



LARE in the law:

IC 6-6-11-12 The establishment and use of the Lake and River Enhancement Fee and the Lake and River Enhancement Fund.

Boat owners pay annual fee to the Bureau of Motor Vehicles based on the value of the boat when new:

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-More than \$10,000 \$25

1/3 of the Lake and River Enhancement Fund is used as grants by the Division of Law Enforcement for additional lake patrols.

2/3 of the Fund goes to LARE program.

1/2 of LARE's portion goes to biological, engineering, design, construction, and watershed land treatment projects.

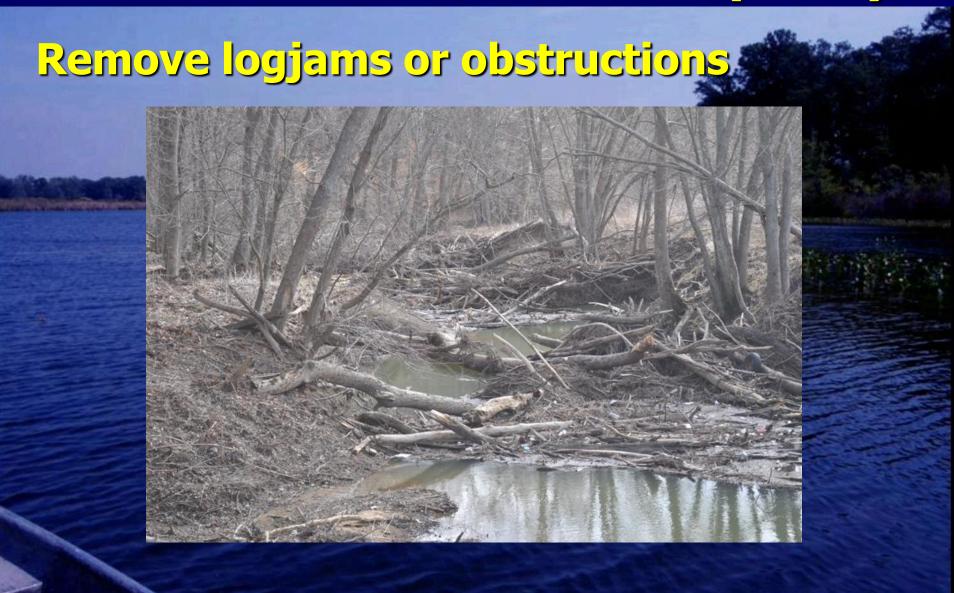




The other half goes for projects to:
Remove sediment (dredge)







LARE was a part of IDNR Division of Soil Conservation from 1987 until creation of Indiana State Department of Agriculture in 2005 when it was moved to the Division of Fish and Wildlife in IDNR.

LARE is now part of the Aquatic Habitat Unit in the Fisheries Section led by Doug Keller, Aquatic Habitat Coordinator.

LARE Staff Contact Information

In Indianapolis:
Greg Biberdorf, LARE Program Manager
Ashlee Haviland, LARE Program Specialist

In Columbia City:
Doug Nusbaum, LARE Program Specialist
Rod Edgell, LARE Biologist

E-mail: lare@dnr.IN.gov

Webpage: www.lare.dnr.in.gov

How are County Soil and Water

Conservation Districts

(SWCDs) involved in the LARE

program?

SWCDs can sponsor projects for:

- a. Watershed Land Treatment
- b. Logjam Removal
- c. Biological, Engineering, and Construction

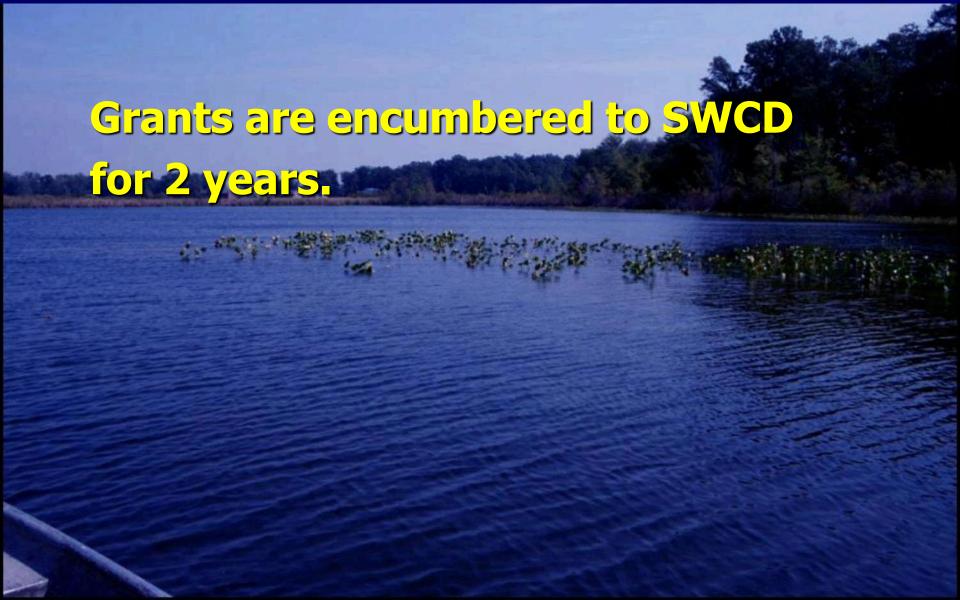
swcd, NRCS, ISDA and IDNR technical personnel envision, design, survey and oversee installation of measures cost-shared with LARE funds.



Watershed Land Treatment (WLT) Agricultural Conservation







80 % Cost share rate for most Practices.

Others have an established flat rate.

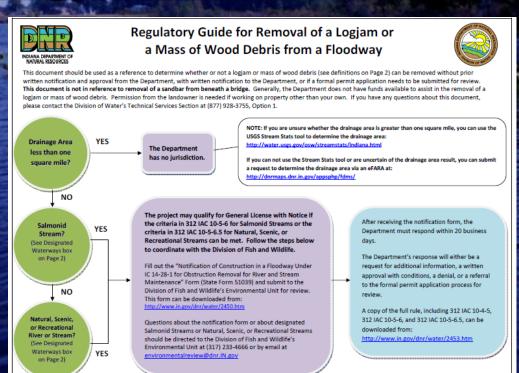


Payments made by Electronic Funds
Transfer (EFT) to SWCD's bank
Account 35 days after date of invoice

The SWCD then pays the landuser who installed practices in WLT projects or contractor on other Projects.



New guide online: http://www.in.gov/dnr/water/files/wa-Logjam_Removal Guide.pdf



NO (Go to Page 2)

In 2011, Legislature added logjam removal to LARE responsibilities.

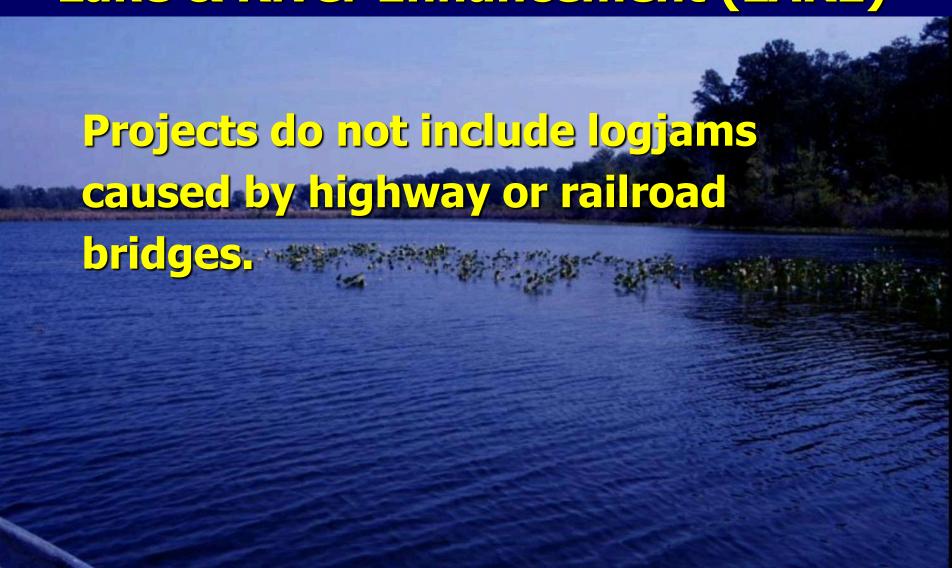
It is the only currently available Funding mechanism for logjam removal by the state at this time.

The SWCD or other entity can sponsor, or act as a go-between with non-governmental or governmental partners in dealing with logjam concerns.

Grants are made to the sponsor, not to individual landowners.

The sponsor must cover 20% of the cost. Up to ½ of that can be in-kind support.







Projects on Indiana's natural, scenic, recreational must comply with DNR Permit requirements. (See guide)

Projects on salmonid streams must comply with written approval of DNR Fish and Wildlife. (See guide)

Goal of projects should be to reduce erosion and sedimentation in streams due to logjams causing undercutting or stream channel changes.

Flooding and recreation effects are secondary factors in the LARE logiam removal program.

To be defined as flood-causing, increase in hydraulic head must be demonstrated.

Removal should minimize impact on aquatic habitat in the river and on the access site for the project.

Priority for grants will be for class III and IV logjams from Indiana

Drainage Handbook.







Aquatic habitat enhancement is a strong emphasis in the grants issued in July for engineering, construction, design, design/build projects.

Many of these projects can be adapted to utilize practices such as riffle pools, j-hooks, lunker boxes, and biologs or willow posts in stabilizing stream or lake banks.



Projects also can involve wetland restoration or creation, and practices to manage stormwater in urban settings.



Modular Approach to LARE Implementation

- Watershed Diagnostic Study
 - Watershed Management Plan or Similar Study
- Engineering Feasibility Study
- Design Study
 - Design/Build
- Construction Project
- Post Project Monitoring

Lake Sullivan Watershed Study - Sullivan County





Lake Sullivan
Sediment Removal Plan and
Nutrient and Sediment Load
Reduction Plan

Sullivan County, Indiana

Prepared for: Sullivan County Park and Recreation Board



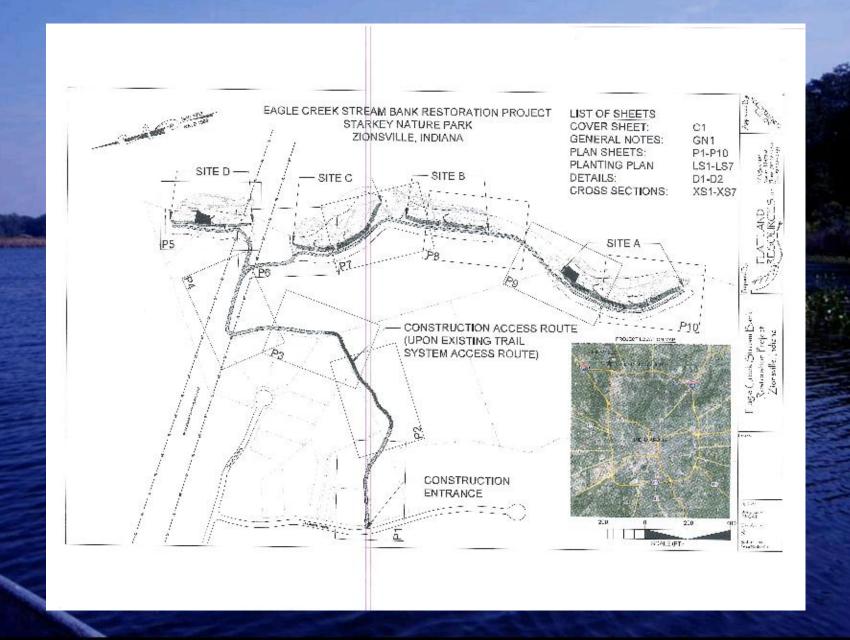
Williams Creek Consulting, Inc. Corporate Office 919 North East Street Indianapolis, Indiana 46202

Satellite Offices

Columbus, Ohio St. Louis Missouri Zurich, Switzerland

1-877-668 8848 info@williamscreek.net

Design – Starkey Park-Eagle Creek-Zionsville



Site C-Before-current project to be completed



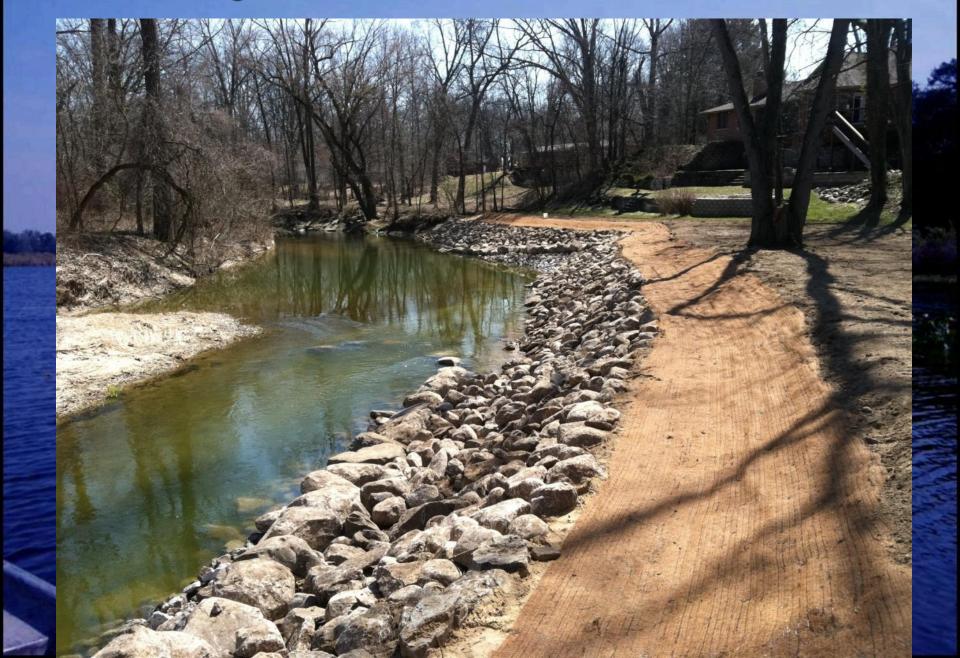
Site D-before-current project to be worked on



Baugo Creek-Elkhart County-Before



Baugo Creek-Post construction-note J hook





Fish Creek before construction of two-stage ditch project

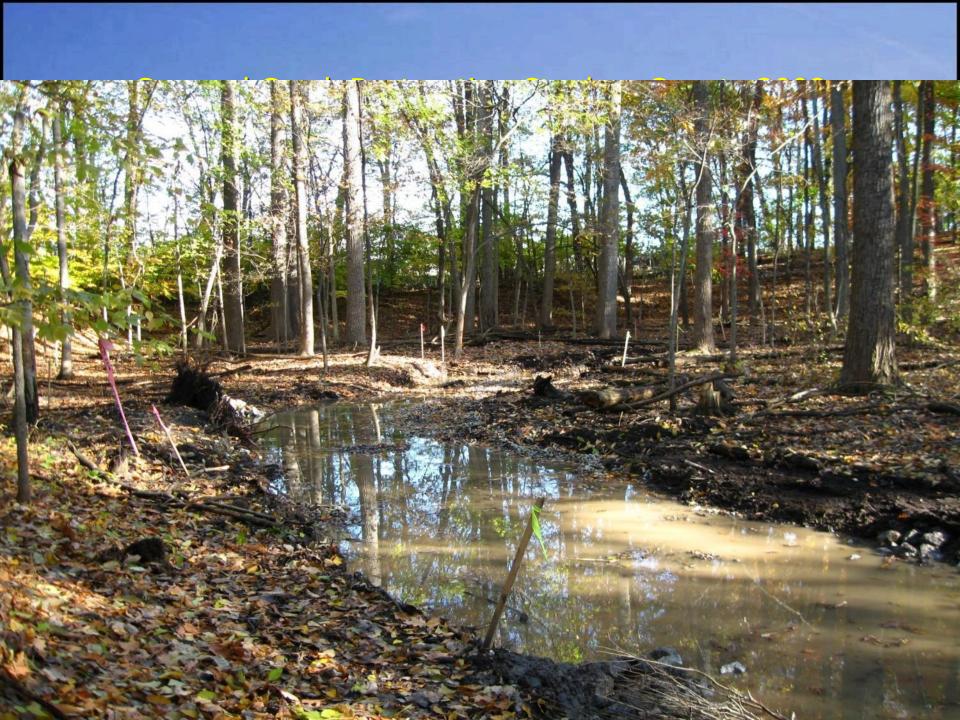


Fish Creek 2-Stage Ditch Construction











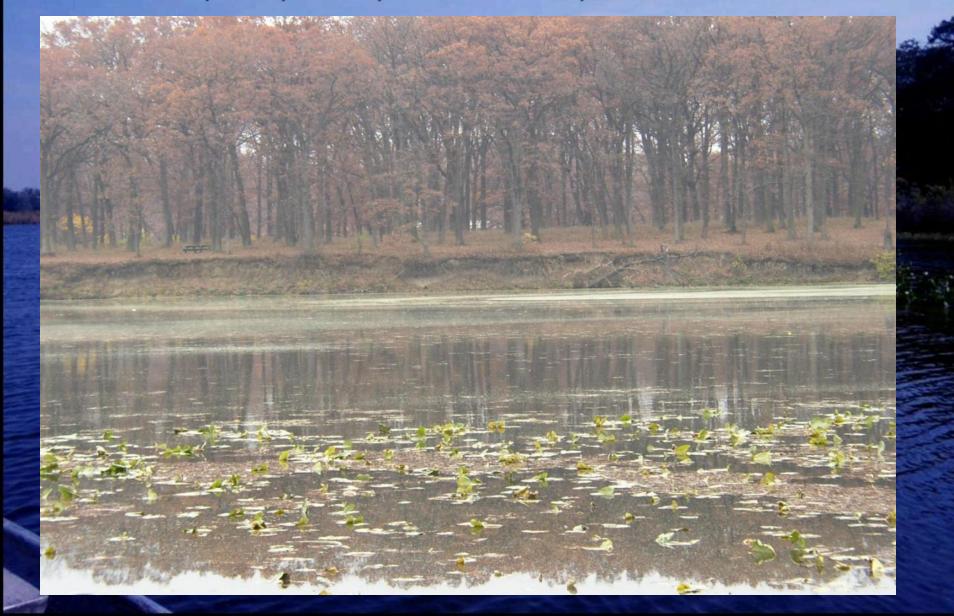








Lake George Shoreline Stabilization-Hobart-Lake County Used LARE, GLC, IDEM, Coastal Zone, and local funds-2006











Winona Lake-Kosciusko County







West Boggs Lake-Daviess-Martin Counties



Blue Lake-Whitley County 2009

Rock toe, coir logs, seeding with plugs

Wetland Restoration-Lake Tippecanoe Watershed-before



After-Kosciusko County

Salt Creek Logjam Removal-Brown County 2013

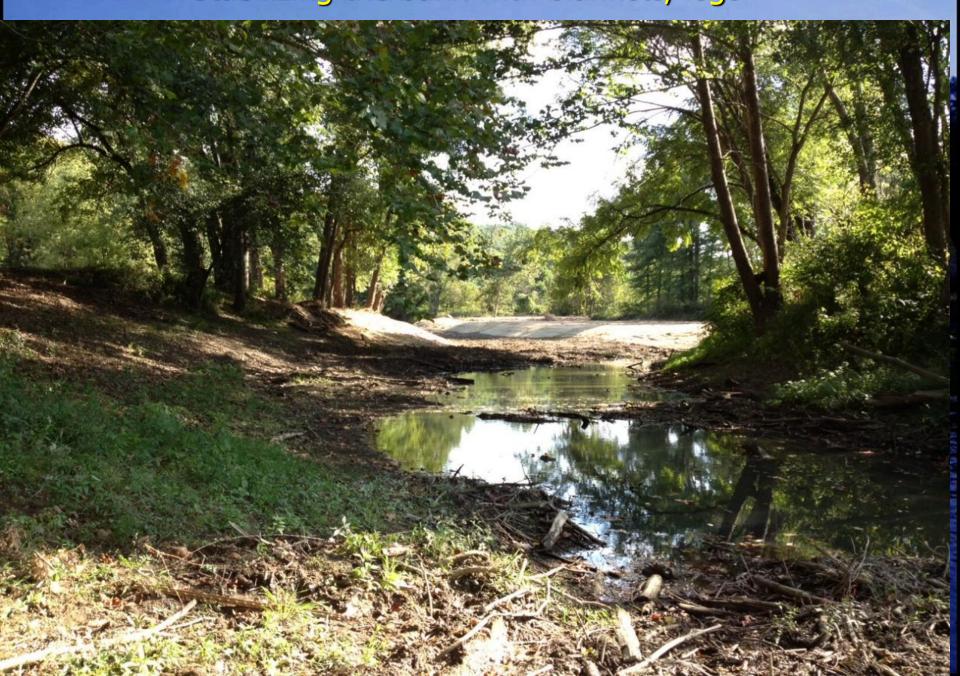








Stabilizing the bank with blankets, logs



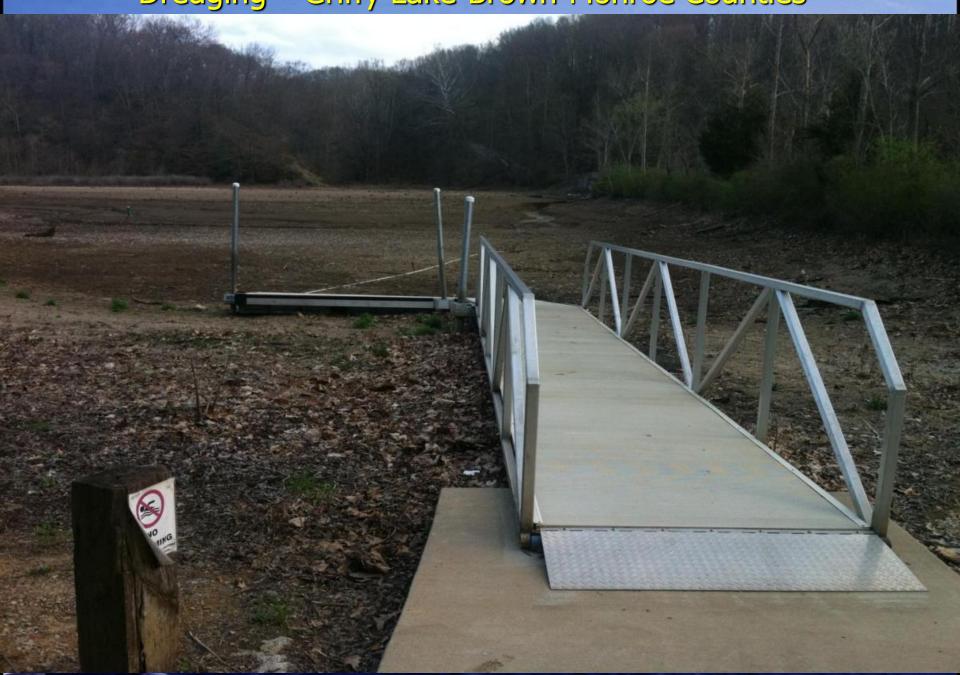
More anchoring with available materials



Using logs to anchor banks



Dredging – Griffy Lake-Brown-Monroe Counties



Area to be dredged after draining



Dredging at Griffey with an excavator







Area dredged near boat rental dock



Two Examples of Hydraulic Dredge Cutter-heads





Mechanical Barge Dredge L'YUNDA: SRS

Geo-Bag Containment





Dewatering Basin Hamilton Lake - Steuben County



Annual grants for all LARE projects average between 1.6 to 2 million dollars annually.

Average about 90-100 active projects total at any given time.

LARE staff produced many of the lake depth maps online for free with this hydroacoustic transducer mounted on one of the LARE boats:







Lake of the Woods Marshall County, Indiana Survey Date: July 7, 2009 Surface Area: 416 Acres HUC: 071200010309

5 foot contours



Scale 1:12,000

0 460 920 1,840 Fee

Indiana Department of Natural Resources Division of Fish and Wildlife Lake and River Enhancement Program (LARE) 2005 Orthophotography A Haviland



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Thank you very much!

E-mail questions to:

LARE@dnr.IN.gov
Website:

http://www.state.in.us/dnr/fishwild/2364.htm



INDIANA DEPARTMENT OF NATURAL RESOURCES