

MYERS-LAWRENCE DIAGNOSTIC STUDY

MARSHALL COUNTY, INDIANA

INTRODUCTION

Myers and Lawrence Lakes are situated southwest of Plymouth, Indiana (Figure 1). Specifically, the two lakes are located in Sections 19 and 24, Township 33 North, Ranges 1 and 2 East in West and Central Townships of Marshall County; Latitude: N41° 18' 6.9" and Longitude: W86° 21' 17.6" for Myers Lake and Latitude N41° 17' 53.7" and Longitude W86° 20' 6.7" for Lawrence Lake. The lakes are the two most eastern lakes of a chain of lakes located in the headwaters of the Harry Cool Ditch watershed. Water from the lakes drains to the Harry Cool Ditch west of Lake Latonka. The Harry Cool Ditch flows west to its confluence with Eagle Creek. Eagle Creek is a tributary of the Yellow River which in turn flows into the Kankakee River.

Both lakes are natural lakes formed during the most recent glacial retreat of the Pleistocene era. The advance and retreat of the Lake Michigan and Saginaw Lobes of a later Wisconsin age glacier as well as the deposits left by these lobes shaped much of the landscape found in northern Indiana today (Homoya et al., 1985). Ice blocks trapped in the deposits left by the retreating glacier melted to create many of the area's natural lakes. Myers and Lawrence Lakes, as well as their watershed, are the result of this geological history.

Myers and Lawrence Lakes are located in the western portion of the Northern Lakes Natural Area (Homoya et al., 1985). The Northern Lakes Natural Area extends east and north from Marshall County and includes much of northeastern Indiana where the majority of natural lakes are located. Natural communities found in the Northern Lakes Natural Area prior to European settlement include bogs, fens, marshes, prairies, sedge meadows, swamps, seep springs, lakes, and deciduous forests. Historically, much of the Myers-Lawrence watershed was likely forested with oak and hickory species. Dominant vegetation around the lake edges likely included red and silver maple, American elm, and green and black ash with more open areas being dominated by cattails, swamp loosestrife, bulrush, marsh fern, and sedges.

Changes in land use have altered the watershed's natural communities described above. Currently, approximately 45% of the land is used for agricultural purposes and 19 % is used for residential uses. Only 14.5 % of the land remains forested. These changes in land use have likely accelerated the natural eutrophication process in Myers and Lawrence Lakes.

Prompted by concerns over their lakes' health, and to get a better understanding of the factors affecting the lakes' health, the Myers and Lawrence Lake Associations applied for and received funding through the Indiana Department of Natural Resources Lake and River Enhancement Program for a lake and watershed diagnostic study. The lake associations selected the team of J.F. New & Associates and the Indiana University School of Public and Environmental Affairs to conduct the study. The purpose of the study is to describe the conditions and trends in Myers and