

AN ENVIRONMENTAL ASSESSMENT OF SELECTED  
NATURAL RESOURCES IN THE SPRING CREEK VALLEY  
MCDONOUGH COUNTY, ILLINOIS

An abstract of a  
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## ABSTRACT

Environmental assessment is the evaluation of human actions on the landscape and their effects on the physical and cultural phenomena in the environment. Concern for the environment in the United States has increased in the latter half of the twentieth century. This concern has led to different approaches in assessing impacts on the environment. The evaluation of the environment and the determination of "positive" or "negative" impacts is in many ways a qualitative judgment that combines individual interpretation, government agency guidance, and state or federal legislation.

This assessment uses only state and federal legislation for measuring environmental impacts. This study provides an environmental assessment of the impacts on five natural resources affected by the creation of a 1,225-acre lake in western Illinois. The five natural resources that could be impacted by the proposed lake are the soils, mineral resources, flora, fauna, and wetlands. The purpose of this assessment is to determine if a significant negative impact will occur to these five natural resources because of the creation of the proposed lake. The definition of a significant negative impact, as it pertains to these five natural resources, is based on section 1508.27 (b) (10) of the National Environmental Policy Act. This section states that one criterion for determining a significant impact to the environment is whether an "action" violates local, state or federal laws. Using this definition in the analysis, the

projected impacts to the five natural resources are evaluated using conservation legislation pertaining to each natural resource. The evaluation is used to determine if a violation of local, state or federal law will occur when the proposed lake is built. If just one law protecting these natural resources is violated by the proposed lake, then a significant negative impact to the whole environment is assumed to occur. The results of this analysis show that a minor environmental impact will occur to the soils, mineral resources, flora and fauna in the Spring Creek valley.

The impact to wetlands is more complex. Wetland destruction is prohibited by federal and state laws. The Spring Creek valley wetlands can, however, be altered by acquiring a section 404 permit from the Army Corps of Engineers that usually requires the creation of new wetlands to compensate for those lost during construction. This would likely be the course of action followed in the Spring Creek valley since the vast majority of permits applied for are granted by the Corps of Engineers with wetland mitigation as a permit condition. Proper implementation of the wetland mitigation package will result in a minor environmental impact on wetlands since no law will be violated.

This analysis, however, is not a complete environmental assessment of the proposed lake. Prior to construction, an updated environmental assessment should be conducted that includes social and cultural issues as well as natural resources in the Spring Creek valley.