

# **CHAPTER 1**

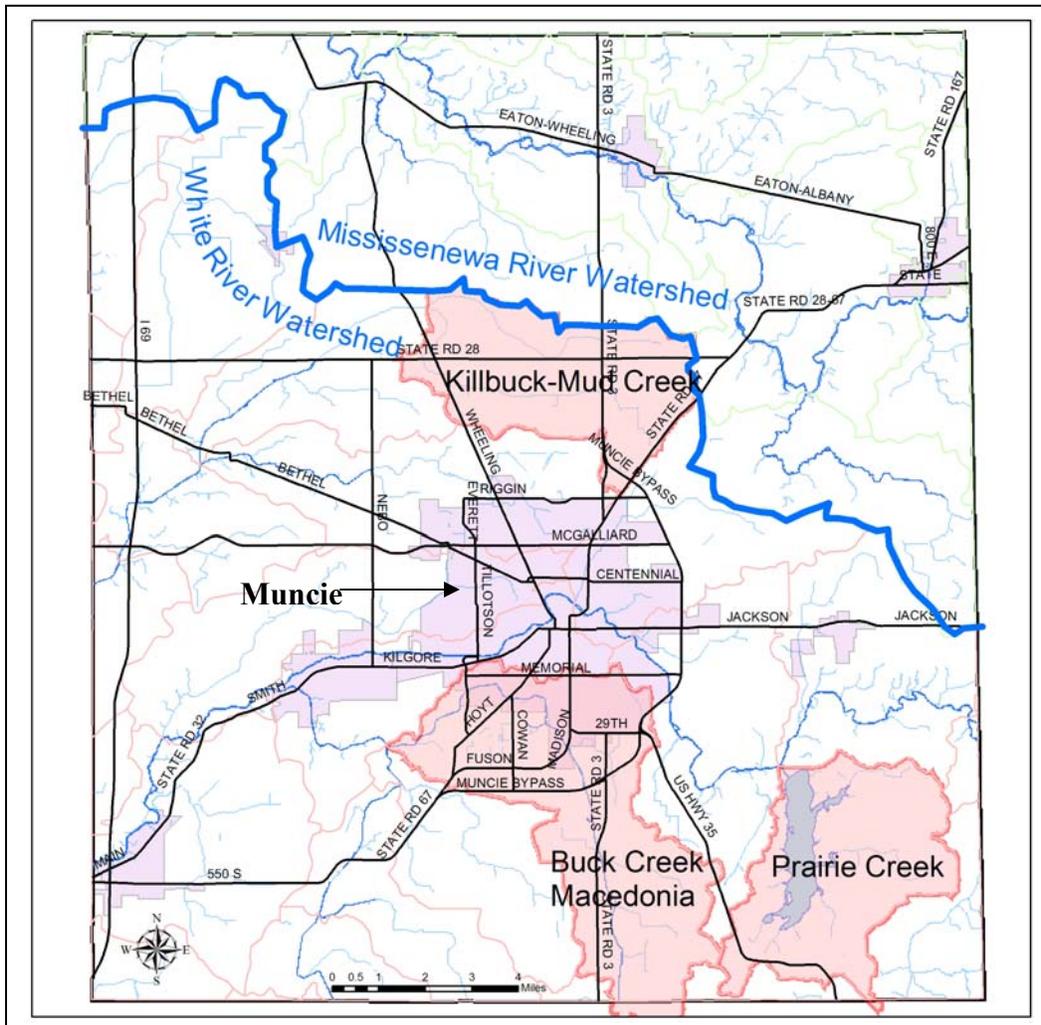
## **WHITE RIVER WATERSHED PROJECT: OVERVIEW AND STRUCTURE**

## **1.1 Formation of the White River Watershed Project**

### **1.1.1 Project History**

Impetus for the White River Watershed Project came from combined community concerns regarding local water quality, identified through a series of public meetings held in 2000 and 2001 by the Delaware County Soil and Water Conservation District. Representatives from Ball State University, local, state and federal government, local community foundations, the agricultural community, and other local citizens met over a one year period to discuss options for addressing those concerns. Their final recommendation was to conduct a study of local watersheds and develop a community-driven, voluntary plan for protecting and improving local water quality.

From this, the White River Watershed Project (WRWP) was formed. The lead organization became the Delaware County Soil and Water Conservation District (DCSWCD), upon the acquisition of an EPA, Section 319 Grant in 2001. This three-year grant was awarded for the purpose of creating this watershed management plan that addresses local non-point source water pollution issues in three priority subwatersheds. Those subwatersheds, chosen by the community, are: Killbuck/Mud Creek, Buck Creek, and Prairie Creek Subwatersheds.



**Figure 1.1:**  
Three Selected  
Subwatersheds  
Studied for the  
White River  
Watershed  
Project

### **1.1.2 Mission and Vision Statements**

The White River Watershed Project has developed Mission and Vision Statements to help guide the watershed management planning process towards cleaning up and preventing non-point water pollution.

*Mission: The White River Watershed Project is a citizen partnership dedicated to developing watershed management plans to improve water quality.*

*Vision: Our vision is that the White River will improve the quality of life of our community by safely serving its various needs, while supporting wildlife diversity.*

## **1.2 Organization of the WRWP**

The DCSWCD Board of Supervisors understood early on the importance of having broad community involvement in all aspects the WRWP. Without such involvement, chances of gaining broad-based community support would be slim and the successful implementation of the management plan would be in jeopardy. The following detailed description of the WRWP's organization reflects this deep commitment.

### **1.2.1 WRWP Structure**

On July 1, 2001, the DCSWCD began its search for a full time, in-house Watershed Coordinator. That Coordinator was hired and began working for the WRWP on September 19, 2001.

In keeping with the philosophy that broad community involvement is the key to project success, the Coordinator immediately organized a Steering Committee. The Steering Committee became the primary decision-making body, giving formal recommendations for Board actions with regards to major project direction, fiscal and contractual decisions.

The Coordinator formed seven additional committees to bring in as much local input into the WRWP as possible. There are three Technical and three Watershed Committees, as well as one Advisory Committee. Stakeholders from each subwatershed and the county as a whole were actively recruited and encouraged to participate in these committees.

Below is the WRWP structure; listing each committee, their responsibilities and their community representation. (some members have changed throughout the process, therefore this list represents all current and former participants):

#### **Delaware County Soil and Water Conservation District Board of Supervisors**

Responsibilities: legal grant holder, provide full-time Watershed Coordinator, final approval on financial transactions, contracts, grant requests, and final plan

DCSWCD Board Community Representation: agricultural community and local business (associate supervisors: Ball State University, Indiana Farm Bureau, agricultural community)

### **Steering Committee**

Responsibilities: overall project direction; major financial and contractual transaction recommendations to DCSWCD Board of Supervisors; co-development of management plan

Steering Committee Community Representation: agricultural community, rural residential community, urban community, Ball State University (Facilities, Planning and Management; Natural Resources and Environmental Management), Delaware County Farm Bureau, Red Tail Conservancy (local land trust), county surveyor (county government), county drainage board (county government), Delaware Greenways, Inc. (local trail development organization), citizens from each of the three subwatersheds (Killbuck/Mud, Buck, Prairie), Bureau of Water Quality (city government), county health department (county government), Muncie-Delaware Metropolitan Planning Commission (county government), Indiana-American Water Company, Town of Yorktown (local government)

### **Watershed Committees (Killbuck/Mud Creek, Buck Creek, and Prairie Creek)**

Responsibilities: Ensure that local issues and concerns are addressed throughout the project; solicit interest and support for the project in their communities; assistance with local land use identification; co-organization of local events and outreach activities; co-development of management plan; provide a representative to serve on the steering committee

Watershed Committee Community Representation: watershed citizens; urban, rural residential and agricultural community, business owners, local government, BioMuncie (local environmental education organization), educators and school administrators (primary, secondary and university)

### **Monitoring Committee**

Responsibilities: monitoring program development; creation of the QAPP (quality assurance project plan for WRWP monitoring program); co-development of GIS based land use analysis; study and interpretation of monitoring program results

Monitoring Committee Community Representation: Ball State University (NREM), Bureau of Water Quality, Muncie Sanitary District, Natural Resources Conservation Service, Delaware Greenways, BioMuncie, agricultural community, Indiana-American Water Company

### **GIS (Geographic Information System) Committee**

Responsibilities: creation and analysis of land use information using GIS technology; co-development of GIS based land use analysis; development and maintenance of project web site; outline development for GIS interactive web site (created and maintained by Ball State University)

GIS Committee Community Representation: Delaware County GIS Department, Muncie-Delaware Metropolitan Planning Commission, Ball State University (Geography), Bureau of Water Quality (city government)

### **Outreach/Education Committee**

Responsibilities: co-creation of quarterly newsletter; creation and/or acquisition of outreach and education materials; development of outreach and education strategy; identification of target audiences; assist watershed committees with their outreach and education efforts



### **1.3 Selecting What Subwatersheds to Study**

The DCSWCD was tasked with studying three 14-digit Hydrologic Unit Code (HUC) subwatersheds in the Upper White River Watershed within Delaware County. Those three subwatersheds were not specified. The DCSWCD combined information gathered on the current conditions of the subwatersheds with community input and had the citizen Steering Committee make the final decision.

Through a series of public meetings and the interpretation of known water quality and land use information, the Steering Committee chose the following three subwatersheds (Listed beneath them are the reasons for their selection.):

#### ***Killbuck/Mud Creek Subwatershed***

- Has both agricultural and suburban land use, which gives a good representation of Delaware County
- Greater ability to affect water quality by being a headwaters subwatershed
- Public perception of poor water quality
- Known to have problems with failing septic systems

#### ***Buck Creek Subwatershed***

- Has agricultural, urban and sub-urban land use; good representation of Delaware County
- Greater ability to affect water quality by being a headwaters subwatershed
- Listed with the IDEM as a waterway with impaired water quality (303d list)
- Buck Creek is a unique waterway in the county, due to potential as a cold water trout stream

#### ***Prairie Creek Subwatershed***

- Overwhelming public perception of good water quality
- Drinking water source
- Development pressure
- Greater ability to affect water quality by being a headwaters subwatershed
- Public recreation site
- Potential example of an area with land use practices that work to protect water quality in the county

### **1.4 Initial Community Concerns**

The initial community-identified water quality concerns (generated [prior to the grant starting] in 2000 and 2001) that served as the impetus for WRWP are as follows:

- Public Health
  - Drinking Water
  - Fish Consumption Advisories
- Loss of Natural Habitat
  - Wildlife Diversity
  - Aesthetics
- Impacts to Recreation
  - Fishing; Boating; Swimming

Once the three subwatersheds were chosen, citizen committees from each subwatershed were formed (as described previously). The first task set upon them was to list their concerns and perceptions regarding water quality in their specific subwatershed. This was accomplished over several subwatershed committee meetings in the autumn of 2002. Below are the lists of community concerns for each subwatershed:

### ***Killbuck/Mud Creek Subwatershed***

Septic Systems - The watershed has a history of failing/failed septic systems, most of which will be tied into a new sewer system project, however the community was unsure if everyone would be connected and was concerned about the detrimental effects of those remaining unconnected.

Drainage – Broken drainage tiles negatively affect both agriculture and water quality. Such tiles allow sediment, chemicals, and manure to drain into water ways. The community wanted to know where all underground drainage tiles were located and where they outlet into surface waterways.

Conservation Agricultural– Conservation practices on agricultural lands positively affect local water quality. The community wanted to identify all agricultural conservation practices in the watershed and map them.

Chemical Usage on Genetically Engineered Agriculture Crops (GEC) – The community felt chemical use has been reduced on acreage where genetically modified crops are planted. It has been stated that residual herbicides were reduced on GEC soybeans and pesticides were increased on GEC corn by members of the Killbuck/Mud Creek Committee.

Illegal Dumping – There is a problem with illegal dumping in the subwatershed, with a particular concern over hazardous household waste making its way into surface water. The community wanted to conduct targeted outreach to local citizens explaining how to properly dispose of such materials.

Outreach/Education – The community felt educating the public on the project and local water quality issues are important.

E. coli – The community was concerned about *E. coli* levels and their impact to local water quality. Identifying sources of contamination were important to this group. Geese were suggested as a possible source, as were failing septic systems.

### ***Buck Creek Subwatershed***

Illegal Dumping – Both the dumping of refuse (especially tires) and pets were considered a problem in the subwatershed. The community wanted to educate the public on where they can dispose of refuse and unwanted pets properly.

Urban Sprawl – The conversion of farmland to housing was a concern. The committee wanted to see more planning and zoning done to ensure proper development.

Chemical Contamination –The effects of urban, suburban and agricultural chemical usage was of concern. Lawn applications, salt from water softeners and road application, agricultural over-spraying, and the spraying of county ditch and creek banks were specifically mentioned.

Drainage – Broken drainage tiles negatively affect both agriculture and water quality. Broken drainage tiles allow sediment, chemicals, and manure to drain into water ways. There was a desire to bring the needs of water quality, habitat, and flow together when deciding on how to develop and maintain local drainage ways.

Septic Systems – Failing/failed systems were of concern. There was a desire to include solutions in the plan for fixing/replacing these systems.

Conservation Agricultural - Conservation practices on agricultural lands positively affect local water quality. The community wanted to identify all agricultural conservation practices in the subwatershed and map them.

Outreach/Education - The community felt educating the public on the project and local water quality issues was important. Included was a desire to inform the public about the fish consumption advisory, hunter education (regarding the disposal of entrails, etc, in local waterways), and septic system maintenance.

### ***Prairie Creek Subwatershed***

Urban Sprawl – The committee was concerned over potential development on the banks of the reservoir, as well as throughout the subwatershed. Impacts of increased recreational usage in and around the reservoir were also of concern.

Conservation Agricultural - Conservation practices on agricultural lands positively affect local water quality. The community wanted to identify all agricultural conservation practices in the subwatershed and map them. Observations of increased no-till in some areas and increase in chisel plowing in others were noted.

Recreation on the Reservoir – This committee was concerned about the affects recreational activities may have on water quality in the reservoir. Specific issues mentioned were how sewage disposal is handled at the campground, bank erosion, parking lot runoff, chemical and sewage discharge from pontoon and other boats, ATV impacts, and fishing.

Geese – The committee thinks that geese could be contributing to *E. coli* levels.

Drainage - Broken drainage tiles negatively affect agriculture and water quality, both. Broken drainage tiles allow sediment, chemicals, and manure to drain into water ways. There are concerns over the affects of pond installation and the subsequent breakage of tiles.

Woodland Loss – Community was concerned of the impacts of woodland loss around the reservoir.

With this information gathered, the technical committees and the coordinator set out to obtain an understanding of the current conditions in each of the three subwatersheds, both the positives and the problems. Results of this work were used to verify or refute the above listed concerns, and to give everyone an understanding of actual subwatershed conditions, as reported later in this document.

### **1.5 Plan Development**

Development of the White River Watershed Project Management Plan was achieved through the use of public meetings held throughout the life of the project. These included anywhere from single committee sessions to large multi-committee and general public participation meetings. (Please see Appendix A for the WRWP 2001-2004 event calendar.) Each of the committees previously listed played a key role in the development of this plan, as their listed responsibilities explain.

While all committees and members of the general public had a hand in the development of this management plan, and the Watershed Coordinator was responsible for the writing of the document itself, the majority of the work was completed through a combined effort between the DCSWCD Board, Steering Committee and the three Watershed Committees. The Steering and Watershed Committees worked together to identify local water quality issues and recommend voluntary actions, while the DCSWCD Board reviewed all recommendations and granted final plan approval for submission to IDEM. The Technical Committees made the final plan possible by providing detailed baseline information needed to make appropriate watershed management recommendations (See Chapters 4 and 5).