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### Jurisdiction

The geographic scope of the interview was Steuben County, Indiana. Steuben County is located in the northeast corner of Indiana and is surrounded by the following counties: Branch, MI; Hillsdale, MI; Williams, OH; DeKalb, IN; and LaGrange, IN. The majority of the Steuben County lies in the southeastern most portion of the Middle River Valley Segment and includes the City of Angola and the Towns of Orland, Fremont, Hudson, and Ashley. The remainder of the county drains southeast to the Lake Erie Watershed. Major tributaries to the St. Joseph River in the county include headwaters of Crooked Creek, Turkey Creek, and Pigeon Creek. There are 101 natural lakes in the county, the majority of which lie in the St. Joseph River watershed. A high percentage of farms use conservation tillage or no till practices and are dominated by corn and soybean production. Some wheat is also produced.

### Programs/beneficial watershed features

Steuben County has drafted a watershed-planning document. "The Watershed Approach to Water Quality in Steuben County – A Guide Into the 21<sup>st</sup> Century", 1996, grew out of a joint effort between the Drainage Board and Soil and Water Conservation Boards to "review, assess, target, and monitor ag and urban watershed land treatment...in Steuben County". The guide provides baseline data, a history of activities, and a list of concerns in each subwatershed in the county. The guide also considers how localized soil drainage characteristics effect each subwatershed. Results of this effort have been used to prioritize critical watershed areas for implementation projects in recent years.

The county is currently involved in a countywide land management planning process including cities, townships, and local resource managers. The status of the plan is unknown at this time.

Major activities of the conservation district include a unique balance of conservation land treatment and lake management due to the high density of lakes in the watershed. The Steuben County Lakes Council is a very active organization in the County. A number of IDNR programs exist to rehabilitate lakes and streams via diagnosis, feasibility, and implementation of shoreline and upland land management practices. Projects are in various stages of completion on West Otter Lake, Big and Little Turkey Lakes, Lake Gage/Lime Lake, Jimmerson Lake, Crooked Lake, and Lake James. An IDNR Lake and River Enhancement (LARE) project called the "Turkey Creek Watershed Project" occurred in the Turkey Creek subwatershed portion of the Steuben County and counties downstream. An IDEM 319 grant will fund the development of a Watershed Management Plan for the Pigeon Creek Watershed, beginning in early 2004. Also, the Hoosier River Watch volunteer group monitors a number of lakes (6-10) in the county. The high density and desirability of lake communities draw lake residents to the area making it one of the fastest growing counties in the State of Indiana.

The top two agricultural BMP's utilized include buffer strips and grassed waterways applied along surface waterways, especially drains. The county also benefits from a multi-county 319 effort to develop a livestock management program including alternate watering systems, fencing

to exclude livestock from water bodies, filter strips, manure application, nutrient management planning, pasture planting, and other innovative practices.

Steuben County has many aquatic areas of special interest. The headwaters of the Fawn River is home to a cold-water fishery. A large number of the lakes in the area are public access, and few access issues are encountered. The Pigeon River State Fish and Wildlife Area spans a multi-county area. Strong land preservation groups include ACRES Land Trust and Wood-Land-Lakes RC&D. Resource managers are in contact with researchers at Tri-State University in Angola as well. Critical water quality areas have been identified and are mapped and maintained by The Nature Conservancy.

The northern chain of lakes (including Crooked and James along the Fawn River) is undergoing centralization of sewer systems with the involvement of the Steuben Lakes Regional Waste District. Convenient hookups to nearby towns are not available and more innovative approaches have been undertaken for localized or clustered treatment facilities. The southern chain of lakes along the Pigeon River is generally interested and would likely benefit from similar localized treatment but no programs are underway likely due in part to a lower population density.

#### Challenges in the watershed

The City of Angola has been a historic source of sewer overflow from the CSO system with documented negative effects downstream. However, responding to public concern Angola has been updating its water systems during the past ten years and the last phases of separation of sewer and storm are underway. In addition, there has been a recent push from the City Engineers office toward re-writing ordinances to meet tightening NPS guidelines for MS4's. One particular initiative is focused on more stringent management of construction site runoff by clarifying regulations and conducting training workshops. Generally, erosion and runoff are regulated under Indiana State Rule 5.

In general, water bodies listed in the IDEM's 305(b) list include areas with fish consumption advisories, pathogens, elevated nitrates, low dissolved oxygen, and poor biotic community health. Ongoing, rehabilitation efforts are targeting agricultural runoff, urban runoff, and lake community septage to address the problems. As in most places, some landowners resist suggested conservation practices.

#### Additional needs for the jurisdiction

It is believed that the watershed as a whole would benefit from targeted, coordinated, and consistent monitoring efforts to justify management decisions. Existing volunteer groups could increase monitoring since it has been shown that well-trained volunteer groups in Indiana can produce reliable stream data. Local managers believe that despite the need for whole watershed management consideration, actual watershed improvements should be tackled by locally active, broad based organizations that are familiar with, connected to, and trusted within local communities.

Steuben County managers feel well coordinated with other Indiana counties within the St. Joseph River basin, however historical institutional boundaries limit interaction with Michigan portion of the basin.