



SCOPE OF PROJECT

JHL Properties, LLP had a vision for a steep timbered pastured valley that they owned: construct a lake in the valley and develop lake front residential properties around the lake to attract "new residential property owners" to Clarke County, Iowa. Since the lake project was on an unnamed stream determined to be under the jurisdiction of the Army Corps of Engineers (ACOE), a Joint 404 Permit was required. The following documents were required for the ACOE to complete their review and public hearing requirements:

- Biological assessment report to identify and evaluate the site for the presents of endangered species of both flora and fauna.
- Wetland delineation report to document the type, location and size of all wetlands on the property.
- Phase I cultural resource survey, to determine if historic or prehistoric resources are present on the property.
- An afforestation plan was developed to document the developers' plans to plant forest of comparable species to partially compensate for the planned loss of trees to the lake.
- Since an intermittent stream environment under ACOE jurisdiction was planned to be flooded to create the lake, a stream mitigation plan to document plans to improve the environmental quality of an existing stream and restore a stream to pre-settlement conditions was required.
- A compensatory wetland mitigation plan was required to document the developers' plans to construct comparable wetlands on the site to replace those being inundated by the lake.

IMPLEMENTATION

BARKER LEMAR has the qualified staff to complete all the tasks associated with performing the biological assessment report, wetland delineation report, afforestation plan, stream mitigation plan, and compensatory wetland mitigation plan. We subcontracted with a professional archaeologist in private practice to perform the Phase I cultural resource survey.

SERVICES

The **BARKER LEMAR** staff used the following capabilities to complete and submit the application for the 404 Permit:

- Accepted field survey techniques.
- Trained biologists in identifying both flora and fauna.
- GPS survey and mapping.
- AutoCAD drafting to document the locations on topographic maps.
- Stream bank stabilization design.

CONTINUED-

**ENVIRONMENTAL ASSESSMENTS &
MITIGATION PLAN: PHASE I -
ARBOR VALLEY LAKE -
JHL PROPERTIES - OSCEOLA, IOWA**

- Wetland design.
- Ability to communicate with the client and ACOE staff.
- Ability to perform technical writing that both satisfies the technical requirements of each document and is readable by untrained interested parties.

TIMELINE

Project Start Date: March 2006

Project Completed: February 2007