

Abstract

Nationwide Assessment of Hydropower Potential for the United States

Track: Water Resources

Author(s): Gregory Carroll, Randy Lee, Shane Cherry

Hydropower potential for the United States is being analyzed using synthetic hydrographic information derived, in part, from the National Elevation Dataset (NED). AMLs were developed to calculate the hydropower potential for each two-mile stream segment nationwide. The AMLs also determined the type of hydropower technology appropriate for each stream segment. Environmentally sensitive areas were excluded from consideration, to yield a nationwide GIS data layer of available hydropower potential. The U.S. Department of Energy will use the results of this study to determine funding priorities for basic research into hydropower extraction technologies. Results will be distributed using ArcReader and ArcIMS.

Gregory Carroll

Bechtel National, Inc.

Remote Sensing & GIS Center

PO Box 1467

Idaho Falls , ID 83403

USA

Phone: 208-522-2339

Fax: 208-522-4592

E-mail: grcarrol@bechtel.com

Randy Lee

Idaho National Engineering & Environmental Laboratory

PO Box 1625

2213

Idaho Falls 83415

USA

Phone: 208-526-0120

E-mail: ldy@inel.gov

Shane Cherry

Idaho National Engineering & Environmental Laboratory

PO Box 1625

Idaho Falls 83415

USA

Phone: 208-526-1438

E-mail: chersj@inel.gov