



# FINAL REPORT OF THE INDIANA SUSTAINABLE NATURAL RESOURCES TASK FORCE

D E C E M B E R 2 0 1 2





*“Resources will only be conserved as a result of intent.”*

Ray McCormick, Indiana farmer



#### Members of the Sustainable Natural Resources Task Force

Senator Doug Eckerty  
Senator Richard Young  
Representative Michael  
Karickhoff  
Representative Phil Pflum  
Ray McCormick, Indiana  
Association of Soil and  
Water Conservation  
Districts  
Dave Wyeth, Indiana Farm  
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Robert Woodling, Indiana  
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Bill Weeks, Chairman,  
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Steve Cecil, Indiana Wildlife  
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Europeans began to move to the Americas 500 years ago. At that time, Indiana was almost unimaginably rich in natural resources. The Miami and Shawnee peoples 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 punctuated rain fed streams and modulated the flow and seasonal availability of water; 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, yet most Hoosiers now couldn't say why the bison appears on the state seal.

Natural resources were the capital upon which our economy was built. Today, they are still the foundation upon which our economy functions. Ours is not the first generation to ask whether it is time to consider the status of this natural capital.

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. Land was acquired for parks and forests. Over the course of the 20th century, state leaders passed laws designed to preserve natural resources for our use and that of future generations, with the objective of preserving and restoring clean water, clean air, productive soils, forests, and wildlife. These important efforts produced positive results. For example, a higher percentage of Indiana is forested now than was forested 100 years ago. But overall, evidence suggested that our natural assets were not secure.

In 2011, Indiana's legislature and its governor faced 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 and maintaining our natural capital. They created the Indiana Sustainable Natural Resources Task Force to review and report on the state's management of natural resources.

# Perspective

## *Members, Specific Objectives, and Progress of the Task Force*

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; and six members representing various conservation and landowners' organizations.

The Task Force followed the requirements of the legislation by collecting information concerning current natural resource protection programs in Indiana and surrounding states, considering which functions need additional attention and funding, developing a report card on the health of the state's natural resources, and preparing and presenting interim reports to the legislature and the governor.

The Task Force met regularly from August 2011 through October 2012 to gather and evaluate information it needed to fulfill its legislative mandates. As the legislation specified, the Task Force sought and received reports from the Indiana Department of Agriculture, the Indiana Department of Environmental Management, and the 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. The Task Force considered each resource extensively and is submitting consensus recommendations dealing with all except air and atmosphere. Though it benefited from excellent presentations and advice on air and atmosphere issues, the Task Force, as legislatively constituted, lacked sufficient experience and expertise to develop firm consensus recommendations as to those resources.

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

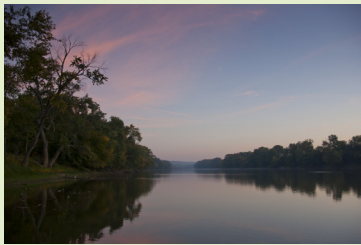
This report *is* intended to be a call to action on the carefully developed recommendations we are submitting.

They have been designed to address pressing needs of **water, soil, forest, biodiversity, and wildlife** in sustainable natural resources policy and management.

# Key Initiatives and Recommendations

*“Follow the water.”*

**Dr. Nyogi**, The Indiana State Climatologist



Wabash River. Photo © Christopher Jordan

## Water Resources

- If well managed, Indiana’s water resources should provide the state a comparative economic advantage. Indiana waters are an extraordinary resource.
- The population of central Indiana is outpacing robust supplies of water. Water supplies in parts of southeast Indiana 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. The current planning effort assigned to the Indiana Utility Regulatory Commission will obtain useful data, but the state will be better served with a more comprehensive approach, including consideration of natural systems and wildlife.
- 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.
- There is no system of uniform, conservation-oriented standards for drainage, and there is 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 the conflicting goals and needs regarding the waters of the state, we recommend consolidating state authority for certain distinct water-related tasks into one entity.

- Flood control permitting and policy implementation need to be linked in one governmental home with standard setting for and oversight of drainage.
- Another critically important function of this new entity is serious planning for water availability, storage, and distribution systems to ensure that 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 resources in times of climate variability for people and nature. A small investment will pay huge economic and quality of life dividends.

# Key Initiatives and Recommendations

## Soil Resources

- Indiana has already lost half of its topsoil through wind and water erosion. We are still losing over three tons per acre per year on average. More than 20% of Indiana's corn crop was grown under a no-till system in 2011, representing a good start on reducing soil erosion. But the Conservation Cropping Systems Initiative (CCSI) can do even more to restore and sustain high functioning soil that absorbs and holds water, thus diminishing erosion and reducing the impact of runoff.
- Climatologists predict that Indiana is likely, in the coming years, to experience fewer, but more extreme precipitation events. Better soil management systems will help prepare the state to deal with heavier rains and longer periods of drought.
- Local soil and water conservation districts (SWCDs) have been negatively impacted by reduced local revenues. SWCDs are an essential resource for rural and urban landowners who could benefit from information and technical assistance in implementing practices that reduce runoff.

### Key Recommendations:

1. We recommend increased technical assistance in order to achieve a goal of 30% of Indiana's farmland employing CCSI and its evolving principles by 2030. This will require an increase, beginning this year, in Clean Water Indiana funding for the State 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. While Indiana is currently leveraging Clean Water Indiana funds very well, it is likely that more federal program dollars could be brought to Indiana to support the CCSI.
2. We recommend increasing the funding for Soil and Water Conservation Districts from \$10,000 per year to \$20,000 per year. To qualify for the increased funding, local districts would be required to secure matching funds. Increased funding will enable them to invest in local staff or joint efforts with neighboring SWCDs to bring innovative practices to farmers in every region of the state.



Examples of erosion from 2008 flooding event in Indiana. Photos courtesy of NRCS.

### The Indiana Conservation Cropping Systems Initiative (CCSI)

CCSI promotes a systematic approach to production agriculture focusing on: (1) continuous no-till/strip-till; (2) cover crops; (3) precision farming; and (4) nutrient and pest management. A model program of technical assistance for CCSI implementation has been highly successful.

# Key Initiatives and Recommendations



Forest in southern Indiana. © TNC

## Third Party Certification for State Forests and Classified Forest Parcels

- Indiana's Division of Forestry has gone through a rigorous process designed by the Forest Stewardship Council for certification of logging and other forest management of our state forests.
- As a benefit of the Classified Forest and Wildlands Program, program landowners can join the Indiana Classified Forest Certified Group which provides certification through the Forest Stewardship Council.

## Forest Resources

- From the time of settlement to 1930, Indiana lost 18 million acres of forest, reaching a low point of about 500,000 acres during the Great Depression. Since then, Indiana has added about 3.5 million forested acres. However, our current 4 million acres of forested land is again under stress because of fragmentation, deer overpopulation, invasive species, and conversion to other uses. Smaller forest tracts do not support the full array of wildlife and plants or provide all the ecosystem benefits that a larger, contiguous forest can support.
- Of Indiana's 4 million forested acres, only 156,000 are owned by the DNR's Division of Forestry. Another 200,000 is in federal ownership. Private landowners own 84% of Indiana's forest.
- Good management can sustain and enhance the forests in Indiana, but the overwhelming majority of Indiana woodlands are not managed for long term economic or ecological returns.
- The budget of the Division of Forestry has dropped by over 30% in recent years. One of the effects of those cuts is diminished resources for getting Indiana's private landowners the information they need to manage their forest acres well.

## Key Recommendations:

1. We recommend that Indiana commit to maintaining its current 4 million acres of forest cover.
2. To achieve that goal, we recommend investing \$2.5 million annually toward consolidating ownership within current state forest boundaries and acquiring contiguous forest lands, as well as to acquire riparian forest on major and high diversity Indiana waterways. To fund this investment, we recommend re-dedicating a portion of the revenues from state forest timber sales for acquisition, and replacing the operating revenue thus diverted with general funding.
3. Additionally, to achieve the goal of maintaining 4 million acres, we recommend that Indiana increase technical assistance in forest management and planning to private landowners by adding one assistant district forester in each of Indiana's forest districts.



# Key Initiatives and Recommendations

## Biodiversity and Wildlife

- From cypress swamps to cranberry bogs, from tallgrass prairies to hemlock bluffs, from mussel shoals to caves, Indiana is blessed with a wide range of habitats that support a wondrous diversity of plants and animals.
- While Indiana's waters are home to a high diversity of aquatic species, including mussels, crayfish, and fish, this diversity is threatened.
- Two of Indiana's historically significant game birds—ruffed grouse and quail—are in decline. Our white-tailed deer population has rebounded from near extinction in Indiana to levels that are unsustainably high for the ecological health of much of its habitat.
- Land use data show that 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. Much of what remains of our native landscape is fragmented. These lands and the diversity of plants and animals they support are threatened by invasive species. Degraded lands are less effective at providing nature's services, including such benefits as water quality, flood control, and pollination.
- Public and private partners, working together, use a science-based analysis of the species and natural communities of Indiana and a map of important lands to guide biodiversity conservation.
- Land conservation in Indiana is both a public and private task. DNR is the lead public agency. Its activities are complemented and leveraged by conservation groups across Indiana and by the efforts of individual landowners who put conservation easements on their lands, enter into leases for environmental management, engage in best practices, or donate lands to the state or local land trusts.
- The Indiana DNR owns approximately 390,000 acres and manages an additional 139,000 acres—about 2.27% of total state acres. By comparison, state natural resource conservation lands range from a high of 12% of state acres owned/managed in Michigan, to 3% in Kentucky, 2.5% in Ohio, and 1.3% in Illinois.



*Build it, and they will come. When Indiana has invested in large complexes of natural and managed conservation lands, it has obtained impressive returns in wildlife and outdoor recreation. Goose Pond Fish and Wildlife Area in Greene County is an excellent example. Goose Pond sunset © Lee Sterrenburg. American White Pelicans © Jim Sullivan.*

The Bicentennial Nature Trust (BNT) was established by Governor Daniels with \$20 million of reallocated funds “to protect still more of our most precious natural spaces... a fitting sequel and bequest from our second century to our third.” The first 6 months of the BNT demonstrates the demand for such a program, with one quarter of the \$20 million already spent on 24 natural and outdoor recreation land projects. The total value of these projects was \$14 million, meaning that BNT funds were leveraged nearly 3 to 1.

# Key Initiatives and Recommendations

## Potential Sources of Funding for Land Acquisition and Conservation Incentives

- The creation of a dedicated lottery ticket for conservation, with a goal of raising \$7 to \$10 million per year.
- The sale of an annual pass for state forests, nature preserves, and state hiking trails, which could be purchased at point of sale venues for fishing and hunting licenses or at State Parks.

## Key Recommendations:

1. We recommend that the General Assembly and the Governor continue the Bicentennial Nature Trust instituted in January 2012 (by executive action) as an 8-year commitment, ending in 2020.

### BNT Biennial budget appropriations:

2013	\$5 million	(FY15)
2015	\$5 million	(FY16-FY17) per year
2017	\$5 million	(FY18-FY19) per year
2019	\$5 million	(FY20)

2. We recommend that the General Assembly recommit to the critical role it plays in providing DNR landholding divisions with acquisition funding\*:

### Biennial budget appropriations:

2013	\$1.5 million	(FY14-FY15) per year
2015	\$2.5 million	(FY16-FY17) per year
2017	\$2.5 million	(FY18-FY19) per year
2019	\$5 million	(FY20)

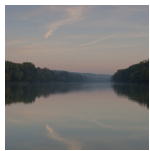
*\* In addition to the recommended funding for forest acquisition*

3. We recommend the concurrent establishment of two related funds.
  - a. **Management Fund.** For every new acquisition, we recommend that 10% of the acquisition cost be set aside and held in a dedicated management account with a sustainable annual return on the funds to be allocated to the primary manager of acquired lands.
  - b. **Local Impact Fund.** We recommend that at the same time funds are set aside for management of these lands, funds also be set aside for a new dedicated fund established, invested and managed in order to produce revenue for allocation to local government budgets with the objective of holding them harmless from the loss of property tax revenues from new lands acquired in the BNT, new lands for DNR land holding divisions, and for state forest lands projects described in this report.
4. We recommend that Indiana enact **a state income tax credit to provide private conservation incentives for qualifying gifts of conservation land and easements.** Such incentives already exist in 14 states.



# Resource Status: Summary Report

The legislation under which the Task Force operated requires that the Task Force include in its final report a “report card on the health of natural resources in Indiana.” This summary resource status report addresses that requirement, and further underlines the need for action on the Task Force’s key recommendations.



## Water

Most segments of rivers and streams are classified as impaired. The state has not fully committed to adequate planning for **water** supply and resilience.



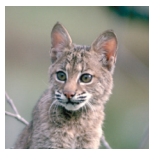
## Soil

Indiana is a leader in developing **soil** conservation programs, but our state has not invested in enough technical assistance needed to effectively bring programs to the ground. We are continuing to lose large amounts of topsoil through erosion.



## Forest

State **forests** are managed to high third-party sustainability standards, but holdings are fragmented, making management more expensive and difficult. Private forested lands, on the whole, are not managed to similar standards. And while Indiana has completed a statewide forest assessment, there is no overarching strategy for maintaining the current percentage of forest cover.



## Biodiversity and Wildlife

Indiana has made noteworthy efforts in establishing sizable **wildlife** management areas, but overall, habitat continues to be fragmented and significantly threatened by invasive species. The Bicentennial Nature Trust is a great start for land protection for the next 100 years.