

Members

Sen. Carlin Yoder, Chairperson
Sen. Ryan Mishler
Sen. Lindel Hume
Sen. Richard Young
Rep. Sean Eberhart
Rep. Michael Karickhoff
Rep. Kreg Battles
Rep. David Niezgodski



NATURAL RESOURCES STUDY COMMITTEE

Legislative Services Agency
200 West Washington Street, Suite 301
Indianapolis, Indiana 46204-2789
Tel: (317) 233-0696 Fax: (317) 232-2554

LSA Staff:

Steven R. Wenning, Attorney for the Committee
Kathy Norris, Fiscal Analyst for the Committee

Authority: IC 2-5-5-1

MEETING MINUTES¹

Meeting Date/TIME September 10, 2012 (1:00 P.M.) &
September 11, 2012 (9:30 A.M.)
Meeting Place: Indiana Dunes State Park, Nature
Center Auditorium, 1600 N. CR 25 E.
Meeting City: Chesterton, Indiana
Meeting Number: 2

Members Present: Sen. Carlin Yoder, Chair; Sen. Ryan Mishler; Sen. Lindel Hume;
Sen. Richard Young; Rep. Sean Eberhart; Rep. Michael
Karickhoff.

Members Absent: Rep. Kreg Battles; Rep. David Niezgodski.

Sen. Yoder (Chair) called the meeting to order at 1:10 p.m. After an introduction by members of the Natural Resources Study Committee (Committee) and staff, the Chair called upon the Park Manager of Indiana Dunes State Park to provide the Committee with an update of recent projects at the park.

¹ These minutes, exhibits, and other materials referenced in the minutes can be viewed electronically at <http://www.in.gov/legislative> Hard copies can be obtained in the Legislative Information Center in Room 230 of the State House in Indianapolis, Indiana. Requests for hard copies may be mailed to the Legislative Information Center, Legislative Services Agency, West Washington Street, Indianapolis, IN 46204-2789. A fee of \$0.15 per page and mailing costs will be charged for hard copies.

Brandt Baughman, Park Manager, Indiana Dunes State Park, Department of Natural Resources

Mr. Baughman provided the following information concerning improvement projects occurring at Indiana Dunes State Park since 2004:

- In 2004, the existing 293 space campsite was crowded and run-down. The area for the existing campsites was refurbished and replaced with 160 campsites. Although the number of campsites was reduced, the annual revenue (without a camp fee increase) has risen 40%.
- The parking area near the beach Pavilion used to be very large. In 2005, the upper lot was reconfigured. As a result of the renovation, the Dunes Creek area was restored and the parking lot contained 192 fewer spaces. After completion week day attendance at the park increased.
- In 2006, several improvements were made, including:
 - A safer and more aesthetic gate house was built.
 - The west parking lot was rehabilitated and more spaces were added.
 - The displays in the Nature Center were updated.
- In 2008, a flood damaged the lower parking lot near the Pavilion. Beginning in 2009, a project began to repair the lot and complete the creek enhancement. The number of parking spaces was reduced, but again, the number of visitors that came to the park during the week increased.
- In 2010, the park began to allow persons who kayak to land and launch from the beach. The park is now part of the Lake Michigan Kayak Waterway.
- Other current and future projects include:
 - Installing an environmentally friendly algae-based wastewater treatment plant.
 - Adding landscaping to the Dunes-Kankakee Trail.
 - Constructing a bird observation platform.
 - Upgrading the picnic area.
 - Replacing the Trail 2 boardwalk.
 - Contracting with a vendor to operate a sit-down restaurant, with banquet facilities, at the Pavilion.

Mr. Baughman concluded by stating that the park's revenues for 2012 are on track to be the highest in the park's history.

In response to Committee questions, Mr. Baughman stated the following:

- About 1.1 million people visit the park each year. About 75% of the visitors use the beach.
- Nearly 60% of the park's visitors come from out-of-state, mostly from the Chicago area.
- The extreme summer heat increased the number of beach visitors this year.
- Early start dates for schools dramatically affect both park attendance and park staffing. Many seasonal employees are students.
- Rip currents are dangerous and can be caused by several different factors. There are more drownings on the Great Lakes from rough waves than rip currents. The park has life guards on duty at all times when swimming is allowed in the park. The park has not had a drowning in years.
- Because of a change in state law, the vendor that runs the restaurant will be allowed to serve alcohol. However, alcohol will not be allowed to leave the facility.

Brandon Brummett, Outreach Coordinator, Louisville District, U.S. Army Corps of Engineers

Mr. Brummett delivered a PowerPoint presentation to the Committee providing an overview of the U.S. Army Corps of Engineers (Corps) organizational structure, responsibilities, and programs. (Exhibit # 1) Mr. Brummett's presentation included the following information:

- The Corps is a part of the U.S. Department of the Army. Within the Corps are 38 district offices. The majority of Indiana is within the Louisville District. The northern portion of the state is within the Chicago and Detroit Districts.
- The Corps has the authority and receives appropriations to manage projects involving: navigation; flood and storm risk; aquatic ecosystem restoration watershed planning; emergency management; and regulatory programs. The Corps also has authority to assist (but no authority to budget) in the areas of: hydropower; recreation; and water supply.
- The Olmsted lock and dam project along the Illinois/Kentucky border is the Louisville District's largest ongoing project. This project will cost almost \$3 billion when completed. A new dam and a set of locks are being constructed and two old locks and dams on the Ohio River will be removed.
- Some programs and projects require a funding match from state and local governments.

In response to Committee questions, Mr. Brummett stated the following:

- Navigation projects are not cost shared with the states.
- Specific projects used to be funded through federal earmarks. The use of earmarks has been reduced, so now funding comes through a general appropriation.

John Davis, Deputy Director, Department of Natural Resources

Mr. Davis noted that during the drought this past summer, the Corps was helpful to the community of Jasper by releasing water from the Patoka Reservoir to help the municipal water supply.

Dani Cummins, Executive Director, Falls of the Ohio Foundation, Inc.

Ms. Cummins spoke to the Committee about the Falls of the Ohio Foundation's Crossroads Campaign. (Exhibit # 2) Her presentation included the following information:

- The Falls of the Ohio Foundation's Crossroads Campaign goal is to raise \$9.5 million to: redesign and create new exhibits; expand the Interpretive Center; and establish an endowment to maintain the building and exhibits.
- The Falls of the Ohio Interpretive Center has had the same exhibits since 1994. To date, \$3.7 million of the \$5.5 million has been raised for the new exhibits.
- The exhibits will cover the following themes: an ancient sea; a changing land; converging cultures; and the falls today.
- The exhibits will be coordinated to fit with the educational standards for Indiana and Kentucky schools.
- When the existing bond on the Interpretive Center is paid off, the building will be transferred to the Department of Natural Resources (DNR). Revenues from the Interpretive Center will also go to DNR. The Foundation would like assurances that the money raised at the Interpretive Center stays at the Interpretive Center.

In response to Committee questions, Ms. Cummins stated the following:

- The State of Indiana has given money in the past to help with planning costs.
- The Interpretive Center is located on land leased by DNR from the U.S. Army Corps of Engineers. The building is owned by the city of Clarksville.

Senator Ron Grooms, State Senate District 46

Senator Grooms stated that the Falls of the Ohio Interpretive Center is used regularly by school children in both Indiana and Kentucky. The State has provided money to the Interpretive Center in the past. He would like to see the State of Indiana provide money to finish the project.

Chris Smith, Legislative Director, DNR

Mr. Smith presented the following information:

- DNR is looking clarify certain concepts and streamline certain laws concerning fish and wildlife. (Exhibit # 3) Some of the current requirements for nonresident licenses are administratively cumbersome.
- DNR does not have plans to establish a limited bobcat hunting season. (Exhibit # 4) Bobcats are territorial with a range of up to 20 square miles. DNR is conducting a study to determine the population of bobcats in south-central Indiana.
- Beginning in 2013, DNR will allow a targeted trapping season for river otters.
- Several states (e.g. Missouri; Kansas) have passed laws allowing purple paint to be used to signify that trespassing is not allowed. (Exhibit # 5) Indiana has a criminal trespassing law. Indiana also has an effective law concerning hunting without consent (IC 14-22-10-1) which does not require the owner to post any sign.
- Noodling (i.e. catching fish barehanded) is illegal in public waters in Indiana. Reasons for its prohibition include the fact that noodling usually takes place during spawning season, as well as the problems experienced by many states with noodlers placing items in the water to attract the fish that end up becoming debris in the river.
- DNR does not believe that the use of sound suppressors while hunting poses a safety issue. Suppressors reduce sound but, unlike the "silencers" in the movies, do not eliminate the noise. There are federal laws that require a federal permit to own a suppressor.
- Migrating geese are protected under an international treaty. During hunting season there is a daily bag limit of five non-migrating geese per day. Indiana will be adding a third goose hunting season. Permits can be obtained to destroy goose nests.
- During the 2012 legislative session a bill was introduced to further limit the use of spotlights during deer hunting season. Farmers do not like spotlights illuminating their homes and barns. Some poachers use the lights to locate deer.

Ellen Jacquart, Director of Northern Indiana Stewardship, Indiana Chapter, The Nature Conservancy

Ms. Jacquart presented the following information concerning invasive species:

- According to the federal definition an "invasive species" is a non-native species that causes harm.
- In 2009, the Invasive Species Council was created. The Council has created work groups to help with its responsibilities.

- The Invasive Plant Assessment Work Group is developing best management practices to help reduce the spread of invasive species.
- In 2006, a pamphlet was created that identified several invasive plant species. (Exhibit # 6) This year a new pamphlet was created that lists plants based on the risk they present. (Exhibit # 7)

In response to Committee questions, Ms. Jacquart stated the following:

- DNR has the authority to adopt rules to prohibit the sale of invasive plant species. The invasive aquatic plant species rule took a year to adopt. The State Entomologist worked well with the commercial groups to develop and implement the rule.
- Cooperative weed management areas work to bring various landowners together to control invasive plants through education, demonstration projects, and identifying alternative plantings. Indiana has four CWMA's that cover most of the state.
- Crownvetch is no longer used by the Indiana Department of Transportation.

The Chair recessed the meeting at 4:30 p.m.

The Chair reconvened the Committee at 9:45 a.m. on September 11, 2012.

Bill Weeks, Chair, Indiana Sustainable Natural Resources Task Force

Mr. Weeks presented a progress report from the Indiana Sustainable Natural Resources Task Force (ISNRTF). (Exhibits # 8 & # 9) Mr. Weeks presentation included the following information;

- The ISNRTF began meeting in August of 2011 and has met almost every month since that time.
- Indiana's top natural resources were identified as water and soil.
- Proposed recommendations include the following:
 - Consolidate state authority for flood control, drainage, and planning for water availability and distribution into a new state entity.
 - By 2030, have 30% of Indiana's crop-land managed using advanced soil building methods.
 - Reduce levels of particulates, ozone, and mercury in the air through innovative policies that address vehicle emissions and power generation.
 - Maintain the state's current percentage of forest cover and expand the contiguous boundary of state forest lands. Additional technical assistance will be needed for private landowners.
 - Protect significant and unique natural lands through acquisition and conservation easements.

Mr. Weeks stated he would appreciate feedback from the Committee members as ISNRTF works on its final report, which is due this year.

Mark Palmer, Attorney, Taft, Stettinius and Hollister

Mr. Palmer provided the Committee with a general background of the involvement of the Taft law firm's involvement in the area of conservancy districts.

Alan Hux, Attorney, Taft, Stettinius and Hollister

Mr. Hux provided the Committee with an overview of the state laws and procedures involved in establishing a conservancy district. His presentation included the following information:

- The law allowing conservancy districts to be established was enacted in 1954.
- There are limited defined purposes in statute (IC 14-33-1-1) for which a conservancy district may be established.
- A defined percentage of the freeholders in the proposed conservancy district must sign a petition and present the petition to the Circuit Court to begin the process to establish the district.
- At least four hearings must take place (e.g. Circuit Court; Natural Resources Commission) to determine if the six required criteria are met to establish a conservancy district.
- The Circuit Court has the ultimate authority to decide if a conservancy district is established.
- A conservancy district may cross county boundaries.

In response to Committee questions, Mr. Hux stated the following:

- The percentage of required signatures for the initial petition varies from 5-30% depending on the number of people who live in the proposed district.
- A petition will fail if a remonstrance contains the signatures of 51% of the freeholders or the owners of 66.7% of the property value in the district.

Representative Mara Candelaria Reardon, State House District 12

Representative Mara Candelaria Reardon stated that she had filed a bill during the last legislative session to increase the percentage of freeholders needed to file the initial petition for a conservancy district. The problem arose when the City of Gary collected the total 5% of the signatures needed for the entire proposed conservancy district area. The proposed conservancy district area crossed the county boundary and included other municipalities. The majority of the other communities opposed the petition but the petition could go forward because the 5% signature threshold was met. The legal challenges resulted in high legal costs to the parties. She would like to see either a higher percentage of signatures required or a requirement that the 5% number be met in each jurisdiction in the proposed conservancy district boundary.

Tom DeGiulio, Town Manager, Town of Munster

Mr. DeGiulio stated that the conservancy district problem arose after the 2008 flood along the Little Calumet River. At the time, each town along the river was responsible for the maintenance of its own levees. The system was only as strong as its weakest link. A series of rains and a blockage caused the waters to go over the tops of the levees. The Little Calumet River Basin Commission was already established to manage the levee system. A question arose as to who would have authority if a conservancy district was established. Requiring signatures from 5% of the freeholders in an area containing 500,000 people seems too low. The law should be amended to reflect the differences between urban and rural areas.

Mike Molnar, Program Manager, Indiana Lake Michigan Coastal Program (Coastal Program), DNR

Mr. Molnar provided the Committee with an overview of the Indiana Lake Michigan Underwater Archaeological Resource Project. (Exhibit # 10) His presentation included the following information:

- The Great Lakes contain over 6,000 shipwrecks. This is more than the number of shipwrecks along all the United State's surrounding ocean coasts.
- It is estimated that 50-100 shipwrecks are located in Indiana's part of Lake Michigan.
- The first assessment of Indiana shipwrecks took place between 1982-85. It was noted that divers had removed many items from the wrecks to keep as souvenirs.
- An assessment is under way to locate shipwrecks through sonar location and diving. Some wrecks appear to have been buried under sand since their original discovery.
- The Coastal Program is developing a management plan for all the known shipwrecks.
- The Coastal Program is hoping to encourage diving tourism by creating web-based information on the wrecks, developing coastal and on-site informational plaques, and working with historical and diving organizations.

Representative Dick Dodge, State House District 51

Representative Dodge stated that he had served the last 12 years as a member of the Lake Management Work Group (Work Group) and was the Chair of the Work Group as they prepared their final report. Representative Dodge distributed information on the Work Group's final recommendations, a news release on the Work Group, and a spreadsheet that analyzes the number of the Work Group's recommendations that have been resolved over the past 12 years. (Exhibit # 11) Representative Dodge concluded by stating that an entity is still needed to advocate lake-related issues at the state level.

Representative Nancy Dembowski, State House District 17

Representative Dembowski stated that the Work Group provided a great forum for a broad number of lake related issues (e.g. pier length standards) and a place where local citizens could receive information about issues affecting their lakes. She concluded by stating that Indiana is just beginning to understand the value of its lakes.

The Chair adjourned the meeting at 11:30 a.m.

“Corps 101”

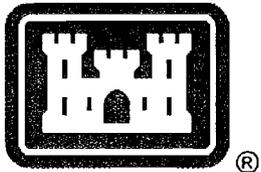
US Army Corps of Engineers – Louisville District

Brandon Brummett

Outreach Coordinator

USACE Louisville District

Sep 10, 2012



US Army Corps of Engineers

BUILDING STRONG®



Organizational Structure



**Assistant Secretary
of the Army
(Civil Works)
Washington, D.C.**



**Headquarters
Washington, D.C**

**DIVISIONS
8 Regional Offices**

**Districts
38 Local Offices**



BUILDING STRONG®

Military Boundary

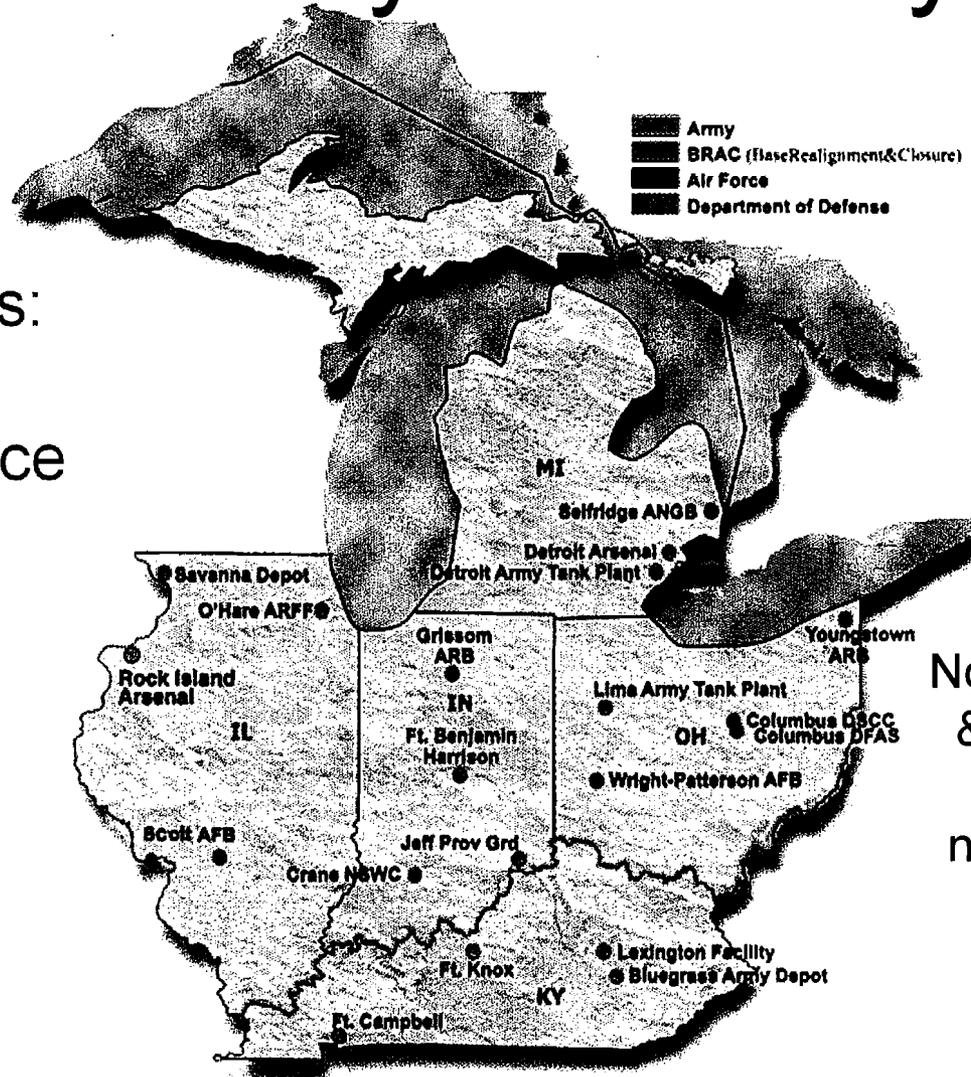
Installations:

7 Army

5 Air Force

6 BRAC

3 DOD



Note: Louisville's Army & Air Force Reserve Programs are nationwide, including Puerto Rico.



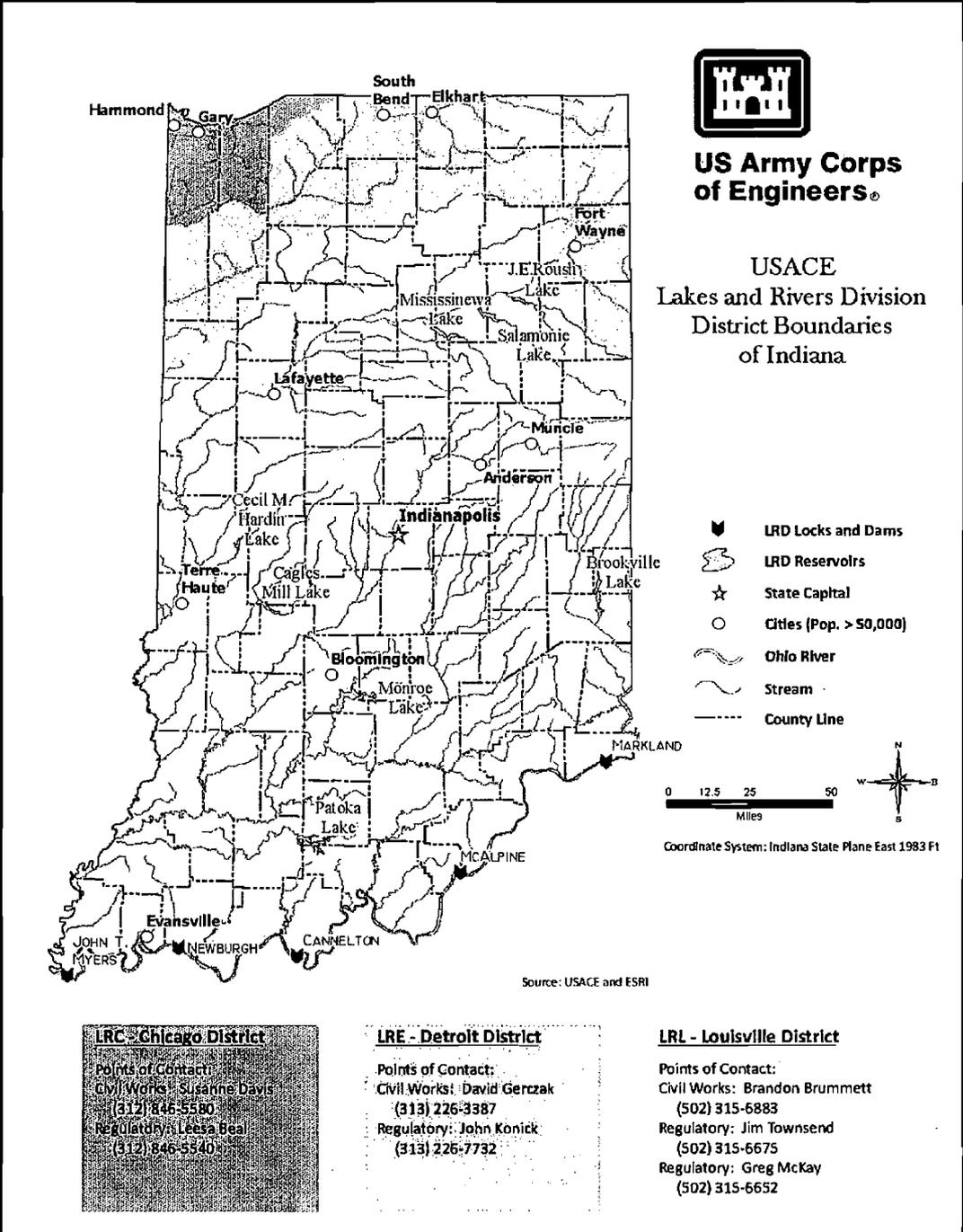
Civil Works Business Lines

- **Navigation**
- **Flood and Storm Risk Management**
- **Aquatic Ecosystem Restoration**
- **Watershed Planning**
- **Emergency Management**
- **Regulatory Program**

- **Hydropower**
- **Recreation**
- **Water Supply**

**Note: items below this line
are not budget-able**

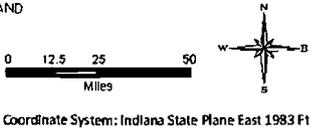




**US Army Corps
of Engineers®**

**USACE
Lakes and Rivers Division
District Boundaries
of Indiana**

- LRD Locks and Dams
- LRD Reservoirs
- State Capital
- Cities (Pop. > 50,000)
- Ohio River
- Stream
- County Line



Source: USACE and ESRI

LRD - Chicago District
 Points of Contact:
 Civil Works: Susanne Davis
 (312) 846-5580
 Regulatory: Leesa Beal
 (312) 846-5540

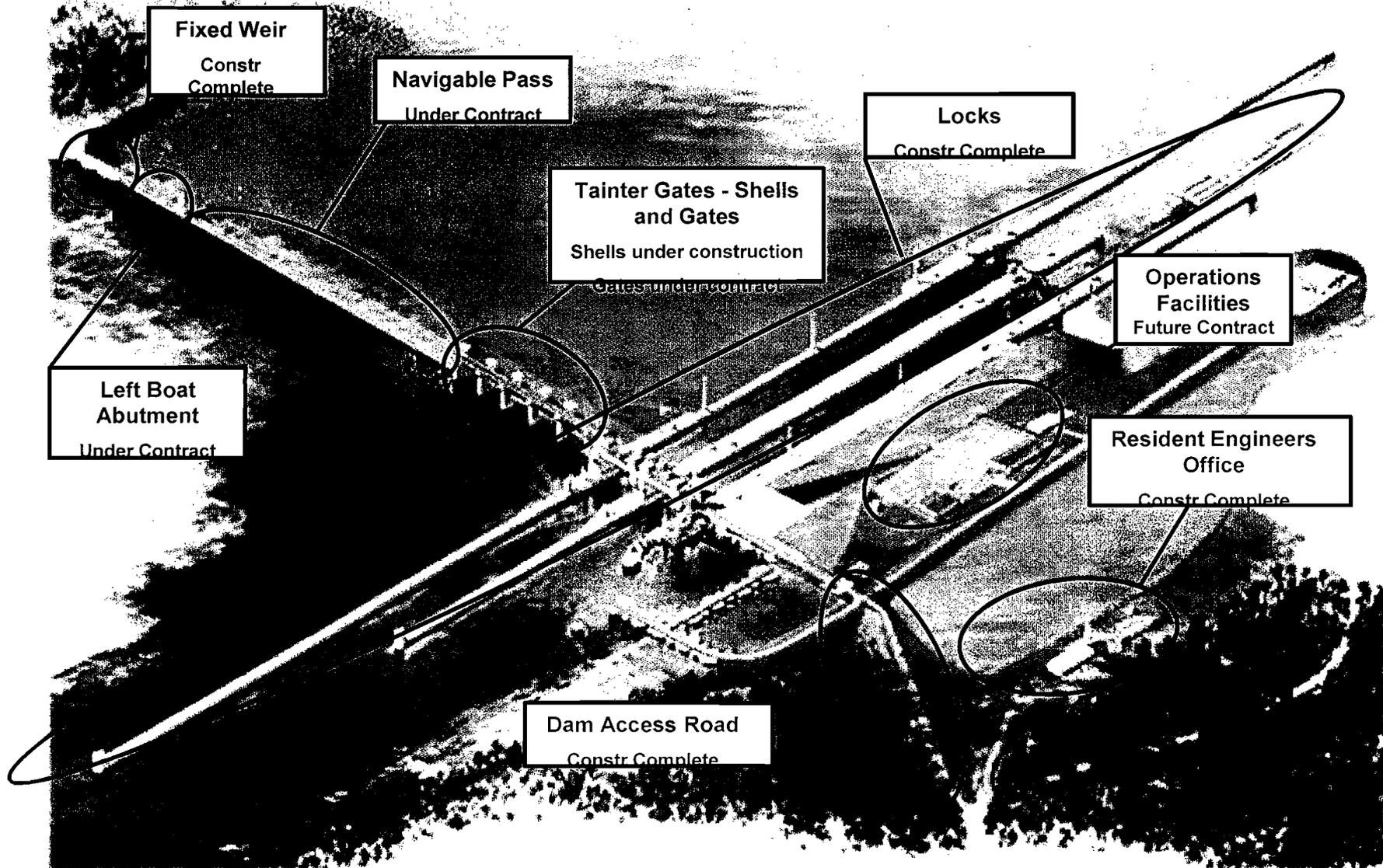
LRE - Detroit District
 Points of Contact:
 Civil Works: David Gerczak
 (313) 226-3387
 Regulatory: John Konick
 (313) 226-7732

LRL - Louisville District
 Points of Contact:
 Civil Works: Brandon Brummett
 (502) 315-6883
 Regulatory: Jim Townsend
 (502) 315-6675
 Regulatory: Greg McKay
 (502) 315-6652



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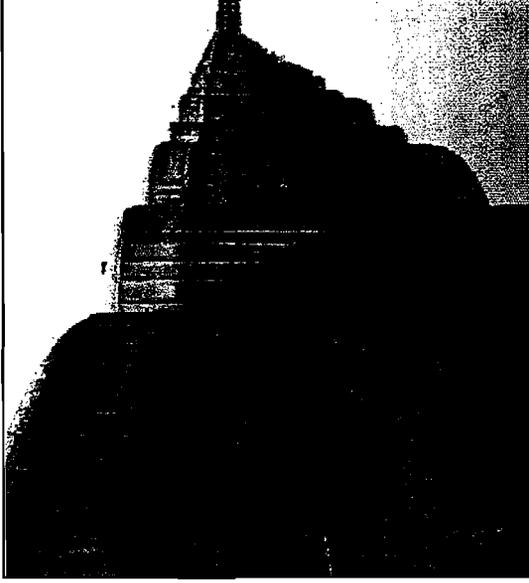
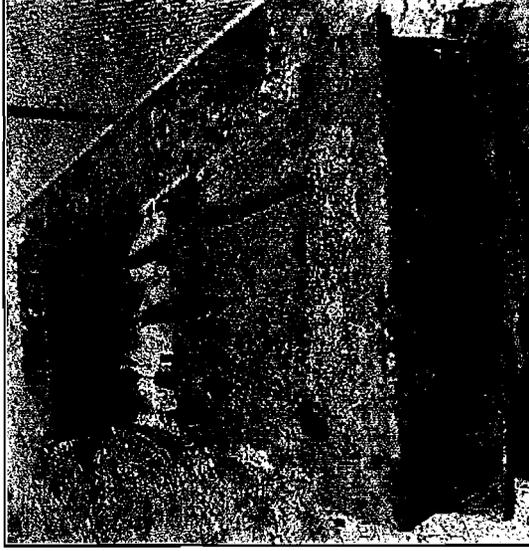
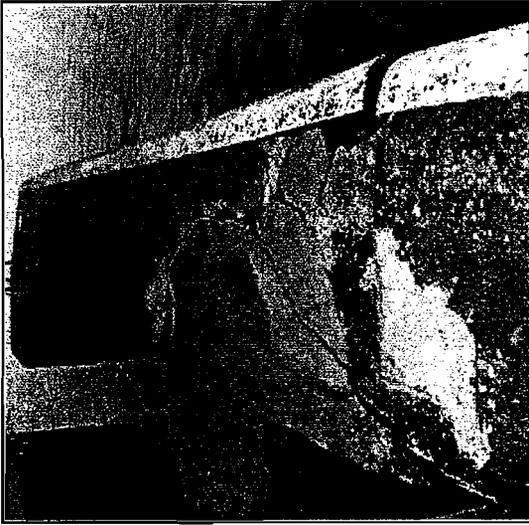
Olmsted Locks & Dam Project



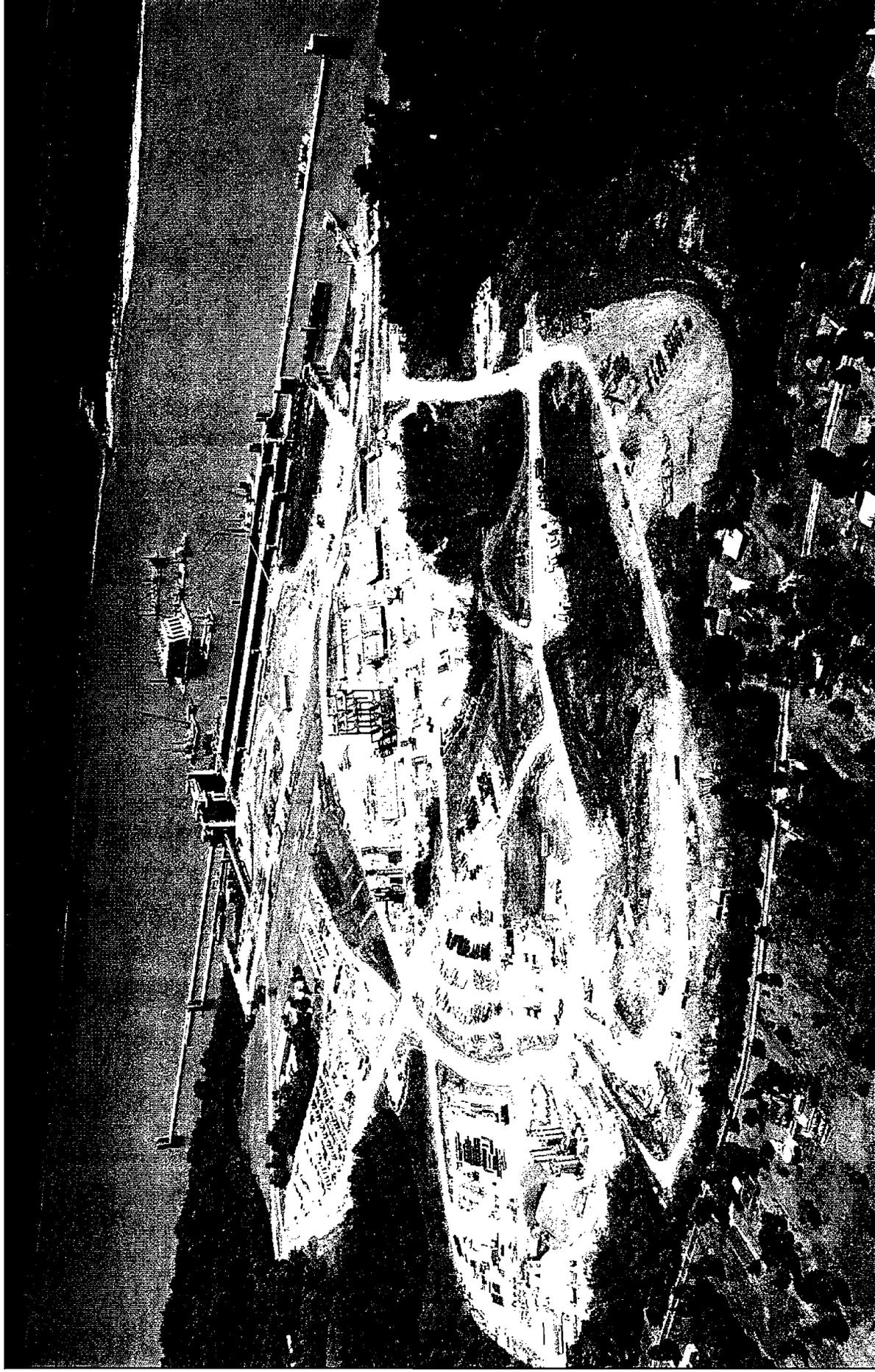
Under Contract / Construction

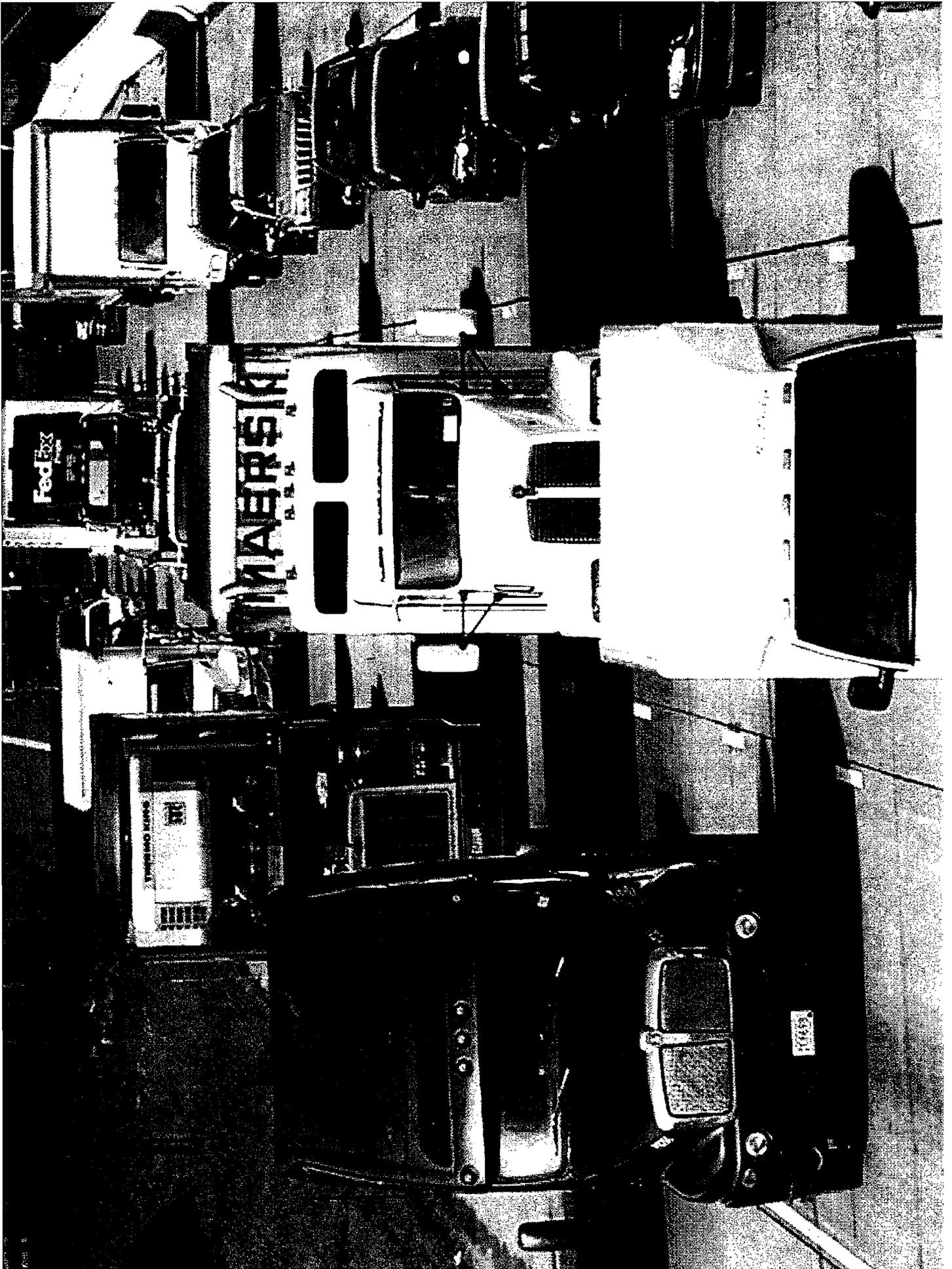
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Challenges: L&D 52 & 53



Olmsted Dam Project - August 2012





It Takes Two to Tango

■ Authorization

- ▶ Study, program, or project
- ▶ Water Resources Development Act (WRDA)
- ▶ Committee resolution



■ Appropriation

- ▶ Approval to obligate and expend funds for an authorized study, program, or project
- ▶ Annual Energy & Water Development Appropriation Act (EWDA)



Key Policy and Laws

- **Flood Control & WRDA**

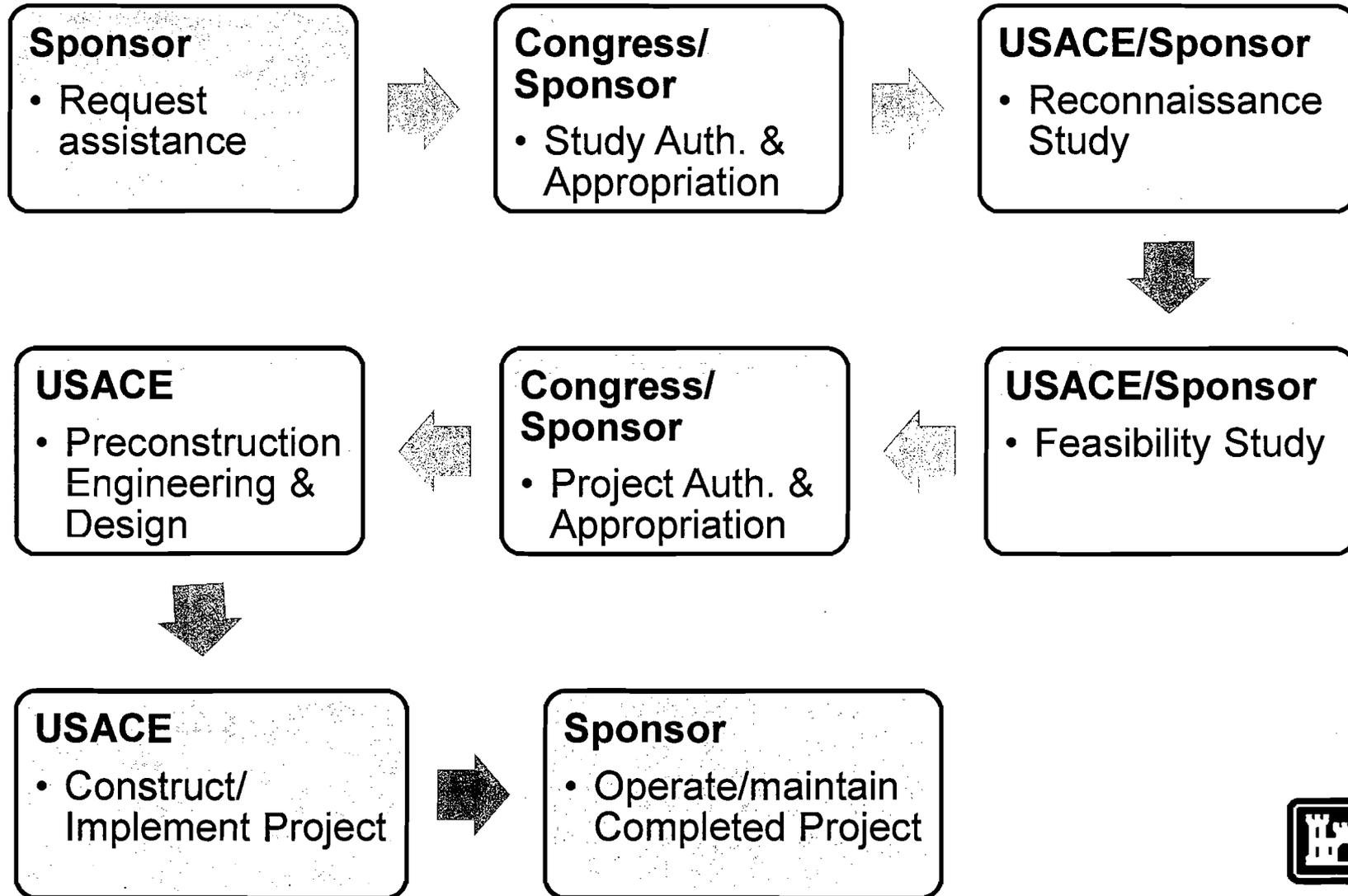
- ▶ 1936 FCA – benefits exceed costs (benefit cost ratios)
- ▶ 1986 WRDA – cost sharing required for most projects

- **Laws, Statutes and Executive Orders**

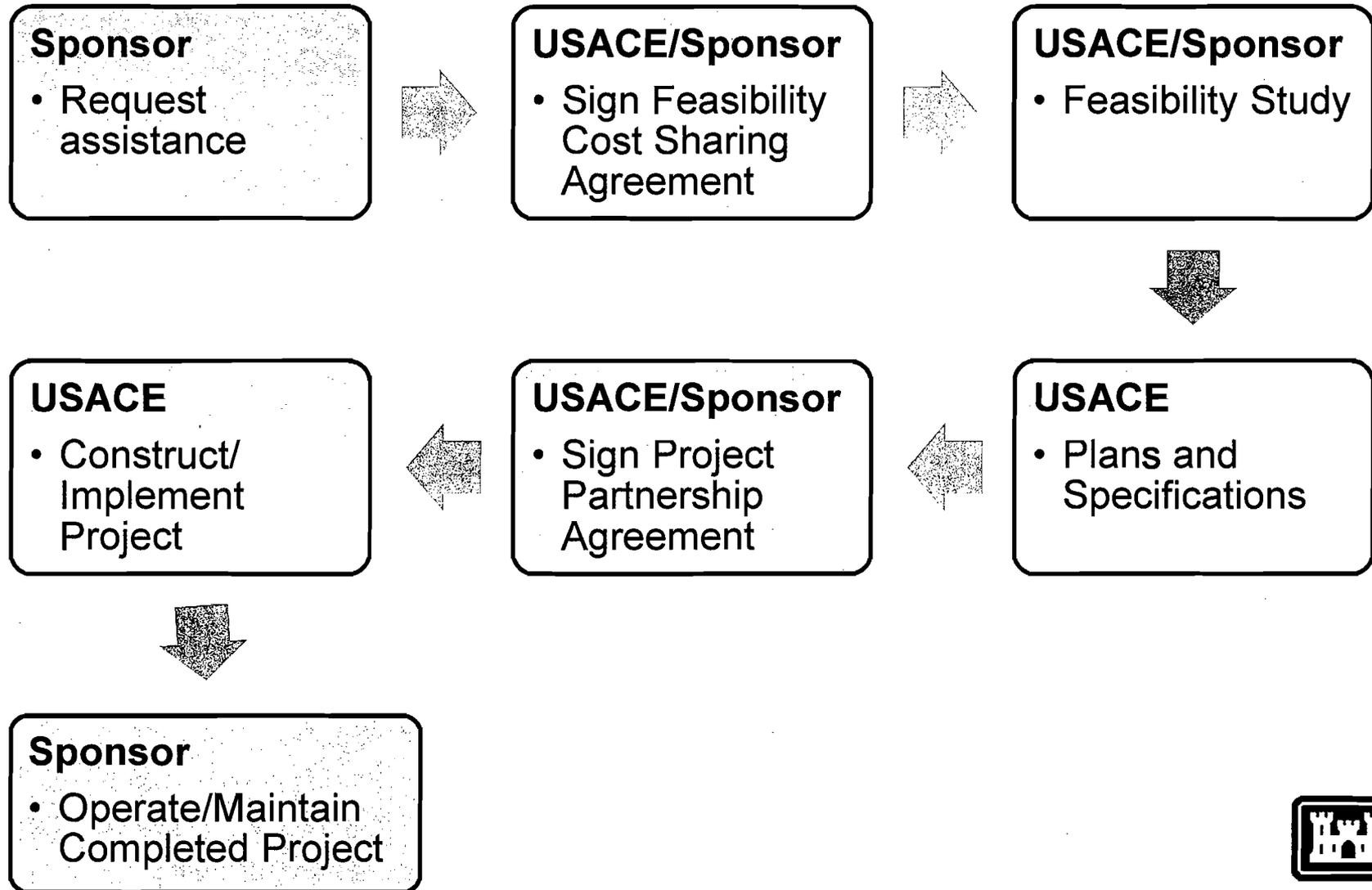
- ▶ National Environmental Policy Act
- ▶ Clean Water Act
- ▶ National Historic Preservation Act
- ▶ EO 11988 – Flood Plain Management



Specifically Authorized Project Overview



Continuing Authorities Project Overview



Continuing Authorities Overview

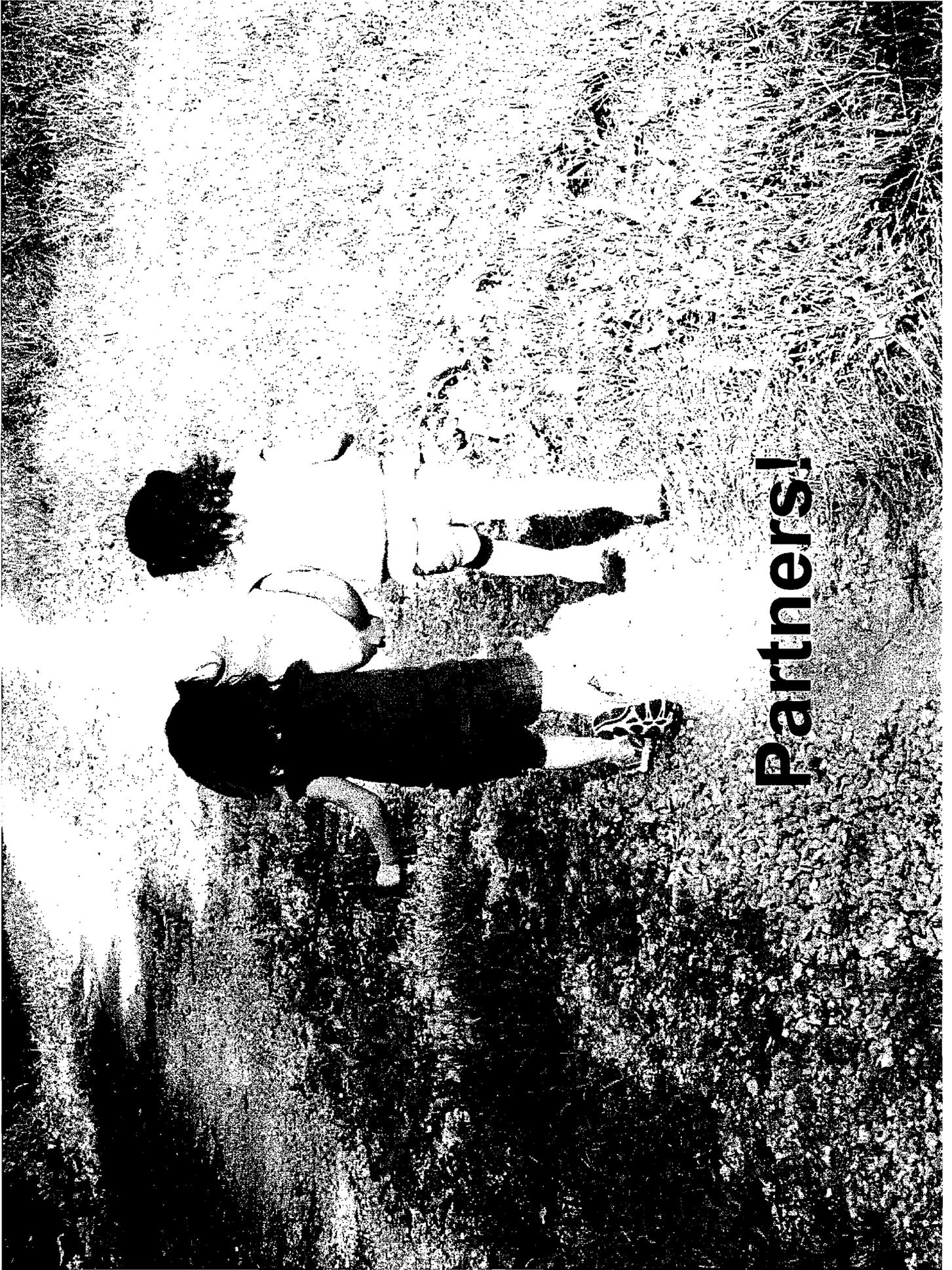
Authority	Description	Project Cost Limit (\$M)	Program Cost Limit (\$M)
14	Emergency Bank Stabilization	1.5	15
107	Navigation	7	35
205	Flood Risk Management	7	55
208	Flood Snagging/Clearing	0.5	7.5
206	Aquatic Restoration	5	40
1135	Ecosystem Restoration	5	25



Other Programs & Authorities

- **Environmental Infrastructure (Section 219, 594, 531)**
- **Planning Assistance to States (Section 22)**
- **Flood Plain Management Services Program**
- **Emergency Management (PL 84-99)**
- **Silver Jackets**





Partners!

For Further Information

COL Luke T. Leonard
Commander and District Engineer
502.315.6102

Mr. Steve Durrett, P.E.
Deputy District Engineer
502.315.6104

Ms. Sharon M. Bond
Chief, Planning Branch
502.315.6857

Mr. Brandon R. Brummett, P.E., PMP
Outreach Coordinator
502.315.6883

Ms. Susan M. Toutant, P.E., PMP
Executive Liaison Officer
502.315.6105

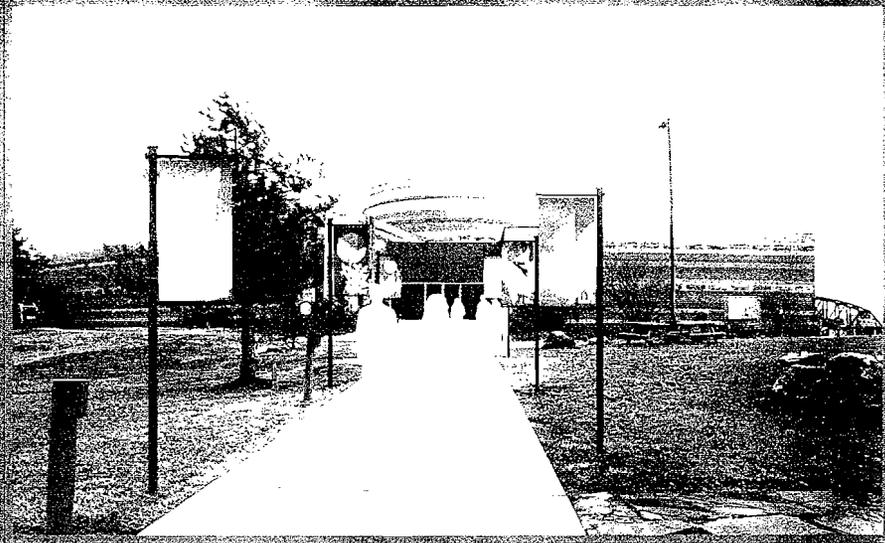


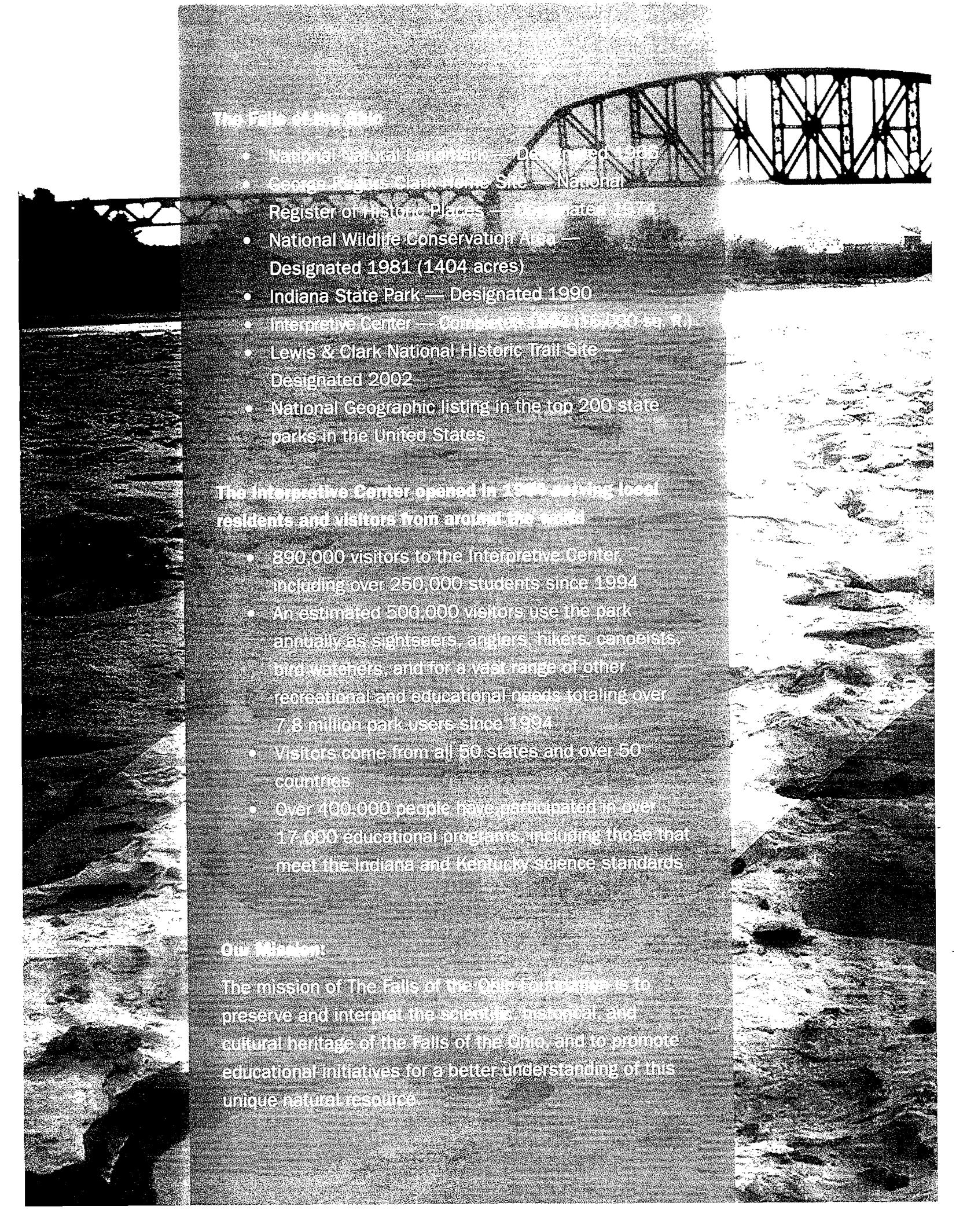
[Scan with your smart
phone to visit our
outreach website]



NRSC Exhibit # 2
Sept. 10 & 11, 2012

The Falls of the Ohio Foundation presents
THE CROSSROADS CAMPAIGN





The Falls of the Ohio

- National Natural Landmark — Designated 1986
- George Rogers Clark Home Site — National Register of Historic Places — Designated 1974
- National Wildlife Conservation Area — Designated 1981 (1404 acres)
- Indiana State Park — Designated 1990
- Interpretive Center — Completed 1994 (16,500 sq. ft.)
- Lewis & Clark National Historic Trail Site — Designated 2002
- National Geographic listing in the top 200 state parks in the United States

The Interpretive Center opened in 1994 serving local residents and visitors from around the world

- 890,000 visitors to the Interpretive Center, including over 250,000 students since 1994
- An estimated 500,000 visitors use the park annually as sightseers, anglers, hikers, canoeists, bird watchers, and for a vast range of other recreational and educational needs totaling over 7.8 million park users since 1994
- Visitors come from all 50 states and over 50 countries
- Over 400,000 people have participated in over 17,000 educational programs, including those that meet the Indiana and Kentucky science standards

Our Mission:

The mission of The Falls of the Ohio Foundation is to preserve and interpret the scientific, historical, and cultural heritage of the Falls of the Ohio, and to promote educational initiatives for a better understanding of this unique natural resource.

AT THE CROSSROADS OF WATER, TIME, AND LIFE

Falls of the Ohio Exhibit Campaign

To Our Friends—

In 2006, we set out on an adventurous capital campaign to re-energize the compelling story that has been told and retold for generations at the Falls. Our two-phase campaign goal has grown to \$9.5 million to achieve the full vision of the exhibit design task force. The first-phase campaign goal of \$6.5 million allows us to redesign and replace the 16-year-old exhibits at the Falls of the Ohio State Park

Interpretive Center, and establish a \$1 million endowment.

The second-phase campaign goal of \$3 million will allow for the building expansion, including a second floor exhibit gallery/community room.

In creating new exhibits, our goal is as ambitious as it is essential to preserving the long-term well-being of the Falls, a vital cultural and natural resource for our community. To date, we have raised more than \$1.5 million—for the new exhibits. Now we're turning to generous people like you to help us keep the momentum going.

The new exhibit design will replace current exhibits with state-of-the-art immersive experiences emphasizing four key themes of the region's scientific, cultural, and natural history, and strengthen the connection between the Interpretive Center and the outside fossil beds. The four themes are:

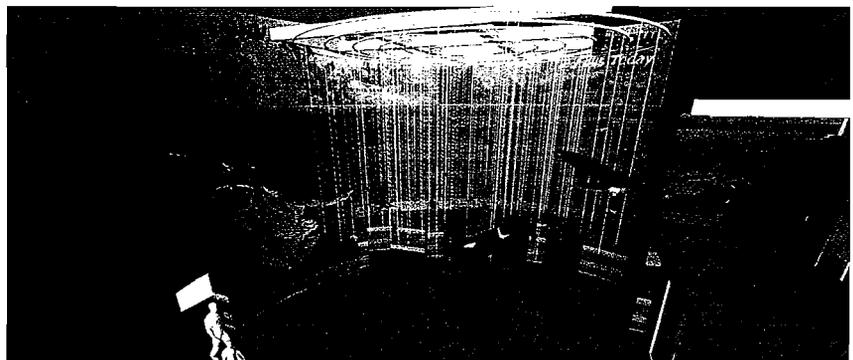
An Ancient Sea A Changing Land Converging Cultures The Falls Today

All of us have been drawn here to this crossroads where geography, science, ecology, history, and culture cross paths. We need your financial support to help frame the story of our heritage, the environment, and our shared future at the Falls. This is a story for all of Southern Indiana, the Greater Louisville region, and the world. So whether your

gift is large or small, please join us. Together, we can unite community support and collective vision... at The Falls.

Diane Swank
Board President
The Falls of the Ohio Foundation, Inc.

Dani Cummins



"As a kid, we used to play here, camp out here, in the caves by the beds. We learned lessons about life, about trust, about ourselves. I can't think of a more important place to preserve in this community."

—**Charlie Ridenour**

2002 Indiana Department of Natural Resources State Parks and Reservoirs Volunteer of the Year

1997 Falls of the Ohio State Park Volunteer of the Year

WAYS TO PARTICIPATE IN THE CROSSROADS CAMPAIGN...

■ Make a one-time contribution to the campaign with cash, check, or credit card charge

■ Extend the timeframe and amount of your contribution by pledging your gift over a two or three year period

■ Leverage your contribution by accessing employer-provided match dollars (if available)

■ Give a gift of appreciated stock or securities (per our Gift Acceptance Policy)

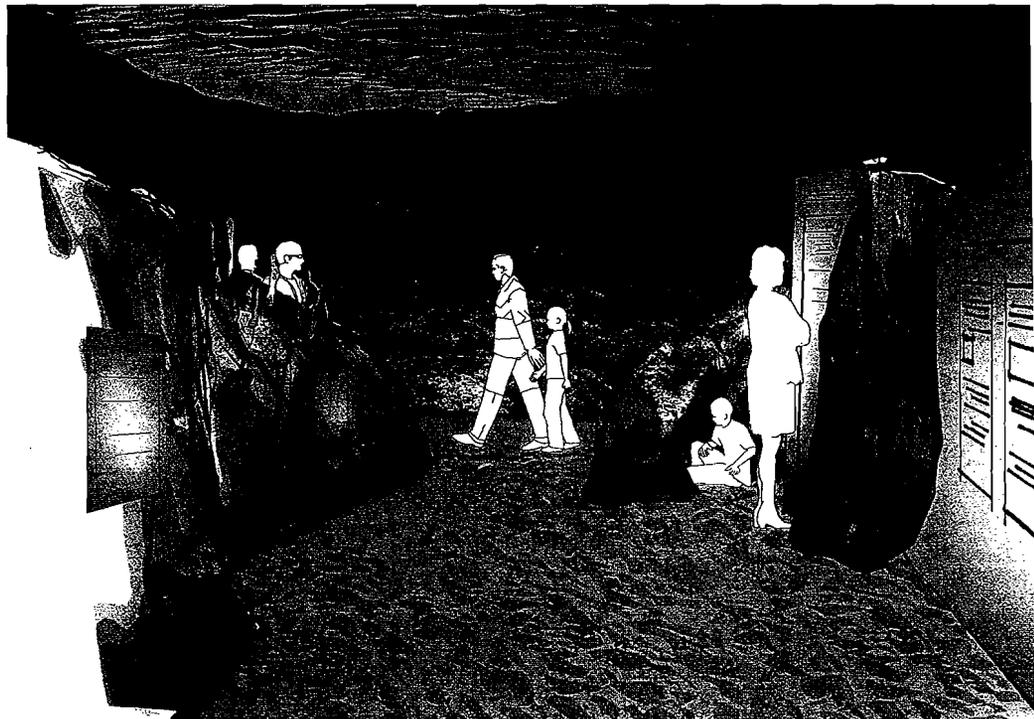
■ Double the impact of your gift—make a cash or pledge gift to the campaign now, and include The Falls of the Ohio Foundation in your estate plan so future exhibit and program enhancements may also benefit from your generosity



"The Falls of the Ohio is so much more than a local asset—it is a heritage site of national and international value. We are happy to support the plan to upgrade the Interpretive Center and make it still more relevant for a new generation of students, scholars, residents and tourists."

—Christi and
Owsley Brown

Owsley Brown
Charitable
Foundation



WE ARE SO APPRECIATIVE OF OUR DONOR PARTNERS in this project, and we want to recognize your generosity. The following are naming opportunities and recognition levels that exist in the Crossroads Campaign:



NAMING OPPORTUNITIES

- \$500,000** — Major Film Sponsor
- \$150,000** — Rotunda Sponsor
- \$100,000** — River Room Sponsor
- \$75,000** — Classroom Sponsor
- \$50,000** — Outdoor Interpretation Area Sponsor
- \$50,000** — Wildlife Viewing Room Sponsor
- \$25,000** — Co-sponsor of one of four Thematic Exhibits

LEVELS OF RECOGNITION AND GIVING

- All donors who participate in the Crossroads Campaign at the \$10,000 level or above will also be recognized on signage displayed prominently in the Interpretive Center.
- All donors at all levels will be recognized on the Falls of the Ohio State Park website.

Explorer **\$10,000+**

Discoverer **\$5,000 — \$9,999**

Adventurer **\$1,000 — \$4,999**

Voyager **\$500 — \$999**

Navigator **Up to — \$499**

PROJECT TIMELINE

Concept Development — Completed 2009

Project Design — Completed 2010

Fabrication — Completed 2014

Installation and Grand Opening — 2014

“A
not somet
you arrive at
Over 20 years a
people saw what they
was the original vision
area, to really enjoy
natural beauty that re
This new exhibit project
concepts...capture all
ideas. This is the
the Falls of

Communit
Falls



THE COMPLETION OF THE CROSSROADS CAMPAIGN, and the installation of new exhibits at the Falls of the Ohio Interpretive Center will:

■ Highlight Southern Indiana as a world-renowned academic destination for geologists, ecologists, historians, archaeologists, and others who study the fossil beds and their interpretation.



Photo: Richard Fields / IDNR

■ Promote the Falls of the Ohio as a sought-after tourist destination for everyone to experience the best exposed Devonian fossil beds in the world.

■ Enhance the educational opportunities available to school children by imparting a story rich in science and history in a medium that compliments today's learning styles.

■ Contribute to the "quality of life" and economic development of the region by supporting the local and regional hospitality market.

■ Encourage users to embrace a healthy lifestyle by offering safe, interesting options for recreation and fitness.

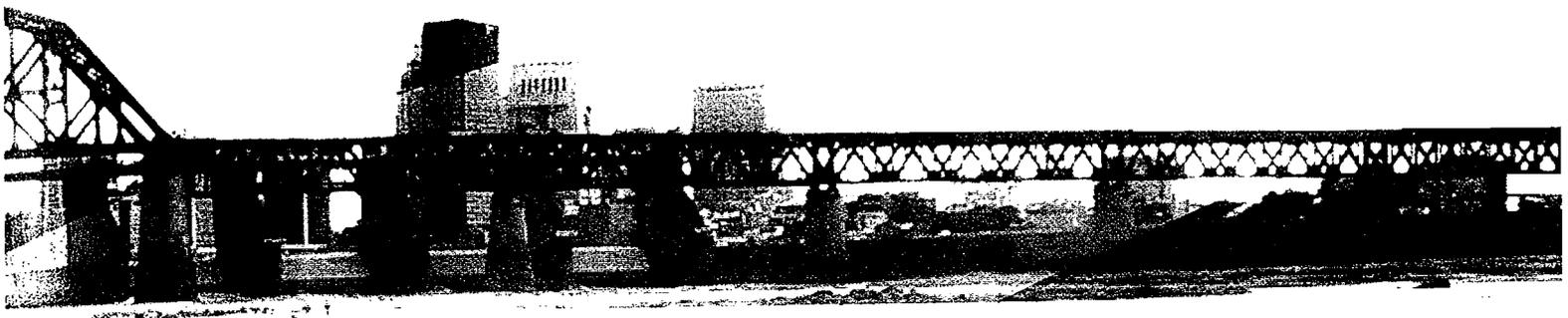


Photo: Chuck Branham / News and Tribune

"Imagine: at the Falls of the Ohio you can walk over the surface of an ancient coral reef that flourished when shallow seas covered much of North America 380 million years ago! The Falls of the Ohio with its fossil coral reef is without a doubt one of America's unique geographical sites, and is a precious part of our natural heritage, and a resource for education."

—David L. Meyer, Ph.D.

University of Cincinnati



Dani Cummins
Executive Director

The Falls of the Ohio Foundation, Inc.
201 W. Riverside Dr.
Clarksville, IN 47129

(812) 283-4999
Fax (812) 280-7110

dani@fallsoftheohio.org
www.fallsoftheohio.org



The Falls of the Ohio Foundation, Inc.
201 West Riverside Drive
Clarksville, IN 47129
812-283-4999 • www.fallsoftheohio.org



The Falls of the Ohio Foundation

CROSSROADS

Fall 2011

Crossroads Campaign Update



The Crossroads Campaign for New Exhibits continues to make progress. With \$3.1 million of a \$5.5 million goal completed, we are well past the half way point. 2011 has seen the completion of the Rotunda Revitalization, for which we celebrated our "official" ribbon cutting on October 13, 2011. The exhibit theme banners, blown glass sculpture, and mammoth's prominent relocation have all injected a new life and energy into the Rotunda and into the campaign, and we are excited for successes that are yet to come. We are still in the process of matching the \$500,000.00 Challenge Grant awarded to this project by the Paul W. Ogle Foundation, and every dollar received from you helps us to complete this challenge. Special thanks are also given to the Clark-Floyd Counties Convention and

Tourism Bureau and the Duke Energy Foundation for recent grants made to assist with the match requirement.

In 2012, we intend to focus additional attention on constituency groups that have historically shown allegiance to the Falls so that we are able to match their passion for the organization with the philanthropic efforts underway. Further, we are currently contemplating which elements of the Crossroads Campaign that we have the capacity to undertake so as not to lose the momentum that has resulted from the Rotunda's completion.

For our Crossroads Campaign donors and Patron members, we will be having our annual Holiday Reception and Program on Thursday, December 1, 2011. We are so fortunate to have Ms. Donna Lawrence of Donna Lawrence Productions available to speak with us about our plans to re-master the Orientation Film into High Definition technology. She intends to bring examples of film clips to show the remarkable difference between the film quality and clarity of yesterday and today. Look for your invitation in early November.



New this year in our gift store – we will have holiday ornaments that exemplify the sun and moon in our new blown glass sculpture. Come visit with us and be the first to own these treasures!



The Falls of the Ohio Foundation

201 West Riverside Drive

Clarksville, IN 47129

812.283.4999

www.fallsoftheohio.org

Coats for Kids Drop Off Site through November 4!

The Falls of the Ohio Foundation is one of the drop-off sites for the Coats for Kids campaign, sponsored by Insight Communications, Clear Channel Media, Nu Yale Dry Cleaning, and regional Rotary International clubs. Between now and November 4, 2011, bring new or gently used coats, hats, gloves, scarves, and mittens to the Falls and place them in the collection bin. Items will be laundered by Nu Yale and will be distributed to Boys and Girls Clubs, Goodwill Bridgepointe, and Way Side Christian Mission. Thank you in advance for helping us keep Southern Indiana kids warm this winter!





Be a Member at the Falls!

Annual membership provides the following benefits:

- 10% Discount in Falls Gift Shop
- 10% Discount on engraved bricks and seat plaques
- Discount for children to Falls Summer Day Camp
- Discount at Wooded View Golf Course
- Falls of the Ohio Newsletter
- Falls of the Ohio Parking Tag

Friend—\$25

- Annual Membership Benefits
- Two tickets to Interpretive Center

Associate—\$50

- Annual Membership Benefits
- Five tickets to Interpretive Center

Sponsor—\$100

- Annual Membership Benefits
- Indiana State Park Pass allowing five people free unlimited admission to the Falls Interpretive Center, as well as entitling user and vehicle occupants free unlimited admission to all other Indiana State Parks
- Private fossil bed tour at your request

Patron—\$200

- All Sponsor-level Benefits; and,
- Subscription to *Outdoor Indiana* magazine
- An invitation to the Annual Patron Dinner



Support the Crossroads Campaign for New Exhibits

The Crossroads Campaign is a \$5.5 million campaign to raise funds for interactive new exhibits at the Falls of the Ohio Interpretive Center. The exhibits will focus on four key themed galleries: An Ancient Sea, A Changing Land, Converging Cultures and The Falls Today. These exhibits will be immersive, interactive, have multi-media components, be engaging to various types and ages of visitors, and will impart information in a way consistent with regional education standards.



Levels of giving to the Crossroads Campaign include the following:

- Navigator Up to \$499
- Voyager \$500—\$999
- Adventurer \$1,000—\$4,999
- Discoverer \$5,000—\$9,999
- Explorer \$10,000+

Multi-year pledge contributions and matching gifts are appreciated.

Make a gift today to a “Mammoth Appeal”



The Falls of the Ohio Foundation helps support the educational mission of the Falls of the Ohio State Park. We are able to accomplish this task through the generosity of donors just like you, who contribute on an annual basis to our cause.

Your contribution to the “Mammoth Appeal”, the Falls’ annual fund raising drive, will help us to provide additional equipment and supplies to the Park Naturalists, offer exciting programs to children, families, educators and the public, and meet other needs of the Foundation and the Interpretive Center. Your gift will be used judiciously and with great attention paid to the impact of the investment.

We appreciate you and look forward to partnering with you as we accomplish our mission now and in the future!

Build a Legacy for the Falls’ Future



The Falls of the Ohio Foundation has an endowment fund at the Community Foundation of Southern Indiana, whose proceeds are used to ensure the sustainability of all activities and programs that take place at the Falls. If you would like to make a gift to the endowment or are considering including the Falls Foundation in your will, please contact us today!

Yes! I want to support the Falls today!



Enclosed is my contribution to the Membership Program!

- Friend—\$25.00
- Associate—\$50.00
- Sponsor—\$100.00
- Patron—\$200.00

Enclosed is my contribution to the Crossroads Campaign!

- Navigator—up to \$499
- Voyager—\$500-\$999
- Adventurer—\$1000-\$4999
- Discoverer—\$5000-\$9999
- Explorer—\$10,000 & up

Enclosed is my contribution to a Mammoth Appeal!

- \$50.00
- \$100.00
- \$200.00
- Other Amount _____

Please send me more information about how I can leave a legacy gift to the Falls!

- Send more info.
- I have already included the Falls in my will.
- My employer will match any gift I make.

Name _____

Address _____

Phone: Home _____ Work _____ Cell _____

E-Mail _____

Method of Payment

- Check
- Bill Me
- Visa
- MasterCard
- Discover

Make check payable and mail to:

The Falls of the Ohio Foundation
201 W. Riverside Drive
Clarksville, IN 47129

Credit Card # _____ Exp. date _____

Signature _____

The Falls of the Ohio State Park and Falls Foundation

The Falls of the Ohio State Park and Interpretive Center have been serving local residents and international visitors since 1994. More than 500,000 visitors use the park annually as students, sightseers, anglers, hikers, canoeists, and other recreationalists. The Interpretive Center has hosted over 950,000 guests since its opening.



The Falls of the Ohio Foundation is a non-profit organization whose mission it is to preserve and interpret the scientific, historical, and cultural heritage of the Falls of the Ohio, and to promote educational initiatives for a better understanding of this unique natural resource.



THE FALLS OF THE OHIO FOUNDATION, INC.

201 W. Riverside Drive
Clarksville, IN 47129
(812) 283-4999
www.fallsoftheohio.org



Find us on Facebook!

Ways to Give to the Falls!



**The Falls of the Ohio:
At the Crossroads of Water,
Land, Time, & Life**

CROSSROADS CAMPAIGN



Join the Falls of the Ohio Foundation, the Indiana Department of Natural Resources, the Town of Clarksville, and the entire community as we begin to rediscover, reconnect, and re-energize the Falls of the Ohio State Park Interpretive Center's internal exhibits and external features. A geographic, scientific, ecological, historic, and cultural **crossroads** – the Falls of the Ohio is a treasure for all of Southern Indiana, the Greater Louisville region, and the world.

We need your help to continue to tell our story well into the 21st century and beyond. Look for more information to come in the near future about how your support and our vision can meet... at the crossroads.

Campaign Goals

Exhibit Redesign and Fabrication (Includes Architecture and Contingencies)	\$5.5 Million
Endowment for Maintenance, Repair, Updates, etc.	\$1 Million
Building Expansion (Phase II of Project)	\$3 Million
Campaign Total	\$9.5 Million

Major Donors to Date

American Water	Indiana Department of Natural Resources
Brown-Forman	James Graham Brown Foundation
C. E. & S. Foundation	Owsley Brown Charitable Foundation
Clark-Floyd Counties Convention & Tourism Bureau	Sam Shine Foundation
Community Foundation of Southern Indiana	The Gheens Foundation
Duke Energy Foundation	The Paul Ogle Foundation
Falls of the Ohio Lewis & Clark Bicentennial Committee	Town of Clarksville
Glenn & Marilyn Montgomery Tribute Gift	W. L. Lyons Brown Foundation
Horseshoe Foundation of Floyd County	Your Community Bank
	Anonymous





The Falls of the Ohio... A Crossroads of Water, Land, Time and Life

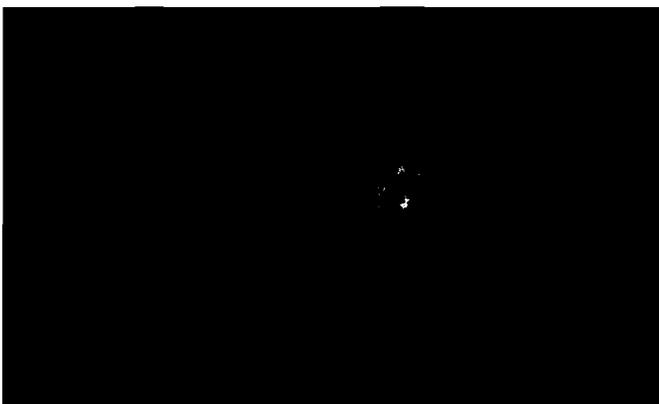


An Ancient Sea: A visitor experience that enables exploration of the shallow tropical sea that once covered the area that is now the Falls of the Ohio State Park. Explains the life forms that existed 400 million years ago, the remnants of which are found on the fossil beds today.

A Changing Land: Glacial shift, the river's formation and the impetus of prehistoric culture that formed here are a few of the highlights. Special emphasis is also placed on the study of prehistory and the fields of archaeology and paleontology.



Converging Cultures: Explores the conflict that ensued between Native American tribes that were indigenous to our area and the European settlers that ventured here. A highlight will be the virtual Lewis & Clark: At the Falls of the Ohio multi-media experience, wherein the visitor becomes immersed in the history and with the people of the Corps of Discovery's great westward journey.



The Falls Today: After traveling through time, the visitor experiences the most recent era of history at the Falls. Emphasis is placed on the flora and fauna found here, the river's role in transportation and economic development, and environmental conservation.



**Be a part of history! Support the Crossroads Campaign today and help us reach our \$500,000 Challenge Match.
Call the Foundation at (812) 283-4999!**

2013 Fish & Wildlife Legislative Concepts

Nonresident Turkey Hunting Licenses

- Remove the requirement in IC 14-22-12-1(21), (23), (27), and (28) for a nonresident to purchase another hunting license in addition to the nonresident turkey license and game bird habitat stamp if the nonresident's state of residence requires the same for Indiana residents.
- It is difficult to enforce this requirement when states can change their requirement without our knowledge.

Nonresident Trapping Licenses

- Remove the requirement in IC 14-22-12-1(7) that a nonresident trapping license be issued only to a nonresident that gives Indiana residents similar trapping privileges in their state of residents.
- The DNR does not believe that this prohibition is necessary, and that any nonresident should have the ability to purchase a nonresident trapping licenses, regardless of the trapping privileges for nonresidents in other states. It is difficult to enforce this requirement when states can change their requirement without our knowledge.

Field Trial Permit

- Repeal IC 14-22-24-5 that prohibits a nonresident from training, working, or exercising a dog in Indiana at any time when Indiana residents are not permitted to train, work, or exercise a dog in the nonresident's state.
- This language is unnecessary with our high raccoon population. It is also difficult to enforce this requirement when states can change their requirement without our knowledge.

Fur Buyer's License

- Change the date for Licensed Fur Buyers to submit reports to the department IC 14-22-19-6.
- The DNR recently changed the date for the sale of carcasses by hunters and trappers to May 15 of each year, which is the same as the date when a report is currently due by the licensed fur buyer.
- The DNR would like to remove the deadline for the reports from the statute and instead make the report due by the date established in this article (312 IAC 9-10-12).

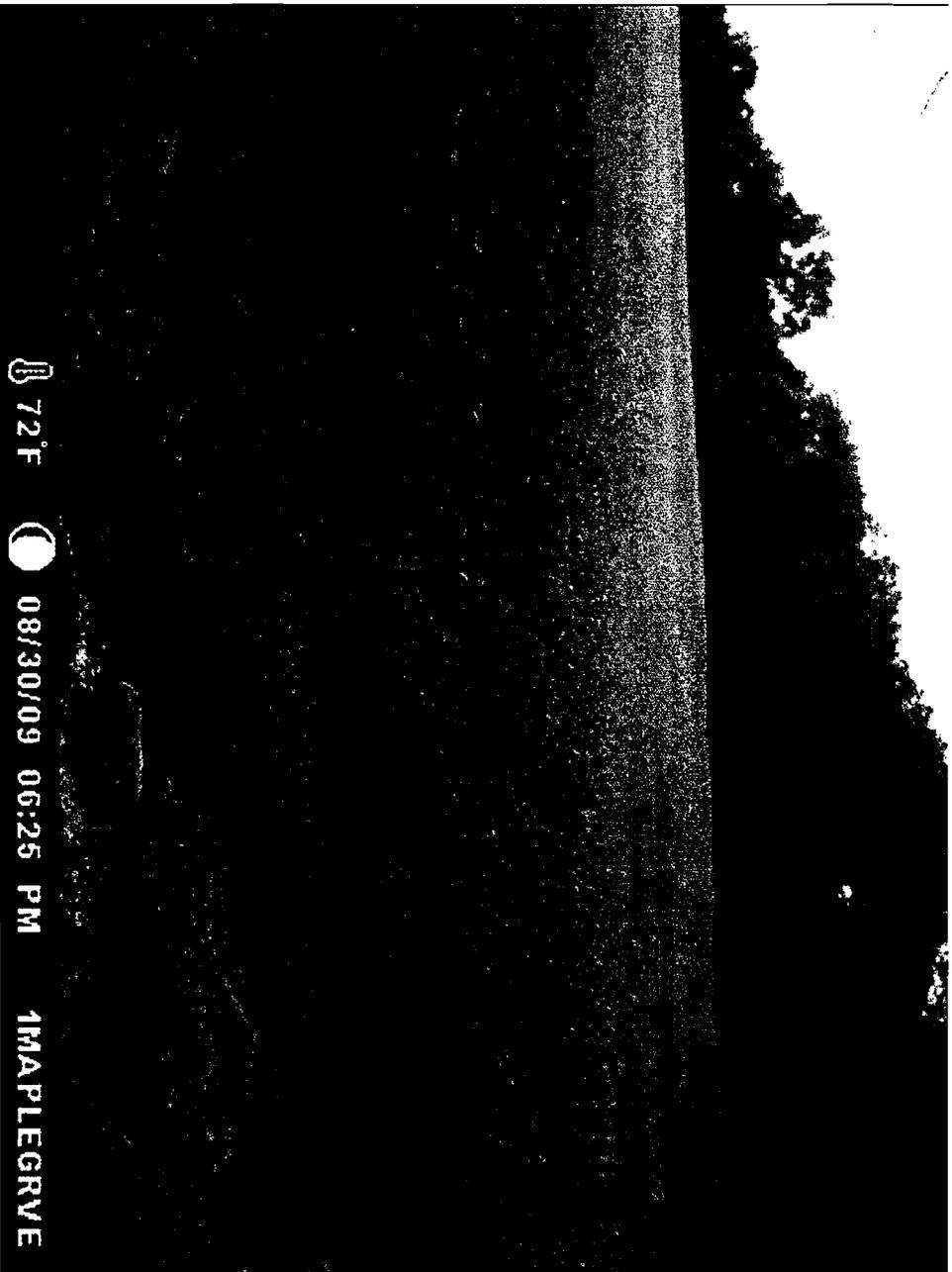
Definition of Minnow

- The definition of “minnow” in IC 14-8-2-167 is problematic because in (2), it specifies, “the young of all species of fish that are not protected by law.”
- The “young” of all species is subjective and can mean the young of the year or a fish that has not yet reached its normal size.
- “Species of fish that are not protected by law” is also problematic because it is unclear as to what species these include; it can include those that are not endangered and have no size or bag limit, but it could be interpreted to include any species that we do not define in rule (312 IAC 9-6-1) or have any type of regulation.
- The DNR would like to see this amended to give the department the authority to include only those species of fish specifically named in statute.

Expiration Date of License

- The expiration date of annual hunting, fishing, and trapping licenses is March 31 “of the year following the year in which the license became effective” in IC 14-22-11-4.
- A legal question was raised this year regarding a license that is purchased and effective on March 1, 2012 expiring on March 31, 2012 instead of March 31, 2013.
- A modification to the current language appears to be needed to clarify the intent.

Bobcats in Indiana



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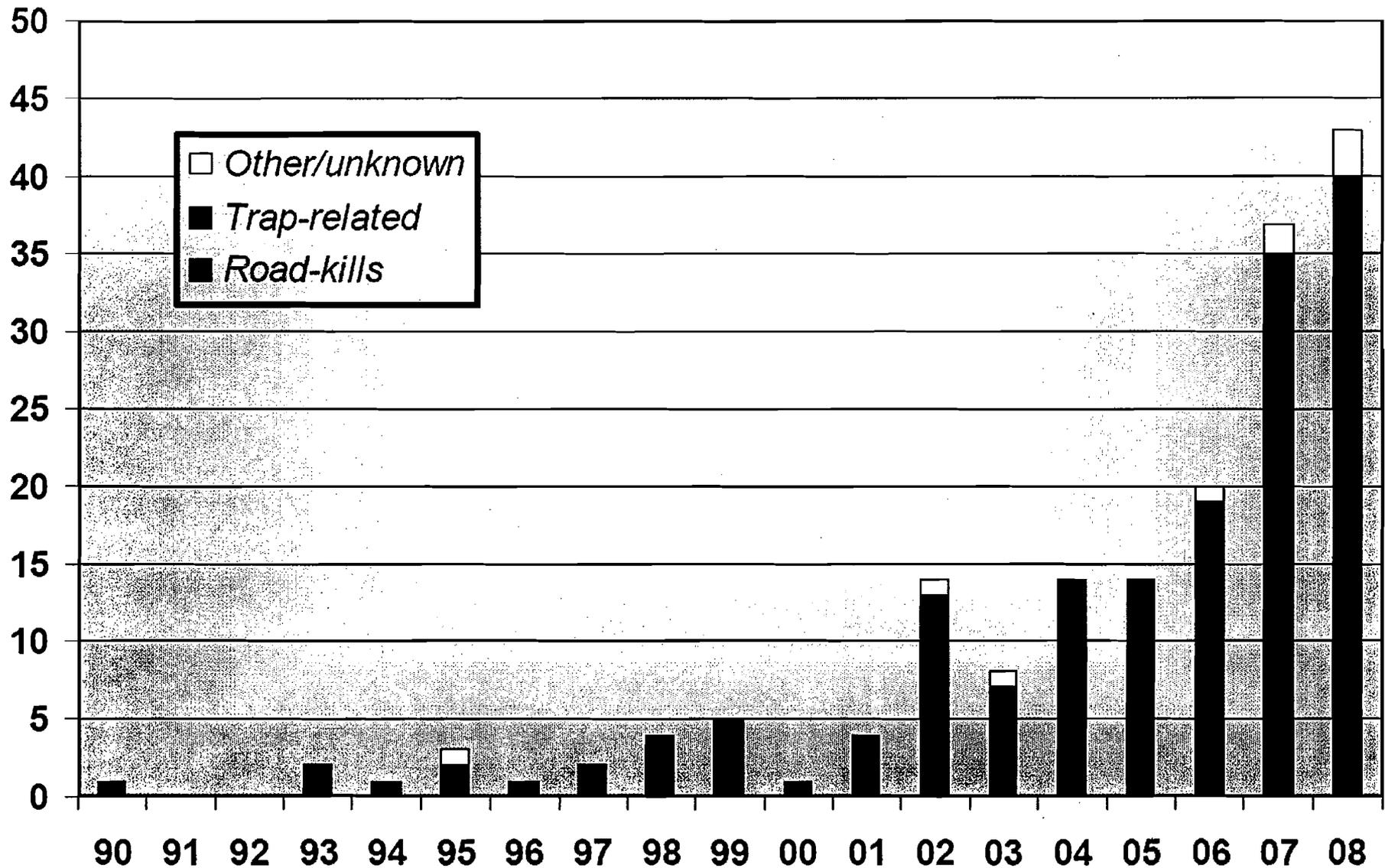
- Bobcats once ranged throughout Indiana before settlement of the Hoosier state.
- Loss of habitat because of forest clearing and new settlements in remote areas probably caused the drastic population decline.
- As a result, the bobcat was classified as endangered in 1969, providing full protection for this rare species, but the bobcat was able to be removed from the list in 2005 due to its increased population.
- Bobcats are currently listed a species of special concern.

- Bobcats are territorial and generally solitary animals with limited social life.
- Territorial scent-marking with urine and scats, especially by males, has been reported.
- Mating generally occurs in early spring during February and March, and the young are born after a 62-day gestation period. An average litter of three kittens is born in April or May.
- The young generally remain with the female until they reach one year of age. At that time they learn predatory skills necessary for survival.
- After one year, the young disperse, and the female will enter another reproductive season.

- Bobcats are a far-ranging mammal, having home ranges as large as 20 square miles
- They are primarily nocturnal, hunting and moving during early morning and late evening hours.
- Their secretive, nocturnal behavior and preference for remote areas make interactions between humans and bobcats relatively rare.

- The Division of Fish & Wildlife's Nongame and Endangered Wildlife Program is currently conducting a study to determine the abundance and distribution of bobcats in the state.
- The project is focused on southcentral Indiana. Bobcats are trapped, radiocollared and then tracked to determine habitat use, reproduction and abundance.
- Data gathered from the study will be used to create management guidelines.

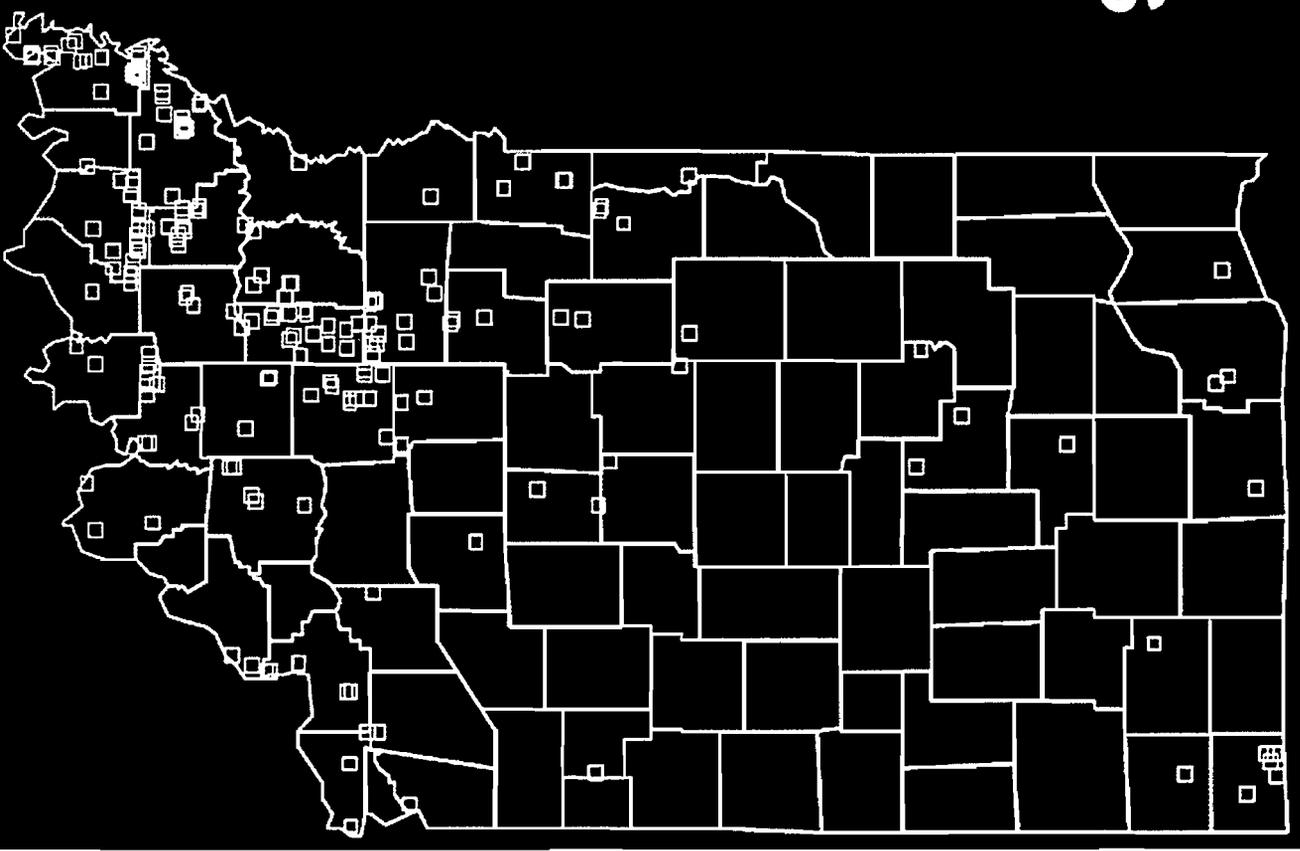
Bobcat Mortalities in Indiana, 1990 - 2008



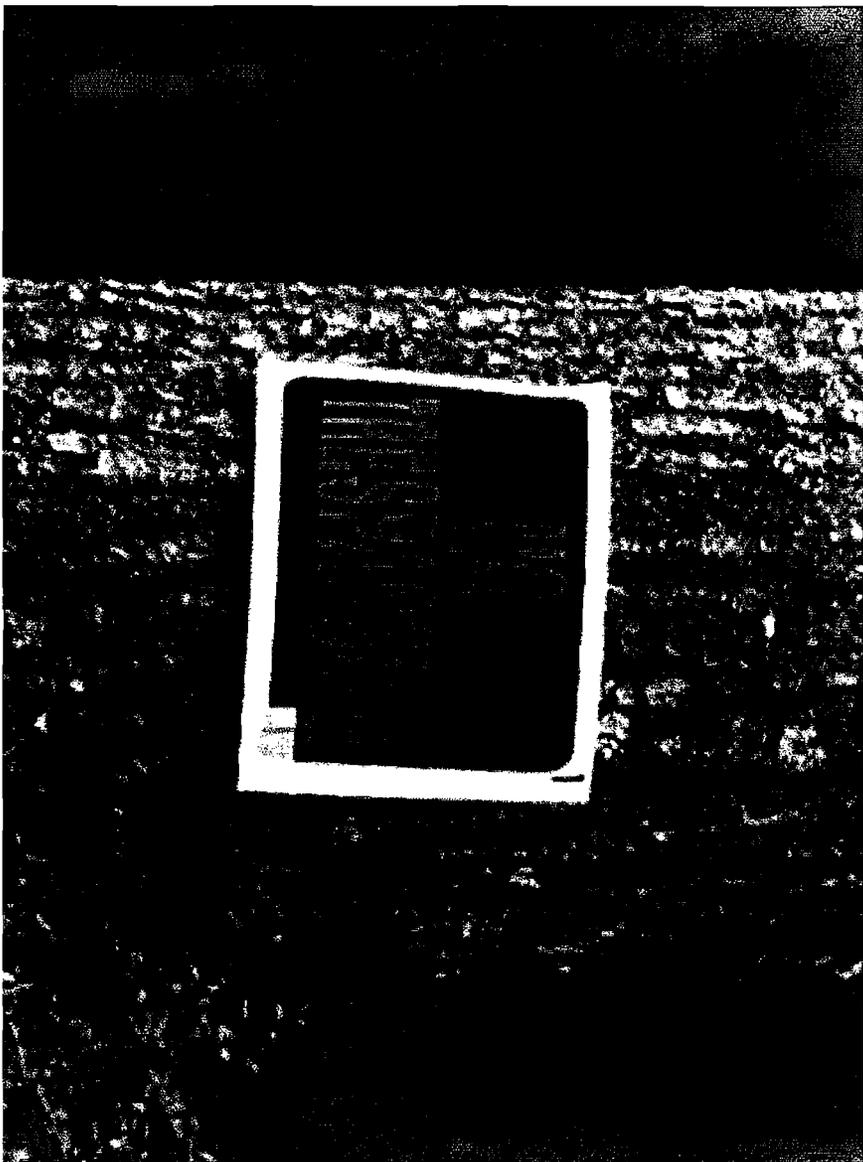
Bobcat Mortalities in Indiana

1970 - 2009

*195 records
in
45 counties*



- Bobcat population is increasing
- Not at a sustainable level to start limited hunting.
- In 2013 -2014 we will begin a targeted River Otter trapping season in mainly Southern Indiana.
- An administrative rule package is being completed and will go before the Natural Resources Commission 2013.



Purple Paint Law

- During its 1993 legislative session, the Missouri legislature enacted a new statute pertaining to trespassing.
- The new law, the Purple Paint Statute (RSMO 569.145), provides another way for Missouri landowners to protect their property from trespassers.
- Landowners can still use "No Trespassing" signs, however the Purple Paint Statute allows landowners to mark trees or posts with purple paint as a warning to would-be trespassers.
- Just like a "No Trespassing" sign or actual communication to individuals that no trespassing is allowed, the purple paint marks are considered to be adequate notice to the public that no trespassing is allowed on the property.

- The statute provides that any person trespassing onto property marked by purple paint can be found guilty of a first-degree trespassing charge.
- First-degree trespassing is a Class B Misdemeanor, with potential punishment of a maximum \$500 fine and/or a maximum of 6 months in jail.

- These statutes were enacted to provide landowners with an economical and easy way to keep out unwanted trespassers.
- The law does not require that property marked with the purple paint also be fenced, thus it is an economical alternative for landowners who do not otherwise need to fence their property.
- Additionally, it prevents a problem encountered when using "No Trespassing" signs -- purple paint marks can't be taken down, destroyed, or stolen!

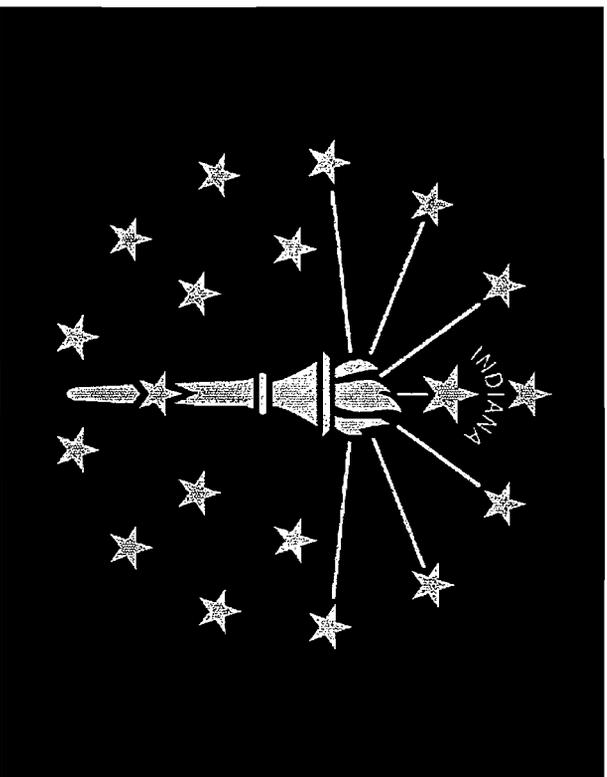
Under Missouri's law:

- Any owner or lessee of real property can post property with the purple paint marks.
- Purple paint marks must be placed on either trees or posts (the statute does not specifically allow the option of placing paint marks on buildings).
- Vertical paint lines must be at least 8 inches long (the statute does not mention a maximum length).
- The bottom edge of each paint mark must be between 3 feet and 5 feet off the ground.
- Paint marks must be readily visible to any person approaching the property.
- Purple paint marks cannot be more than 100 ft. apart.

Purple Paint States

- Illinois
- Texas
- Arkansas
- Missouri
- Kansas
- Oklahoma
- North Carolina
- Oregon

Indiana



Hunting without Consent a Class C Misdemeanor

IC 14-22-10-1

Consent to use private land

Sec. 1. A person may not:

- (1) fish, hunt, trap, or chase;
 - (2) shoot with any kind of firearm or archery equipment;
 - (3) search for or gather any plant life (defined as the members of the kingdoms Fungi and Plantae); or
 - (4) search for or gather any artifacts (as defined in IC 14-21-1-2);
- upon privately owned land without having the consent of the owner or tenant of the land.

Criminal Trespass – Class A Misdemeanor

- Requires a denial of entry:
 - Verbal communication
 - Written communication, or
 - Posting of a sign.

Other Invasives in Indiana

Although many are still commonly available in nurseries, the following additional invasive plants are currently threatening natural areas in Indiana. Avoid planting these and learn to recognize and eliminate them before they spread.

Indiana Distribution: A=All, N=North, C=Central, S=South
Habitat Invaded: O=Openland, F=Forest, W=Wetland

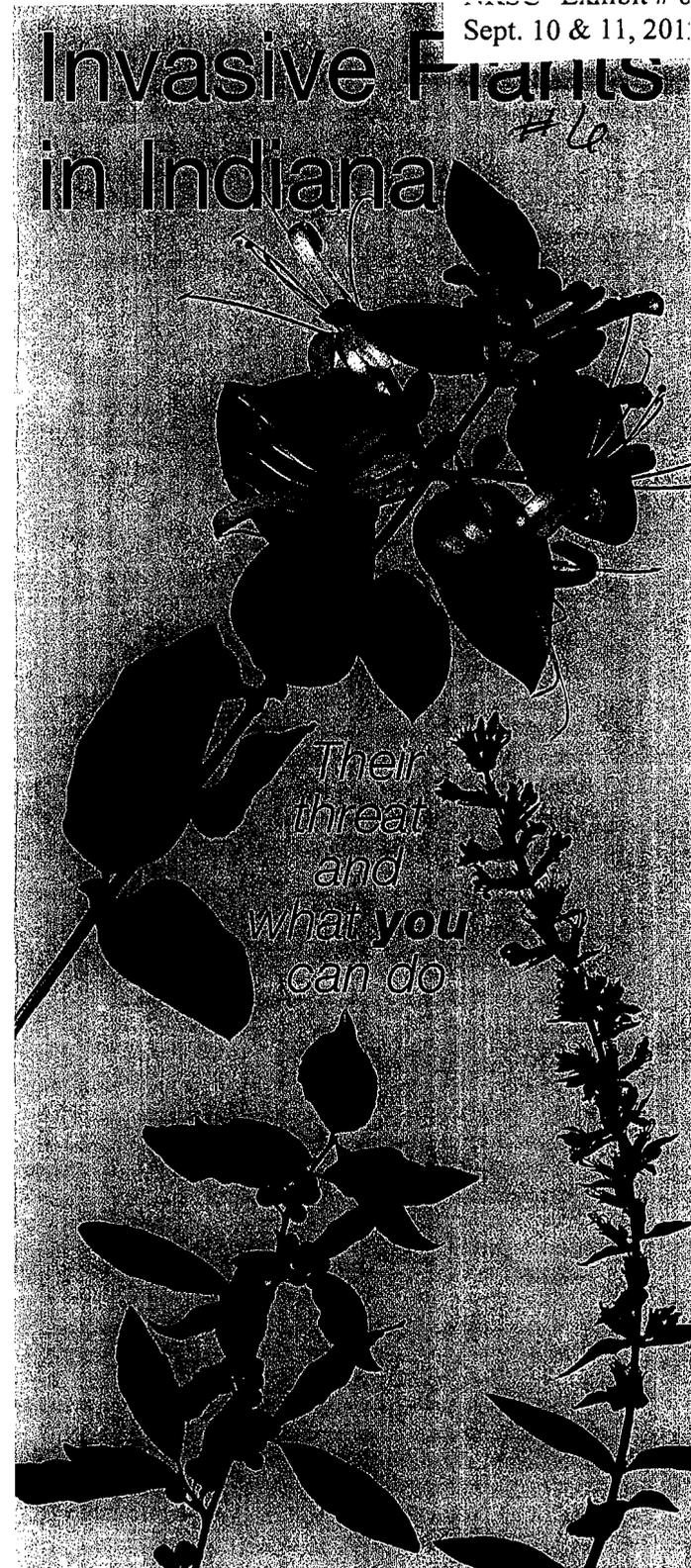
		Indiana Distribution	Habitat Invaded
FLOWERS			
Canada thistle	<i>Cirsium arvense</i>	A	O
Dame's rocket	<i>Hesperis matronalis</i>	A	F,O
Sericea lespedeza	<i>Lespedeza cuneata</i>	A	O
Sweet clover	<i>Melilotus alba, M. officinalis</i>	A	O
Star of Bethlehem	<i>Ornithogalum umbellatum</i>	S,C	F
Japanese knotweed	<i>Polygonum cuspidatum</i>	S	F
GRASSES			
Smooth brome	<i>Bromus inermis</i>	A	F,O
Tall fescue	<i>Festuca elatior</i>	A	O
Japanese stilt grass	<i>Microstegium vimineum</i>	S,C	F
Maiden grass	<i>Miscanthus sinensis</i>	S	O
VINES AND GROUNDCOVERS			
Purple winter creeper	<i>Euonymus fortunei</i>	A	F
Creeping Charlie	<i>Glechoma hederacea</i>	A	F,O
Japanese hops	<i>Humulus japonicus</i>	S	F
Creeping Jenny	<i>Lysimachia mummularia</i>	A	F,W
Kudzu	<i>Pueraria lobata</i>	S	F,O
Periwinkle	<i>Vinca minor</i>	A	F
SHRUBS			
Black alder	<i>Alnus glutinosa</i>	A	F
Winged burning bush	<i>Euonymus alatus</i>	A	F
Bicolor lespedeza	<i>Lespedeza bicolor</i>	A	F,O
Common privet	<i>Ligustrum vulgare</i>	A	F
Multiflora rose	<i>Rosa multiflora</i>	A	O
Highbush cranberry	<i>Viburnum opulus v. opulus</i>	N	F,W
TREES			
Norway maple	<i>Acer platanoides</i>	N,C	F
Tree-of-heaven	<i>Ailanthus altissima</i>	S	F
White mulberry	<i>Morus alba</i>	N	O
Black locust	<i>Robinia pseudoacacia</i>	N,C	O
Siberian elm	<i>Ulmus pumila</i>	A	F

What Can We Do?

- ✎ Avoid using non-native invasive plants in your garden; ask your nursery for native, non-invasive alternatives. More information is available in the INPAWS brochure "Landscaping with Plants Native to Indiana" and in the book *Go Native* by Carolyn Harstad (Indiana University Press, 1999).
- ✎ Scout your property for invasive species, and remove invasives before they become a problem. For more information on how to control them see The Nature Conservancy's web site listed below.
- ✎ Alert people in your neighborhood and place of work about the problem with invasives and what species to watch for.
- ✎ Volunteer to help at local parks and natural areas to remove invasives.

For more information on native & invasive plants, please contact:

- **Indiana Native Plant and Wildflower Society**
www.inpaws.org
- **The Nature Conservancy**
Efroymsen Conservation Center
620 East Ohio Street
Indianapolis, IN 46202-3811
317-951-8818
nature.org/indiana
- **IDNR Division of Nature Preserves**
402 W. Washington St. Rm W267
Indianapolis, IN 46204
317-232-4052
www.in.gov/dnr/naturepreserve/
- **Indiana Invasive Plant Species Assessment Working Group (IPSAWG)**
www.invasivespecies.in.gov
- **Natural Resource Conservation Service**
plant-materials.nrcs.usda.gov



INDIANA NATIVE PLANT
and Wildflower Society

Indiana Academy
of Science

The Nature
Conservancy

Protecting nature. Preserving life.™

IDNR Division of
Nature Preserves

FOREST SERVICE
U.S.
DEPARTMENT OF AGRICULTURE

USDA is an equal opportunity employer & provider.

What is IPSAWG?

To identify which gardening plants are invasive in Indiana, a partnership called the **Invasive Plant Species Assessment Working Group (IPSAWG)** was formed in 2001. The many agencies and organizations listed below worked together to assess dozens of species used in landscaping to determine which were invasive or potentially invasive, and to develop recommendations for the use of each of the species. This brochure contains the results and recommendations from this effort.

IPSAWG Partners:

Grazing Lands Conservation Initiative
Hoosier National Forest
Indiana Academy of Science
Indiana Beekeeper's Association
Indiana Chapter-American Society of Landscape Architects
Indiana Cooperative Agricultural Pest Survey Program
Indiana Department of Environmental Management
Indiana Department of Natural Resources
Indiana Department of Transportation
Indiana Dunes National Lakeshore
Indiana Forage Council
Indiana Native Plant and Wildflower Society
Indiana Nursery and Landscape Association
Indiana Seed Trade Association
Indiana State Beekeepers Association
Indiana Wildlife Federation
Natural Resource Conservation Service
Purdue Cooperative Extension Service
Seed Administrator, Office of the Indiana State Chemist
The Nature Conservancy
The Wildlife Society, Indiana Chapter
U.S. Fish and Wildlife Service



IPSAWG

Invasive Plant Species Assessment Working Group

For More Information

www.invasivespecies.in.gov

IPSAWG assessment for each species and fact sheets containing identification and control information

<http://tncweeds.ucdavis.edu/>

Information on identification and control of invasive species

<http://inpaws.org/>

More non-invasive alternatives and suppliers

<http://extension.entm.purdue.edu/CAPS/>

Information on the range and status of invasive plants throughout Indiana



Tiger eyes sumac (*Rhus typhina* cv. 'Tiger Eyes') is a dwarf, slow spreading sumac with lacy, luminous leaves. (A. Bracalente photo)

Funding for this brochure provided by:
IDNR Urban Forest Conservation Fund
Indiana Academy of Science
Indiana Native Plant and Wildflower Society
The Nature Conservancy



September 2007

NRSC Exhibit # 7
Sept. 10 & 11, 2012

Landscaping with Non-Invasive Plant Species: Making the RIGHT Choice



IPSAWG

Invasive Plant Species Assessment Working Group

Indiana Sustainable Natural Resources Task Force

- Progress Report to the Natural Resources Study Committee, September, 2012

Members of the Task Force

- Rep. Karickhoff
- Rep. Pflum
- Sen. Young
- Sen. Eckerty
- Steve Cecil- Indiana Wildlife Federation
- Mary McConnell- Indiana Nature Conservancy
- Ray McCormick – IN Assoc. Soil&Water CD's
- Bill Weeks- CH. – IN Land Protection Alliance
- Robert Woodling- IN Forestry&Woodland OA
- Dave Wyeth- IN Farm Bureau

Meetings August 2011-August 2012

- Input from IDNR, IDEM, Dept. Ag.
- Experts presentations to Task Force in Biodiversity, Wildlife, Outdoor Recreation, Forests, Air, Atmosphere/Climate, Water Quality, Water Quantity, Soil
- Summer reaching consensus on Draft Report and a few major recommendations

Highlights of Draft Report

Water

- High percentage of stream segments impaired, nutrient inputs, flood issues, supply issues to come in central and south east Indiana.
- Recommendation:: *Consolidate standard setting for drainage, floodway construction permitting, water supply management, other water management in one entity.*

Soil

- Soil is extraordinary resource and still losing too much soil through erosion; that transport also carries nutrients into state waters.
- Recommendation:: *30 by 30 Program. By 2030, 30% of state's cropland managed using advanced soil building methods. Needed: expand technical assistance for Conservation Cropping Systems Initiative from one FTE to eight. Commit to minimum levels of support for SWD's.*

Air and Atmosphere

- Indiana has achieved statewide compliance with all air standards!
- New standards have been adopted for mercury that are likely to present challenges; IDEM reports a million Hoosiers “at risk” from particulate air pollution. State Climatologist reports more extremes, hotter highs likely.
- Recommendation:: *Continue to work on reducing particulates and mercury; adopt policies that enhance our ability to respond to and recover from extreme climate events; promote carbon sequestering practices such as CCSI and forest restoration .*

Forest

- New pressures on Indiana forest; issues with management of checkerboard ownership of state forest; District foresters overbooked.
- Recommendation:: *Commit to maintaining Indiana's current percentage of forested land. Focus on filling in and consolidating land within state forest boundaries, as well as riparian forest along key waterways. Add Ass't District Foresters in each District.*

Biodiversity and Wildlife

- System of relatively natural lands that supply ecosystem services, wildlife habitat, outdoor recreation is fragmented and in places at visitor capacity.
- Recommendation:: *Launch a new initiative to identify key new acquisitions to address needs. Create incentives for private land conservation to supplement public lands, including state income tax credits for gifts of qualifying conservation easements.*

Work for Fall

- Reach consensus recommendations on size of land acquisition initiatives, and suggest new funding sources.
- Decide how to satisfy legislative requirement of “report card on health of natural resources in Indiana.”

Progress Report

Draft Report of the Indiana Sustainable Natural Resources Task Force:

The Way It Was

Europeans began to move to the Americas 500 years ago. At that time, Indiana was almost unimaginably rich in natural resources. The people living here hunted in deciduous woodlands that were among the most impressive forests in the world. Prairie chickens made vast grasslands their home, and extensive wetlands teemed with waterfowl. Beaver dams that modulated the flow and seasonal availability of water punctuated rain fed streams; these streams supplied great river systems. Relatively little soil was lost in pre-mechanized agricultural systems that included forest gardens and intercropping. Great herds of bison moved across the state toward ancient salt licks; most Hoosiers now couldn't say why the bison appears on the state seal.

"Ain't God Good to Indiana"

Natural resources supported the development of the culture and commerce we now enjoy. Those resources were the natural capital upon which our economy was built and are still the foundation upon which our economy functions. For a long time, we spent far more than the interest on that natural capital, and ours is not the first generation to ask whether it is time to consider the status of the principal.

"Resources Will Only Be Conserved As a Result of Intent"***

A hundred years ago, upon the state's centennial, Indiana leaders developed and acted upon a public policy with respect to the preservation of that natural capital. Parks and other public lands were established. Over the course of the 20th Century, state leaders passed laws designed to preserve other resources for our use and that of future generations, establishing programs and laws with the objective of preserving clean water, clean air, and productive soils.

In 2011, Indiana's legislature and its governor did their work in the context of a changing economy, changing demographics, and uncertainties with respect to climate. These state leaders decided that it was important to ask again whether our state's natural resources policies were adequate to the task of preserving our natural capital. They created the Indiana Sustainable Natural Resources Task Force to advise them as they try to answer that question.

****Ray McCormick, McCormick Farms*

Specific Objectives of the Task Force

The Sustainable Natural Resources Task Force was charged with assessing Indiana's management of its sustainable natural resources. As the legislation required, the Task Force includes two members of the Indiana Senate, Senators Eckerty and Young; two members of the Indiana House, Representatives Karickhoff and Pflum; a member recommended by the Indiana Association of Soil and Water Conservation Districts, Ray McCormick; a member recommended by the Indiana Wildlife Federation, Steve Cecil; a member recommended by the Indiana Land Protection Alliance, Bill Weeks (Chair of the Task Force); a member recommended by the Indiana Farm Bureau, Dave Wyeth, a member recommended by the Indiana Forestry and Woodland Owners Association, Robert Woodling; and a member recommended by The Nature Conservancy, Mary McConnell.

The legislation requires that the Task Force collect information concerning current natural resource protection programs in Indiana and surrounding states, identify areas needing additional attention and funding, develop a report card on the health of the state's natural resources, and prepare and present various reports to the legislature and the governor on its work.

The Task Force met regularly from August 2011 through August 2012 to gather and evaluate information designed to enable it to fulfill the requirements of the legislation. As required by the legislation, the Task Force sought and received reports from the Indiana Department of Agriculture, Indiana Department of Environmental Management and Indiana Department of Natural Resources. It then solicited and received reports from experts in the state on specific natural resources issues: biodiversity, wildlife, forests, soils, water quality and quantity, air and atmosphere, and outdoor recreation and public lands.

This report is not intended to summarize the information presented to and considered by the Task Force. Far more data and far more recommendations, of far greater scope than can be covered in this report have been considered in developing the few key recommendations made here.

This report is intended to be a call to action on recommendations designed to address pressing needs in sustainable natural resources policy and management.

The Key Initiatives:

"Follow the Water"*

1. To optimize and manage conflicting goals and needs the state has regarding water we propose consolidating state authority for three distinct water-related tasks in one entity. The 2009 report of the Indiana Agriculture Regulatory Task Force called for study of a similar proposal. And there is a current proposal to have the Indiana Utilities Regulatory Commission study water use and demand. We believe more comprehensive action is required. **Flood control** permitting and policy implementation needs to be linked in one governmental home

**Advice of Professor Dev Nyogi, State Climatologist*

with standard setting for and oversight of **drainage** (now largely absent at a state level). Serious **planning for water availability and distribution** would be the third task of the new entity. This function is critically important; in a state well-blessed with water, we have developed to the point that we need planning to insure that there will be water where and when the state's residents and industries need it. This new water management entity will also have principal public responsibility for ensuring responsiveness and resilience in managing the state's water resource in times of climate variability. A small investment of staff to follow the water will pay huge dividends in the economy and quality of life of the state as population continues to move toward the central counties, and as other trends continue to suggest a need for long term water policy.

2. Renewed investment now in the management and conservation of the state's natural lands will provide priceless returns to future generations. Our Task Force will be considering sources of funding for this investment in the Fall of 2012. Whatever the source, we think investment in land, both public and private is a priority. Our initial recommendations, as a result of the Task Force deliberations are:
 - i. **The state continues to need habitat for wildlife, land to support the preservation of the state species and ecosystem biodiversity, and park land to reduce pressure on the state's existing system. We propose a public commitment to filling that need through targeted acquisitions of public land and increased incentives for private land conservation.** Public land acquisition must be accompanied by an increased recognition of the need for and funding of management. Private conservation incentives could include state income tax credits for qualifying conservation easements. Such incentives already exist in Virginia, North Carolina, Georgia, and Colorado.
 - ii. Because **the forested land in the state is again at risk** of conversion to other uses over the next 15 years **we propose that Indiana commit to maintaining its current amount of forest cover**, and to help ensure that the goal can be met, that (a) **that we invest in expanding and consolidating current state forest lands, and acquiring riparian forest on major and high diversity waterways, and (b) that Indiana increase technical assistance in forest management to private landowners by adding one assistant district forester in each of Indiana's forest districts.**
 - iii. While progress has been made, **the state continues to need to reduce soil erosion. Indiana soil** is among the world's best for farming, and we are still losing too much of our soil and the nutrients we add to it in run-off. And we have failed to invest enough in this resource even to claim available federal matching funding for the Clean Water Initiative. **We propose a 30 by 30 Soil Conservation Program.** The program would have two parts. **We think a good first step would be to provide funds to**

enable the Soil Conservation Board to expand its model technical assistance program for the Indiana Conservation Partnerships Conservation Cropping Systems Initiative from one staff person for the state to 8 staff people. The objective of this and subsequent investments would be to achieve, by 2030, the goal of 30% of the state's cropland being managed in accordance with Conservation Cropping Systems principles, or the best program developed between now and 2030 for restoring and maintaining living soils. Second, if matched by other funding, County or otherwise,(ALTERNATIVE A)[provide an increase of \$10,000 for each county's Soil and Water Conservation Board. Fully matched state funding would provide a base level of funding (\$40,000) that should permit each office to have at least one full-time staff person] (ALTERNATIVE B) to invest cooperatively with other county offices to secure staff that will serve more than one county.]

Water Resources Report Headlines

1. If well managed, Indiana's water resource should provide the state a comparative economic advantage. It is an extraordinary and extraordinarily important resource.
2. The population of the central part of the state is growing faster than robust supplies of water. Water supplies in southeast Indiana water are similarly vulnerable. Water supply issues can be managed acceptably if planning begins now. Planning that fully considers historical weather variability will be a good start toward dealing with the possibility of climate related changes in the state's water resources. A more comprehensive approach will serve the state better than being content with the planning effort now proposed as a Utilities Regulatory Commission project.
3. Indiana's waters are overwhelmingly classified as impaired. Further, according to the U.S. Geological Survey, Indiana is a significant contributor of nitrogen and phosphorus to the Mississippi River system.
4. There is no system of uniform, conservation oriented standards for drainage, and insufficient coordination between drainage activity and flood control activity. The 2009 Agriculture Regulatory Structure Task Force recommended study of a comprehensive consolidation of water related regulatory activity, but there has been little progress to date on that recommendation.

Key Recommendation:

To optimize and manage conflicting goals and needs the state has regarding water we propose consolidating state authority for three distinct water- related tasks in one entity. Flood control permitting and policy implementation, needs to be linked in one governmental home with standard setting for **drainage** (now largely absent at a state level). Serious **planning for water availability and distribution** would be the third task of the new entity. This function is a critically important new function of insuring that in a state well-blessed with water, there will be water where and when the state's residents and industries need it. The new water management entity would also have principal public responsibility for ensuring responsiveness and resilience in managing the state's water resource in times of climate variability. A small investment of staff to follow the water will pay huge dividends in the economy and quality of life of the state as population continues to move toward the central counties, and as other trends continue to suggest a need for long term water policy.

Soil Resource Report Headlines

Mostly through erosion, Indiana has already lost half of the topsoil that is essential to its role as one of the most important crop producing locations in the world. We are still losing over three tons per acre per year on average. We see an opportunity to continue to increase the percentage of cropland managed to restore and sustain high functioning soil: soil that absorbs and holds water, thus diminishing erosion and reducing the impact of run-off that will otherwise be more severe if the prediction is accurate that Indiana is likely to experience bigger, fewer precipitation events.

Key Recommendation:

1. The Indiana Conservation Cropping Systems Initiative (CCSI) promotes a systematic approach to production agriculture focusing on: 1. Continuous no-till/strip-till; 2. Cover crops; 3. Precision farming; 4. Nutrient and pest management. A model program of technical assistance for CCSI implementation has been highly successful. We recommend investing now in expanded technical assistance in order to achieve a goal of 30% of Indiana's farmland employing CCSI and its evolving principles, or successive initiatives that similarly restore and maintain high functioning soil, by 2030. This will require an investment this year in increased Clean Water Indiana funding for the Soil Conservation Board sufficient to enable the Board to support 8 new technical assistance staff to work with the program, currently housed within the Indiana Association of Soil and Water Conservation Districts.

Recommendation

2. To maintain minimum support for the soil and water conservation programs in the state that already have helped cut soil loss in half, we recommend increasing the funding for Soil and Water Conservation Districts from \$10,000 per year to \$20,000 per year, if the increased funding increment is matched by County or other funding. The resulting District budget of a minimum of \$40,000 should enable [Alternative A] each district to employ at least one staff person [Alternative B] each district to have the resources to combine with neighboring districts to employ the specialists needed to bring innovative practices to farmers in every region of the state.

Air Resource Report Headlines

1. Indiana's environmental agency, IDEM, working with Indiana businesses that emit air pollutants, has helped improve the quality of Indiana's air resource. In recent years, Indiana achieved compliance with National Ambient Air Quality Standards.
2. Further progress in improving air quality could further benefit the state. For example, in 2006, the IU Department of Public Health estimated the financial impact of particulates compromising the quality of Indiana's air at more than \$5 billion annually. A 2012 IDEM report lists Indianapolis, Evansville, and Bloomington as among the 25 U.S. cities with the highest year round particulate matter levels. IDEM reports more than a million people "at risk" from air pollution. About 300,000 of these suffer from asthma, chronic bronchitis, or emphysema.
3. The EPA's 2011 Toxics Release Inventory indicates that Indiana is among the 10 largest sources of airborne mercury emissions in the United States. Exposure to even small amounts of mercury can lead to permanent damage of the developing brain of a fetus. Mercury from Indiana-based and other sources is deposited on Indiana soil (where some is transported to water) and water. The water borne mercury is increasingly concentrated as it moves through the aquatic food chain. Recent research has demonstrated effects on songbirds and mammals, as well. Barring a change in the law, IDEM will soon be administering federal air pollution standards for mercury emissions.
4. Ground level ozone is created when emissions from sources such as motor vehicles and power plants react to heat and sunlight. In high traffic and industrialized areas on warm days, excessive levels of ozone can impair breathing; children, elderly people, and those with asthma and emphysema are at high risk. Ground level ozone in the air can also cause damage to tree health by interfering with photosynthesis, reducing in the resistance of trees to infection, and causing direct tissue death. For soybean crops alone, ozone pollution, nationally, is estimated to cause \$2 billion per year in damage (NASA, 2009). The USDA's Agricultural Research Service reports that ground level ozone causes more damage to plants than all other air pollutants combined, and maps the entire state as an area that "can experience significant crop loss and damage to ecosystem function from ambient ozone." In 2011, IDEM reported 24 days in which monitors documented ozone levels that exceeded standards, and about a dozen counties that would be in non-attainment for ozone under the originally proposed 2008 federal standards.
5. The Purdue Climate Change Research Center (2008) predicts that increasing concentrations of greenhouse gas in the atmosphere, will cause increased numbers of extreme hot weather events, more intense storms, more flooding, warmer, wetter winters and hotter drier summers, with risks to soil quality, hardwood timber and native aquatic life. 30 states have begun to respond to such risks by adopting renewable electricity standards. Five states have adopted a 'feed-in tariff' which enables power companies to pay premiums to customer-generators who produce power from cleaner sources of energy, such as wind and solar.

Indiana's progress to date on this track has been to adopt a voluntary Clean Electricity Standard in 2011.

Recommendations

1. The task force endorses the recommendation of Indiana's state climatologist that the state ought to adopt policies that will increase the resilience of our systems to climate variability. Indiana resource managers need to know, for example, how we will handle too much or too little water in parts or all of the state; make plans that accommodate continuation of the slow warming that is observable over the last few decades; prepare for weeds, insects, and diseases that will expand range into the state.
2. The state should promote carbon absorbing and sequestering practices such as the Conservation Cropping Systems Initiative and forest restoration.
3. Indiana needs to continue to work to reduce levels of particulates, ozone and mercury through innovative policies that address emissions from cars, trucks, buses and power generation in Indiana.

Forest Resources Report Headlines

1. Indiana lost 18 million acres of forest between 1750 and 1930. From a low point of about 500,000 acres we have regained, through reforestation, almost 4 million forested acres in the last 80 years. That forest is again under stress for conversion to other uses.
2. Indiana's forest is overwhelmingly owned by private land owners. Indiana's state forest system covers only 156,000 acres; the federally owned Hoosier National Forest includes another 202,000.
3. In addition to ecological services associated with air, and water, and wildlife conservation, Indiana forests produce some of the highest quality hardwood in the world; it isn't clear that current management can sustain the oak-hickory forest. Invasive species are a major and growing threat, as is deer overpopulation and perhaps climate change.
4. The budget of Indiana's forestry division has dropped by over 30% in recent years. One of the effects of those cuts is diminished resources for assisting Indiana's private landowners in properly managing their forest acres.

Key recommendation:

Because **the forested land in the state is again at risk** of conversion we propose that **Indiana commit to maintaining the state's overall percentage of forest cover**, and to help ensure that the goal can be met, that **that we invest in: (a) expanding the contiguous boundary and consolidating ownership within the current blocks of state forest land, and (b) acquire riparian and associated upland forest along high natural quality waterways, and (c) that Indiana increase technical assistance in forest management to private landowners by adding one assistant district forester in each of Indiana's forest districts.**

Biodiversity and Wildlife Report Headlines

- From cypress swamp to cranberry bog, from tallgrass prairie to hemlock bluff, from mussel shoals to caves, Indiana is blessed with wondrous diversity of plants, animals and natural communities. Our wildlife is a reflection of the biological diversity in the state. The more diversity of species, the healthier the habitat and the more stable the wildlife populations (Source: Millennium Assessment, 2005.)
- According to the Economic Research Service, 73% of the land that supported our complement of species and natural communities at settlement has been converted to other uses as Indiana developed its industrial and agricultural economy, including transportation routes.
- As a result, much of what remains of our native landscape is fragmented. Whether fragmented or relatively intact, these lands either suffer from or are threatened by invasive species and loss of the natural ecosystem services.
- Ecological systems of natural quality produce ecosystem services of high value, including such things as water quantity and quality, timber, wildlife habitat and recreational opportunities. (Source: Millennium Assessment, 2005.)
- Indiana has some extraordinary reserves; Goose Pond, and the Jasper-Pulaski/Kankakee complex suggest fantastic returns from investment in large natural land and water reserves.
- Birdwatching is the fastest growing outdoor pastime, with 155% growth in participation between 1983 and 1994. Hiking ranked second with a growth of 94% (Source: Sporting Goods Manufacturers Association and USDA Forest Service.)
- Two of Indiana's historically significant game birds – ruffed grouse and quail -- are in decline; Indiana's deer population is ecologically unsustainably high.
- Indiana's waters are globally significant, harboring endangered mussels, crayfishes and fish.
- Protecting Indiana's remaining natural lands reduces the potential of future state or federal listings of plant and animal species since many of the lands have species that are threatened. Protecting and restoring these lands improves these species viability.
- There has been significant science-based analysis of the species and natural communities of Indiana and a portfolio of important lands mapped to guide biodiversity conservation. Public and private partners are working together to protect these sites.
- Land conservation in Indiana is both a public function, with the DNR as the lead agency, and also a private function. There are nonprofit land trusts across Indiana, as well as individual landowners putting conservation easements on their lands or donating lands to the state or local land trusts.
- Each of the DNR landholding divisions has placed a top priority on acquiring inholdings and additions to existing properties. Secondary priorities vary by division, but consideration of things such as the natural quality of the land, under-served areas of the state, connectivity of habitats, large parcels with certain qualities that would become nucleus of a new property, etc., are part of the consideration in choosing properties for protection.
- The Indiana DNR owns approximately 390,000 acres and manages an additional 139,000 acres, or about 2.27% of total state acres. The states contiguous to Indiana range from a high of 12% of total state acres owned/managed in Michigan, to 3% in Kentucky, 2.5% in Ohio and 1.31% in Illinois. Per capita Michigan has .452 acres, Kentucky .180 acres,

Indiana .082 acres, Ohio .058 acres and Illinois .037 acres. (Source: All figures were provided from DNR—or equivalent agencies—or GIS staff.)

KEY recommendation

2. The state and its conservation partners have identified both significant and unique natural lands that still lack protected status. We propose that the General Assembly and the Governor make a firm commitment of \$ _____ per year for a 10-year period for acquisition and other incentives for conserving these lands in strategically targeted areas, both state targeted and locally targeted. The allocation of these funds could be structured so as to leverage private and non-state dollars and other conservation commitments.

This investment in natural infrastructure will protect the state's diversity of wildlife and natural habitats. It will add to existing state park lands to reduce pressure on the state's existing system and make it possible to manage state forest lands more efficiently by consolidating scattered blocks of land into larger block with fewer boundary issues. We also propose a new requirement that 10% of the cost of each acquisition be set aside and held in a dedicated management account for the entity that will be the primary manager of acquired lands. We also urge the recognition of the increased need for management funding of existing public lands, both for control of invasive species and to restore natural processes.

3. Additionally, we recommend that the appropriate legislative committees consider creating a state income tax credit to provide private conservation incentives for qualifying conservation easements. Such incentives already exist in Virginia, North Carolina, Georgia, and Colorado.

Other Recommendations

4. Build on Healthy Rivers Initiative and other larger area conservation projects to establish stable and resilient conservation lands.

Funding

The Task Force is still working on sources of funding. Potential sources of funding for land acquisition and incentives for conservation: (1) creation of a dedicated lottery ticket for conservation, with goal of raising \$7 to \$10 million per year (2) sale of an annual pass for state forests, nature preserves and state hiking trails, which could be purchased at point of sale places for fishing and hunting licenses or at State Parks.



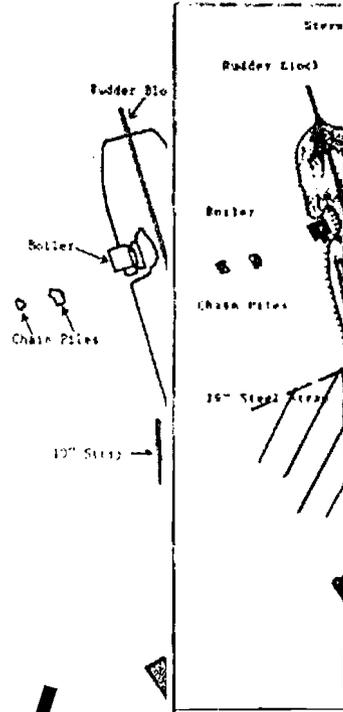
Indiana Lake Michigan Underwater Archaeological Resource Project

Mike Molnar
Program Manager



Sport divers have had a considerable interest in the J. D. Marshall. Although the wreck is only six years old, in that span of time it has become a site that is remotely portable or removable by divers. Although the majority of divers are less inclined to touch the Marshall are less inclined to touch it, many do enjoy the wreck diving experience so with great gusto.

Between the illegal salvage at the J. D. Marshall has been reduced to "one of the best preserved" shipwrecks to "one of the best preserved" in Indiana waters. It has been shown



Diving the Shipwrecks of Indiana's Lake Michigan Waters



1980

1982

1985

1990

2000

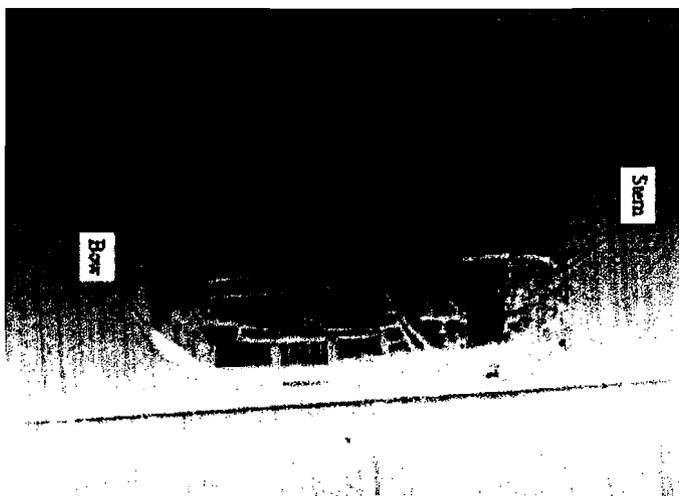
2007

2011

2012

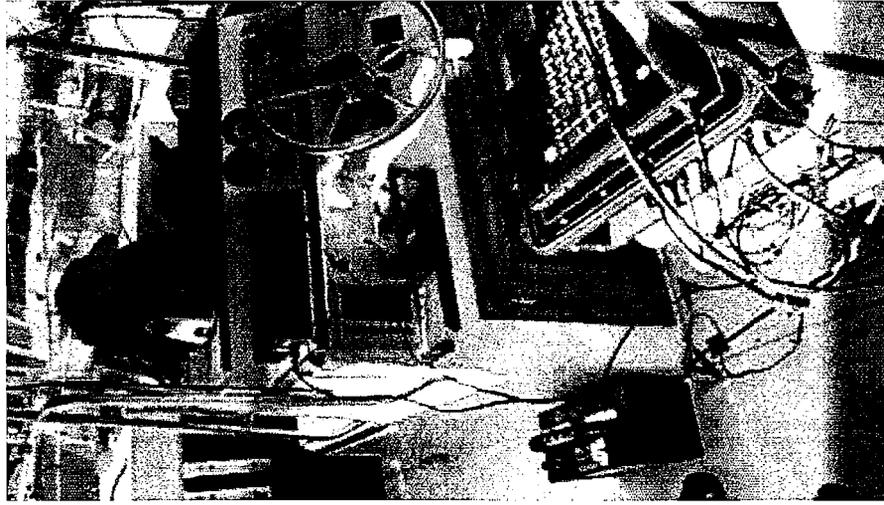
2013

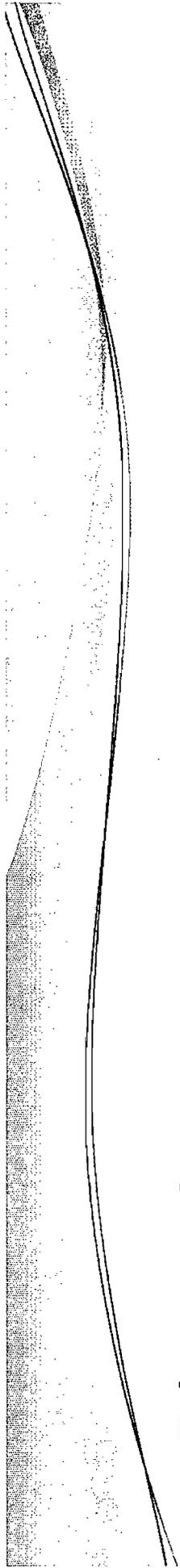
What do we Know?



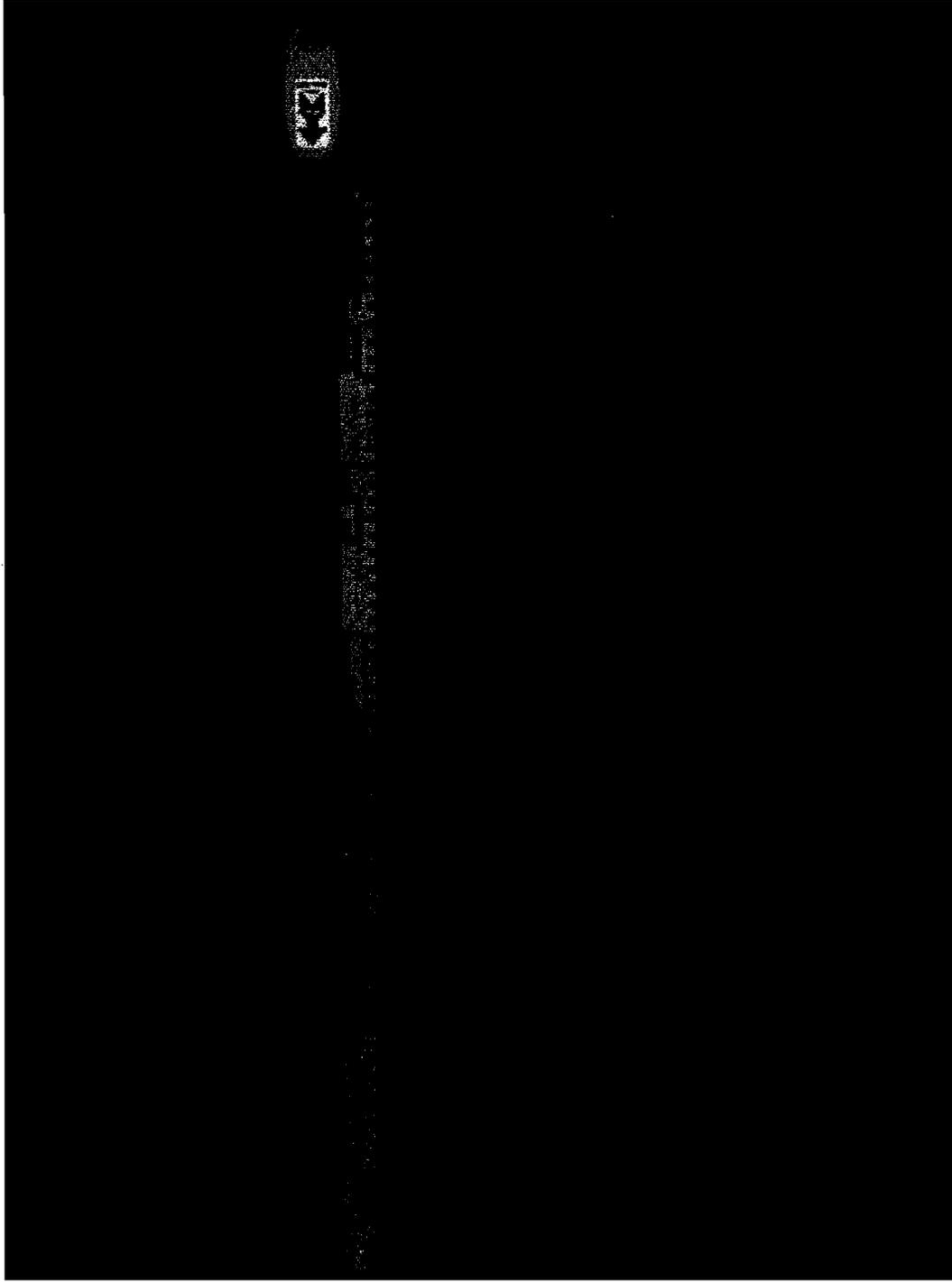
Name	Vessel Type	Property Type	Year Lost
J.D. Marshall	Steamer	Canaller	1911
Muskegon Aka. Peerless	Steamer	Package Frgt	1910
Frank W. Wheeler	Steamer	Bulk Frgt	1893
Horace A. Tuttle	Steamer	Bulk Frgt	1989
Unknown #2 (George F. Williams)	Steamer	Bulk Frgt	1915
Unknown #3 (Moses Gage)	-----	Canaller	-----
Unknown #4	-----	Canaller	-----
Unknown #5	-----	Work Barge	-----
Unknown #6	-----	Work Barge	-----
Car Ferry #2	Barge	Train Ferry	1906
Unknown #7	-----	Canaller	-----
Material Service Barge	Barge	Self Unldr	1936
Unknown #8	-----	Canaller	-----
Unknown #9	-----	Canaller	-----

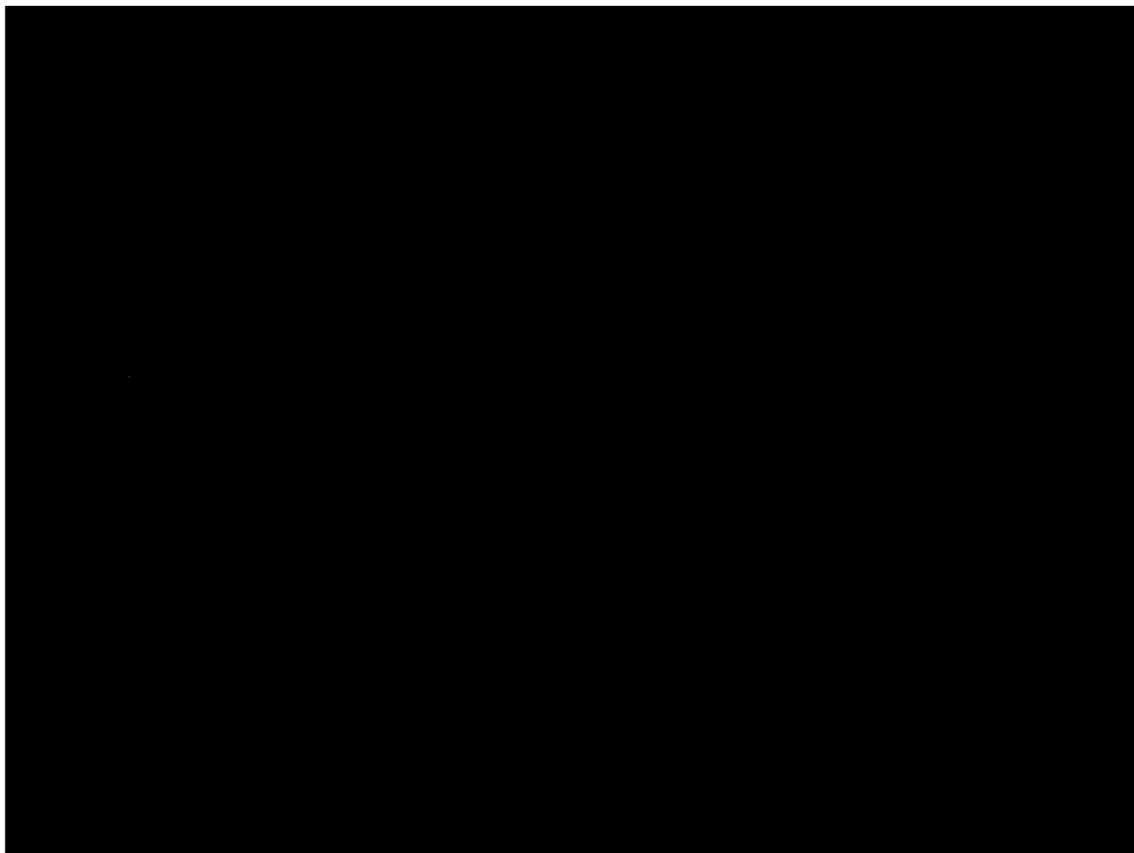
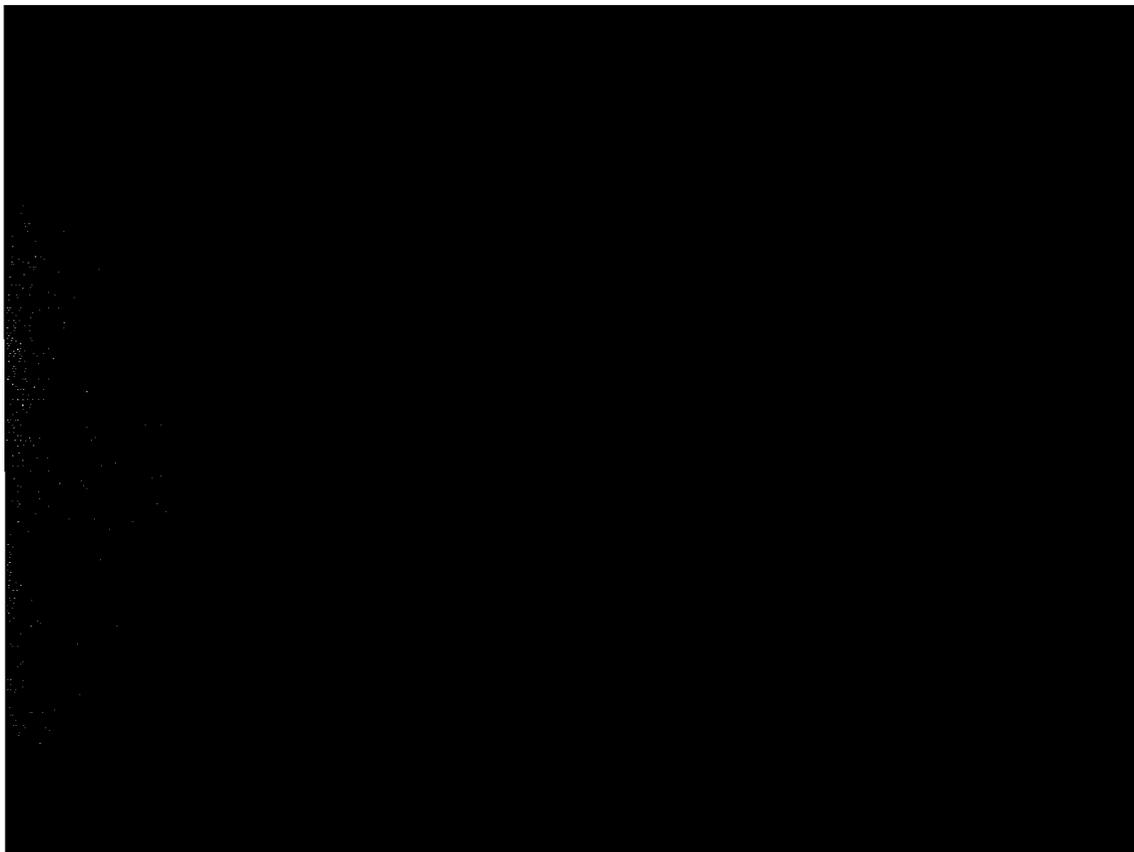
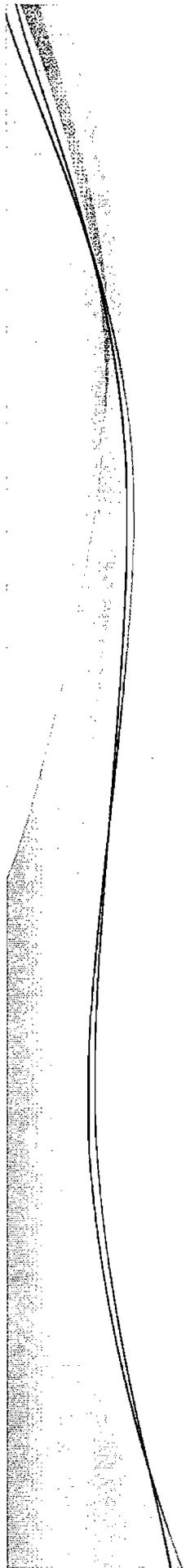
How do we know?

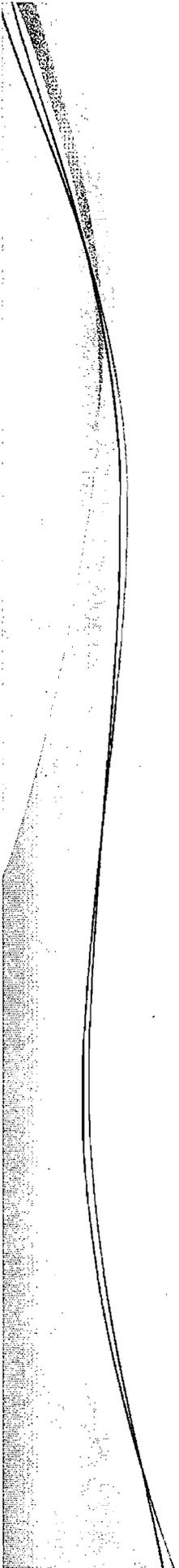




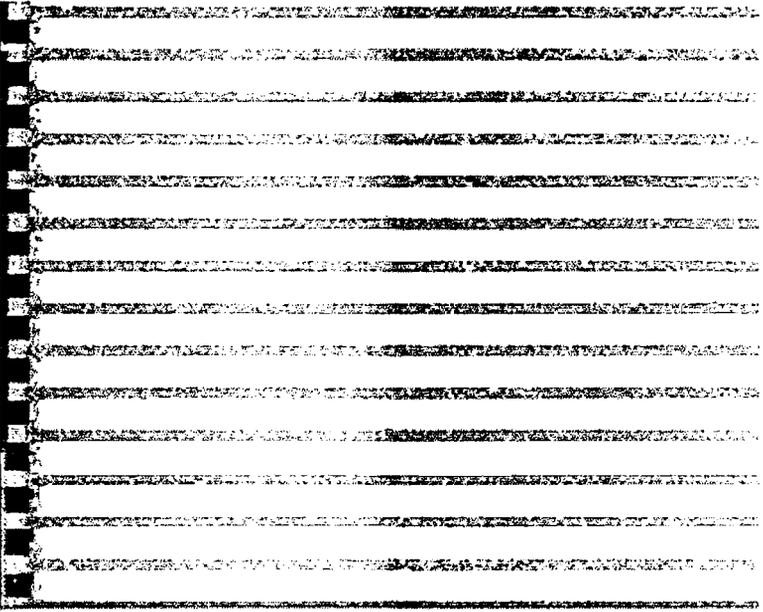
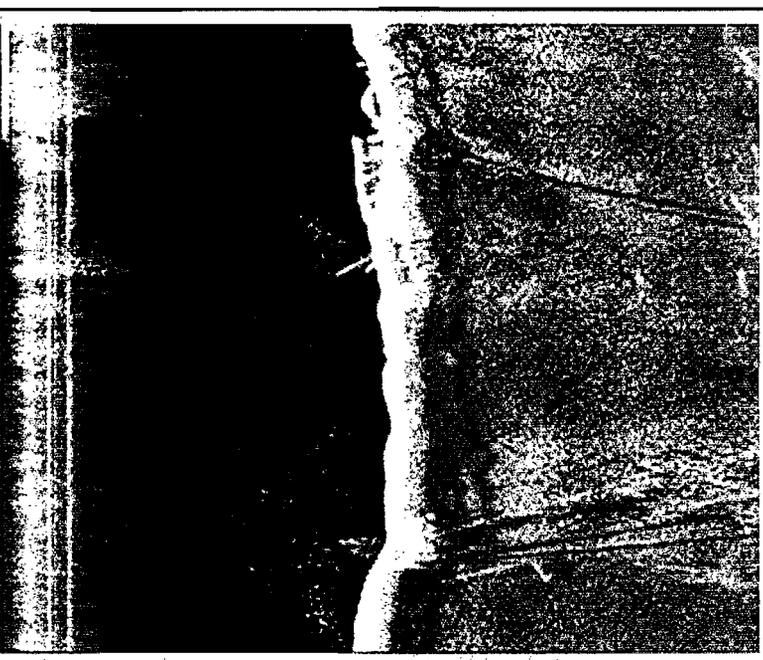
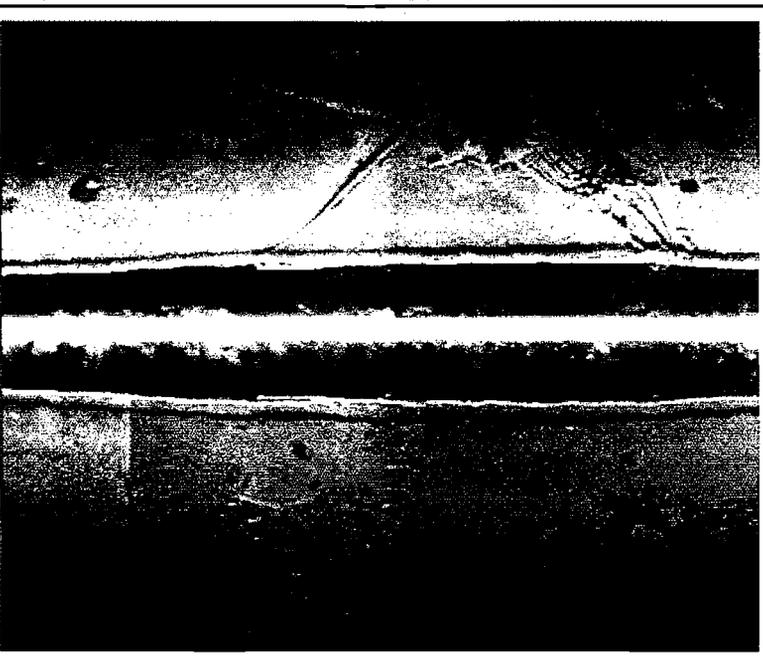
Direct Assessment







Indirect Assessment

<p>11A.12(Primary): Sounding 336</p>		<p>Sensitivity</p> <p>ColorLine</p>
<p>11A.12(Structure dominant): Sounding 459</p>		<p>Sensitivity</p> <p>ColorLine</p>
<p>11A.12(Structure subdecim): Sounding 449</p>		<p>Sensitivity</p> <p>ColorLine</p>

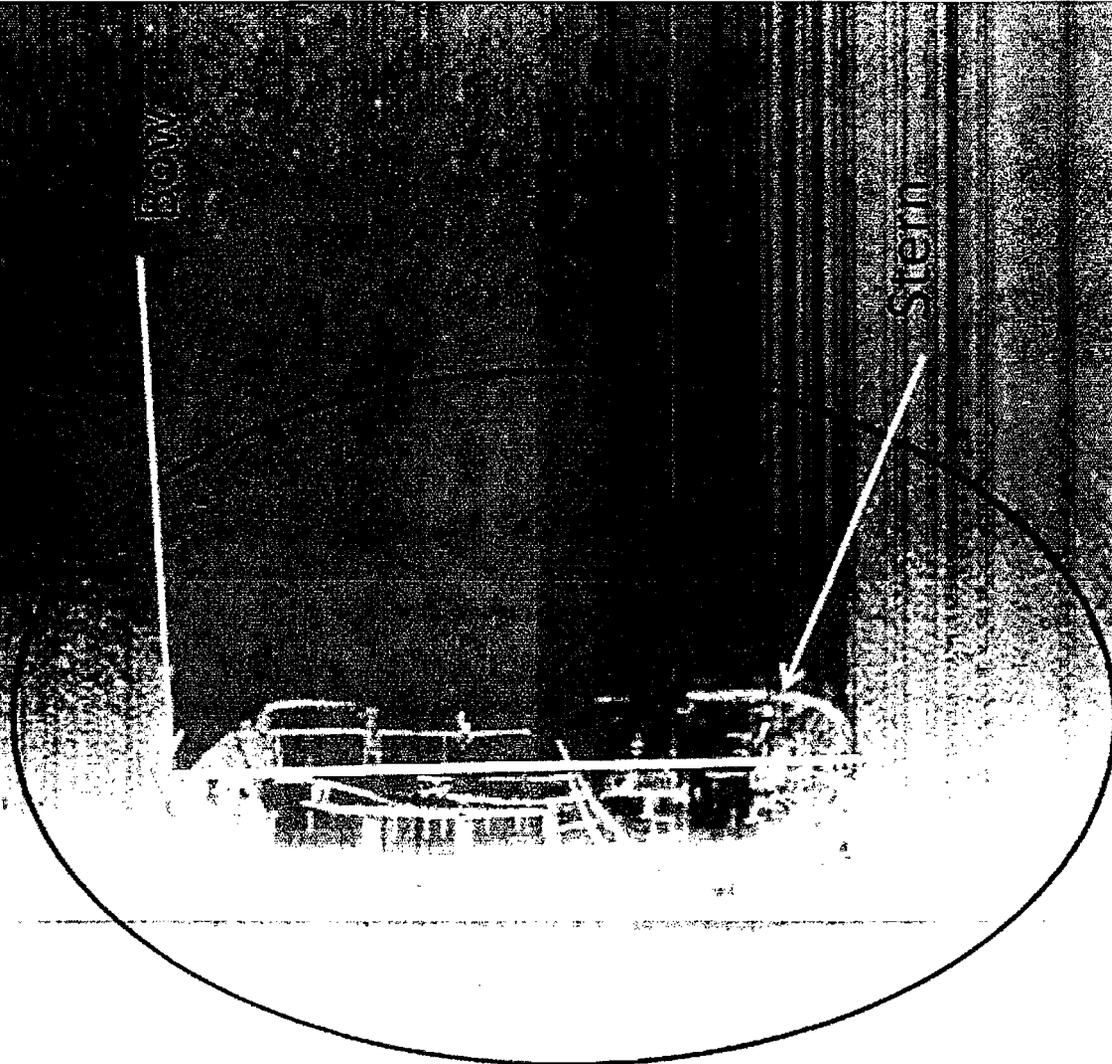
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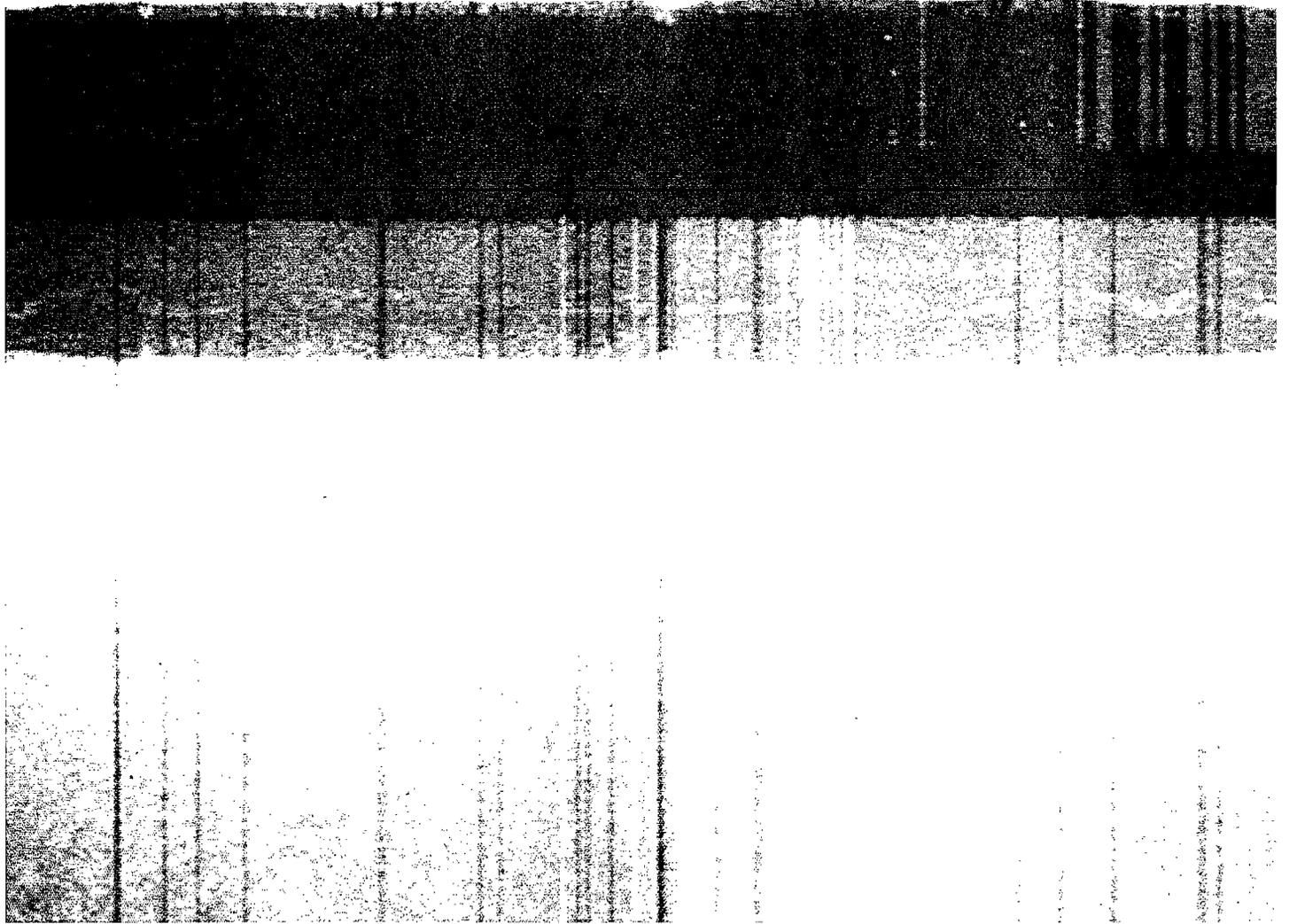
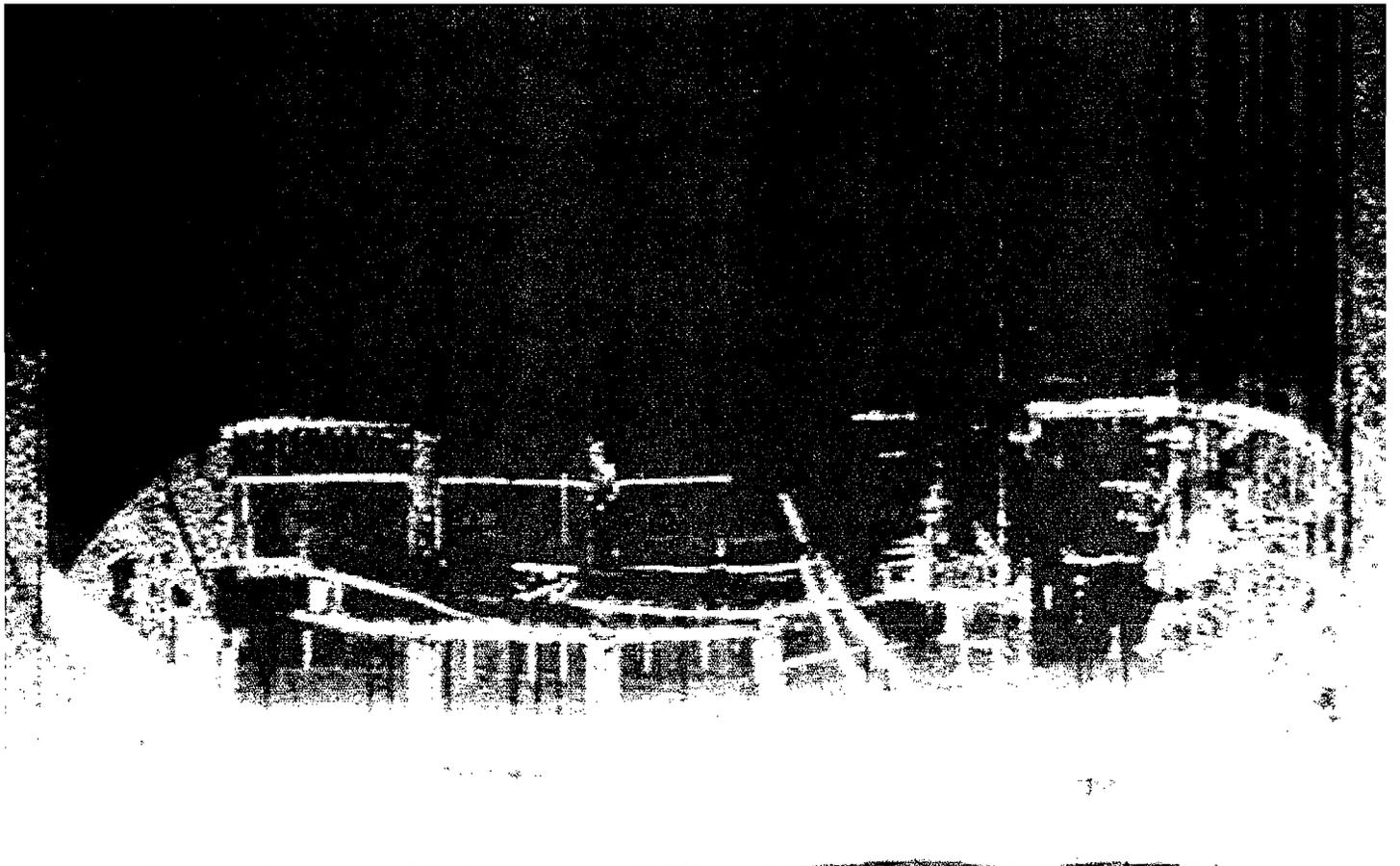
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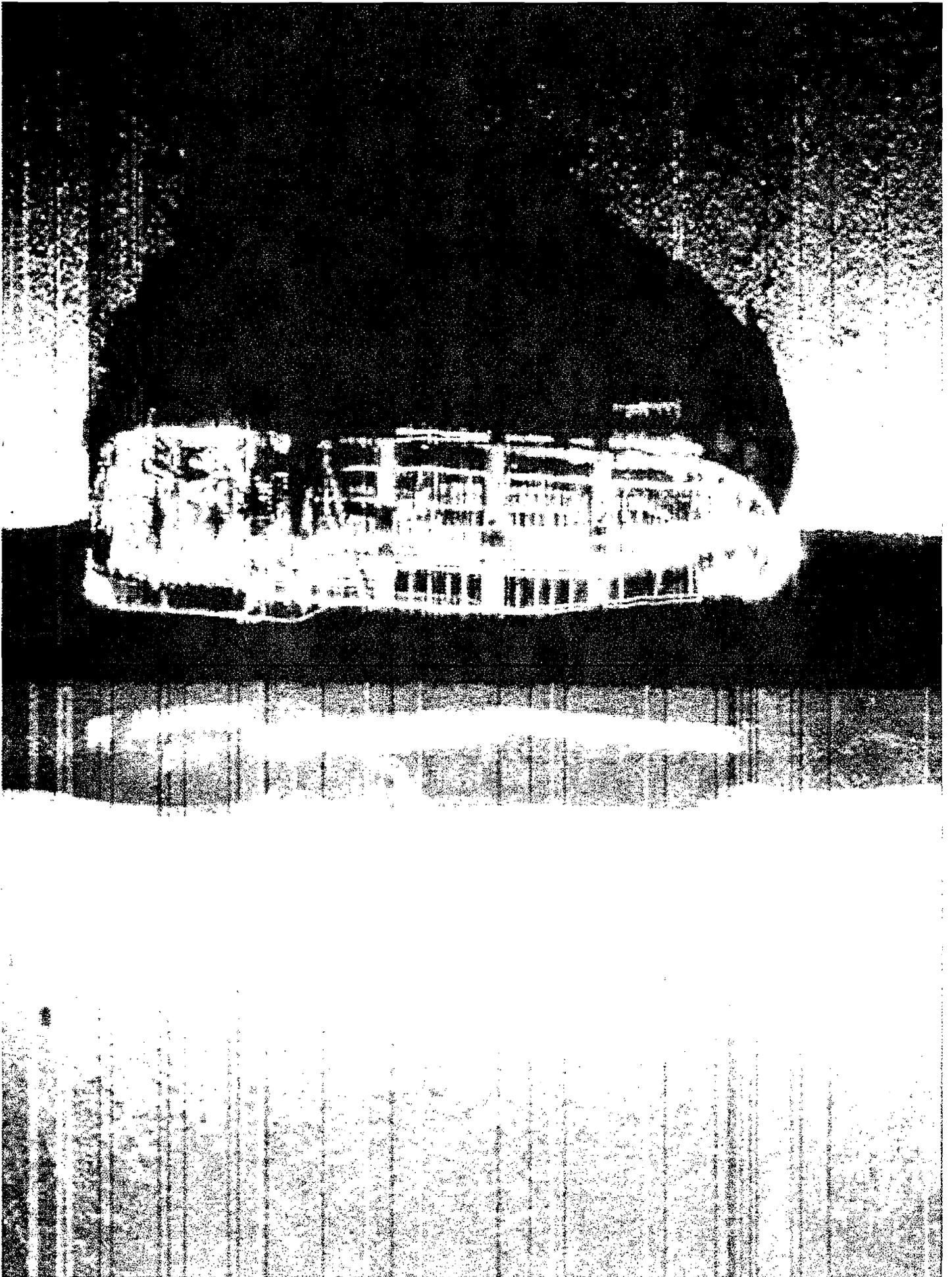
Debris Field

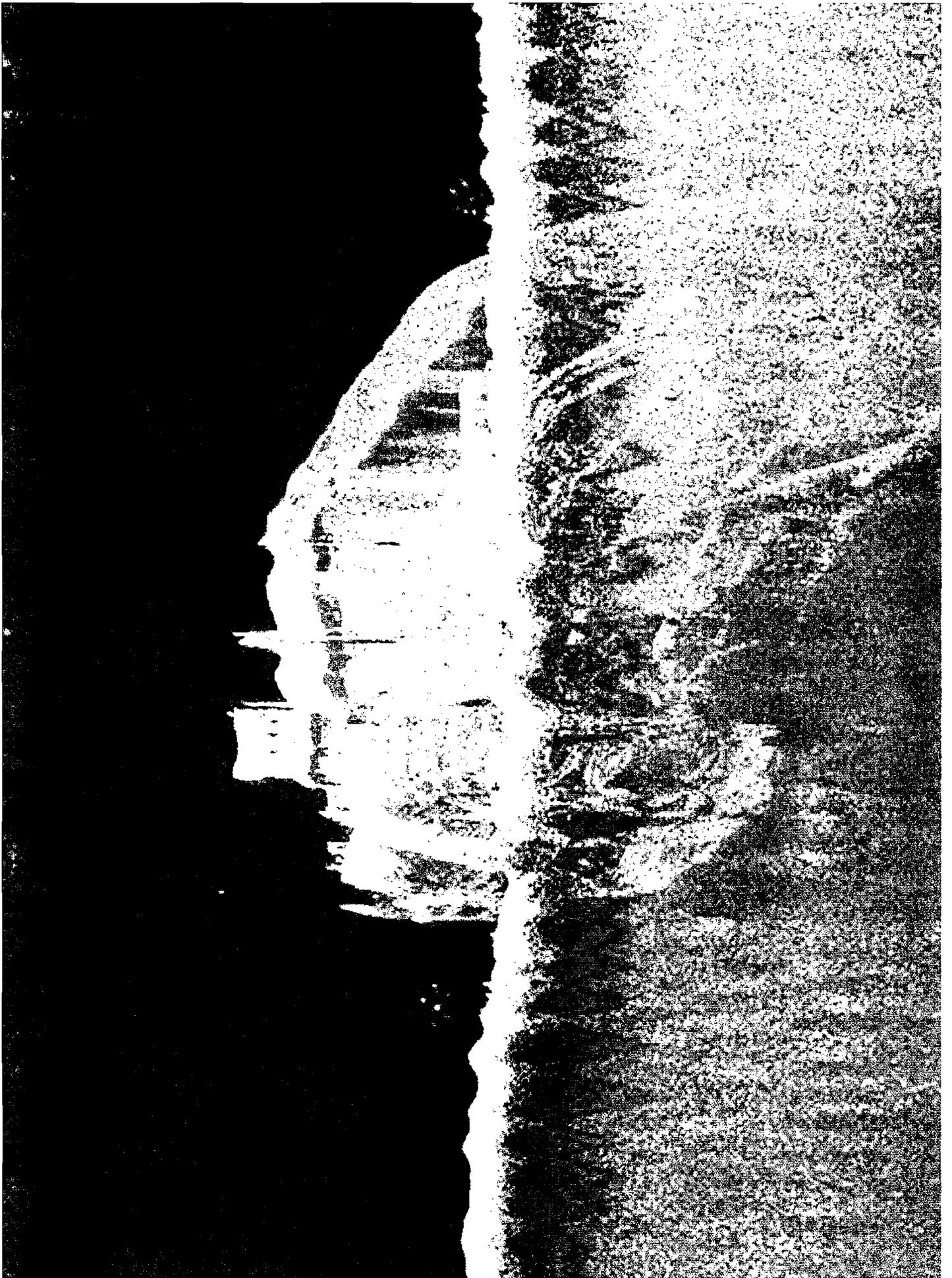


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Fieldwork Accomplished

- Re-located 9, possibly 10 of 14 wrecks
- Indirect survey of 7 sites
 - Documentation through 2 different remote sensing sidescan methods
- Direct survey of 8 sites
 - Underwater documentation (measurements, video, photography (digital and HD))
 - 26 dives, approx. 20 hours of dive time
 - Initial assessments/evaluations



Shipwrecks Documented

- Material Service
- Car Ferry No. 2
- Unknown #4 (Alpha Wreck)
- J. D. Marshall
- Muskegon
- Unknown #5 & #6
- George F. Williams
- F. W. Wheeler
- Possibly the Horace A. Tuttle



Shipwrecks not re-located

- Unknown #3, #7, #8, #9 (buried, covered by riprap, or culvert & stream)
- IDNR list of possible wrecks (Unnamed #1, Unnamed #2, Martha, Pat Herner, Moses Gage, Beloit, Hattie Earl, Green Bay, Fayette, Suffolk, Eureka, Wing J Wing, James K. Polk, Hiroudelle, Superior, Rengoolo, Robert Burns, Post Boy, Michigan City, Chiquita)

What Should We Do?

Wisconsin's Maritime Heritage

Preliminary Analysis of Potential Locations for
State/Federal Partnership with the

Thunder Bay National Marine Sanctuary

A Federal/State Partnership for the
of Underwater Cultural Resources



State

K

Final Environmental Impact
Management Plan

May 1999



U.S. Department of Commerce
National Oceanic and Atmospheric Administration
Office of Ocean and Coastal Resource Management



ASSESSMENT AND MANAGEMENT
FOR HISTORIC SHIPWRECK
WITHIN INDIANA'S TERRITORIAL WATERS OF SO

Prepared for:
Indiana Department of Natu

In partial fulfillment
Existing Recreational Plans for the La
Contract Number E-6

Prepared by:
The Office of Underwat
Indiana Universit
Bloomington IN
47405

Senior Author: Charles
Contributing Authors: Ania Bud

October 2000

REPORT OF INVESTIGA
FOR SUBMERGED CULTURAL
WITHIN INDIANA'S TERRITORIAL WATE

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Management Act of 1972, as amended, administered by the
Management, National Oceanic and Atmos

Prepared for

LAKE MICHIGAN COASTAL
INDIANA DEPARTMENT OF NATU
402 WEST WASHINGTON, RC
INDIANAPOLIS, INDIAN

By

COMMONWEALTH CULTURAL RESO
2530 SPRENG ARBOR R
JACKSON, MI 49203-3

Kira E. Kaufmann, Ph.D., R.P.A., Pr
Andrew J. Weir, M.S., R.P.A., Pr
Kathryn C. Egan-Bruhy, Ph.D., R.P.A.

November 2011
R-0923

MANAGEMENT PLAN
FOR SUBMERGED CULTURAL RESOURCES
WITHIN INDIANA'S TERRITORIAL WATERS OF LAKE MICHIGAN

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Prepared for

LAKE MICHIGAN COASTAL PROGRAM
INDIANA DEPARTMENT OF NATURAL RESOURCES
402 WEST WASHINGTON, ROOM W 167
INDIANAPOLIS, INDIANA 46204

By

COMMONWEALTH CULTURAL RESOURCES GROUP, INC.
8669 NORTH DEERWOOD DRIVE
MILWAUKEE, WISCONSIN 53209

Kira E. Kaufmann, Ph.D., R.P.A., Principal Investigator
Andrew J. Weir, M.S., Project Manager
Kathryn C. Egan-Bruhy, Ph.D., R.P.A., Project Manager

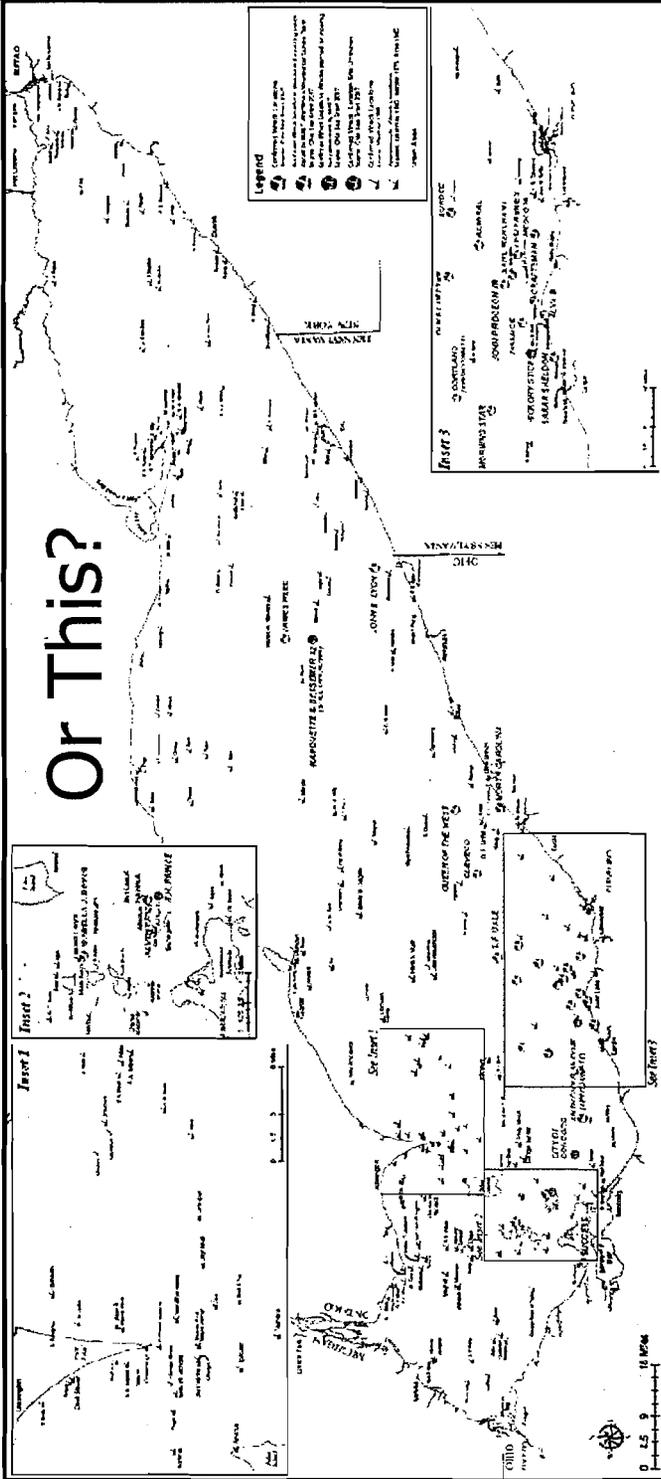
January 2012
R-0986

LMCPR014

Who Should Know What?



Shipwrecks and Maritime Tales of the Lake Erie Coastal Ohio Trail



Map originally prepared for the Ohio Coastal Area, Second Edition, 2007. Ohio Department of Natural Resources, Office of Coastal Management.

Map modified for the Shipwrecks and Maritime Tales of the Lake Erie Coastal Ohio Trail, 2017. Ohio Sea Grant Program, modified by the OCMR Office of Coastal Management, 11/2017.



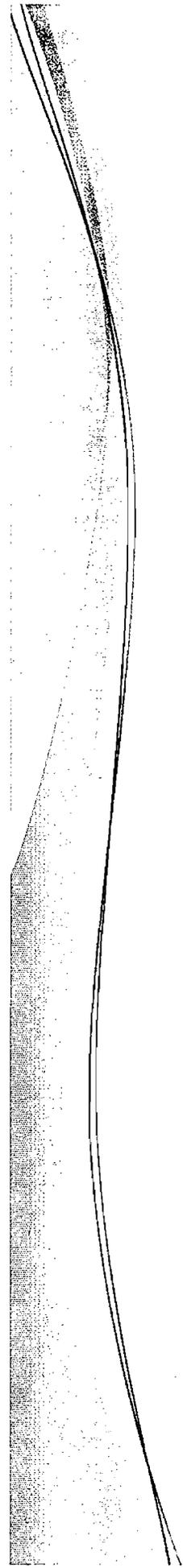
Professor Stephen Bradford
(Map and labels created by
Ohio Sea Grant Program
Ohio State University Extension, 2017)

What are the problems affecting Submerged Cultural Resources?



- ❖ “Looting” – intentional artifact removal and site damage
- ❖ “Souvenir collecting” – removal of “just a keepsake to remind me of this wonderful dive”
- ❖ Inadvertent human impact – anchor damage, dangling gear, poor buoyancy control, resting on or hanging onto a wreck, etc.
- ❖ Erosion – from current, waves, runoff, and boat and ship wake
- ❖ Development – construction, dredging, draining, etc.





Shore Plaque Template



History & architecture of the Material Service

Hundreds of people visit the *Material Service* each year to SCUBA dive on the wreck. The wreck is located in Lake County, Indiana, a quarter mile off the Calumet harbor break wall.

The *Material Service* was built at Sturgeon Bay, Wisconsin in 1929 by Leatham D. Smith for the Smith-Putnam Navigation Company. The *Material Service* powered across Lake Michigan and into the canals and the rivers of Illinois from 1929 until 1936. It was a self-unloading barge, with equipment to mechanically unload its cargo. The ship measured 239.7 feet in length by 40.1 feet beam with a draft of 13.0 feet, and weighed 1077 gross tons, or 736 net tons. This vessel was powered by a twin diesel engine and operated by propeller.

This vessel's design combined with a system of lowering equipment to allow this barge to move under the bridges on the Chicago River without requiring bridge openings. Built specifically to transport sand and gravel from Lake Michigan to docks up the Chicago River, the vessel incorporated architectural elements that were innovative and innovative in functionality and structure. Thus, the vessel represents

a unique twentieth century rivership design.



Image 1001

THE MATERIAL SERVICE

This vessel was a steam operated self-unloader barge, built in 1929. She foundered under storm conditions in 1936, and 15 lives were lost.



Image 1002

Site today & current conditions

The vessel lies fairly intact in an upright position on its hull. The depth of the wreck where its hull lies in the sandy bottom is 33 to 35 feet. The main deck is 22 feet deep and a section of the stern is within 15 feet of the surface.

The vessel consists of the main frame, sidewall

sections, and machine components. The holds are exposed and open on the deck. The sidewalls are intact, but are penetrated by several cracks. The exterior of southern portion of the site (bow area) is intact, with the interior bulkheads having collapsed to an extent. The northern (stern area) is also intact, but the upper deck and pilot house have been destroyed. The lower stern area with propeller assembly is still in place, but the propeller is partially buried.

Interesting features on the interior of the vessel are the bulkhead supports traveling along the center of the holds. A hatch with a ladder leading below deck is tempting to divers, but is not safe to enter. Mechanical equipment present includes a rock crusher with its roller, pulley, gears, the self-unloader rail stands, boom rails, vent and moving bits.

The environment around the site area is barren silted sand. The water conditions often include mild to strong currents, which can quickly reduce water clarity. Typical visibility ranges from 5 to 15 feet. In the summer months, the water temperature ranges from the high 40s to 65 degrees Fahrenheit.

Sinking event

On the fateful last journey, the ship departed Lockport, Illinois, headed for South Chicago. Captain Charles D. Brown was commanding the vessel; he did not survive. It was reported that a large wave washed over the ship, causing it to list sharply and quickly, before much of the crew could react and get free of their berths. At the time of the disaster, the ship had a cargo of 2,500 tons of sand or gravel. It was owned by Material Service Company of Chicago, and their loss was estimated at \$500,000 in 1936.



Image 1003

Flora and fauna

Biotic life at the *Material Service* includes algae, sponges, zebra mussels, and fish. Fish common on this wreck are small mouth bass and invasive round goby. The deck is covered with invasive green algae. Invasive zebra mussels are prevalent throughout the ship structure on the metal hardware, sidewalls, and machine components, where they obscure fine structural details.

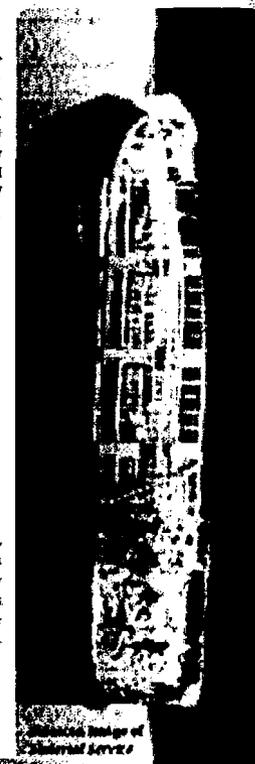


Image 1004

- Indiana Underwater Heritage Site -

On-Site Plaque Template



THE WRECK OF THE MATERIAL SERVICE

Driven by a twin diesel engine and operated by propeller, the Material Service powered across Lake Michigan and into the canals and the rivers of Illinois from 1929 until 1936. It was a self-unloading barge that measured 239.7 feet in length by 40.1 feet abeam, with a draft of 13.9 feet and a weight of 1077 gross tons, or 736 net tons.

This vessel had a superstructure and a system of lowering equipment that allowed it to move under the bridges on the Chicago River without requiring bridge openings.

She foundered under storm conditions on July 29, 1936, and 15 lives were lost.

INDIANA UNDERWATER HERITAGE SITE

About the vessel

Thousands of people visit the beach at Indian Dunes State Park each summer. The beach visitors are unaware of the magnificent historic shipwreck lying at 50 feet off shore just south of the swimming beach. In 1913 the ship "Henry" was wrecked on the beach.

The wreck of the "Henry" is one of the most interesting and historic shipwrecks in the world. It is a fine example of a 19th-century schooner and is well preserved. The ship was built in 1850 and was one of the largest and most powerful vessels of its time. It was wrecked on the beach at Indian Dunes State Park in 1913.



Historical facts

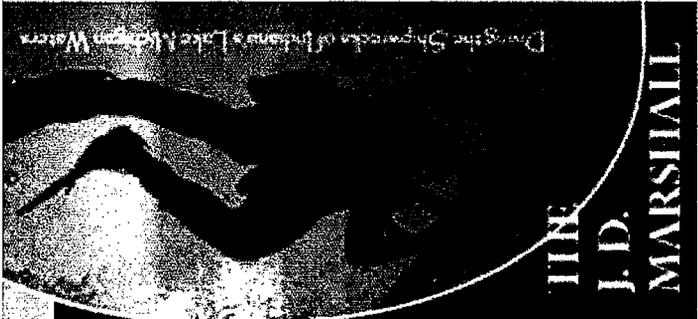
The "Henry" was built in 1850 and was one of the largest and most powerful vessels of its time. It was wrecked on the beach at Indian Dunes State Park in 1913. The ship was built in 1850 and was one of the largest and most powerful vessels of its time. It was wrecked on the beach at Indian Dunes State Park in 1913.

History of the vessel

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THE J.D. MARSHALL

Diving the Shipwreck of Indiana's Lake Michigan Waters

Brochure Template

Ship architecture

The J.D. Marshall was built in 1850 by C. Jones in the city of New York. It was one of the largest and most powerful vessels of its time. The ship was built in 1850 and was one of the largest and most powerful vessels of its time. It was wrecked on the beach at Indian Dunes State Park in 1913.

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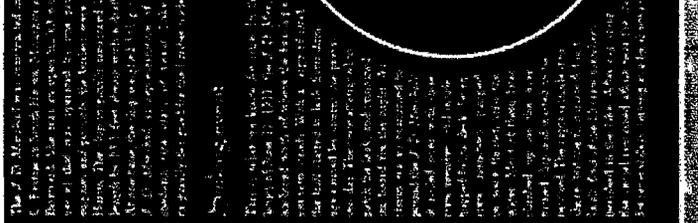
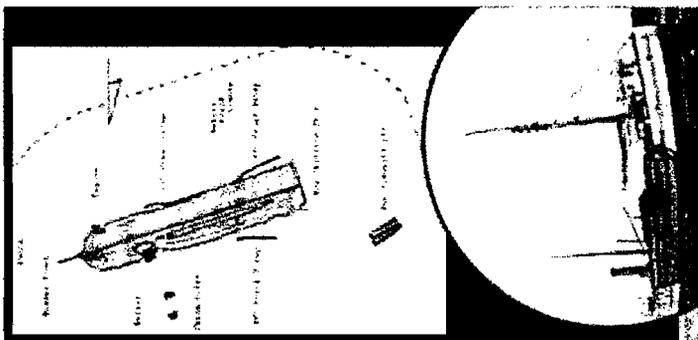
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Water & diving conditions

The water around the shipwreck is very clear and the visibility is excellent. The water is very clean and the visibility is excellent. The water is very clean and the visibility is excellent. The water is very clean and the visibility is excellent.

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Online Presence



Home | Photos | Submerged Cultural Resources | Contact Us

Indiana Lake Michigan Underwater Archeological Resources Project

With funding from NOAA, Indiana's Lake Michigan Coastal Management Program coordinated archeological investigations of shipwrecks in the Indiana waters of Lake Michigan. A contract to perform the investigations was awarded to the Commonwealth Cultural Resources Group, Inc. (CCRG), with oversight by the State Archeologist and Indiana State Museums and Historic Sites.

This project updated previous research about maritime resources and conduct archeological survey for previously known and unidentified submerged cultural resources within the Lake Michigan territorial waters of the State of Indiana. Specifically, the research and survey provided updated documentation on both previously and newly identified shipwrecks, and assessed the potential National Register of Historic Places (NRHP) eligibility of these resources.

The research yielded significant information on submerged cultural resources to inform the public of their significance and work for the public to make aware these resources. An important goal of this project was to complete the archeological survey results with a row of best practices to develop a management plan focused on conservation and preservation of these resources while allowing for public use. This management plan has been used in the survey and inventory of resources to provide a plan for protection of the resources and activities that include public recreational uses for the resources identified, to keep up with the goals of the Lake Michigan Coastal Program (LMCP). The management plan provides information and interpretation of these resources for state authorities to use in their ongoing efforts to manage coastal resources. Stateholder input has been a key factor in the success of this project.

Dive Site Protection

- Do not anchor on coral or wreck structure.
- Maintain buoyancy when SCUBA diving sites.
- Take only pictures and leave only bubbles.

Site Protection Links

- National Heritage Council
- Protecting Navy Shipwrecks
- Protecting our Heritage: Wrecked Great Lakes Shipwrecks
- Department of Environmental and Natural Resources

Site Protection For Scuba Divers

- Protecting Navy Shipwrecks
- Better Buoyancy Tips

Students Learning Information

- Quick Protection Shipwrecks

Visiting Dive Sites and Safety Tips

- How to Stay Safe at Sites (Link Pending)
- Dive Safety Tips

Lake Michigan Links

- Indiana's Official Travel Planning Source

Future Partnership Efforts...

MAST

Maritime Archaeological Survey Team

Maritime Archaeological Survey Team, Inc.

P. O. Box 93352

Cleveland, OH 44101-5352

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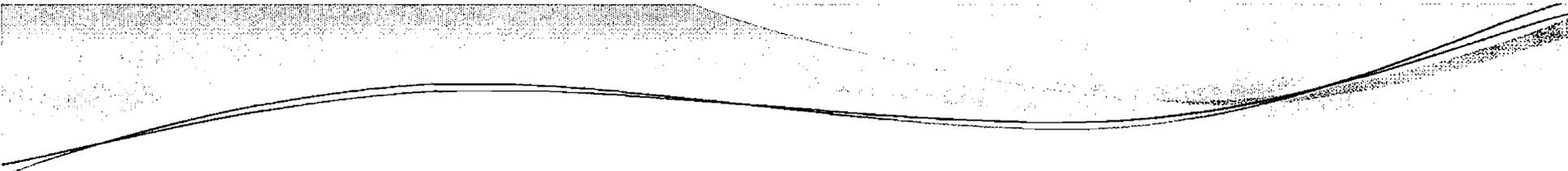
How did MAST become who they are today?

MAST, the Maritime Archaeological Survey Team is a nonprofit avocational group dedicated to the documentation of Ohio's underwater historic resources. Formed in March of 2000, MAST is composed of volunteer individuals who support and participate in research, documentation, underwater archaeological surveys, and educational workshops.

MAST's ongoing commitment to education includes training new members on skills and techniques used for shipwrecks research, measuring, mapping and plotting. In addition, MAST works to educate our community in our historic underwater resources.

MAST's shipwreck surveys have resulted in the several technical reports including the Adventure, the Hanna, the F.H.Prince, as well as the registration of these shipwrecks as official archaeological sites with the State of Ohio. MAST has also worked to produce underwater slates for the sites surveyed.

[Click here to review the MAST ByLaws \(in PDF format\)](#)



Economic Impacts of Preservation & Heritage Tourism

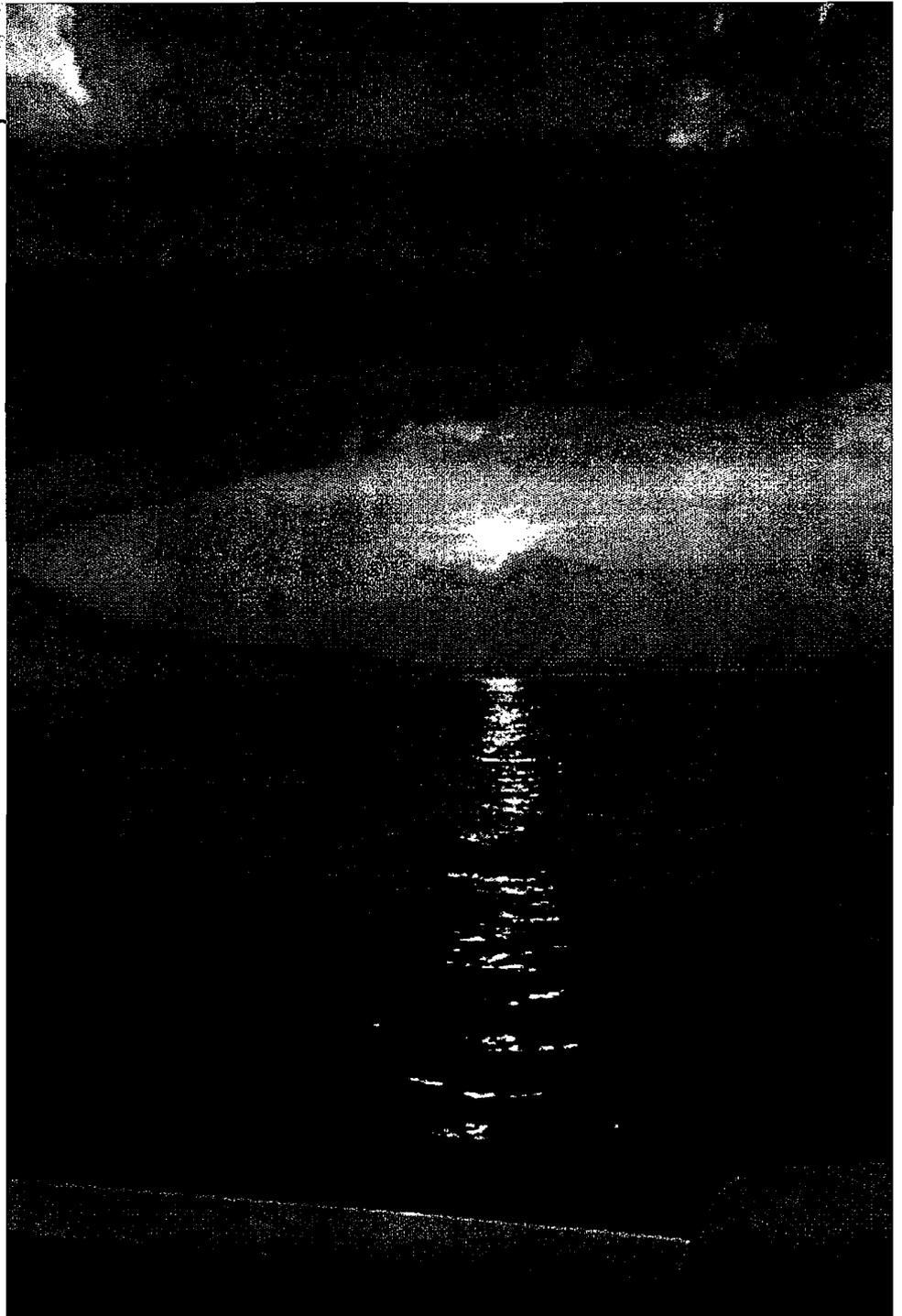
- Preservation & Heritage Tourism provide to the community & the public:
 - Heritage conservation
 - Aesthetics
 - Knowledge
 - Economic
 - Recreational opportunities

Questions?

kkaufmann@ccrginc.com

mmolnar@dnr.in.gov

*Funding for this project provided via a
Cooperative Agreement with NOAA
Office of Coastal Resource Management
Under Section 309 of the Coastal Zone
Management Act*



STATE LAWS



Indiana laws that relate

- Indiana State Preservation laws (IC 14-3-3.4, Section 7)
- 312 IAC 6-2-4 defines a historic shipwreck as a “shipwreck that is located within a historic site”
- An abandoned shipwreck is defined in 312 IAC 6-2-2 (1997)

“a shipwreck to which title has been given up by the owner with the intent of never claiming a right or interest in the future. An intention to give up title may be demonstrated where an owner: (1) takes steps to collect insurance or pay a salvage award to a person who salvages the vessel’s cargo; or (2) takes no action after a wreck incident to recovering or removing the vessel and its cargo”



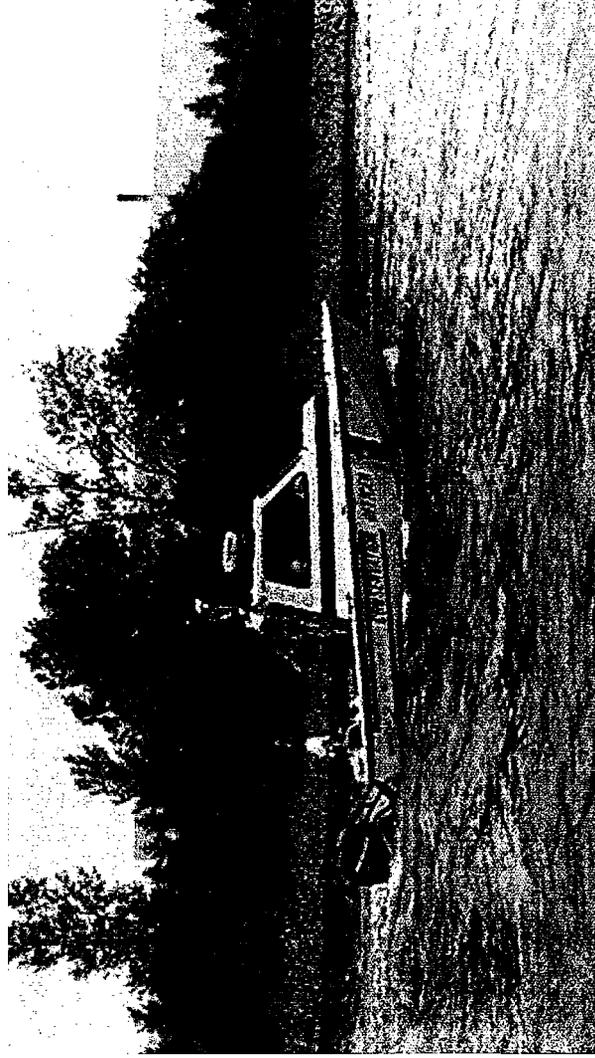
Indiana laws that relate

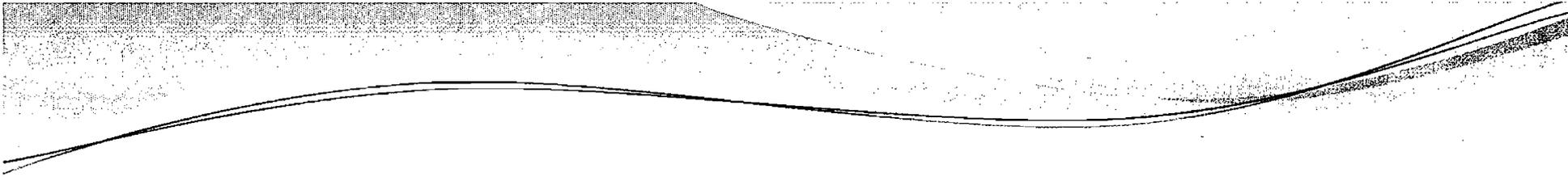
- The rule that broadly conveys authority for submerged cultural resources is statute IC 14-21-1, passed in 1989
- The rule that more directly conveys authority for shipwrecks is 312 IAC 6-3-2, or the “Administration of shipwrecks through division of historic preservation.”



Indiana laws authority

- Division of Historic Preservation and Archaeology (DHPA) reviews and issues permits
- Division of Law Enforcement (DLE) enforces laws





Indiana laws that relate

- Rule 312 IAC 6-3-3, about licensing, details that no person may remove, disturb, salvage, or destroy an abandoned shipwreck or a historic site located in whole or in part within a navigable waterway except under a license issued by DNR/DHPA.
- The applicant must satisfy 312 IAC 21, 312 IAC 22, IC 14-21-1, and IC 14-29-1-8



Indiana laws that relate

- Under IC 14-21-1-16 a permit is required to conduct field investigations on state properties, which includes shipwrecks embedded on state bottom lands.
- 312 IAC 22-1-14 defines the "Plan" as an archaeological plan for the systematic recovery, analysis, and disposition by scientific methods of material evidence and information about the life and culture in past ages.
- 312 IAC 21-3-3 addresses the requirements for an archaeological plan prior to conducting fieldwork
- 312 IAC 21-3-4 adresses personnel qualifications for researchers conducting underwater archaeological investigations

VIII. Final Recommendations

In analyzing the successful result of a large majority of the 48 recommendations put forth in 1999, the current members of the Lake Management Work Group issue these final two recommendations:

1. There is still a need for the existence of an organization or entity that is tasked with the responsibility for education and advocacy on lakes-related issues at the state level, with the legislative support to accomplish viable results.

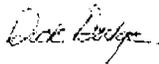
Potentially, this could be addressed through the creation of a permanent sub-committee on lake issues reporting to the Natural Resources Study Committee in the Indiana General Assembly.

The effectiveness of the Lake Management Work Group from its first inception in the 1990's, has been in part due to the forum it provided for members of the General Assembly, staff professionals from federal and state agencies with responsibilities that impacted lake management, and a variety of non-governmental organizations, associations, and industries that had an interest or impacts on Indiana's lakes. The support for addressing the issues related to lakes is dependent on a strong and passionate advocacy for Hoosier lakes. Who will be that strong and passionate advocate is the question that no one can answer as the Lake Management Work Group hereby concludes its legislative mandate.

2. The economic value of Indiana Lakes must be better explained to those in the Legislative and the Executive Branches of Indiana, as well as to the residents and users of lake resources and the public in general. Without recognition of the actual benefits and intrinsic values brought to the state's economy from the presence of healthy lakes, the need to fund solutions to lakes issues will face tough competition in an era of shrinking governmental funds. The importance of showing that money is not spent, but invested on solving lake issues will be the prime challenge to those who carry on with the discussion on the issues highlighted in this report.

This report is submitted on behalf of the Lake Management Work Group June 30, 2012

Signed,



Representative Dick Dodge, Chair
Lake Management Work Group

NEWS RELEASE

Media Contact: Tory Flynn
Phone: (317) 232-9887
Email: tflynn@iga.in.gov

FOR IMMEDIATE RELEASE

Wednesday, June 27, 2012

DODGE: Group has made ‘Great Strides’

STATEHOUSE – After twelve years of dedicated service the Lakes Management Work Group has submitted its final report, spearheaded by retiring member, Rep. Dick Dodge (R-Pleasant Lake).

“It has been an absolute pleasure to have served as a member of the Lakes Management Work Group this past year. I feel that we have made great strides over the years and have made headway on issues addressing Indiana’s freshwater lakes,” said Rep. Dodge.

The group originally formed in 1999, and in twelve years made an immense amount of progress in addressing many areas as a result of the efforts of citizens, staff, as well as state and county agencies. The Lakes Management Work Group has issued a list of 48 recommendations over the span of the group’s history, some of which have been reflected in legislation or administrative code that has been enacted.

“This issue has been a major passion of mine over the years. I am grateful to everyone who has supported our group in addition to all of the group members, attendees, and organizations that who have worked to better our Indiana lakes,” said Rep. Dodge.

In total the Lake Management Work Group has held 35 meetings from 2000-2012. To review the report in full, please visit <http://www.in.gov/legislative/igareports/agency/lmwg.html>

This table indicates whether or not a recommendation provided by the Lake Management Work Group has been resolved, partially resolved, is currently active and operational, or has been unresolved entirely. 87% of the recommendations have been resolved, partially resolved, or are in active operation as a result of actions by various agencies, entities and the legislature over the last 12 years.

Recommendation	Resolved	Partially Resolved	Actively Operating	Unresolved
1				
2				
3				
4				
5		✓		
6				
7				
8				
9				
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38				
39				
40		✓		
41				
42				
43				
44				
45				
46		✓		
47				
48				
Percentage	31%	29%	27%	13%