

NATURAL FEATURES INVENTORY OF THE DAVIS CREEK WATERSHED

Contact: **Mr. William Reed, Acting Director**
 The FORUM of Greater Kalamazoo
 217 Monroe Street
 Kalamazoo, MI 49006-4435
 (616) 337-7002

Project Costs: **\$15,560**

Project Completion: **2000**

A baseline inventory of the natural features of an area can be an important element of the community planning process. Balancing biological communities' and species' needs with the demands of development is imperative for not only minimizing impact on these sensitive elements but for conserving these resources as new development occurs. KIESER & ASSOCIATES (K&A) was awarded a grant to perform a Natural Features Inventory for the Davis Creek Watershed, a subwatershed of the Kalamazoo River Watershed, in May of 1999.

The Davis Creek Natural Features Inventory cataloged historical as well as current biological species and communities found within the watershed. Few comprehensive studies of this sort have been performed in this area. The uniqueness of this study is exemplified by the combination of field and remotely gathered data. The distinctive feature of this approach was the concurrent use of field inventories with digital land use/land coverage of the watershed developed from October 1997 satellite imagery. The combination of these features allowed for a holistic understanding of the interactions occurring within the watershed, as information was collected at multiple scales. End products include not only species lists of the plants and animals found in the watershed, but commentary on natural community connectivity and degrees of fragmentation.

Over 250 species of flora and fauna were documented via field visits, with emphasis being placed on terrestrial communities. Many of the species documented are common to highly disturbed sites. However, three "listed" plants have recently been documented within the watershed; Rosinweed (*Silphium integrifolium*) and Cut-leaved Water Parsnip (*Berula erecta*), both listed as Threatened in Michigan, as well as Prairie False Indigo (*Baptisia lactea*), listed as Special Concern by the State of Michigan. In addition, records of eleven listed birds exist within the watershed. Though few examples of natural biological communities exist within the watershed, the wetlands surrounding East Lake appear to have undergone relatively minimal disturbances. A Tamarack Bog is located at the southern end of the lake, providing valuable wildlife habitat.

Through sophisticated processing of satellite imagery, information about the land uses and land covers within the watershed was compiled. It was found that approximately 26% of the watershed is characterized by urban land covers. Agriculture is another dominant land use, particularly near the Creek's headwaters at East Lake, comprising 24% of the entire watershed. Forests and discrete stands of trees make up 23% of the watershed. The remaining 27% is split between open lands (12%), shrublands (7%), wetlands (6%), and surface water (2%).

As part of this project, a web-based Natural Features Guide was created in order to increase public access to the information gathered, and serve as an educational tool to spur interest in these important features that surround the stakeholders within this community. This guide is currently housed on The Forum of Greater Kalamazoo's website, at www.theforum.org/nfi. Copies of the report are available at www.kieser-associates.com.