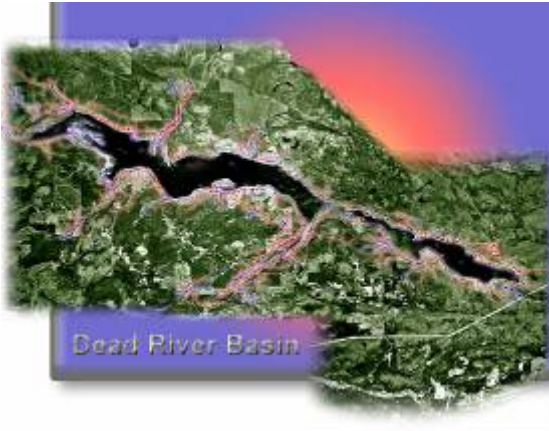


Dead River Basin

Marquette County, Michigan



The Dead River Basin is located in Negaunee, Ishpeming, and Champion Townships on land owned by Longyear Realty Corporation. The Hoist Basin Dam altered this rugged area in the early 1900's in order to generate hydroelectric power. The dam flooded about 10.5 miles of the Big Dead River valley and about two miles of one of the river tributaries to the Little Dead River. Over the years, individuals have been granted licenses to use the land and had built camps for recreation and relaxation. Because the land was in the process of being

sold to a group of these license holders known as the Dead River Campers, Inc., a full survey was required.

Spalding, DeDecker Associates, Inc. (SDA) performed the boundary survey of the land included in the sale. The purpose of 7,000-acre plus boundary was to create 26 Assessor's Plats and more than 50 Certified Surveys (PA 132) in order to delineate in excess of 400 camp sites. The end result allowed each "camper" to own the lot or parcel that was previously licensed to them.

The boundary phase of the project included researching documentation for more than 100 section corners, searching for physical monumentation in the field, and measuring the location of each corner. Trimble PRO-XR Sub-meter GPS units were used to help locate the corners in the field using a pre-calculated theoretical position. The boundary survey was completed using Trimble 4000 Fast-static GPS units to tie in section corners, quarter corners, and other relevant property corners, as well as setting initial horizontal control. Additional horizontal control measurements were made utilizing traditional surveying equipment and procedures. More than 40 section and ¼ section corners were submitted and approved by the Marquette County Remonumentation Program.

SPECIAL FEATURES

SDA measured all visible existing utility lines to determine easement locations and more importantly, located the proposed lot lines, as set in the field by neighboring "campers" after agreeing upon a lot line location. Aerial photography was used to help determine existing trail roads, driveways, and camps. Other items which needed to be incorporated into survey drawings were existing utility easements, ingress/egress access easements, existing and proposed county road right-of-ways, and adjoining properties. All preliminary drawings were field checked for accuracy.

Various government bodies including individual townships, County Road Commission, and the Subdivision Control Unit in Lansing, approved the surveys. Once approval was gained and the surveys finalized, the surveys were properly monumented in the field.

OWNER / CLIENT

Dead River Campers, Inc.

PROJECT START - END

November 1997 - June 2000

SDA PROJECT NO.

SM97-112

AWARDS

2002 Engineering Excellence National Recognition Award

American Council of Engineering Companies (ACEC)

2002 Engineering & Surveying Excellence

Award Honorable Conceptor Award

American Council of Engineering

Companies (ACEC) of Michigan