a new regional WWTP to serve all areas.

What they usually found out was there were not enough users or the system was too spread out. This makes these options financially unfeasible.

Jeremy specifically discussed Maxwell as an example of what was generally found in each community.

Approximate costs for Maxwell which was approximately 605 users on the system were:

1. Collection System – $5 million
2. Mechanical Plant - $2.2 million
3. Operation and Maintenance of the system - $338,000 per year

Jeremy then discussed rates for each user. He stated that for this system in Maxwell the rates would be approximately $160.34 per month. He stated that this was not feasible for the community of Maxwell. He mentioned that all options investigated typically had rates well over $100.

He concluded the only financially feasible way for treating the problems within the County was to look at it by a house to house situation.

Someone from the audience asked if they could pump it to the Maxwell Community Schools' WWTP.

Kyle stated that their plant would not be able to handle additional flows.

Dave gave the background and details of the project in McCordsville. He mentioned that most communities that were investigated have a lot of elderly and very low to moderate income residents and don't have the possibility of a lot of growth

Dave went on the give the details of trying to fix the problems on a house by house or cluster by cluster basis. The idea is to fix the worst problems first. He mentioned different types of on-site systems including recirculating sand filters and other innovative systems that can be used with individual homes or small clusters.

He mentioned that the Hancock County RWSD applied on behalf of Charlottesville for a $400,000 grant from the Build Indiana Fund and that they received a letter back stating that they will be receiving $250,000.00. He also stated that an income survey was conducted for Charlottesville. This survey conducted by Ball State University showed that 55.88% of Charlottesville residents have low to moderate income. He went on to explain a grant program that is administered by the Indiana Department of Commerce called the Community Focus Fund Grant Program. He gave details and requirements of that grant program and stated that Charlottesville qualified for this program.

He went on to explain programs through Rural Development and stated that some of the other District areas that were investigated did not qualify for those programs.

No other questions were made so the hearing was adjourned.

EXHIBIT 4
TELEPHONE MEMORANDUM
ON WATER QUALITY ISSUE
DECEMBER 5, 2002

BEAM, LONGEST & NEFF, LLC
Indianapolis Corporate Office, 317-849-5832

Memo

To: File

From: Jeremy Schmitt

CC: Steve Verseman, Dave Kieser, Alan Alward

Date: 12/5/01

Re: Hancock County RWSD Feasibility Study

On this day a question was discussed regarding our duties for the Hancock County RWSD. Specifically, we were discussing what we needed to be covered in the report concerning water resources in the county. There is a duty in the contract that requires us to "describe problems confronting the district in terms of drinking water from residential wells".

Dave called Bonny Elifritz with IDEM and discussed this with her. They agreed that all this language intended was for us to address water quality concerns caused by failing septic systems. It is not intended to be a discussion about other contamination sources, or about the location and capacity of viable aquifers in the county.

This was our intention all along, and we will continue forward with the project.

EXHIBIT 5
NEWSPAPER ARTICLE
ON DISCUSSION OF WASTEWATER
WITH HANCOCK COMMISSIONERS

Study recommends new wastewater treatment system for Charlottesville

Janet Helms
Staff writer

Hancock County

For the tiny Eastern Hancock town of Charlottesville, much has changed since folk weary of their trek westward on the National Road unloaded their wagons and decided to settle the area.

But then there are some things that have changed very little, like the disposal of human waste products.

First, privies were built, likely with tiles leading to a discharge point at Six-Mile Creek. Later, septic systems were installed.

Charlottesville has never incorporated and therefore its residents have not addressed infrastructure, specifically the need for a wastewater treatment system.

So what?

You need this news because:

Public hearings with Charlottesville residents will help determine the cost of future wastewater treatment.

Now residents there are faced with contamination of drinking water and waterways by E coli bacteria from improperly disposed human waste.

Elimination of septics

The 115 households of Charlottesville are about to have a come to meetin' about this situation.

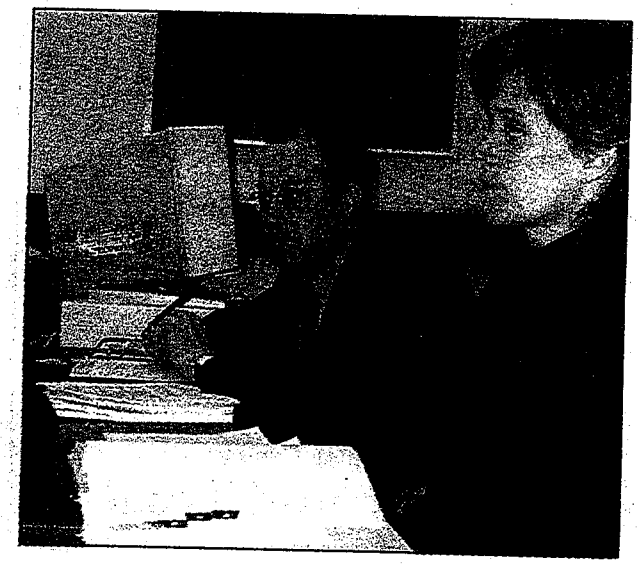
Dave Kieser, project manager for the engineering firm Beam, Longest and Neff, met with county commissioners, aka the county water and sewer board, on Thursday to report progress in his firm's study of the problem.

Kieser said the recommendation from BLN is the elimination of septic systems in Charlottesville.

These systems would be replaced with either new on-site treatment systems or with a wastewater collection system.

From there, wastewater would

See WASTE, Page 8A ►



BLN's Dave Kieser (left), and Bonnie Elifritz from IDEM, discussed the Charlottesville situation with Hancock County Commissioners on Thursday.

Janet Helms / Daily Reporter

GREENFIELD DAILY REPORTER

MARCH 8, 2002

• Waste

From Page 1

either be treated locally or transported to Knightstown or Greenfield, Kieser said in his report.

Three public meetings will be arranged during the next three months to discuss the potentially high cost of waste disposal versus the ability of Charlottesville residents to pay for it.

In the meantime, an updated environmental review will be conducted by the county health department to assess the level of contamination in area waterways and ditches.

Projected rates

Kieser was accompanied to the meeting by Bonny Elifritz, an environmental manager for the Indiana Department of Environmental Management's watershed grants program.

Kieser and IDEM facilitated a $48,000 205J grant to conduct this study, and update of the county's original 1995 wastewater treatment plan that focused on the Town of Charlottesville.

The towns of Eden, Maxwell, Mohawk, Willow Branch and Woodbury are also targeted in the study. But Charlottesville appears to be most in need of immediate action.

Kieser said the cost to Charlottesville residents of treating their waste will depend upon two factors: the availability of grants to help build the chosen system or systems, and the cost of the system itself.

There are four basic options, according to Kieser: a conventional gravity collection and mechanical treatment system in Charlottesville; connection to the gravity collection system in Knightstown; individual onsite treatment systems such as, perhaps, shared mound septic systems; or a community wide treatment system using newer alternative treatment collection.

The lowest projected user cost, $35-$36 per month, is estimated to come from the self-contained or alternative methods constructed with grants paying 95 percent of the project.

The fewer grant monies that are obtained for such a project, the higher the resulting monthly user cost.

If no grants are obtained, the cost for the above-mentioned systems could rise to $104-$129 per month.

Previously there was hope that a relatively inexpensive connection could be made with Knightstown's wastewater treatment plant.

But through discussions with town officials and engineers there it is estimated to be the third highest cost, ranging from a minimum of $47 per month with 95 percent grant funding of the project to $176 per month with no grant funding.

Even at 50 percent funding the figures presented by Knightstown suggest a monthly rate of $108 per month.

But those figures probably do no include all operating costs, Kieser said.

Funding the alternatives

As for some of the alternative technologies, "while they look pretty good on paper they have trouble meeting the Department of Environmental Management ammonia-nitrogen requirements," Kieser said.

For some others, all IDEM has seen is sales brochures and there is apparently no use information available.

"We want to make sure its proven technology before we look into it," Kieser said.

Elifritz said there may be some grants or loans available for the chosen system from the Department of Commerce, Build Indiana Fund, or from a supplemental program of the State Revolving Fund, a program set up specifically to aid communities faced with this sort of problem.

But, she admitted that communication between IDEM and the various funding mechanisms is pretty rough, particularly where the newer technologies are concerned.

"Funding sources need to get more creative in funding solutions for these problems," Kieser said.

That becomes most important since the small lot sizes in Charlottesville could prohibit any kind of septic system from locating there.

"The past sins are coming on with water quality," Kieser said. "The soils are not suitable for septic systems."

Commissioner Armin Apple expressed concern that, "the result will be that Charlottesville could be unfit for habitation."

Commissioner Jack Heiden emphasized the need to talk with Charlottesville residents to see how they want their community to proceed.

Apple suggested that each resident be contacted by mail with regard to the upcoming hearing dates and Kieser agreed to that.

EXHIBIT 6
MINUTES OF MEETING HELD WITH IDEM AND HANCOCK COUNTY
JANUARY 28, 2003

FEB 14 10 47 AM '03

Meeting Minutes
Hancock County 205J
Project Grant with IDEM
January 29, 2003 @ 9:30 A.M.

Attendees:

Bonny Elifritz	IDEM, Watershed Planner
Lynn Newlon	IDEM, RSD Coordinator
Bill Harkins	IDEM, Attorney
Lindsay Boyd	IDEM, Attorney
Brian Kleiman	Hancock County Commissioner
Dave Matson	Beam, Longest and Neff, L.L.C. (BLN)
Dave Kieser	BLN

Minutes:

Dave Matson started out the meeting by stating that he requested this meeting and asked Dave Kieser to set it up with IDEM. Mr. Matson also stated that he wanted to make it clear that we are not here to get paid for work we did not do. Mr. Matson wanted to discuss the items in the letter that was dated December 3, 2002 from IDEM to Hancock County.

We went through the items in the letter that were not completed or of no contest. Those items were duties B, D and E. Everyone agreed. The items of contention were duties A and C.

Lindsay Boyd asked us to start from the beginning to discuss how we got to where we are at in this point in time.

Dave Kieser discussed that the grant application was submitted in October 1999 and the award was made in February 2000. Mr. Kieser said that he had written a memo to Bonny Elifritz addressing issues with regard to the EPA comments on the grant application and that memo discussed only the six (6) unsewered areas in Hancock County. The memo was dated June 14, 2000.

In the interim, the project was on hold while paperwork issues were resolved. Mr. Kieser switched engineering firms from Floyd E. Burroughs to Beam, Longest and Neff, L.L.C. in January 2001. The Hancock County project came with him. Mr. Kieser, with Beam, Longest and Neff, L.L.C. picked up the project. There was no activity on the project from January to August 2001.

On August 29, 2001 the contract between Hancock County and the State of Indiana was executed and Beam, Longest and Neff, L.L.C. started working on the project.
Beam, Longest and Neff, L.L.C. We began our data collection and started putting together numbers for each of the six (6) areas. The areas were Mohawk, Eden, Maxwell, Woodburry, Charlottesville and Willow Branch.

Once our staff investigated the project in terms of cost of alternatives, we discovered that the cost for sewering all of these areas was economically infeasible. Beam, Longest

and Neff, L.L.C. contacted Ms. Elifritz in May 2002 and met with her to present the economic infeasibility for all six areas of the project.

Mr. Boyd asked us why it took us so long to contact Bonny Elifritz from IDEM to discuss the high cost of each of these areas. Dave Kieser replied that data collection consumed time and Beam, Longest and Neff, L.L.C. studied many alternatives including alternative technologies. Other discussions went on about the timing of the project. The group discussion then lead to the contents of the District Plan, and Preliminary Engineering Report, and the proposed contents of each document according to the contract.

The next part of the discussion was centered on the inclusion, or rather the exclusion of a water study as a part of the District Plan. Bonny Elifritz pointed out that it was supposed to be a water and sewer plan since it is called the Hancock County Regional Water and Sewer District. Lindsay Boyd stated that the contract according to IDEM is clear. Mr. Kieser produced a memorandum dated June 2000 that was in response to a phone call between Ms. Elifritz and Mr. Kieser regarding EPA comments on the 205j grant application as it related to sewers only. Mr. Boyd stated that this activity was before the contract was signed. Mr. Boyd is only interested in activities that occurred between when the contract was signed and when the contract ended.

Mr. Matson asked Mr. Kieser if he figured in a water study when he was preparing the scope and fee for this project. Mr. Kieser answered no. Mr. Kieser stated that if he had figured a water study in the scope, the price of the study would have been a greater amount. Mr. Boyd stated he can see our point, but it is not in the contract. A discussion also took place with Lynn Newlon about what the requirements are for a District Plan. Mr. Boyd asked Mr. Kieser if he thinks the District Plan that was prepared meets all the criteria in Indiana Code. Mr. Kieser stated, "Yes."

Then Brian Kleiman asked that Mr. Matson and Mr. Kieser to excuse themselves from the room, so Mr. Kleiman could talk to IDEM without the consultant present. Mr. Kieser and Mr. Matson were out of the room for approximately twenty-five minutes.

When we were called back into the room, Mr. Boyd stated they had just talked about some minor issues that had already been discussed and about some additional information about the County.

Mr. Boyd stated that Beam, Longest and Neff, L.L.C. has until February 14, 2003 to do a follow-up response to IDEM on this matter. Mr. Boyd said if we don't respond by this date he will consider this matter closed.

The meeting ended at approximately 11:20 A.M.