

CASE STUDY 2: ST. JOSEPH RIVER, INDIANA/MICHIGAN/OHIO

The problems

Agriculture is a source of nutrients, sediments and pesticides that impact a drinking water supply/reservoir for the largest urban setting in Northeast Indiana. Managed ditches drain much of the agricultural land. This results in the accelerated conveyance of these pollutants and reduces that natural ability of the land to retain surface flows thus exacerbating downstream flooding. Fort Wayne (population 200,000) is sprawling to the south, out of the Great Lakes Basin. Fort Wayne water supplies are targeted for these areas, though wastewater may be returned to the Wabash River (Ohio River basin) in opposition to pending Great Lakes withdrawal conditions. Fort Wayne now spends \$300,000 annually for treating high turbidity waters for their drinking water supply. Twenty-year master plans underway for Fort Wayne do not currently recognize water withdrawal and export issues in the Annex that will affect growth. Downstream point sources in Ohio will be facing restrictive nitrogen limitations in 2005 and 2006 under new nutrient standards and will be forced to examine expensive wastewater treatment alternatives. Downstream sedimentation to the Maumee River continues to require substantial dredging.

Growing water opportunities

- ?? Drain tax rebate programs for drain buffers could be instituted with ecological and economic benefits quantified in terms of reduced pollutant and hydraulic loads. Downstream urban interests (businesses in flood prone areas, the city's water utility) could provide additional tax or cash incentives for additional buffers.
- ?? Water conservation projects through 50 acres of flood plain and forested wetland restoration in former oxbows now in low value farmlands could generate flood storage credits with upfront financing through traditional Farm Bill programs and cost share provided by municipalities for greenways. Three-quarters of a mile of additional greenway would be available to the existing mile and a half of greenway developed by the City of St. Joe. Reforestation could be "certified" through an existing Certified Forest program whereby the landowners can receive thousands in tax breaks and afford to maintain the restored conditions. Alternatively, a local land trust could purchase and maintain these restored areas.
- ?? Urban stormwater retrofit projects increasing recharge and treating runoff could be financed by developers as direct offsets for future water exports.
- ?? Sustainable financing opportunities through the possible development of an Ecological Service District model that would seek buyers and identify/broker improvement opportunities.

Growing water benefits of the proposals

- Sediment loading reductions to downstream drinking water reservoir
- River corridor greenways
- Riparian buffers (sediment, nutrient, pesticide and hydraulic controls)
- Forested wetland and riparian wetland restoration in perpetuity
- Flood storage and mitigation for downstream impacts

Partners

Private agricultural land owners; Municipal water utilities; Businesses in low-lying areas; Municipal and industrial point sources requiring permit flexibility; Soil and water conservation districts; Drainage districts; Flood management districts (Ohio and Indiana).