

Daviess County

Comprehensive Plan



Final

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WHAT IS IT?

The comprehensive plan for Daviess County directs the future physical development of the community. It addresses the use of land to accommodate future activities, the improvement of the infrastructure (roads and utilities) to sustain development, the provision of community and recreation facilities to meet the needs of its residents, and the preservation of natural and historic amenities to protect the heritage of the community. Ultimately, the comprehensive plan reflects the values of the community in balancing the competition for land to sustain the economic vitality and the quality of life of the community. It is the collective vision for the physical future of Daviess County.

WHAT DOES IT INCLUDE?

Exceeding the minimum State statutory requirements for a comprehensive plan (IC 36-7-4-500 series), the comprehensive plan includes:

- 1) A community profile containing –
 - an inventory of historic structures, depiction of the age of housing conditions, a description of environmental features (steep slopes, prime farmland, forest land, ground water resources, streams, floodplains, wetlands, wildlife habitats and threatened and endangered species, managed lands, and mineral resources), and generation of existing and projected demographic and economic characteristics;
 - an assessment of existing and projected land use,
 - an examination of existing and planned transportation, utility and community facility improvements; and
 - an identification of growth and development issues through the Land Use Plan Steering Committee, a communitywide survey and interviews of community leaders.
- 2) A future vision for the community setting forth development policies, goals, objective and guidelines.
- 3) Recommendations covering land use development, transportation, utilities, community facilities and services, open space and recreation, environmental protection, economic development, housing preservation, and comprehensive plan implementation.

WHAT BROUGHT IT ABOUT?

The impending construction of I-69 will result in dramatic changes in land use and transportation through the center of Daviess County. The Indiana Department of Transportation provided an I-69 Community Planning Program Grant to Daviess County to assist the community in responding to the economic development and growth opportunities of I-69 and in protecting natural resources. These grants were made available to all counties and major communities in the I-69 corridor from Evansville to Indianapolis. Daviess County joined with Washington in a collaborative effort to qualify for the maximum grant amount.

WHAT GEOGRAPHIC AREA DOES IT COVER?

The comprehensive plan covers the unincorporated area of Daviess County and reflects the recommendations of the City of Washington Comprehensive Plan for the unincorporated area within the two-mile fringe of the city and the recommendations of the Town of Montgomery Comprehensive Plan for the abutting unincorporated area. The City of Washington presently exercises long-standing planning authority within two miles of its incorporated area boundaries, including the I-69 corridor from CR 300S to CR 250N. The City of Washington will have to gain permission of the Daviess County Board of Commissioners for expansion of the existing two-mile planning boundary beyond the I-69 corridor. Likewise, any other incorporated area must seek permission of the Daviess County Board of Commissioners to exercise extra-territorial planning authority if it does not provide services to such unincorporated areas.

WHAT DID THE PLAN FIND?

The Comprehensive Plan Community Profile revealed that Daviness County has:

- A rich historic heritage including 700 historic properties, four historic districts (Washington Commercial Historic District, Washington Residential Historic District, Ohio and Mississippi Railroad Washington Repair Shops Historic District, and Odon Historic District) and remnants of the Wabash and Erie Canal along the west side of Daviness County. Seven historic properties and the Washington Commercial Historic District are listed on the National Register of Historic Places, including the Glendale Ridge and Prairie Creek Archaeological sites. There are 32 “outstanding” structures eligible for the National Register and another 83 “notable” structures eligible for the Indiana Register.
- 75 percent of the land area in agricultural production. About 48 percent of the county is prime agricultural land if drained. Prime farmlands are concentrated in the West Fork of the White River Valley from Veale Creek to the Greene County Line with figures along the valleys of Prairie Creek and Smothers Creek, and in an area from Cannelburg to Loogootee.
- Limited forest land concentrations in the Glendale State Fish and Wildlife Area and the Thousand Acre Woods Nature Preserve, and scattered woodlands south of Veale Creek in the southern portion of the County and north of First Creek in the northeast corner of the County.
- Few steep slopes generally concentrated along escarpments of streams such as First Creek in the northeast corner of the County and the headwaters of Hawkins Creek northeast of Washington. Rolling terrain is found between Veale Creek and Aikman Creek east of SR 57.
- Significant floodplains and associated wetlands along the East and West Forks of the White River, Prairie Creek (most protected by the Thousand Acre Woods Nature Preserve), and First Creek.
- Most “threatened and endangered species” sightings and wildlife habitats along the East and West Forks of the White River. The Thousand Acres Nature Preserve encompasses the one recognized “high quality natural community” outside the White River floodplain. The Prairie Creek Barrens Nature Preserve and the Glendale State Fish and Wildlife Area protect areas of numerous “threatened and endangered species sightings” outside the White River floodplain.
- A sand dune area unique to southwest Indiana – the Plainville Sand Dune Region on the west side of SR 57 from Washington to Plainville.
- Gas and oil well concentrations south of Elnora, north of Plainville, southwest and east of Odon, and along SR 578 south of Veale Creek.
- Recent surface mine activities focused south of Cannelburg to CR 700S from CR 800E to CR 1000E.
- Modest forecasted population growth between the year 2007 (with 30,035 persons) and the year 2030 (with 33,288). This growth reflects the economic development stimulus of associated with I-69. If forecasted employment of 3,000 jobs at the WestGate @ CraneTechnology Park is achieved, an additional 1,481 persons may result from Park employees choosing to live in Daviness County.
- A median age of 35 years in year 2000 comparable to statewide Indiana.
- An overall educational attainment level lower than statewide Indiana due to fewer college graduates.
- A median household income that is 82 percent of that of statewide Indiana.
- An aging housing stock with half of its housing units over 45 years old, but only three years older than statewide Indiana.
- A projected construction of 948 new housing units within Daviness County between 2008 and 2030 to accommodate increased population, declining household size and demolished housing. About 50 percent of these new housing units will be in the unincorporated area if historical geographic trends continue. Build out of the WestGate @ CraneTechnology Park may result in an addition 592 housing units for Park employees choosing to live in Daviness County.
- A higher percent of single-family homes (at 79 percent) than statewide Indiana (at 74 percent).
- A projected increase of 3,164 jobs in Daviness County between 2000 and 2030, about 1,357 jobs in

Washington and 1,807 jobs in the balance of the County. The WestGate @ CraneTechnology Park has the potential to add 2,100 jobs in the Daviess County portion of the Park, and Park employees living in Daviess County could stimulate another 254 jobs providing retail and personal services.

- A projected demand for 1,939 acres of land to accommodate growth outside existing incorporated area to the year 2030 because of insufficient land inside incorporated areas to accommodate growth.
- Only two programmed major roadway improvements by the State – reconstruction of US 50 through Montgomery and construction of I-69 with interchanges at US 50 and SR 58 and a deferred interchange to SR 57 at CR 300S. The widening of US 50 to four lanes from Washington to Loogootee is identified as an unfunded project in the Indiana Long Range Transportation Plan (as of 2007).
- The reconstruction of the Cannelburg-Odon Road (CR 900E) under design from US 50 to SR 58 with proposed shoulders for horse-drawn vehicles.
- Municipally-owned water utilities in Washington, Elnora, Montgomery and Odon. The incorporated areas of Affordsville, Cannelburg and Plainville purchase water from other sources. Improvements to the Washington water treatment plant were recently completed. Incorporated areas will have to extend waterlines to serve future development in contiguous unincorporated areas – Washington to serve the I-69/US 50 interchange area and Elnora to serve the I-69/SR 58 interchange area.
- Several municipalities providing sewage treatment facilities – Washington, Elnora, Montgomery, Odon and Plainville. Affordsville and Cannelburg have only on-site septic systems. Improvements to the Washington wastewater treatment plant were recently completed. Incorporated areas will have to extend sewers to serve future development in contiguous unincorporated areas. Washington must provide sewer service to the I-69/US 50 interchange area while Elnora already serves the I-69/SR 58 interchange area.
- Limited sewage treatment service from the Crane Naval Weapons Support Center for the WestGate @ CraneTechnology Center.
- A possible need for regional recreation areas in northern Daviess County and for additional recreation facilities at existing regional parks in southern and eastern Daviess County.
- No identified new schools, but improvements to existing schools are likely to be needed over the next decades in the three districts -- the Washington Community School Corporation with 2,461 students, the North Daviess School Corporation with 1,131 students, and the Barr-Reeve Community School District with 744 students in 2007.

HOW WAS IT DEVELOPED?

The comprehensive plan was developed through four meetings of a steering committee of local residents, two public open houses on the future vision of the community and future land use/infrastructure alternatives, a communitywide survey and interviews of community leaders. The top issues indentified by the Land Use Plan Steering Committee were:

- Need to encourage improvements to the county roadway system including the maintenance of the existing highway system as well as making the necessary improvements such as reducing the number of gravel roads.
- Need to encourage the identification of specific road corridors to provide direct access for industrial sites to identified interchanges.
- Need to encourage the designation of potential industrial sites in logical areas of the county.
- Need to encourage expanded sewage treatment service areas and capacity to serve anticipated growth and development (for all five existing wastewater treatment providers in the county).
- Need to encourage industrial infrastructure development to create shovel-ready sites with an emphasis on water (especially for fire protection) and wastewater utilities.
- Need to encourage residential development, both single-family units and multi-family units to serve the anticipated population growth.

- Need to encourage motorized and non-motorized vehicular east/west access across Interstate 69 in order to maintain safe and continuous traffic flow throughout the county.
- Need to encourage the development of a county-wide mixed-use traffic plan that accommodates motorized, non-motorized and pedestrian traffic.
- Need to encourage the identification of additional stormwater drainage facilities (ditches, streams, etc.), jurisdictional management responsibilities and necessary management techniques.
- Need to encourage the enhancement and increased utilization of existing railway lines.

The questions receiving 83 percent or more agreement for the community surveys returned were:

- Need to encourage improvements to the county roadway system including the maintenance of the existing highway system as well as making the necessary improvements such as reducing the number of gravel roads.
- Need to encourage motorized and non-motorized vehicular east/west access across Interstate 69 in order to maintain safe and continuous traffic flow throughout the county.
- Need to encourage the designation of potential industrial sites in logical areas of the county.
- Need to encourage the identification of specific road corridors to provide direct access for industrial sites to identified I-69 interchanges.
- Need to encourage local leaders to improve communications with INDOT in order to expand access opportunities to state highways for commercial and industrial development.
- Incentives are needed to attract new industries to Daviess County.
- Need to encourage industrial infrastructure development to create shovel-ready sites with an emphasis on water (especially for fire protection) and wastewater utilities.
- Need to encourage expanded electronic service, including but not limited to fiber options, T1 lines, and high speed internet services.
- Need to encourage the development of a county-wide mixed-use traffic plan that accommodates motorized, non-motorized and pedestrian traffic.
- Daviess County needs to build on existing attractions.

WHAT ARE THE PLAN RECOMMENDATIONS?

The stated priorities of the comprehensive plan are:

- Projects that assist development opportunities around the future I-69 interchanges, especially US 50 and US 231:
 - Providing water, sewer and other utilities to create shovel ready sites.
 - Extending water and sewer lines from Washington to serve the I-69 corridor from CR 150S to CR 200N.
 - Assisting the Daviess County Airport Authority to development land on the west side of I-69 from CR 200N to CR 350N.
 - Guiding development of the WestGate @ CraneTechnology Park including the provision of infrastructure to the Daviess County portion of the park.
- Continuing to work on economic growth in the county such as the enhancement economic development opportunities and marketing of Davies County through the Daviess County Economic Development Corporation.

The comprehensive plan makes the following recommendations:

- Locations for future land use opportunities inside and an adjacent to the incorporated areas of Washington, Odon, Elnora, Montgomery, Plainville and Affordsville, along the I-69 corridor near the I-69/US 50 interchange, at the I-69/SR 58 interchange and near the I-69/US 231 interchange to address future land use demands.
 - Residential development on the north (toward CR 150N), southwest (toward the US 50 Bypass) and southeast (toward the US 50 Bypass and I-69 Corridor) sides of Washington.
 - Residential development on the east side of Odon.
 - Residential development on the south side of Elnora and on the east side of the I-69/SR 58 interchange north and south of the North Daviess County School Complex.
 - Residential development on the south side of Montgomery between existing and old US 50.
 - Residential development on the south side of Affordsville.
 - Commercial development in the interchange area of I-69/US 50 and in the WestGate @ CraneTechnology Park near the I-69/US 231 interchange.
 - Industrial development along the I-69 corridor from the National Highway to CR 200N and the airport, along SR 58 on the west side of Odon, and along US 231 in the WestGate @ CraneTechnology Park.
 - Potential conservancy areas along the floodplains of the East and West Forks of the White River, Prairie Creek and the Thousand Acre Nature Preserve, the First Creek and two strip mine areas in north central Daviess County.
- Typical cross sections for thoroughfare right-of-way preservation and design, including design criteria for the accommodation of horse-drawn vehicles, bicycles and pedestrians.
- Completion of Interstate 69 through Daviess County by 2016.
- The widening of US 50 to four lanes from Washington to Loogootee.
- Completion of the reconstruction of Cannelburg-Odon Road from US 50 to SR 58 over the next 15 years, with a shoulder for horse-drawn vehicles.
- Improved access to the I-69 corridor on the east side of Washington including --
 - Extension of CR 200E from CR 200N to CR 250N for improved access from the I-69/US 50 interchange along the west side of I-69 for industrial development to the Daviess County Airport.
 - Extension of CR 300E from CR 150S to US 50 and CR 100N to CR 200N to facilitate industrial development on the east side of I-69, with construction timing dependent on development timing and lotting pattern.
- The extension of the Daviess-Martin County Line Road from CR 75N to CR 250N to provide access to the Loogootee School Complex and a continuous route from US 50 to US 231 north of Loogootee that may be a future route for US 231 west of Loogootee.
- Trails along the Wabash and Erie Canal, trails connecting the Glendale Fish and Wildlife Area, Thousand Acre Nature Preserve and West Boggs Lake, and trails connecting incorporated areas.
- Improvement services by water and sewer providers to accommodate future development.
- Establishment of a pavement management system for cost-effective maintenance of the county roads.
- Monitoring water and wastewater treatment plants to ensure adequate capacity to accommodate anticipated growth.
- Exploration of cost-effective options to centralized sewage treatment for communities with large concentrations of on-site septic systems.

- Extension of sewers and waterlines from Washington to the I-69 corridor from CR 150S to CR 200N plus the Daviess County Airport.
- Extension of waterlines from Elnora to the I-69/SR 58 interchange area, already served by Elnora sanitary sewers.
- Provision of sanitary sewers, waterline improvements and other utilities to industrial sites at the WestGate @ CraneTechnology Park so that development is not limited by the capacity of the Crane Naval Weapons Support Center sewage treatment plant.
- The possible addition of regional park acreage in northern Daviess County, and the addition of recreation facilities at existing regional parks in southern and eastern Daviess County.
- Encouraging the appropriate maintenance, rehabilitation and reuse of historic structures through the education of its citizens about grants and tax incentives for historic preservation.
- Exploring grants to develop an historic preservation program and the administrative capacity for history preservation.
- Encouraging incorporated areas to pursue downtown revitalization efforts preserving historic structures and improving downtown streetscape.
- Developing the Wabash and Erie Canal as an historic and recreation asset.
- Checking archaeological site records for major construction projects.
- A future land use pattern that focuses development adjacent to incorporated areas where centralized sewers can be readily extended to minimize the adverse impact on prime farmlands.
- The creation of conservancy areas (through private dedication or voluntary acquisition by non-profit entities) along the floodplains of the East and West Forks of the White River, Prairie Creek, First Creek and the Hurricane Branch of Veale Creek to protect the wetlands and wildlife habitats not presently within publicly managed lands.
- The expansion of existing managed lands (such as the Thousand Acre Woods, Nature Preserve and West Boggs Lake) through voluntary land acquisition to protect wetlands and wildlife habitats not presently within publicly managed lands.
- Following IDEM rules to protect floodplains, wetlands and steep slopes from inappropriate development. (The City of Washington presently has special provisions in its land use controls to protect wetlands within its two-mile fringe.)
- A future land use pattern that does not encourage urban development of the Plainville Sand Dunes Region on the west side of SR 57 from Washington to Plainville.
- Improving economic development opportunities by:
 - Enabling the location of businesses in and about the Amish community to minimize commuting distances for the Amish workforce.
 - Encouraging appropriate future commercial and industrial development to locate near the proposed I-69 interchanges at US 50, US 231 and SR 58.
 - Identifying and preserving industrial sites for business expansion, relocation and attraction.
 - Creating shovel ready business sites.
- Preparing an economic development strategy and action program for Daviess County that identifies business development assets, defines emerging business sectors, establishes an on-going business retention and attraction program, develops and markets existing and potential sites, develops financial and technical assistance for small business startups, develops financial resources for governmental assistance and incentives for all businesses, builds relations with other economic development entities at all levels of government, promotes a regional approach to economic development, recognizes new commercial and industrial development within an hour commute benefits Daviess County, and maintains a good working relationship with the Southern Indiana Development Commission. This will capitalize on the economic development opportunities fostered by Interstate 69.

- Considering the development of a dilapidated housing program and pursuing grants and loans to assist in housing rehabilitation and maintenance.
- Adoption of the comprehensive plan will allow Daviess County to be better compete with other communities for State and Federal programs for economic development, commercial and residential structure rehabilitation, historic structure preservation, recreation land and facility improvements, bicycle and pedestrian facilities, sanitary sewer/potable water/stormwater facility improvements, and protection of floodplains/wetland/wildlife areas.

WHAT COMMITMENTS ARE NEEDED?

The following actions are recommended:

1. Creation of the Daviess County Advisory Plan Commission by the Daviess County Board of Commissioners to hold a public hearing on the plan and recommend adoption by the Board of Commissioners.
2. Adoption of the Daviess County Comprehensive Plan by the Plan Commission and the Board of Commissioners by resolution after a public hearing fulfilling state requirements.

WHY ACT NOW?

Adoption of the Daviess County Comprehensive Plan:

1. Guides public and private decisions relative to land use development and infrastructure improvements to take advantage of the economic development opportunities associated with I-69 and the WestGate @ CraneTechnology Park. Economic development impact studies have shown that communities that plan ahead and cooperate with other levels of government reap the benefits of the economic opportunities.
2. Enables the County to better compete with other communities for State and Federal program grants and loans. There are immediate and on-going needs for which the county may obtain financial assistance.
3. Establishes the foundation under State statute for land use planning by meeting the State prerequisite for such planning, and enables the county to investigate land use controls anytime in the future at a time of the county's own choosing. Daviess County must start over again in the future if the community passes up the opportunity to meet the State planning prerequisite today, and others may be planning the future vision for your community in the interim.

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Acknowledgements

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Mike Taylor, Member
Jeff Hayes, Plan Commission Attorney

Comprehensive Plan Steering Committee

Ron Arnold
Phil Cornelius
Richard Cottrell
Jack Graber

Dennis Helms
Mike Sprinkle
Anthony Wichman

Southern Indiana Development Commission

Greg Jones, Executive Director

Matt Sward, Development Specialist

Bernardin, Lochmueller & Associates, Inc.

David Ripple, Project Director
David Goffinet, Project Manager

Matt Schriefer, Planner II
Erin Mattingly, Planner I
Laurie Miller, Planner I

The plan was funded in full with State funds through the Interstate 69 Community Planning Grant Program of the Indiana Department of Transportation with the assistance of the Indiana Office of Community and Rural Affairs.

RESOLUTION NO. 2009 - 5

RESOLUTION ADOPTING THE COMPREHENSIVE PLAN

A RESOLUTION OF THE BOARD OF COMMISSIONERS OF
DAVISS COUNTY, INDIANA ADOPTING THE COMPREHENSIVE
PLAN FOR THE UNINCORPORATED AREA OF DAVIESS COUNTY, INDIANA

WHEREAS, the Advisory Plan Commission of Daviess County, Indiana, did on November 23, 2009 hold a legally advertised public meeting to consider adoption of the attached Comprehensive Plan (Exhibit A) for the Unincorporated Area of Daviess County, and

WHEREAS, the Plan Commission did consider said Comprehensive Plan until all comments and objections were heard, and


WHEREAS, the Plan Commission found that the plan meets the requirements of Indiana Code 36-7-4-500, and that the adoption of this plan is found to be in the best interests of Daviess County, Indiana, and

WHEREAS, the Board of Commissioners finds that it is in the best interest of Daviess County to adopt said plan.

NOW THEREFORE, BE IT RESOLVED, that the Board of Commissioners of Daviess County, Indiana, hereby adopts Exhibit A, attached and made a part hereof, as the Comprehensive Plan for the Unincorporated Area of Daviess County, Indiana.

This resolution shall take effect from and after its passage as provided by law.

PASSED AND ADOPTED by the Board of Commissioners of Daviess County, Indiana, on this the 14th day of December, 2009.



Anthony A. Wichman

Michael Taylor



Larry G. Wilson

ATTEST:



Gail Doades, Auditor
Daviess County

RESOLUTION NO. 2009-01

**RESOLUTION OF THE DAVIESS COUNTY ADVISORY PLAN COMMISSION
ADOPTING THE COMPREHENSIVE PLAN**


A RESOLUTION RECOMMENDING THAT THE BOARD OF COMMISSIONERS OF DAVIESS COUNTY ADOPT THE ATTACHED COMPREHENSIVE PLAN FOR THE UNINCORPORATED AREA OF DAVIESS COUNTY, CONSISTENT WITH INDIANA STATE LAW REQUIREMENTS, WHICH STATE THAT A COMPREHENSIVE PLAN MUST CONTAIN THE FOLLOWING ELEMENTS:

1. A statement of objectives for the future development of the jurisdiction.
2. A statement of policy for the land use development of the jurisdiction.
3. A statement of policy for the development of public ways, public places, public lands, public structures, and public utilities.

WHEREAS, the Advisory Plan Commission of Daviess County, Indiana, did on November 23, 2009, hold a legally advertised public hearing on the proposed Comprehensive Plan for the Unincorporated Area of Daviess County, Indiana until all comments and objections were heard; and

WHEREAS, the Advisory Plan Commission found that said plan is in the best interest of the citizens of Daviess County, Indiana.

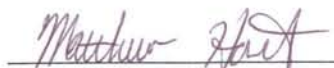
NOW THEREFORE, BE IT RESOLVED, that the Advisory Plan Commission of Daviess County, Indiana, recommends to the Board of Commissioners the adoption of said Comprehensive Plan for the Unincorporated Area of Daviess County attached hereto named Comprehensive Plan of Daviess County, Indiana, dated September 2009.



Dennis Helms
President
Daviess County Advisory Plan Commission

11/23/09

Date



Matthew Hart
Secretary
Daviess County Advisory Plan Commission

11-23-09

Date

**COMPREHENSIVE PLAN
CERTIFICATION**

I, Matthew Hart, Secretary of the Daviess County Advisory Plan Commission do hereby certify to the Daviess County Board of Commissioners, that the Comprehensive Plan of Daviess County, a true copy of which is attached, was considered and approved by the Daviess County Advisory Plan Commission at their meeting held on November 23, 2009 by a vote of 6 in favor, 0 against, 0 abstaining, and 3 absent and do herewith forward the same to you for your consideration and approval.

Matthew Hart
Matthew Hart
Secretary
Daviess County Advisory Plan Commission

11-23-09
Date

**Daviess County Commissioners
Minutes
December 14, 2009**

The Daviess County Commissioners met Monday December 14, 2009 at 9:12 A.M. in the Commissioners Room at the Daviess County Courthouse with President Anthony Wichman and Secretary Larry Wilson present. Vice-President Michael Taylor was absent.

MINUTES

Minutes of the November 23, 2009 meeting were approved as mailed per a motion by Larry Wilson. Anthony Wichman seconded the motion. Motion passed.

RESOLUTION 2009-4 – APPROVING LEGENDS ECONOMIC AREA AND PLAN

The Daviess County Redevelopment Commission adopted a resolution on November 23, 2009 designating an area known as the Legends Economic Development Area pursuant to Indiana Code. Jeff Hayes, Daviess County Attorney, submitted Resolution 2009-4 – A Resolution of the Board of the County of Daviess, Indiana Approving Certain Matters in Connection with the Establishment of an Economic Development Area and an Allocation Area and the Approval of an Economic Development Plan for Said Area. Larry Wilson made the motion to approve Resolution 2009-4. Anthony Wichman seconded the motion. Motion passed. See file.

RESOLUTION 2009-5 – RESOLUTION ADOPTING COMPREHENSIVE PLAN

Jeff Hayes, Daviess County Attorney, also submitted Resolution 2009-5 – Resolution of the Board of Commissioners of Daviess County, Indiana Adopting the Comprehensive Plan for the Unincorporated Area of Daviess County, Indiana. The Advisory Plan Commission of Daviess County, Indiana on November 23, 2009 held a legally advertised public meeting to consider adoption of the Comprehensive Plan for the Unincorporated Area of Daviess County, with all comments and objections heard and the requirements of Indiana Code 36-7-4-500 found this plan to be in the best interest of Daviess County, Indiana. Anthony Wichman noted this was put together with a \$50,000 grant from the state. Several meetings were held over a one year period of time involving I-69 and noted that this allows but does not put in place zoning. Jeff Hayes noted that this opens up the possibility to future grant funds. Larry Wilson made the motion to pass and adopt this resolution. Anthony Wichman seconded the motion. Motion passed. See file.

WELLNESS PROGRAM

Marilyn McCullough, Thompson Insurance Agency, submitted the Wellness Program proposal cost of \$9.25 per employee per month. With a final cost estimate Anthony Wichman suggested that a committee be appointed to look at all options for the county regarding interest, logistics, incentives and possible negotiable options of the program since this was not budgeted for in the 2010 budgets. President Anthony Wichman appointed Larry Wilson to head this committee and have Office Holders from the Auditor, Sheriff and Highway Department along with Marilyn McCullough to review and make recommendations at the Commissioners meeting on January 25, 2010. See file.

RESOLUTION 2009-6 - COMMISSIONERS' TAX SALE

Gail Doades, Daviess County Auditor, presented a list of 48 properties in Daviess County that are severely delinquent in the payment of property taxes, and have been offered for tax sales but received no bids. With the goal to have these properties back on the tax roll with taxes being collected Larry Wilson made the motion to adopt Resolution 2009-6 establishing the intent to conduct a Commissioner's Sale to sell tax sale certificates for \$100.00 per parcel. Anthony Wichman seconded the motion. Motion passed. See file.

HIGHWAY

BRIDGE RE-INSPECTION & SCOUR CRITICAL PLAN

Larry McLin, Daviess County Highway department presented LPA Vouchers from Rumschlag Technical Services. \$1,285.24 is for partial payment for the bridge re-inspection and \$2,450.00 is for partial payment for the Scour Critical Plan that Rumschlag developed for the 14 bridges affected. 80% of the amounts will be reimbursed by the Federal Highway Department. Larry Wilson made the motion to have the President sign these vouchers. Anthony Wichman seconded the motion. Motion passed.

DISTRESSED ROAD FUND

Larry McLin, Daviess County Highway Department, has been notified by INDOT that there is only \$661,000 available to borrow from the Distressed Road Fund instead of the \$1,000,000 that Daviess County had requested. The Commissioners agreed that they were interested in borrowing this amount. No motion required.

WAGNER DRIVE REQUEST

Larry McLin has received a request from land owners to add Wagner Drive from Washington to 150 N to the county road inventory. This road is approximately ½ mile in length and 36 feet wide. Anthony Wichman asked Larry McLin to investigate this matter and to find who owns the property, what is the base under the road, and determine if there are easements and what would be needed to bring this road up to County Highway specifications. Larry will get this information to the Commissioners by the next meeting.

LIGHTHOUSE RECOVERY CENTER

Pete Aldrich, Lighthouse Recovery Center, came before the Commissioners stating that after the sewer lines were fixed the foundational drains were blocked which caused flooding at the facility which has now been corrected. In the process of trying to get the remodeling completed several contractors have refused to do the work without an engineer inspecting the site due to liability issues. Anthony Wichman instructed Mr. Aldrich to get with RQAW who is contracted with the county for these types of services noting that Dick O'Connor with RQAW is in attendance at the meeting today.

PUBLIC COMMENT - APPEAL REGARDING ANIMAL CONTROL OFFICER

Mr. Gilbert Andis presented copies of State and Federal laws regarding the care of animals stating that there are violations going on in the county. Steve Cox, Daviess County Sheriff said as of this time after several documented visits that he is satisfied with the conditions of this particular complaint. Anthony Wichman advised Mr. Andis if there are further complaints to notify the Sheriff's department.

CLAIMS

A motion was made by Larry Wilson to approve the claims for the Daviess County Sheriffs Department for \$24,969.00 for the purchase of a vehicle and \$750.00 from the Prosecutor to Shop with a Cop Donation. Anthony Wichman seconded the motion. Motion passed.

CLAIM DOCKET

Larry Wilson made the motion to approve the claim docket dated 12-16-09. Anthony Wichman seconded the motion. Motion passed.

PAYROLL DOCKET

A motion to approve the payroll docket dated 12-11-09 was made by Larry Wilson. Anthony Wichman seconded the motion. Motion passed.

REPORTS

Treasurer
Probation
Sheriff
Health
Recorder
Prosecutor
Airport
Community Corrections

INFORMATION

Indiana Department of Environmental Management (4)
I-69 Tier 2 Study
Department of Natural Resources
Davieess-Martin Joint Park Minutes – 11-10-09
HFI Mechanical Contractors


With no further business a motion was made by Larry Wilson to adjourn the meeting.
Anthony Wichman seconded the motion. Motion passed.

**Comprehensive Plan
for Daviess County, Indiana**

Presentation

*Daviess County Advisory Plan Commission
Daviess County Courthouse – Commissioner’s Meeting Room
200 East Walnut Street
Washington, Indiana 47501*

**November 23, 2009
at 6:30 PM**



OUTLINE

- A. What is it?
- B. What does it include?
- C. What brought it about?
- D. What geographic area does it cover?
- E. What did the plan find?
- F. How was it developed?
- G. What are the plan recommendations?
- H. What commitments are needed?
- I. Why act now?

A. What is it?

1. Framework for future physical development of the community
2. Addresses:
 - Land use to accommodate future activities
 - Infrastructure (roads and utilities) to sustain development
 - Provision of community and recreation facilities to meet the needs of residents
 - Preservation of the historic and natural amenities to protect the community heritage
3. Recommendations in fringe area of Washington reflected in both Washington and Daviess County Comprehensive Plans

A. What is it? (continued)

5. Vision Statement -- “Daviess County strives to be a great place to live, work and visit by embracing change that fosters economic development opportunities. Preserving unique historic, natural and rural features that foster a positive living environment, increasing quality employment opportunities, and promoting tourism are all high priorities.”

B. What does it include?

1. **A community profile** →
 - Inventory of historic structures
 - Information on housing conditions
 - Description of environmental features (steep slopes, prime farmland, forest land, ground water resources, streams, floodplains, wetlands, wildlife habitats and threatened and endangered species, managed lands, and mineral resources)
 - Generation of existing and projected demographic and economic characteristics
 - Assessment of existing and projected land use and infrastructure
 - Identification of development issues through the Steering Committee, a communitywide survey and community leader interviews
2. **A future vision** → **Development Goals and Guidelines**
3. **Recommendations** →
 - Land use development
 - Transportation, utilities, and community facilities and services
 - Open space and recreation, and environmental protection
 - Economic Development, housing preservation and
 - Comprehensive plan implementation

C. What brought it about?

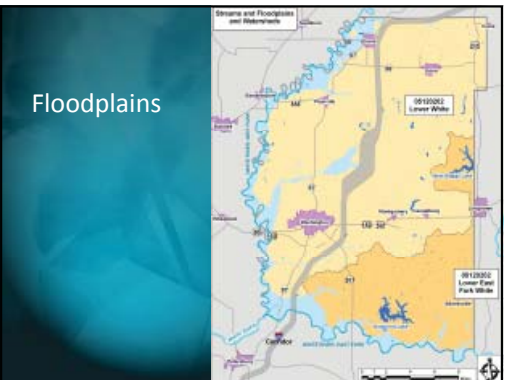
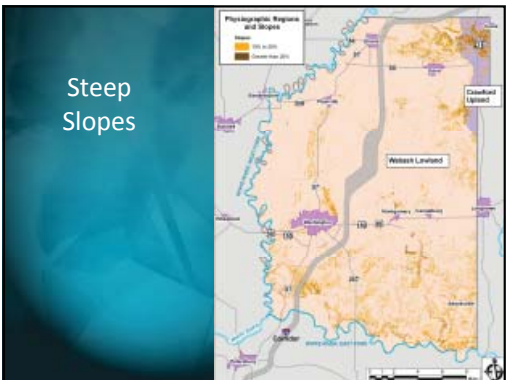
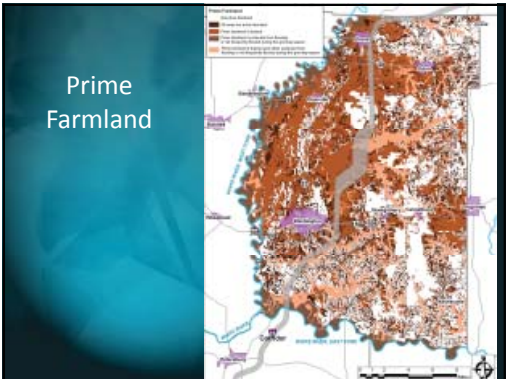
1. INDOT I-69 Community Planning grants to Daviess County and Washington to address economic development and growth opportunities induced by I-69 and to protect natural resources
2. Collaborative Effort Between Daviess County and Washington →
 - **New comprehensive plans for each with consistent future land use and infrastructure recommendations on the fringe of Washington**

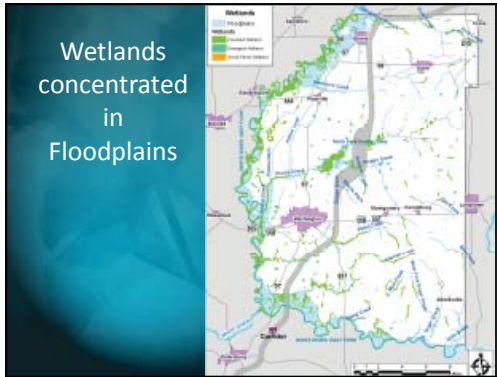
D. What geographic area does it cover?

1. Unincorporated Daviess County only

E. What did the plan find?

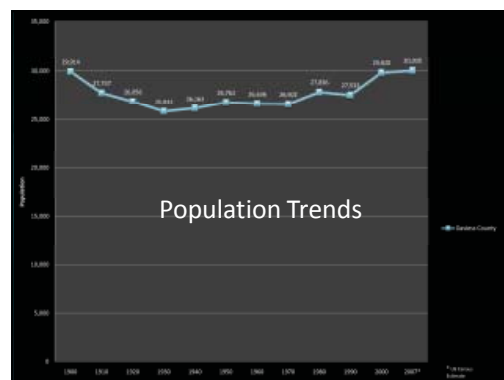
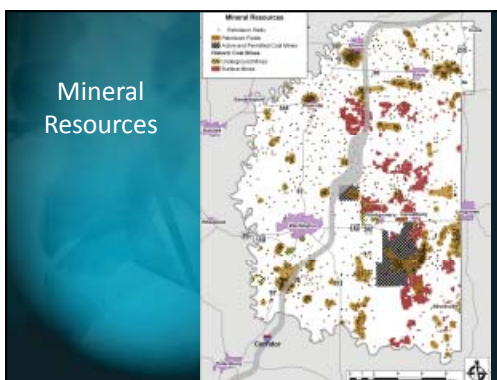
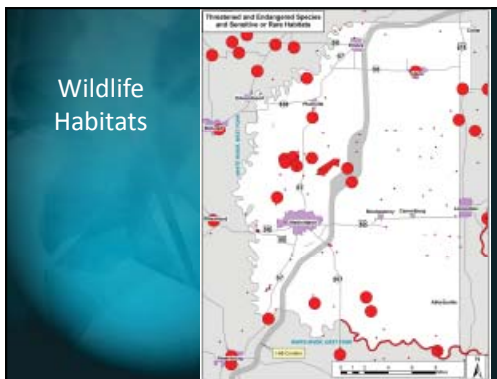
- Rich historic heritage** →
 - 700 historic properties and 4 historic districts (Washington & Odon)
 - Remnants of Wabash & Erie Canal
- Extensive prime farmland** -- 48% of total county, 75% of total county in agricultural production
- Limited forestlands** -- Glendale State FWA, 1000-Acre Woods, south of Veale Creek and north of First Creek Crane
- Few steep slopes** -- along streams such as First Creek, the headwaters of Hawkins Creek, and between Veale and Aikman Creeks
- Significant floodplains and wetlands** -- White River East and West Forks, Prairie Creek and First Creek

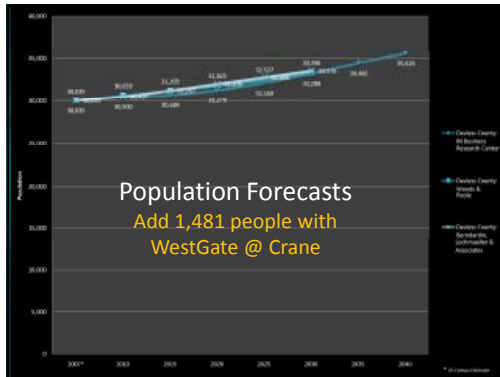




E. What did the plan find?

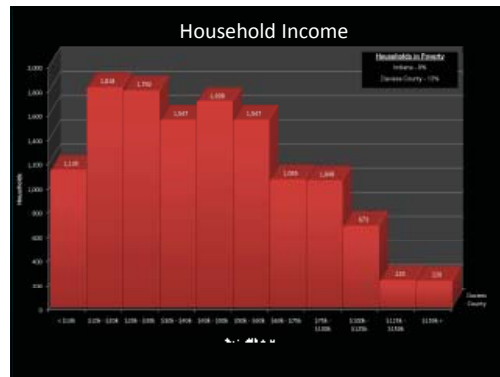
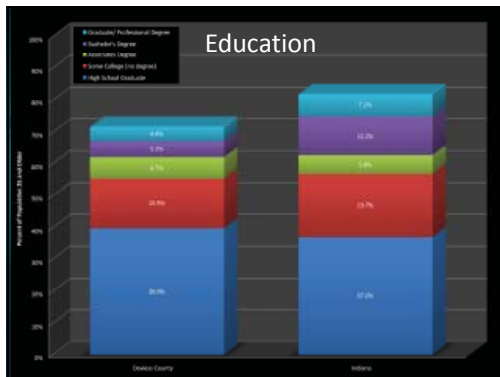
6. **Wildlife Habitats Concentrated on White River** -- interior county habitats protected by Glendale State FWA, 1000-Acre Woods and Prairie Creek Barrens Nature Preserve
7. **Plainville Sand Dune Region** -- unique in southwest Indiana
8. **Significant Mineral Resources**
 - Gas & oil near Elnora, Plainville, Odon and along SR 57 near Veale Creek
 - Surface coal mines south of Cannelburg
9. **Modest Population Growth to year 2030** -- 3,300 persons
10. **Another 1,500 persons with WestGate @ Crane**





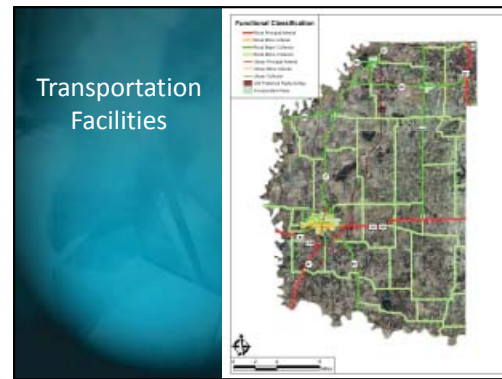
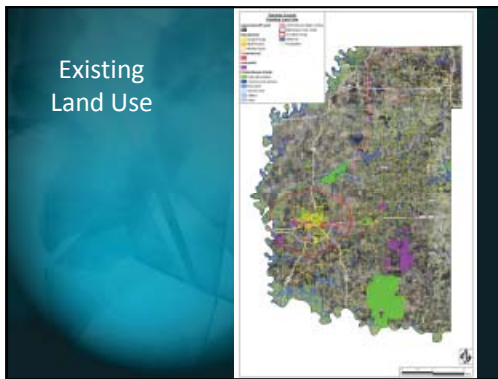
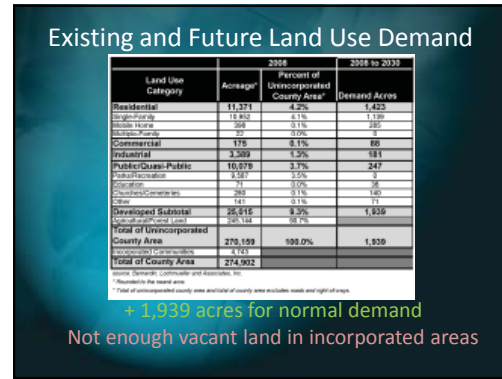
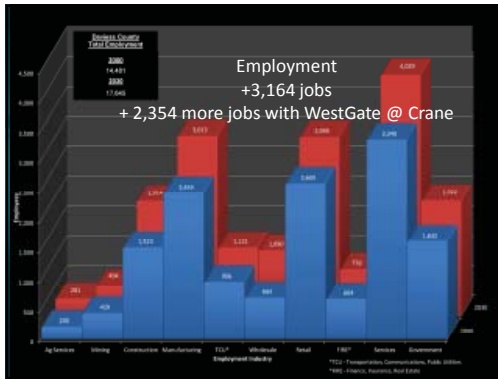
E. What did the plan find?

11. Median age of 35 years -- same as Indiana
12. Lower education attainment than Indiana as whole
13. Median household income 82% of Indiana
14. Aging housing stock -- nearly half the homes over 45 years old
15. Projected 948 new housing units to 2030 →
 - another 592 housing units with WestGate @ Crane
 - 50% of new housing in unincorporated areas
16. Higher % of Single-Family Homes than Indiana as whole



E. What did the plan find?

17. Projected increase of 3,164 jobs to 2030 → another 2,354 jobs with WestGate@Crane
18. Projected demand for 1,939 acres to accommodate urban growth to year 2030 → insufficient vacant land suitable for development inside incorporated areas
19. Two major roadway improvements → I-69 and US 50 thru Montgomery
 - Widening of US 50 from I-69 to Loogootee unfunded
 - Cannelburg-Odon Road reconstruction under design



- ### E. What did the plan find?
- Generally adequate water systems inside incorporated areas → but all systems must be extended to accommodate growth
 - Recent Washington sewage treatment system improvements → but all systems and must be extended to accommodate growth
 - Need for regional recreation area in north Daviess → additional recreation facilities needed at regional parks in east and south
 - No identified new schools in the three school districts → but existing schools will need improvements in the future

- ### F. How was it developed?
- Four meetings of the two Steering Committees
 - Identify issues, develop community-wide survey and identify leaders to be interviewed (9/03/2008)
 - Develop future vision (1/08/2009)
 - Develop future alternatives (2/12/2009)
 - Develop recommendations (4/16/2009)
 - Steering Committees met jointly on common issues
 - Two rounds of public information meetings
 - Review background information and the future vision (1/22/2009)
 - Review future land use/transportation alternatives (3/04/2009)
 - Steering Committee → Issues identification
 - Communitywide survey
 - Interviews of community leaders

G. What are the plan recommendations?

1. Stated Priorities:

- **Projects that assist development opportunities around future I-69 interchanges, especially US 50 and US 231**
 - Providing water, sewer and other utilities to serve shovel ready sites
 - Extending water and sewer lines from Washington to the I-69 corridor from CR 150S to CR 200N
 - Assisting Daviess County Airport Authority to development land on the west side of I-69 between CR 200N and CR 350N
 - Guiding development of WestGate @ Crane including the provision of infrastructure to the Daviess County portion of the site
- **Continuing to work on economic growth**
 - Enhancing economic development opportunities
 - Marketing Daviess County

G. What are the plan recommendations?

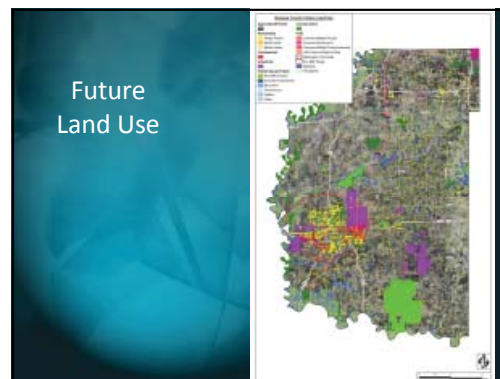
2. Future Land Use:

- **Locations for future land use opportunities**
 - Inside and adjacent to incorporated areas
 - Along I-69 near I-69/US 50 interchange
 - At the I-69/SR 58 interchange
 - Near I-69/US 231 interchange
- **New residential areas**
 - Along US 50 Bypass inward toward Washington
 - East side of Odon and I-69/SR 58 interchange
 - South side of Elnora, Montgomery and Affordsville

G. What are the plan recommendations?

2. Future Land Use (continued):

- **New commercial development**
 - I-69/US 50 interchange
 - I-69/US 231 interchange in WestGate @ Crane
- **New industrial areas**
 - I-69 corridor from National Highway to Airport
 - West side of Odon
 - WestGate @ Crane
- **Potential conservancy areas**
 - Floodplains of White River, Prairie Creek and First Creek
 - New 1000-Acre Nature Preserve
 - Strip mine areas in north Daviess



G. What are the plan recommendations?

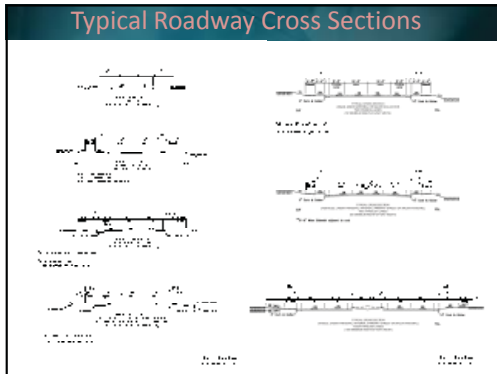
3. Transportation/Thoroughfare Plan

- **Typical cross sections for design and right-of-way preservation for county thoroughfares** ← shoulders for buggies
- **Completion of I-69**
- **Widening US 50 from Washington to Loogootee**
- **Reconstruction of Cannelburg-Odon Road from US 50 to SR 58 with shoulders for buggies**

G. What are the plan recommendations?

3. Transportation/Thoroughfare Plan (continued)

- **Improved access to the I-69 corridor east of Washington**
 - Extension of CR 200E from CR 200N to CR 250N
 - Extension of CR 300E from CR 150S to US 50 and CR 100N to CR 200N
- **Extension of Daviess-Martin County Line Road to improve access to the Loogootee School Complex**
- **Potential trails**
- **Establish pavement management system**



G. What are the plan recommendations?

4. Utilities Plan

- Improving services by water and sewer providers to accommodate growth
- Monitoring water and wastewater treatment plants to ensure capacity for growth
- Exploring cost-effective treatment options for communities with on-site septic systems
- Extending Washington sewers and waterlines to I-69 Corridor
- Extending Elnora waterlines to I-69/SR 58 Interchange
- Providing sewer, waterline and utility improvements for WestGate @ Crane

G. What are the plan recommendations?

5. Community Facilities/Services Plan and Open Space/Recreation Plan

- Addition of regional park in north Daviess County
- More active recreation facilities at existing regional parks in the east and south Daviess County

G. What are the plan recommendations?

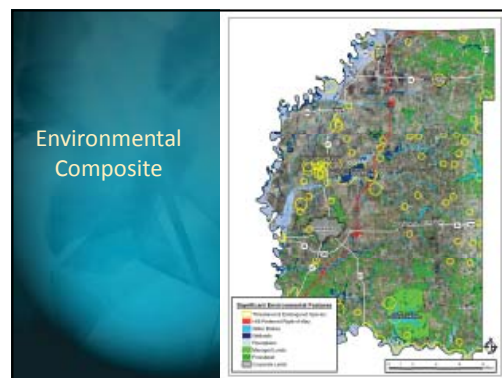
6. Environmental Plan

- Encourage maintenance, rehabilitation and reuse of historic structures → education and tax incentives
- Explore grants for a historic preservation program
- Encourage incorporate areas to pursue downtown revitalization efforts
- Develop Wabash and Erie Canal as historic and recreation asset
- Check archaeological records for major construction projects
- Minimum prime farmland impacts by focusing future development adjacent to communities with centralized sanitary sewers

G. What are the plan recommendations?

6. Environmental Plan (continued)

- Create conservation areas →
 - private dedication or voluntary acquisition →
 - along floodplains of White River, Prairie Creek, First Creek, Hurricane Branch →
 - to protect wetlands and wildlife habitats not presently within managed lands
- Expand existing managed lands → voluntary land acquisition
- Follow IDEM rules to protect floodplains, wetlands and steep slopes
- Discourage urban development of Plainville Sand Dunes Region



G. What are the plan recommendations?

7. Economic Development Plan →

- Improving economic development opportunities →
 - Enabling business to locate in Amish areas to minimize commuting
 - Encouraging future commercial and industrial development near the I-69 interchanges
 - Identifying and preserving industrial sites
 - Creating shovel ready business sites
 - Develop a program promoting tourism and economic development
- Preparing an economic development strategy and action plan

G. What are the plan recommendations?

8. Housing Preservation Plan →

- Developing a dilapidated housing program to return abandoned properties to tax rolls, pursuing federal and state programs for housing rehabilitation loans

9. Implementation Program

- Adopt new comprehensive plan to better compete with other communities for State and Federal grants
 - Economic development
 - Historic structure preservation
 - Recreation land and facility improvements
 - Bicycle, pedestrian and trail facilities
 - Sanitary, water and stormwater facilities
 - Protection of floodplains, wetlands and wildlife habitats

H. What commitments are needed?

1. Adoption of Plan by Plan Commission after public hearing and recommendation to Board of Commissioners
2. Adoption of Plan by Board of Commissioners through a resolution (resolution = guidance) not ordinance (ordinance = law) → Does not affect land use rights

I. Why act now?

1. Guides public and private decisions relative to land use development and infrastructure improvements to capture the development opportunities of I-69 and WestGate @ Crane
2. Enables the Daviess County to better compete with other communities for State and Federal grants and loans
3. Establishes the foundation under State statute for planning to avoid starting over again from scratch in the future

Thank You!



BERNARDIN • LOCHMULLER & ASSOCIATES, INC.
Engineering • Surveying • Planning • Environmental Services • Water & Wastewater

A. FOUNDATION

1. INTERSTATE 69 COMMUNITY PLANNING PROGRAM

The Daviess County Comprehensive Plan is being completed through a grant from the Indiana Department of Transportation (INDOT). The Daviess County Comprehensive Plan will fulfill the Indiana statutory requirements for a comprehensive plan (IC 36-7-4-500 et seq.). The document will become the Daviess County Comprehensive Plan if the Daviess County Board of Commissioners creates an Advisory Plan Commission to hold an adoption public hearing and adopts the plan by resolution upon recommendation of the Plan Commission. The I-69 Community Planning Program was created by INDOT to aid the local communities along the proposed I-69 corridor in planning for their future. The Indiana Department of Transportation recognized the need to encourage local communities to protect natural resources, manage growth, and promote economic development associated with I-69. The Community Planning Program was established in the I-69 Tier 1 Final Environmental Impact Statement (FEIS). Following the FEIS, the Tier 1 Record of Decision (ROD) established 31 counties, cities, and towns along the selected corridor to be eligible for a community planning grant. Daviess County is one of the eligible places and received grant approval on October 25, 2007 from INDOT to create a Daviess County Comprehensive Plan taking the proposed I-69 corridor into account. The State of Indiana executed the grant agreement with Daviess County on March 19, 2008. The county retained Bernardin, Lochmueller and Associates, Inc. on April 28th, 2008 to prepare the Daviess County Comprehensive Plan for the unincorporated areas of the county.

2. PURPOSE

The Daviess County Comprehensive Plan directs the future physical development of the community by serving as the key policy guide for public and private decision makers if adopted as a comprehensive plan under state statute. It addresses the use of land to accommodate future activities, the phasing of infrastructure (roads and utilities) to support development, the provision of community facilities to meet the needs of residents, and the preservation of natural and man-made amenities to protect the heritage of the community. Ultimately, the land use reflects the values of the community in balancing the competition for land to sustain the economic vitality and the quality of life of the community. It is the collective vision for the future of Daviess County.

According to the Indiana Code (IC 36-7-4-501), the purpose of a comprehensive plan is to provide for “the promotion of public health, safety, morals, convenience, order, or the general welfare and for the sake of efficiency and economy in the process of development.” Finally, its adoption is a prerequisite to the adoption (if the community so chooses) of a variety of land use controls (zoning, subdivision, planned unit development, site plan review and thoroughfare regulations) for achieving the community’s future vision, and provides a long-range framework for developing capital improvement programs.

Daviess County has never had a comprehensive plan or any type of land use control such as a zoning ordinance or subdivision control ordinance. Further, Daviess County has never issued local building permits. The Indiana Code Requires that a comprehensive plan be completed before a community decides (if ever) to create zoning or subdivision control ordinances. The adoption of this comprehensive plan will allow Daviess County to create and adopt, if so desired, zoning and subdivision control ordinances that are consistent with the plan.

3. ORGANIZATION

The comprehensive plan is being prepared by Bernardin, Lochmueller and Associates, Inc. under contract to Daviess County through an Indiana Department of Transportation (INDOT) I-69 Community Planning Program grant. The purpose of the INDOT grant is to assist the community in responding to the economic development and growth opportunities of I-69 while protecting natural resources. It will be reviewed and adopted by the Daviess County Advisory Plan Commission (created on July 27, 2009) and the Daviess County Board of Commissioners after several public forums and a formal public hearing. However, adoption of the Land Use Plan as the community’s Comprehensive Plan does not compel the Board of Commissioners as the county legislative body to prepare and adopt any land use control.

4. PLANNING PROCESS

This first comprehensive plan will be prepared through an interactive process with community leaders and citizens over an eight-month period. The process involves four major steps:

- 1) developing a profile of where the community has been and where it may be going if existing trends and development policies continue,
- 2) preparing a vision of where the community desires to be in the future,
- 3) evaluating alternative future development patterns and supporting infrastructure to achieve the future vision, and
- 4) documenting the desired land use pattern and associated infrastructure.

The Daviess County Land Use Plan Steering Committee met every other month to develop this first Comprehensive Plan. Broader community input was achieved through interviews with community leaders, a public opinion survey, two public forums at major project milestones and a formal public hearing.

5. PLANNING PERIOD

The comprehensive plan will use the year 2030 as the horizon year for development of the community. Thus, population and economic forecasts have been prepared for the year 2030 to guide the determination of future land use needs. The desired future land use pattern addresses the preferred location for satisfying these land use needs. Because conditions and development assumptions change over time, forecasts for the immediate future are always more accurate than the distant future. Accordingly, it is desirable to review the underlying assumptions and to make mid-course adjustments as needed to achieve the future as envisioned by the comprehensive plan through a review every five years and an update every ten years.

6. PLANNING AREA

The Daviess County Comprehensive Plan encompasses all of Daviess County, with the exception of the incorporated communities of Washington, Odon, Elnora, Plainville, Montgomery, Cannelburg, and Alfordville. Under the same I-69 Community Planning Program Grant, the City of Washington is also working on a comprehensive plan at the same time as the county is working on its plan. Accordingly, the City of Washington and Daviess County will collaborate on recommendations for the development of the fringe area of Washington (that encompasses the I-69 corridor), and these recommendations will be the same for both plans.

B. USE

The comprehensive plan is a framework and guide for land use regulations, (if any adopted) development actions and decisions, and public expenditures on infrastructure to support land use activities. Prior to approval of requests for changes in land use (i.e., rezoning proposals and future land use map amendments, if a zoning ordinance is adopted) by the Plan Commission and the Board of Commissioners, the proposed changes are to be considered and evaluated in relation to the plan. The plan also serves as a guide for subdivision regulations, zoning ordinances, and capital improvement programs. Finally, the land use plan provides guidance on a variety of public programs ranging from economic development to environmental protection and historic preservation.

1. REVIEW OF LAND USE CHANGE PROPOSALS (IF ZONING ADOPTED)

The comprehensive plan must be considered by the Plan Commission in recommendations on rezonings (amendments to the zoning district map, if a zoning ordinance is adopted) or future land use map amendments. In the case of rezoning applications, consideration should be given to the future land use map as well as applicable development review guidelines of the land use plan. The rezoning proposal should be consistent with the future land use designation on the future land use map and should comply with applicable development review guidelines.

a. Consistency with Future Land Use Map (Test 1)

If the proposed land use change is of a comparable or lesser intensity land use than the future land use designation, the proposed land use change may be considered consistent with the future land use designation. For example, a land use change to offices or apartments would be generally consistent with the future land use designation for commercial use because offices and apartments are less intensive uses and are generally permitted uses in commercial zoning districts.

If the proposed land use change is of a significantly different intensity than the future land use designation, the proposal may not comply with the future land use designation. In such cases, the applicant may seek an amendment to the future land use designation using the development review guidelines to support the future land use map amendment.

b. Consistency with Development Review Guidelines (Test 2)

If the proposal is consistent with the future land use designation, but does not comply with all applicable development review guidelines, the rezoning applicant should identify mitigative actions to bring the development proposal into compliance with the development review guidelines. For a zoning district map amendment or future land use map amendment to be consistent with the comprehensive plan, it should normally be consistent with applicable development review guidelines.

c. Exceptions to General Consistency Tests

Lack of consistency with the future land use designation or violation of any applicable guideline will typically constitute sufficient reason to find the proposed land use change to be inconsistent with the Comprehensive Plan. However, there may be exceptions to this rule including:

- 1) If the proposed land use is not consistent with the future land use designation, consistency with all applicable development review guidelines may be sufficient to demonstrate consistency with the comprehensive plan.
- 2) If the proposed land use is in violation of a guideline, it may be considered consistent with the comprehensive plan when:
 - a) The overall intent of the comprehensive plan is followed.
 - b) The proposal does not substantially violate the applicable guideline or the adverse impact of the proposal on the community is minimal or nonexistent.
 - c) All feasible and practical methods have been exhausted for bringing the proposal into consistency with the applicable guideline.

2. FOUNDATION FOR LAND USE CONTROLS

Adoption of the comprehensive plan is a prerequisite to the adoption of land use controls such as a zoning ordinance, planned unit development ordinance, condominium control ordinance, subdivision control ordinance, and thoroughfare ordinance by the local legislative bodies.

A zoning ordinance identifies permitted land uses and development standards relating to the intensity of the use. Development standards encompass such features as minimum lot size, housing unit density, lot coverage, floor area to lot area ratios, yard requirements, height restrictions, off-street parking space requirements, signing limitations and landscaping requirements. Daviess County has never adopted a zoning ordinance. The City of Washington is the only jurisdiction in the county with a zoning ordinance.

A planned unit development ordinance is usually a special zoning district designation that permits the mixture of uses (which normally fall in multiple zoning district designations) and deviation from usual development

standards. The planned unit development ordinance is usually a special district which is part of the zoning ordinance. Daviess County does not have a planned unit development ordinance. The City of Washington has a planned unit development district in its zoning ordinance.

A condominium control ordinance may be used to control the development of condominium type projects. It often defines the arrangement of horizontal and vertical property rights in such developments. There are no condominium control ordinances in Daviess County. This type of ordinance may not be needed in Daviess County in the immediate future.

A subdivision control ordinance establishes rules under which property owners may divide tracts of land. Exceptions from the rules are often established for land trades, the division of tracts for agricultural purposes and the division of tracts where public infrastructure improvements are not needed. Subdivision regulations generally cover the design of physical improvements to land such as roads, sanitary sewers, waterlines and drainage facilities. They are intended to protect the property owner from inadequate services essential to the use of the property and to protect the community from excessive maintenance costs associated with improperly constructed facilities. Daviess County has never adopted a subdivision control ordinance. The City of Washington is the only jurisdiction in the county with a subdivision control ordinance.

The transportation element of the comprehensive plan may be adopted as a thoroughfare plan. The thoroughfare plan is crucial to the preservation of right-of-way and the designation of consistent design standards for arterials when subdivisions are created or land is developed abutting arterials. Washington is the only community in Daviess County that has ever adopted a comprehensive plan. The transportation element of their plan may be adopted as a thoroughfare plan, if they desire.

3. BASIS FOR CAPITAL IMPROVEMENT PROGRAMS

The comprehensive plan may also serve as the framework for local capital improvement programs. The future land use pattern must be associated with infrastructure improvements to sustain development. Thus, the comprehensive plan provides guidance on the long-term location and phasing of roadway, sanitary sewer, waterline, and drainage improvements to support development. Annual or short-range capital improvement programs usually draw projects from the long-range capital improvement program defined by the land use plan.

4. OTHER USES

The comprehensive plan has numerous other uses governing public and private decisions concerning physical improvements to the community. Of greatest significance, it guides private land owners. If land owners want to use their land in a new way, they need to identify the current zoning district designation (if any) for their property and determine if the new use is permitted. If the proposed use is not permitted by the current zoning (if adopted) designation of the property, the land use plan will be considered in determining the appropriateness of the proposed change in zoning to permit the new use.

Finally, the comprehensive plan is a resource and foundation for funding and grants from Federal, State, and private resources because the plan documents needs relative to community infrastructure, community facilities (including park and recreation facilities), economic development, historic preservation, and natural environment protection.

Chapter 2: Community Setting

A. LOCATION

Daviess County is located in southwest Indiana. It is bordered by five Indiana counties, including Greene, Knox, Martin, Pike, and Dubois. The county covers total area of 437 square miles of which 431 square miles is land and six square miles is water according to U.S. Census Bureau. There are seven incorporated communities in Daviess County, including Alfordsville, Cannelburg, Elnora, Montgomery, Odon, Plainville and Washington. Washington is the county seat of Daviess County. Figure 1 shows the location of Daviess County and the County's incorporated communities.

Daviess County's population was 30,035 persons in 2007 according to U.S. Census estimates. This is a slight increase from the 29,899 persons estimated for 2006 and the 29,820 persons estimated for the year 2000. Washington is the largest of the seven incorporated communities in Daviess County and had an estimated population of 11,367 persons in 2007 (11,380 persons in 2000). Census estimates from 2007 for the other communities include Odon with 1,386 persons (1,376 persons in 2000), Elnora with 725 persons (721 persons in 2000), Plainville with 515 persons (513 persons in 2000), Montgomery with 371 persons (368 persons in 2000), Cannelburg with 156 persons (140 persons in 2000) and Alfordsville with 114 persons (112 persons in 2000). Figure 2 shows major points of interest in Daviess County, including parks and recreational areas, schools, churches and cemeteries. (Figure 29 is a larger scale map showing schools, churches and recreational areas with specific names and locations.)

B. HISTORIC

1. HISTORY OF DAVIESS COUNTY

Daviess County was established in 1816 and was originally part of Knox County. The county was named after Colonel John Hamilton Daviess, a distinguished lawyer who died during the Battle of Tippecanoe in 1811. In 1817, Liverpool (now Washington) was named as the county seat. Prior to the County's creation, the area was primarily wilderness and used by Indians and trappers. Early Daviess land owners belonged to the French settlement in Vincennes, however it is believed that very few of these French families actually settled in the county. Much of this land was sold to others to be farmed and developed.

In the mid 1800's, the Wabash and Erie Canal began construction, crossing the county from in Veale Township and ending in Elmore Township. The canal brought many Irish immigrant workers to the area causing a population boom along with the creation of Elnora, Maysville and Plainville. As the canal's construction came to the end, and the Ohio and Mississippi Railway began construction near Washington, bituminous coal was discovered fueling yet another economic boom to the area. The various forms of mining practices have made a significant impact on the eastern Daviess County landscape.

Another important aspect in Daviess County history is the arrival of the Mennonites in 1886. Originally settling in Bogard Township, the group has grown in population and can also be found in Barr, Van Buren and Madison Townships. There are three categories of Mennonites: Conservative Mennonites, General Conference Mennonites and Amish Mennonites. The Amish are easily recognizable in the community and have contributed to the Daviess County economy by providing agricultural and craft goods as well as increasing tourism opportunities in the region.

2. HISTORIC STRUCTURES

The Indiana Department of Natural Resources and Historic Landmarks Foundation of Indiana have jointly conducted historic structure inventories throughout the state. This effort identifies historic districts, buildings, structures, sites and objects for inclusion in state-wide historic preservation and documents properties potentially eligible for the National Register of Historic Places or the Indiana State Register of Historic Sites and Structures. The Daviess County Interim Report identifies 700 historic properties throughout the county which are considered worthy of historic preservation. (The historic properties count is based on the 1987 Daviess County Interim Report).

Figure 1: Daviess County Location Map

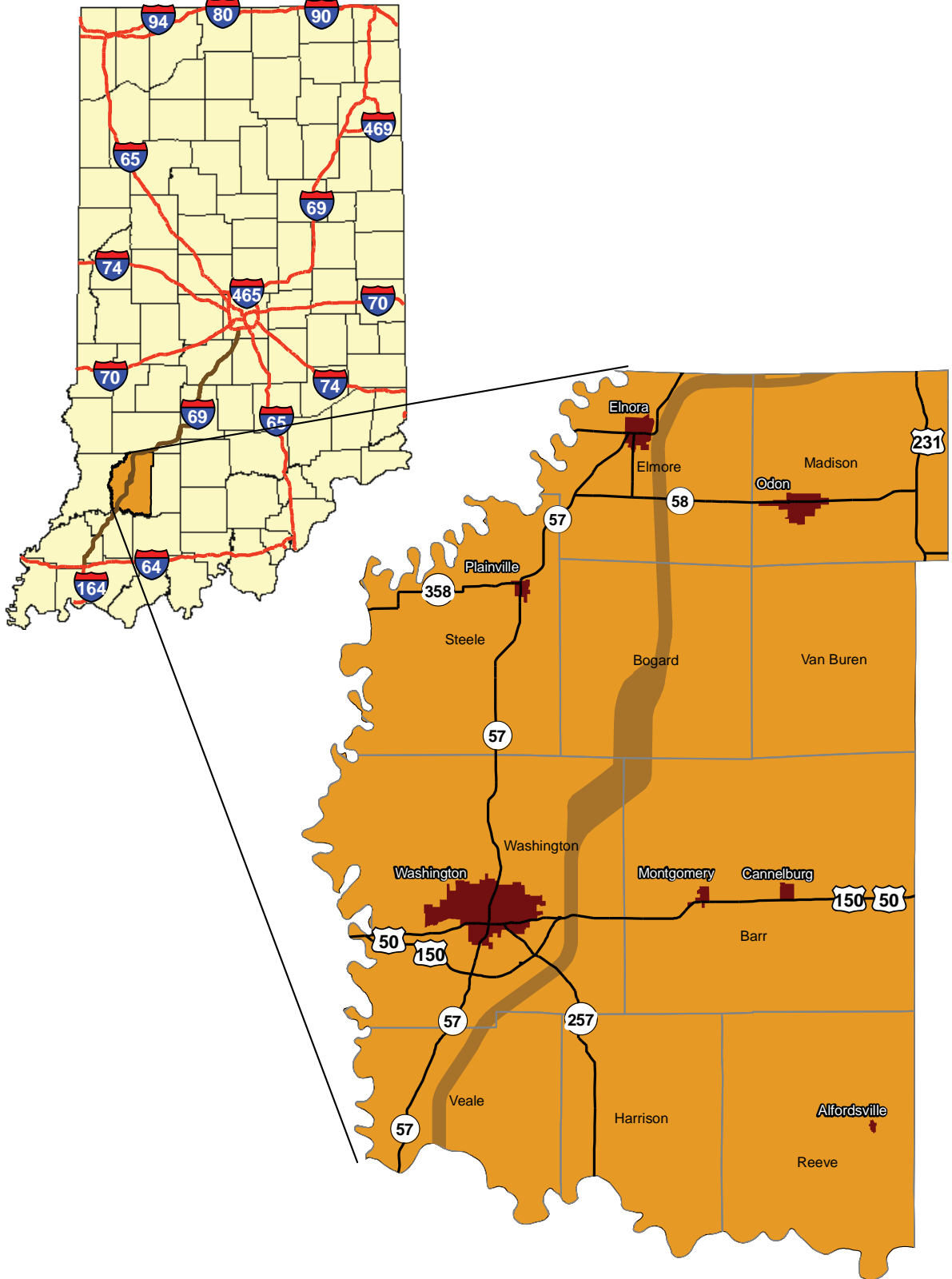
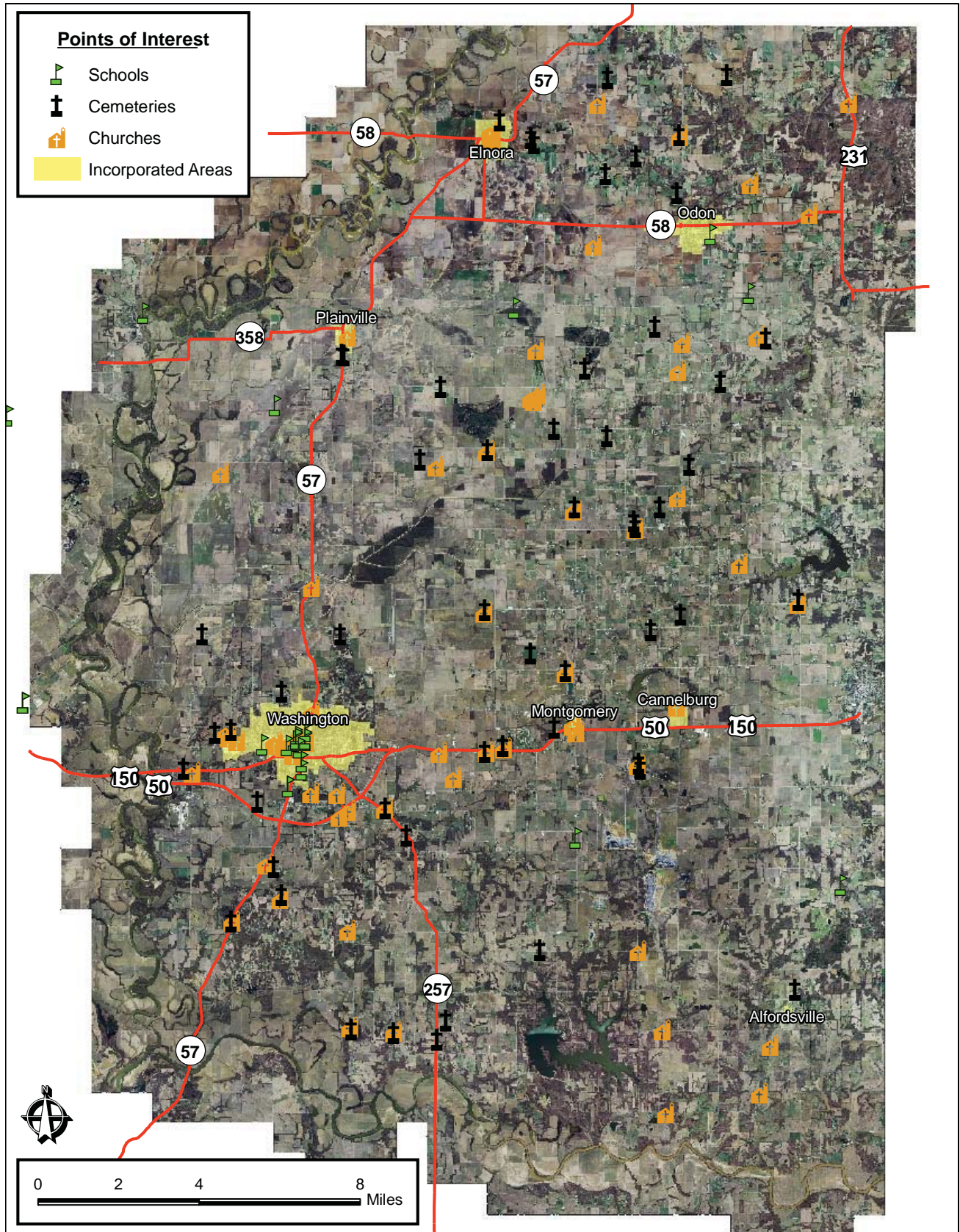


Figure 2: Points of Interest



Of the 700 historic properties and four historic districts considered for historic preservation, seven properties and one district, the Washington Commercial Historic District, are listed on the National Register of Historic Places. There is also an archaeological site in the Hudsonville area listed on the National Register. The seven properties include the Magnus J. Carnahan House, the Thomas Faith House, the Robert C. Graham House, Jefferson Elementary School, Prairie Creek Site, the Dr. John A. Scudder House, and Old Union Church and Cemetery.

The Daviess County Interim Report places properties into five designation categories:

1. Outstanding (O) – recommended as a potential nomination for the National Register of Historic Places.
2. Notable (N) – recommended as a potential nomination for the Indiana Register of Historic Sites and Structures (lacks national significance).
3. Contributing (C) – contributes to the density, continuity and/or uniqueness for the whole county or historic district, but the present condition does not appear to meet National or State designation criteria. These properties may be considered for a county or local historic register program.
4. Reference (R) – site in historic districts that are considered later or badly altered pre-1940 structures. These properties do not meet inventory criteria.
5. Non-Contributing (NC) – sites in historic districts that create a negative impact.

The identification of properties as historic is primarily for informational purposes and makes these properties available for federal and state programs and tax incentives for historic preservation. Unless these properties are placed on a local, State or National Register of Historic Properties, there are no restrictions on the use, rehabilitation, reconstruction or demolition of such properties above the zoning and building code requirements applicable to all properties in the jurisdiction. However, the National Environmental Policy Act and the National Historic Preservation Act generally protect these structures from the adverse impacts of improvement projects involving federal or state funds.

There are four historic districts located in Daviess County. Three of these districts can be found in the City of Washington. The Washington Commercial Historic District is primarily located along Main Street and South Street between Madison Street and 5th Street. The district includes 135 properties, 81 of which are in the contributing category or higher. There are 11 outstanding sites, 22 notable sites and 48 contributing sites.

The Washington Residential Historic District is primarily located along Walnut Street, Vantrees Street, Flora Street, Hebron Street, and Main Street between Second Street and Ninth Street. The Washington Residential Historic District is the largest of the four historic districts. It includes 198 structures, 120 of which are in the contributing category or higher. The district has 30 outstanding sites, 14 notable sites and 76 contributing sites.

The Ohio and Mississippi Railroad Washington Repair Shops Historic District is the smallest of the four districts and only includes seven properties. The district is located near the intersection of NW 17th Street and Vantrees Street. Eleven of the properties are in the contributing category or higher. This includes five outstanding structures and two notable structures.

The final historic district, the Odon Historic District, is located in Odon along Spring Street and South Oak Street between Main Street and Walnut Street. The district includes 14 properties, 11 of which are in the contributing category or higher. There are three notable sites and eight contributing sites.

The other 346 historic structures are scattered throughout Daviess County. This includes 32 outstanding structures, 83 notable structures and 231 contributing structures. Some of the well known outstanding structures includes the Thomas C. Singleton Round Barn located in Veale Township, the Wabash and Erie Canal site found in Steele, Veale, Washington and Elmore Townships, and the Robert C. Graham House in Washington Township.

C. NATURAL ENVIRONMENT

1. RELATION TO COMMUNITY GROWTH

The natural setting of a community generally determines constraints to urban development. The natural resources (i.e., mineral resources, topography, forested areas, etc.) of a community are an indicator of economic development opportunities. While some natural resources facilitate economic development, others can hinder development.

2. TOPOGRAPHY AND LAND FEATURES

a. Terrain and Topography

The elevation in Daviess County generally ranges from 380 feet above sea level to 610 feet above sea level. The majority of the county is located in the Wabash Lowland, with a small portion in the northeast falling in the Crawford Upland.

The Wabash Lowland is a broad lowland about 500 feet above sea level. The major drainages, such as the West Fork of the White River, have extensive floodplains with sand dunes along major river valleys. Almost all of this section has been glaciated. Much of the land in this section is in agricultural use. Strip mines for coal are also common.

The Crawford Upland is a scenic section and makes up essentially the eastern half of Daviess County. This section is comprised of rugged hills with steep stream valleys. It is the presence of sandstone that accounts for the relief in this section. Local relief of 200 to 300 feet is common. Sinkholes, karst valleys, and caves are common in the eastern portion of the section¹ (located in Greene County). Much of the section is forested because the rugged topography is less conducive to agriculture. Figure 3 shows physiographic regions in Daviess County.

b. Ratings for Septic Tank Absorption Fields

Review of the engineering ratings for septic tank absorption fields for each soil unit using the digital files for NRCS SSURGO soils, showed ratings of “somewhat limited” and “very limited” throughout the county. Figure 4 shows the location of the ratings throughout the county.

c. Agricultural Lands

Daviess County is one of 12 counties that comprise the Southwest Agricultural Statistics District in Indiana. The 2002 census of agriculture data show farmland in this county encompassed 206,625 acres on 1,138 farms. The average value per acre for land and buildings in 2002 was \$2,025 for Daviess County (84th in Indiana). Cash receipts in 2005 totaled \$137,733,000 (4th in Indiana) .

Agricultural commodities produced in Daviess County include corn, soybeans, winter wheat, popcorn, and hay. Livestock production includes cattle (milk and beef), hogs, sheep, turkeys and chickens. Daviess County ranked 24th in corn production, 45th in soybean production, 20th in winter wheat production, 11th in popcorn production, and 12th in hay production compared with other Indiana counties in 2006. Daviess County ranked 16th for beef cows and 25th for milk cows in January 2007. Additionally, it ranked 7th for hogs, 16th for sheep, 16th for chickens and 2nd for turkeys in 2002.²

¹ Gray, H. 2000. Physiographic Divisions of Indiana. Indiana Geological Survey Special Report 61, Indiana University.

² USDA Indiana Annual Statistical Bulletin. “County Highlights.” Accessed 09/02/08. http://www.nass.usda.gov/Statistics_by_State/Indiana/Publications/Annual_Statistical_Bulletin/0607/pg106-115.pdf

Figure 3: Physiography of Daviess County

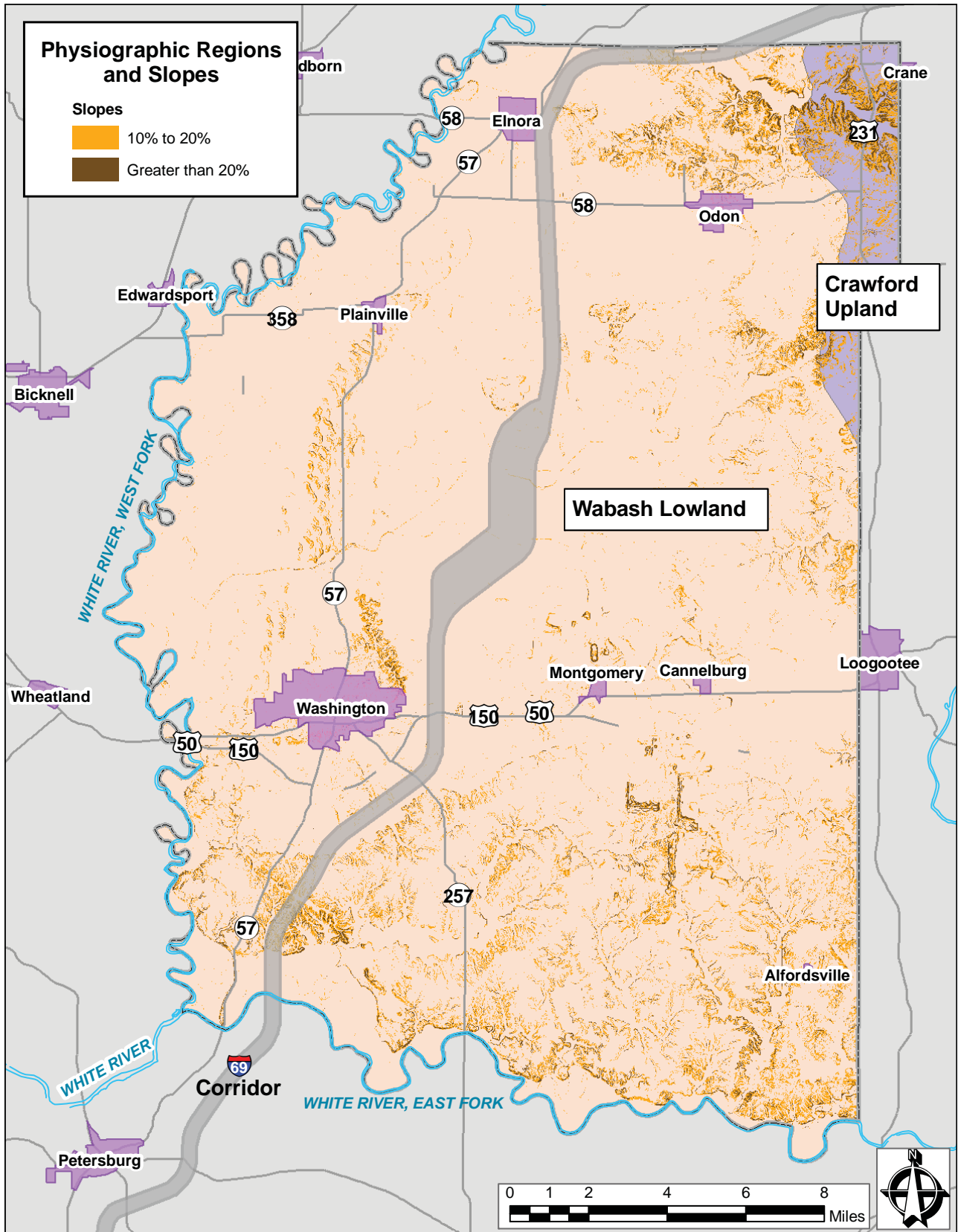
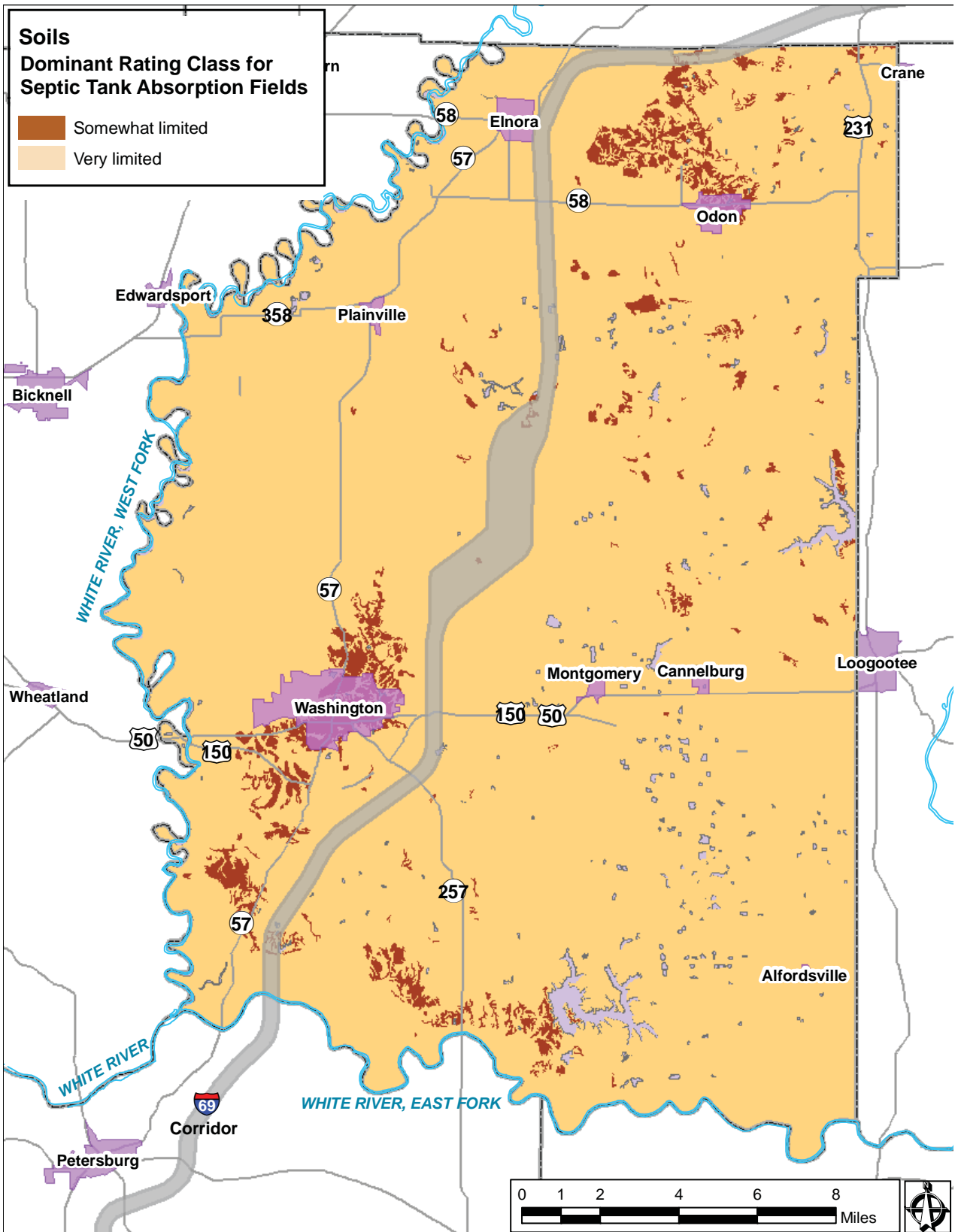


Figure 4: Septic Fields



According to Multi-Resolution Land Characteristics (MRLC) Consortium Land Cover Geographic Information Systems (GIS) data for the year 2001, Daviess County is comprised of 205,323 acres (74 percent of the county area) of farmland. This includes grassland, pasture/hay and cultivated land.

Prime farmland is defined by the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) as “land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and that is available for these uses (i.e., land that could be cropland, pastureland, rangeland, forest land or other land, but not urban built-up land or water).” It has the combination of soil properties, growing season, and moisture supply needed to produce sustained high yields of crops in an economic manner if treated and managed according to acceptable farming methods. In general, prime farmland has an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, an acceptable level of acidity or alkalinity, an acceptable content of salt or sodium, and few or no rocks. Its soils are permeable to water and air. Prime farmland is not excessively eroded or saturated with water for long periods of time, and it either does not flood frequently during the growing season or it is protected from flooding³.

According to NRCS soil GIS files for Daviess County, 51,036 acres (18 percent) of the county consist of soils in which all areas are prime farmland; 82,553 acres (30 percent) consist of soils that are prime farmland if drained; 21,634 acres (eight percent) consist of soils that are prime farmland if protected from flooding or not frequently flooded during the growing season; 29,268 acres (ten percent) consist of soils that are prime farmland if drained and either protected from flooding or not frequently flooded during the growing season; and there are no soils that are farmland of statewide importance.

Figure 5 shows the NRCS soil layer and the different prime farmland categories. More of the farmland and prime farmland soils are located in the western half of the county, near the White River.

d. Forest Lands

As part of the Forest Inventory Analysis by the United States Department of Agriculture (USDA) in 1950, Indiana was divided into four forest survey units. These units have remained consistent throughout the years in order to more accurately track changes in forests from survey to survey. Daviess County is within the Lower Wabash Unit. The most common forest types in this unit are maple-beech and oak hickory followed by the elm-ash-cottonwood type to a lesser extent. The higher, drier portions of the unit provide growing sites for most of the common tree species found in the other parts of Indiana.⁴

In 2006, the USDA Forest Service Forest Inventory and Analysis Data Center showed Daviess County as having 33,602 acres of accessible forest (approximately 11 percent of total land acres). All of this forest is privately owned. Most of the forest type in Daviess County is comprised of white oak/red oak/hickory birch at 40 percent. Cottonwood constitutes 15 percent. Mixed upland hardwoods was the third most abundant type at 13 percent and yellow-poplar/white oak/red oak is 11 percent. All other forest types comprised less than ten percent: willow, silver maple/American elm, cherry ash/yellow-poplar.

Forest land is often present on topography where the land is less conducive to agriculture and development. Figure 6 shows the location of forested areas based on the MRLC Land Cover GIS data for the year 2001.

e. Karst Topography

No karst topography features such as caves, sinkholes, or springs were identified in Daviess County. However, the Crawford Upland physiographic region is described by plentiful karst topography, and care should be taken to identify any karst features that may have gone unidentified by preliminary review of the area.

³ USDA Natural Resources Conservation Service. “Definitions.” Accessed 6/11/07. <http://www.nrcs.usda.gov/technical/NRI/maps/meta/m5566.html/>

⁴ Tormoehlen, Barbara, Joey Gallion, and Thomas L. Schmidt. 2000. Forests of Indiana: A 1998 Overview. Northeastern Area State and Private Forestry, Forest Service, United States Department of Agriculture. NA-TP-03-00, pp.17.

Figure 5: Prime Farmland

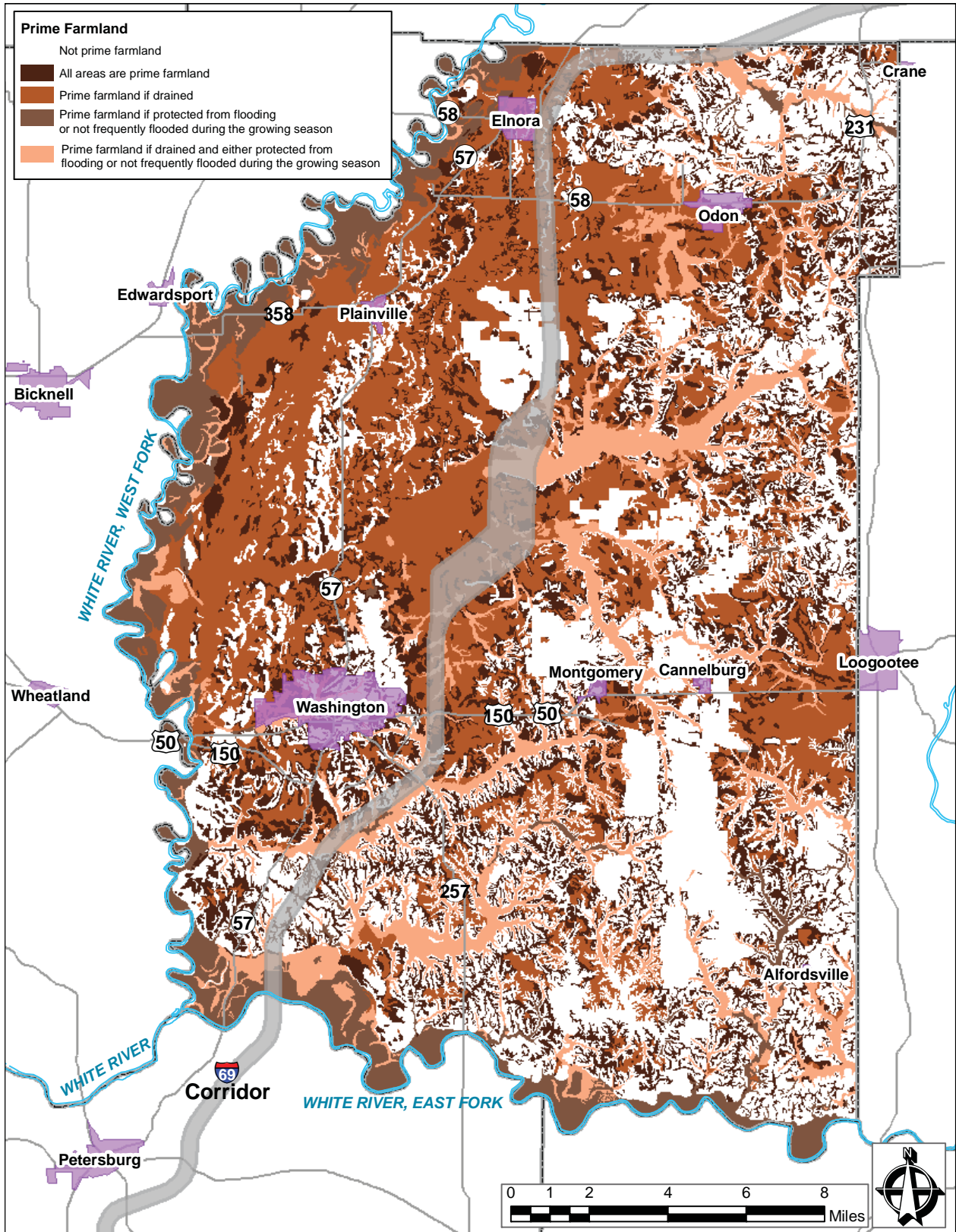
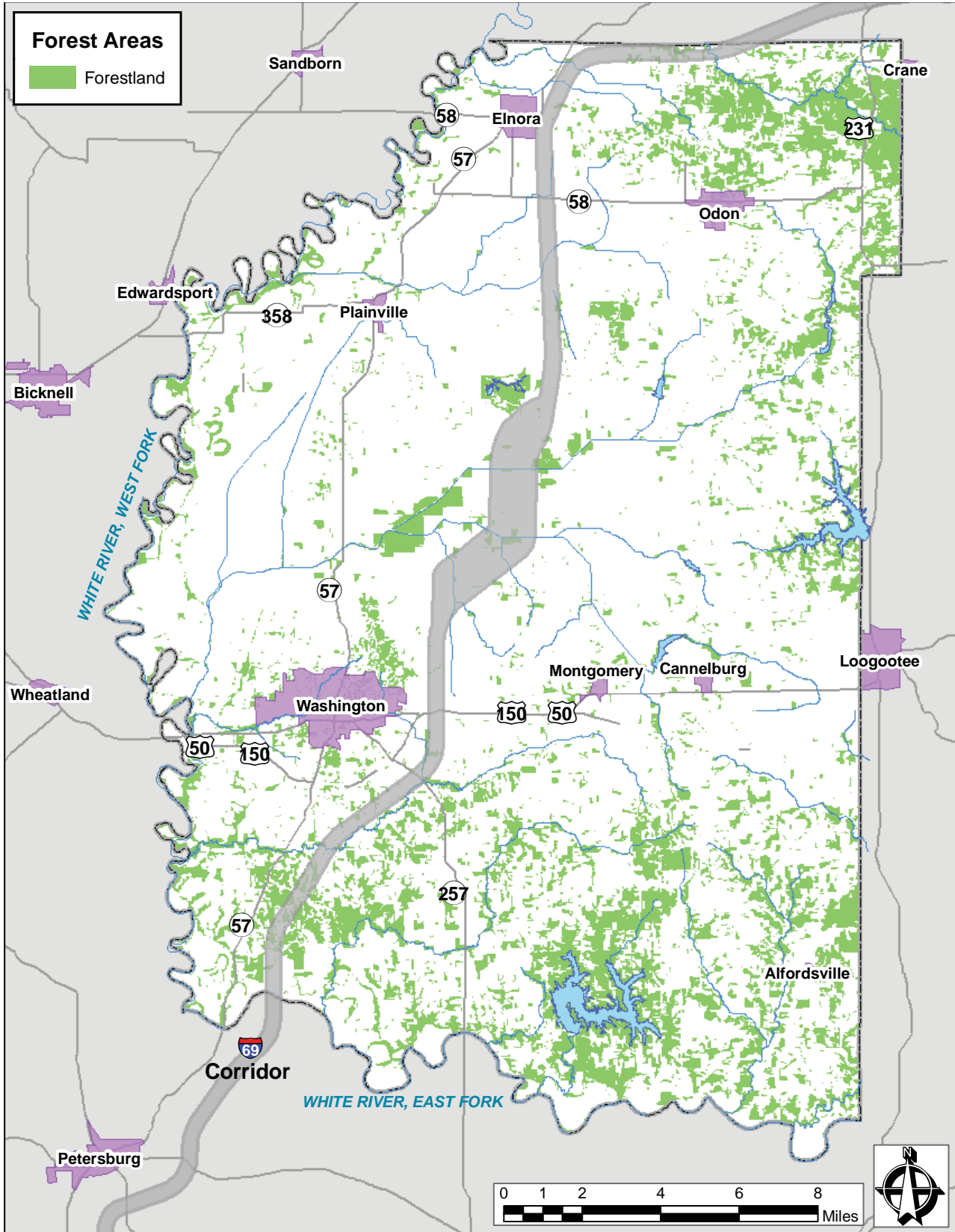


Figure 6: Forested Areas



f. Mineral Resources

Daviness County has one active coal mine south and two areas permitted to be mined. The active coal mine is located south of Cannelburg and Montgomery in southeastern Daviness County. The two areas that have a permit for coal mining are not currently being mined. One area is located to the northwest of Montgomery and the other is located along US 231 to the east of Odon. In addition to these mines, there are several areas in eastern Daviness County that have been mined in the past. Most of these previously mined areas were surface mines located around Cannelburg and Montgomery. There are also a few areas where underground mines existed in the past. These are also primarily around Cannelburg and Montgomery, with a few to the south of Washington.

In addition to coal mines, there are several oil and gas fields located throughout Daviness County. There are also hundreds of petroleum wells in the county. Figure 7 shows the location of petroleum fields and wells in Daviness County, as well as active, permitted, and historic coal mines.

3. WATER FEATURES

a. Ground Water Resources

i. Hydrogeologic Settings

The concept of hydrogeologic settings represents a basis for classifying and describing the relationships between ground water and the geologic terrains it occurs within. More precisely, hydrogeologic settings provide a conceptual model to help interpret the occurrence, movement, and sensitivity to contamination of ground water in relation to the nature of hydrogeologic heterogeneity in the surface and subsurface environment. Settings can be defined and classified in several ways, most of which revolve around some combination of: the internal and external structure of geologic terrain; physical properties of constituent rocks and sediments; and differences in hydraulic regime.⁵ Daviness County has three hydrogeologic settings: Bottomlands, the Southwestern Glaciated Region, and the South-Central Driftless Area. Within each setting, is a number of terrains. The terrains in Daviness County are listed below and shown in Figure 8. More detailed information regarding the definitions and characteristics of these areas are available from the Atlas of Hydrogeologic Terrains and Settings of Indiana, Indiana Geological Survey, Final Report to the Office of Indiana State Chemist, Open-File Report 95-7. (IGS OFR 95-7).

ii. Ground Water Availability

The generalized table of ground water availability presented in Table 1 is a subset of a statewide map available from IDNR, Division of water.⁶ The table shows that the majority of available ground water is associated with the branches of the White River.

iii. Aquifers

More detailed information about Daviness County aquifers are available in reports from the Indiana Department of Natural Resources, Division of Water, titled “Daviness County Bedrock Aquifer Systems” and “Unconsolidated Aquifer Systems of Daviness County” by William C. Herring, August 2003 (<http://www.in.gov/dnr/water/7893.htm>).

iv. Bedrock⁷

In Daviness County, rock types exposed at the bedrock surface range from relatively unproductive shales to

⁵ Indiana Geological Survey. Excerpts from Atlas of hydrogeologic terrains and settings of Indiana. Accessed 09/14/08. <http://igs.indiana.edu/survey/projects/pesticides/pest/pest.html/fleming.cfm>

⁶ Indiana Department of Natural Resources, Division of Water. Groundwater Availability. Accessed 09/14/08. <http://www.in.gov/dnr/water/7181.htm>

⁷ Herring, W. C. 2003. Map: “Daviness County Bedrock Aquifer Systems”, Indiana Department of Natural Resources, Division of Water, Resource Assessment Section. Accessed 9/05/08. http://www.in.gov/dnr/water/files/daviness_bedrock.pdf

Figure 7: Mineral Resources

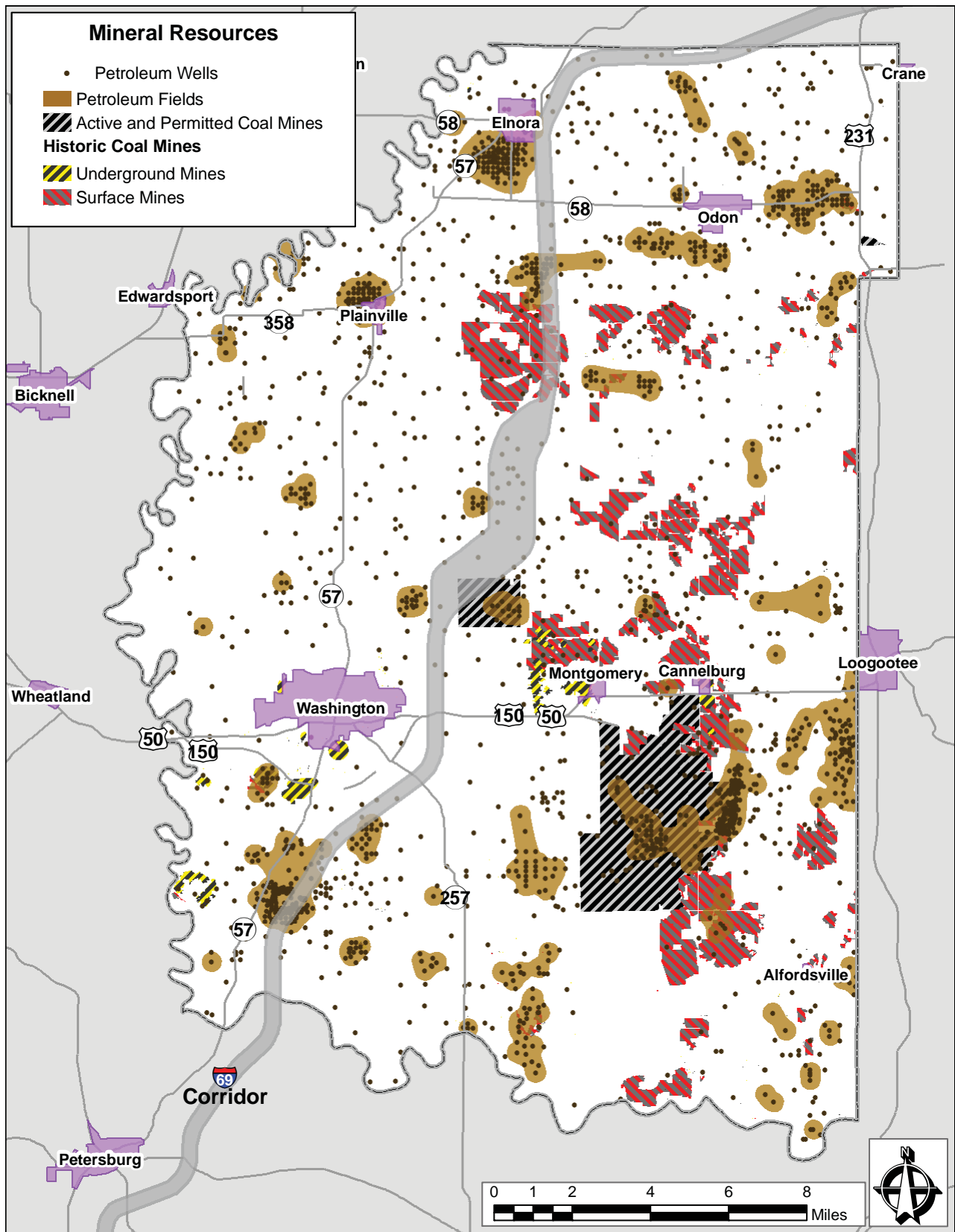
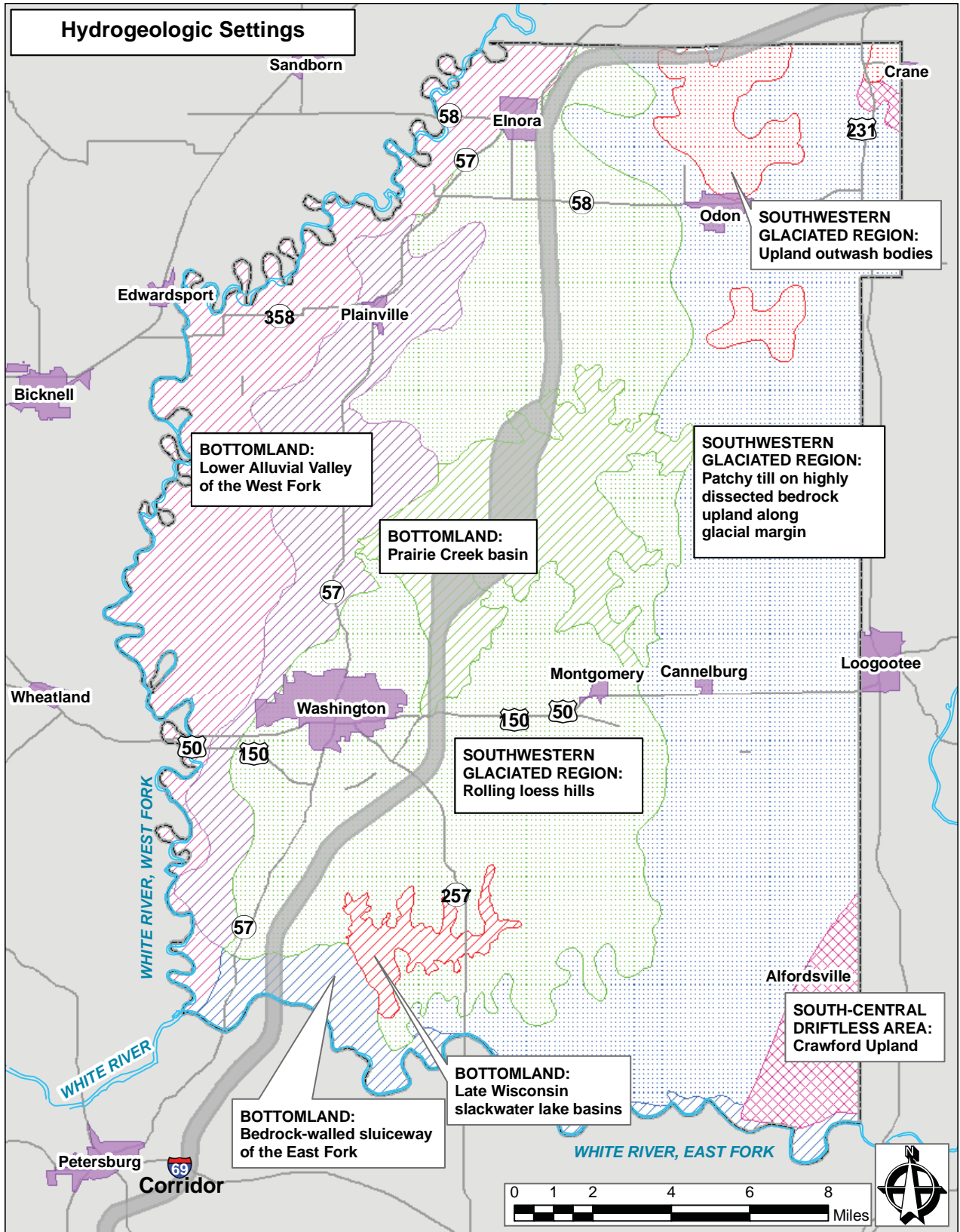


Figure 8: Hydrogeologic Settings



moderately productive sandstones. The bedrock aquifer systems in the county are overlain by unconsolidated deposits of varying thickness. Three bedrock aquifer systems are identified based on bedrock lithology. They are, from west to east and youngest to oldest: Carbondale Group of Pennsylvanian age; Raccoon Creek Group of Pennsylvanian age; and Buffalo Wallow, Stephensport, and West Baden Groups of Mississippian age.

Aquifers contained within the Pennsylvanian age bedrock have generally low-yielding capability. Both the Carbondale and the Raccoon Creek Groups in Davie County are considered minor ground-water sources, with most wells producing from thicker sandstones or coal units in the Carbondale Group or from the Mansfield Formation in the Raccoon Creek Group. Overall, the Raccoon Creek Group has somewhat better potential than the Carbondale Group, having reported well yields between four and 30 gallons per minute (gpm) for most domestic wells and well yields up to 50 gpm for high-capacity facilities in isolated areas. Most domestic wells in the Carbondale Group have reported testing rates between two and 15 gpm. Dry holes have been reported in both groups.

The Mississippian bedrock aquifer system does not outcrop in Davie County. However, some deeper wells along the eastern edge of the county penetrate through the Raccoon Creek Group and into this aquifer system. These wells are typically open to both aquifer systems, a condition that makes separate descriptions of yields impractical.

The bedrock aquifer systems in Davie County are not very susceptible to contamination from the land surface because of the typical presence of low-permeability materials above the water-bearing zones. However, in the limited areas of surface and underground coal mining, some localized contamination may have occurred. Natural water quality is expected to get progressively worse (more salty) in wells deeper than 300 or 400 feet as the strata dip beneath younger rocks to the southwest.

v. *Unconsolidated Aquifers*⁸

Six unconsolidated aquifer systems have been mapped in Davie County: the Dissected Till and Residuum; the Alluvial, Lacustrine, and Backwater Deposits; the Pre-Wisconsin Drift; the White River and Tributaries Outwash; the White River and Tributaries Outwash Subsystem; and the Coal Mine Spoil. The first five unconsolidated aquifer systems comprise sediments that were deposited primarily by glaciers and their meltwaters, or are thin, eroded residuum (a product of bedrock weathering). However, some sediments in the Alluvial, Lacustrine, and Backwater Deposits Aquifer System were deposited by flowing water not originating from glaciers. Boundaries of some of these aquifer systems are in places gradational, and individual aquifers may extend across aquifer system boundaries.

The most productive unconsolidated aquifer system in Davie County is the White River and Tributaries Outwash Aquifer System with its extensive sand and gravel deposits that occur along the western and southern boundary of the county. Expected yields from this system range from about 300 to 1500 gallons per minute for large-diameter wells. This aquifer system is highly susceptible to contamination in areas that lack overlying clay layers. Areas within the system that are overlain by thick layers of clay or silt are moderately susceptible to surface contamination.

The least productive aquifer system is the Dissected Till and Residuum that encompasses almost half of the county. The potential for successful wells in this aquifer system is low. Some old dug wells probably still exist, but their yields would also be quite low. Because of the low permeability of the surface materials, this system is not very susceptible to contamination from surface sources.

vi. *Wells and Wellhead Protection*

Indiana Department of Environmental Management (IDEM) keeps a Drinking Water Facilities Database.⁹ A

⁸ Herring, W. C. 2003. Map: "Unconsolidated Aquifers of Davie County", Indiana Department of Natural Resources, Division of Water, Resource Assessment Section. Accessed 9/05/08. http://www.in.gov/dnr/water/files/davies_unconsolidated.pdf

⁹ Indiana Department of Environmental Management. Drinking Water Branch, SDWIS Ver. 1.1, Drinking Water Facility Database. Accessed 09/07/08. http://www.in.gov/apps/idem/sdwis_state/

Table 1: Ground Water Availability

Water System No.	Water System Name	Type	Status	Primary Source Water Type	Population Served	Source
IN5214001	Alfordsville Water Utility	Community	Active	Surface Water Purchased	400	Dubois Water Utilities
IN5214002	Daviness County Rural Water	Community	Active	Ground Water Purchased	5900	Washington Water Works
IN5214003	Elnora Water Works	Community	Active	Ground Water	721	2 wells
IN2140037	Energy Plus	Non-Community	Active	Ground Water	25	1 well
IN5214004	Montgomery Water Works	Community	Active	Ground Water	645	2 wells
IN2140007	Oak Ridge Amish School	Non-Community	Active	Ground Water	48	1 well
IN5214005	Odon Water Utilities, Inc.	Community	Active	Ground Water	1376	3 wells
IN2140001	Plainville First United Methodist Church	Non-Community	Active	Ground Water	41	1 well
IN2140011	Tri Star Glove	Non-Transient Non-	Active	Ground Water	32	1 well
IN5214007	Washington Water Works	Community	Active	Ground Water	13900	14 wells

search of the database for Daviness County returned ten active facilities and 25 inactive facilities. The records of the active facilities are shown in Table 1.

IDEM has created a source water assessment program in order to provide information to public water suppliers regarding the source of their drinking water and the degree to which it may be susceptible to various sources of contamination.¹⁰ Records for three public water supply systems in Daviness County were found in accessible data spreadsheets. They were Tri-Star Glove, with a moderately-high risk for contamination, and Energy Plus and Oak Ridge Amish School, both with high risk for contamination.

A water well records database was obtained from Indiana Department of Natural Resources, Division of Water on January 15, 2008. The database contained records for 2390 ground water wells in Daviness County. Wells which had completed records for pumping rates showed a pumping rate range between 0.5 gpm to 1800 gpm. With an average of 46.5 gpm, Figure 9 shows the wells in graduated size by pumping rate. The count of pumping rate classes is as follows: 399 wells with 0.5 – 13.3 gpm, 264 wells with 14 – 30 gpm, 113 wells with 30 – 60 gpm, 26 wells with 60 – 135 gpm, ten wells with 135 – 320 gpm and 19 wells with 320 – 1800 gpm.

Significant ground water withdrawal facilities, those with capability to pump more than 100,000 gallons per day, in Daviness County are listed and described in Table 2.¹¹ Significant water withdrawal facilities for both surface and ground water are shown in Figure 10.¹²

Wellhead protection areas are associated with public water supply wells. A wellhead protection area is the surface and subsurface area surrounding a public water supply well, through which contaminants are reasonably likely to move toward and reach the well. Wellhead protection areas are delineated in order to prevent the contamination of ground water used as drinking water. Wellhead protection areas may have a detailed delineation and unique shape or a fixed 3,000-foot radius.

¹⁰ Indiana Department of Environmental Management. Source Water Assessment Program. Accessed 09/07/08. <http://www.in.gov/idem/4288.htm>

¹¹ Registered Significant Ground-water Withdrawal Facilities in Daviness County, Indiana. Accessed 09/07/08. http://www.in.gov/dnr/water/files/daviness_highcap_table.pdf

¹² Indiana Department of Natural Resources, Division of Water. Significant Water Withdrawal Facility Data. Accessed 09/14/08. <http://www.in.gov/dnr/water/8542>

The IDEM Ground Water Section administers the Wellhead Protection Program¹³, which is a strategy to protect ground water drinking supplies from pollution. The Safe Drinking Water Act and the Indiana Wellhead Protection Rule (327 IAC 8.4-1) mandates a wellhead program for all Community Public Water Systems. The Wellhead Protection Programs consists of two phases. Phase I involves the delineation of a Wellhead Protection Area (WHPA), identifying potential sources of contamination, and creating management and contingency plans for the WHPA. Phase II involves the implementation of the plan created in Phase I, and communities are required to report to IDEM how they have protected ground water resources.

All community water systems were required to develop a plan, commonly referred to as a Phase I plan, to protect the areas around their wellheads. All Phase I plans were required to contain, at a minimum the following:

- Establishment of a Local Planning Team
- Delineation of the Wellhead Protection Area
- Identification and Inventory of Potential Contaminant Sources
- Development of a Management Plan for Potential Contaminant Sources
- Development of a Contingency Plan

IDEM provides a Wellhead Protection Program Tracking Database.¹⁴ This database provides tracking information on the status of Community Public Water Supply Systems' Wellhead Protection Plans. Results from a search of this database for Daviess County are shown in Table 3.

b. Streams and Floodplains

A watershed is the area of land where all of the water that is under it or drains off of it goes into the same place. Rivers, streams, and creeks are all names of water flowing on the earth's surface. The flowing water drains a particular watershed.

Daviess County is located within two 8-digit watersheds: Lower White (05120202) and Lower East Fork White (05120208). The county is bordered by two major rivers, the West Fork of the White River on the west and the East Fork of the White River on the south. Larger tributaries to the West Fork of the White River include: Grindstone Branch, Smothers Creek, Prairie Creek, Hawkins Creek, and Veale Creek. Larger tributaries to the East Fork of the White River include: Aikman Creek, Camp Creek, Mud Creek, Sugar Creek, and Slate Creek. Daviess County has approximately 795 miles of streams and waterways. Of these, 250 miles, not including the bordering rivers are perennial streams. There are two large lakes in Daviess County, Dogwood Lake, 1237 acres located in the Glendale Fish and Wildlife Area, and West Boggs Lake, 517 acres bordering a park. Figure 11 shows the 8-digit watersheds, streams, and 100-year floodplains within Daviess County.

The drainage areas of the streams in Daviess County is presented in Drainage Areas of Indiana Streams produced by the Indiana Department of Natural Resources, Division of Water. The document is available at the website, <http://www.in.gov/dnr/water/8722.htm>. A map of Indiana streams is shown in Figure 12 and drainage areas are listed in Table 4.

Section 303(d) of the 1972 Federal Clean Water Act (CWA) requires each state to identify those waters that do not meet the State's Water Quality Standards (WQS) for designated uses. For these impaired waters, states are required to establish total maximum daily loads (TMDLs) to meet the state WQS. In addition, the USEPA has released guidance recommending that states, territories, and authorized tribes submit an Integrated Water Quality Monitoring and Assessment Report that will satisfy CWA requirements for both the Section 305(b)

¹³ Indiana Department of Environmental Management. Wellhead Protection Program. Accessed 09/08/08. <http://www.in.gov/idem/4289.htm#proxdet>

¹⁴ Indiana Department of Environmental Management. Wellhead Protection Program Tracking Database. Accessed 09/08/08. http://www.in.gov/serv/idem_groundwater.

Figure 9: Ground Water Wells

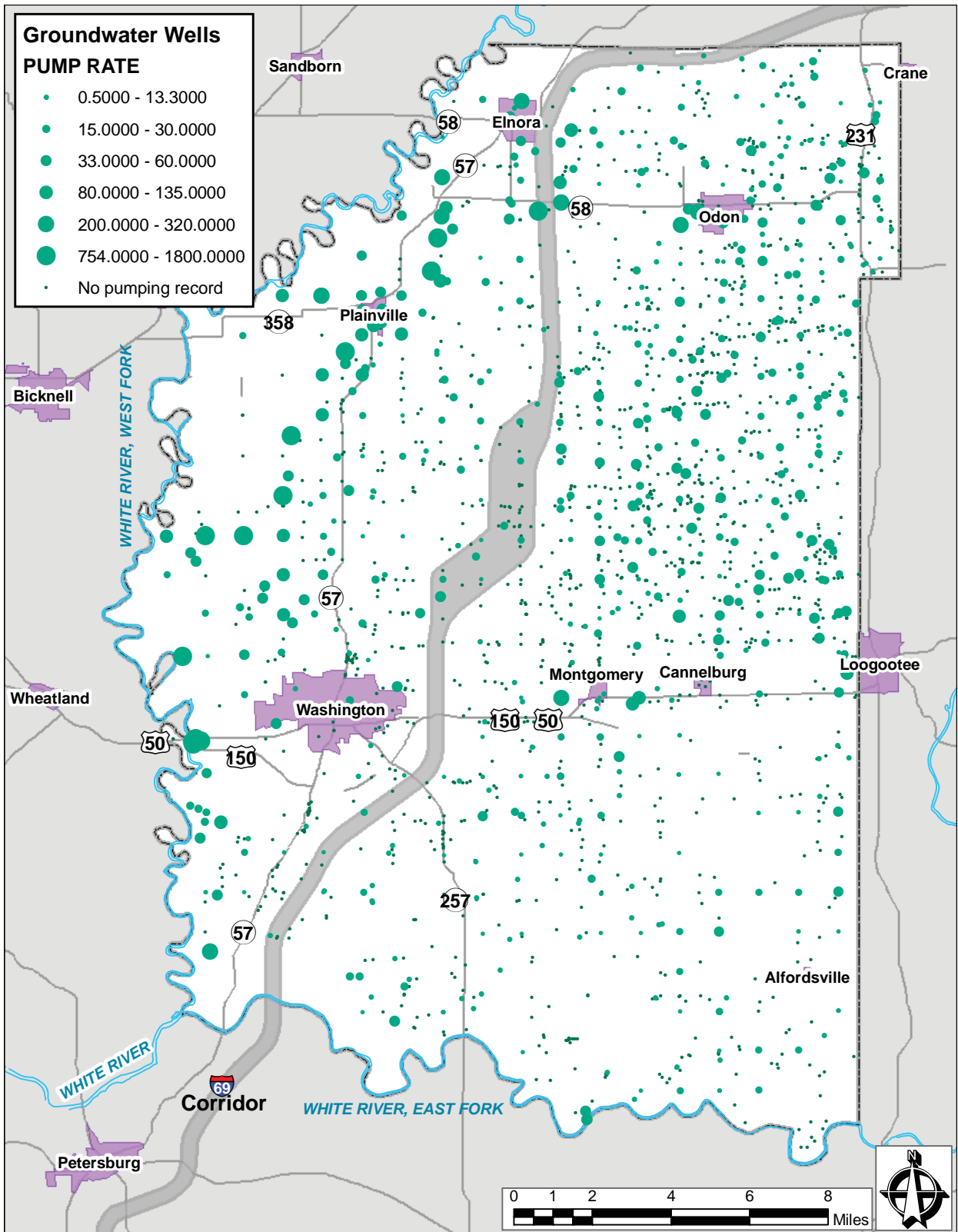


Table 2: Registered Significant Water Withdrawal Facilities

Registered Significant Ground-water Withdrawal Facilities in Davie County, Indiana

Regist. No. 14-	Use	Owner	Well No.	Capacity (gpm)	Depth (ft)	Dia. (in)	Aquifer	UTMN	UTME	Well Ref. No.	Disc. Date	Topo Map	T, R, S
00091	PS	ODON, TOWN OF	1	250	98	38	WRTO	4299250	493075	N/A		Epsom	5n,6w,28
00091	PS	ODON, TOWN OF	2	250	98	38	WRTO	4299050	493075	N/A		Epsom	5n,6w,28
00091	PS	ODON, TOWN OF	3	185	110	38	WRTO	4298925	493425	N/A		Epsom	5n,6w,28
01055	PS	WASHINGTON, CITY OF	9	385	115	28	WRTO	4277500	479550	228556		Washington	3n,7w,62
01055	PS	WASHINGTON, CITY OF	13	650	112	12	WRTO	4277650	479275	228650		Washington	3n,7w,62
01055	PS	WASHINGTON, CITY OF	15	565	118	16	WRTO	4277300	479375	228579		Washington	3n,7w,62
01055	PS	WASHINGTON, CITY OF	16	800	106	28	WRTO	4277425	479475	228584		Washington	3n,7w,62
01055	PS	WASHINGTON, CITY OF	17	650	112	12	WRTO	4277825	479250	228590		Washington	3n,7w,62
01055	PS	WASHINGTON, CITY OF	18	680	112	12	WRTO	4281025	478925	228660		Washington	3n,8w,160
01055	PS	WASHINGTON, CITY OF	19	1175	112	20	WRTO	4281025	478800	228589		Washington	3n,8w,160
01055	PS	WASHINGTON, CITY OF	20	900	116	20	WRTO	4281050	478625	283942		Washington	3n,8w,160
01055	PS	WASHINGTON, CITY OF	21	910	93	20	WRTO	4280975	479175	324191		Washington	3n,8w,160
01055	PS	WASHINGTON, CITY OF	22	925	110	20	WRTO	4280950	478950	324192		Washington	3n,8w,160
01295	IR	WICHMAN, JOHN P	1	500	70	16	WRTO	4290900	482025	N/A		Plainville	4n,7w,20
01590-Disc.	IR	WRIGHT, RODERICK	1	400	50	14	WRTO	4282440	481190	27738	1992	Washington	3n,7w,274
01867	IR	VILLWOCK FARMS	1	600	72	14	WRTO	4290250	483350	4300		Plainville	4n,7w,21
02224	PS	ELNORA, TOWN OF	1	250	52	16	WRTO	4302525	492775	N/A		Epsom	5n,6w,16
02224	PS	ELNORA, TOWN OF	2	250	52	16	WRTO	4302525	492850	N/A		Epsom	5n,6w,16
02829-Disc.	EP	BLACK BEAUTY COAL CO	1GW	175	131	8	WRTO	4296300	489400	4398	1995	Epsom	4n,6w,6
02843-Disc.	EP	BLACK BEAUTY COAL CO	20w	300	125	8	Und. Mine	4279600	493400	N/A	1997	Montgomery	3n,6w,28
02885-Disc.	EP	BLACK BEAUTY COAL CO	4W	180	130	6	Und. Mine	4281700	493650	N/A	1990	Montgomery	3n,6w,15
02885-Disc.	EP	BLACK BEAUTY COAL CO	013W	180	152	12	Und. Mine	4280250	493450	N/A	1994	Montgomery	3n,6w,21
03294	RU	RIVER VIEW FARMS INC	1	40	40	6	WRTO	4283820	482345	170608		Washington	3n,7w,9
03294	RU	RIVER VIEW FARMS INC	2	50	55	8	WRTO	4283685	482300	272665		Washington	3n,7w,9
03352-Disc.	IR	DIVINE FARMS, INC	1	900	75	10	WRTO	4293785	485820	4317	1992	Plainville	4n,7w,11
03352-Disc.	IR	DIVINE FARMS, INC	2	600	40	8	WRTO	4293000	485615	4306	1992	Plainville	4n,7w,14
03352-Disc.	IR	DIVINE FARMS, INC	3	400	40	5	WRTO	4293120	485605	82082	1992	Plainville	4n,7w,14
03355-Disc.	IR	RAGSDALE, WILLIAM J	1	700	68	8	WRTO	4298280	489400	4016	1999	Epsom	5n,6w,30
03365	IR	MCKEE FARMS	1	1000	130	16	WRTO	4296980	488785	N/A		Plainville	5n,6w,31
03365	IR	MCKEE FARMS	2	600	133	16	WRTO	4296940	489530	4014		Epsom	5n,6w,31
03877	IR	GRAHAM FARMS, INC	1	750	60	16	WRTO	4286950	481200	228304		Washington	4n,7w,32
03877	IR	GRAHAM FARMS, INC	2	750	60	16	WRTO	4286925	481950	228309		Washington	4n,7w,32
03877	IR	GRAHAM FARMS, INC	3	750	50	16	WRTO	4286180	481220	220188		Washington	3n,7w,5
03877	IR	GRAHAM FARMS, INC	4	750	52	16	WRTO	4286200	482015	75466		Washington	3n,7w,5
03936	IN	HOOSIER MAGNETICS, INC	1	100	80	10	WRTOSS	4278250	482775	27739		Washington	3n,7w,280
04034	RU	BARBER, LAURA	1	60	34	8	WRTO	4268945	479995	97629		Sandy Hook	2n,7w,30
04034	RU	BARBER, LAURA	2	1	120	6	PCG	4269375	480150	N/A		Sandy Hook	2n,7w,30
04348	IN	GRAIN PROCESSING CORP	1	1500	110	24	WRTO	4275760	478600	286730		Washington	2n,8w,1
04348	IN	GRAIN PROCESSING CORP	2	1500	108	24	WRTO	4276050	478100	321008		Washington	2n,8w,1
04348	IN	GRAIN PROCESSING CORP	3	1500	103	24	WRTO	4275250	478625	321007		Washington	2n,8w,1
04348	IN	GRAIN PROCESSING CORP	4	1500	108	24	WRTO	4275510	478050	321006		Washington	2n,8w,1

Disc. = Discontinued
 EP = Energy Production (incl. coal mining)
 IN = Industry
 IR = Irrigation
 PS = Public Supply
 RU = Rural Use

T,R,S = Congressional Township, Range, and Section/Donation
 WRTO = White River and Tributaries Outwash
 WRTOSS = White River and Tributaries Outwash Subsystem
 Und. Mine = Abandoned Underground Coal Mine in Pennsylvanian Raccoon Creek Group
 PCG = Pennsylvanian Carbondale Group
 N/A = Not Available

Figure 10: Significant Water Withdrawal

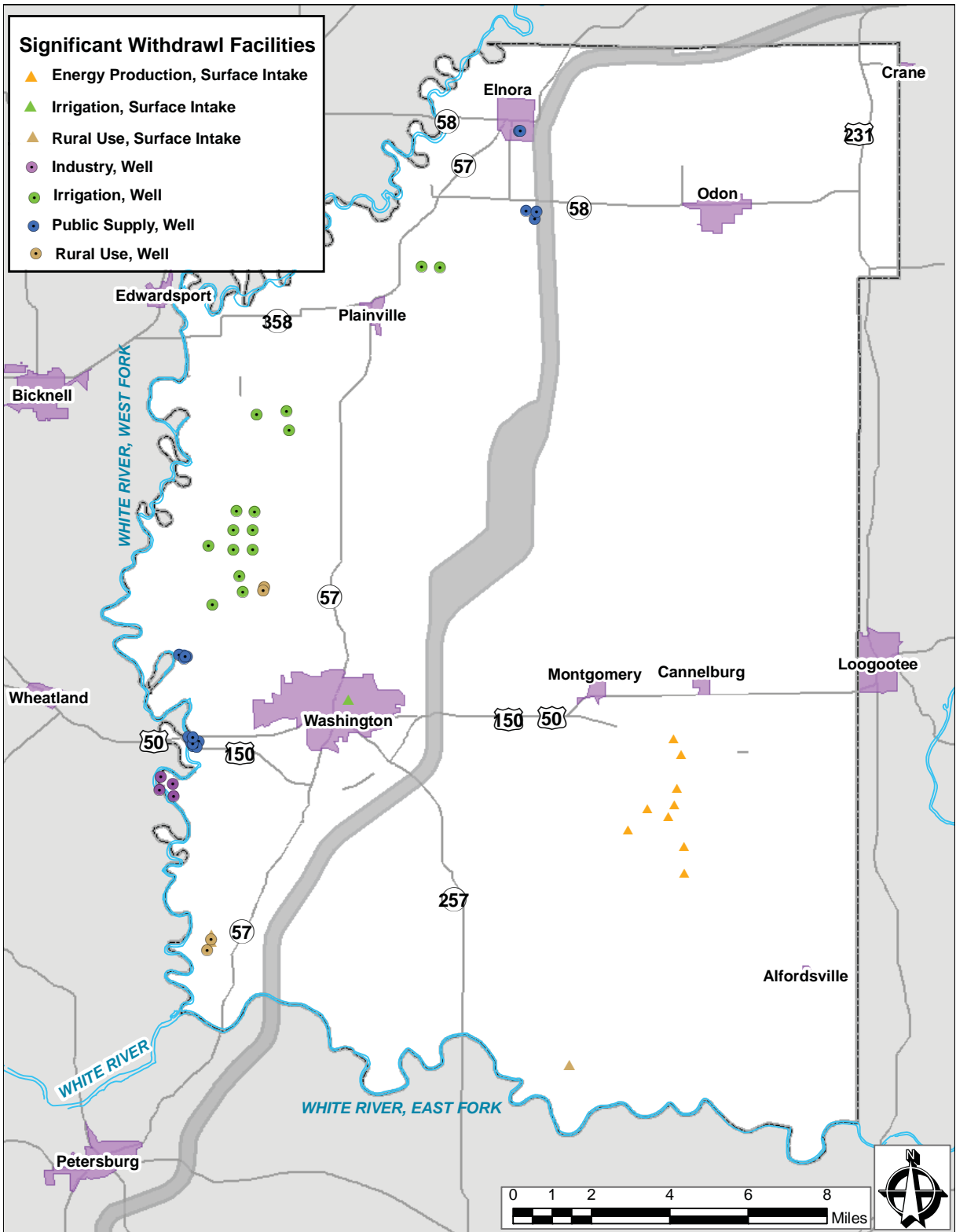


Table 3: IDEM Wellhead Protection Program Tracking Database

PWSID	System Name	Tracking Type	Tracking Action	Action Date
5214003	Elnora Water Works	FixRadDel	Approved	10/18/2002
		FixRadDel	Submit	1/28/2002
		FixRadUse	Approved	12/10/1999
		Phase1	Returned	8/14/2002
		Phase1	Resubmit	9/4/2002
		Phase1	Submit	1/28/2002
		Phase1	Approved	10/18/2002
		Phase1	Review	7/28/2002
5214004	Montgomery Water Works	ModelDel	Review	8/5/2002
		ModelDel	Approved	9/23/2002
		ModelDel	Submit	3/28/2002
		Phase1	Approved	2/2/2004
		Phase1	Returned	5/9/2003
		Phase1	Review	11/6/2002
		Phase1	Resubmit	10/10/2003
		Phase1	Submit	3/28/2002
5214005	Odon Water Utilities, Inc.	ModelDel	Submit	6/28/1999
		ModelDel	Approved	9/17/2001
		ModelDel	Review	1/16/2000
		Phase1	Review	2/4/2002
		Phase1	Approved	3/4/2002
		Phase1	Submit	6/27/2000
		Phase1	Returned	2/27/2001
		Phase1	Review	2/26/2001
		Phase1	Resubmit	1/31/2002
5214007	Washington Water Works	ModelDel	Review	9/21/2000
		ModelDel	Approved	11/27/2000
		ModelDel	Review	2/6/2002
		ModelDel	Review	4/26/2007
		ModelDel	Submit	12/10/1999
		Phase1	Review	11/20/2003
		Phase1	Review	7/31/2001
		Phase1	Returned	8/1/2001
		Phase1	Submit	3/28/2001
		Phase1	Resubmit	11/10/2003
		Phase1	Approved	3/4/2004
		RegLetter	Returned	8/12/2003

water quality report and Section 303(d) list of impaired waters. Indiana has integrated this guidance into the IDEM's 303(d) listing methodology. This methodology is detailed in the document, "Indiana's 2008 Consolidated Assessment and Listing Methodology."¹⁵

Several streams and two lakes are listed as impaired on the Indiana Department of Environmental Management's 2008 303d list of impaired waters. Dogwood Lake is listed for mercury and the North Fork Prairie Creek Reservoir (Fisher Dam) is listed for *E. coli*. Black Creek and some of its ditches are listed for *E. coli* as well as the Singer Ditch – Hill Ditch, Lower Veale Creek and Veale Creek Slough. The Eagan Ditch basin is listed for nutrient loads. Sections of the East Fork of the White River including areas upstream of Beech Creek are listed for mercury and PCBs found in fish tissues. Sections of the West Fork of the White River including from Elnora to Black Creek are listed for mercury and PCBs found in fish tissues. A portion of the West Fork is also listed for an impaired biotic community. Hawkins Creek, North Fork Prairie Creek, and sections of Prairie Creek are listed for an impaired biotic community.¹⁶

The National Park Service has compiled and maintains the Nationwide Rivers Inventory (NRI). The NRI is a register of rivers that may be eligible for inclusion in the National Wild and Scenic Rivers System. The intent of the NRI is to provide information to assist in making balanced decisions regarding use of the nation's river resources. Both the West Fork of the White River and the East Fork of the White River are listed in the Nationwide Rivers List (NRI). These have been included on the NRI because of its fish, wildlife, historic values. Portions are also listed for scenery, recreation, and geologic values.¹⁷ In 1997, the West Fork of the White River was listed as one of the United States' most threatened rivers due to the use of pesticides, herbicides and insecticides. These are used extensively in the White River basin for farming crops such as corn and soybeans.

To help identify the rivers and streams that have particular environmental or aesthetic interest, a special listing has been prepared by the Division of Outdoor Recreation of the Department of Natural Resources and is published as the "Outstanding Rivers List for Indiana" by the Natural Resource Commission. Both the West Fork and East Fork of the White Rivers are included in the list. They are listed for being state heritage program sites (outstanding ecological importance) and being state designated canoe/boating routes.¹⁸

Floodplains are a vital part of a river's or stream's ecosystem. They are important because they act as flood buffers, water filters, nurseries, and are major centers of biological life in the river or stream ecosystem. Floodplains are also important for maintenance of water quality because they provide fresh water to wetlands and backwaters, dilute salts and nutrients, and improve the overall health of the habitat used by many species of birds, fish, and plants. They are vital biologically because they represent areas where many species reproduce and are important for breeding and regeneration cycles. High water tables, insurance restrictions because of flooding, and problems with ground water contamination can severely restrict or prohibit development within a floodplain.

Large floodplains in Daviess County are associated with the West Fork of the White River and the East Fork of the White River along the counties western and southern borders. Prairie Creek has a significant floodplain. Floodplains are also present for Veale Creek, Slate Creek, Sugar Creek, Camp Creek, Mud Creek, Aikman Creek, and Smothers Creek.

¹⁵ Indiana Department of Environmental Management. "Attachment 2: Indiana's 2008 Consolidated Assessment and Listing Methodology (CALM). Accessed 09/10/08. <http://www.in.gov/idem/4680.htm>

¹⁶ Indiana Department of Environmental Management. Approved 2008 303(d) list. Accessed 09/10/08. <http://www.in.gov/idem/4680.htm>

¹⁷ National Park Service. Nationwide Rivers Inventory. Indiana Segments. Accessed 09/10/08. <http://www.nps.gov/ncrc/programs/rtca/nri/states/in.html>

¹⁸ Indiana Register. Natural Resources Commission. Information Bulletin #4. "Outstanding Rivers List". Accessed 09/10/08. <http://www.in.gov/legislative/register/20070530-IR-312070287NRA.xml.pdf>

Figure 11: Streams, Floodplains and Watersheds

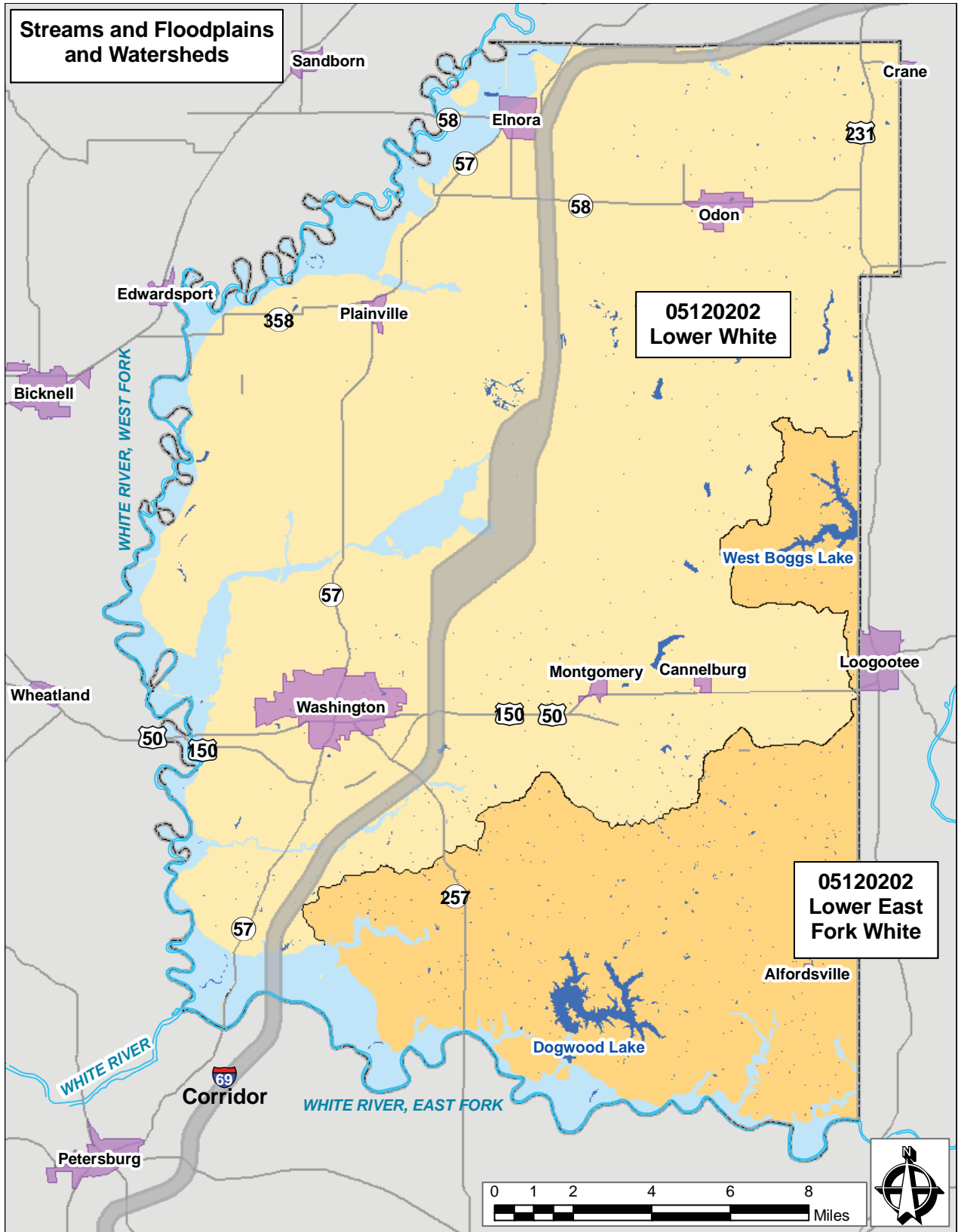
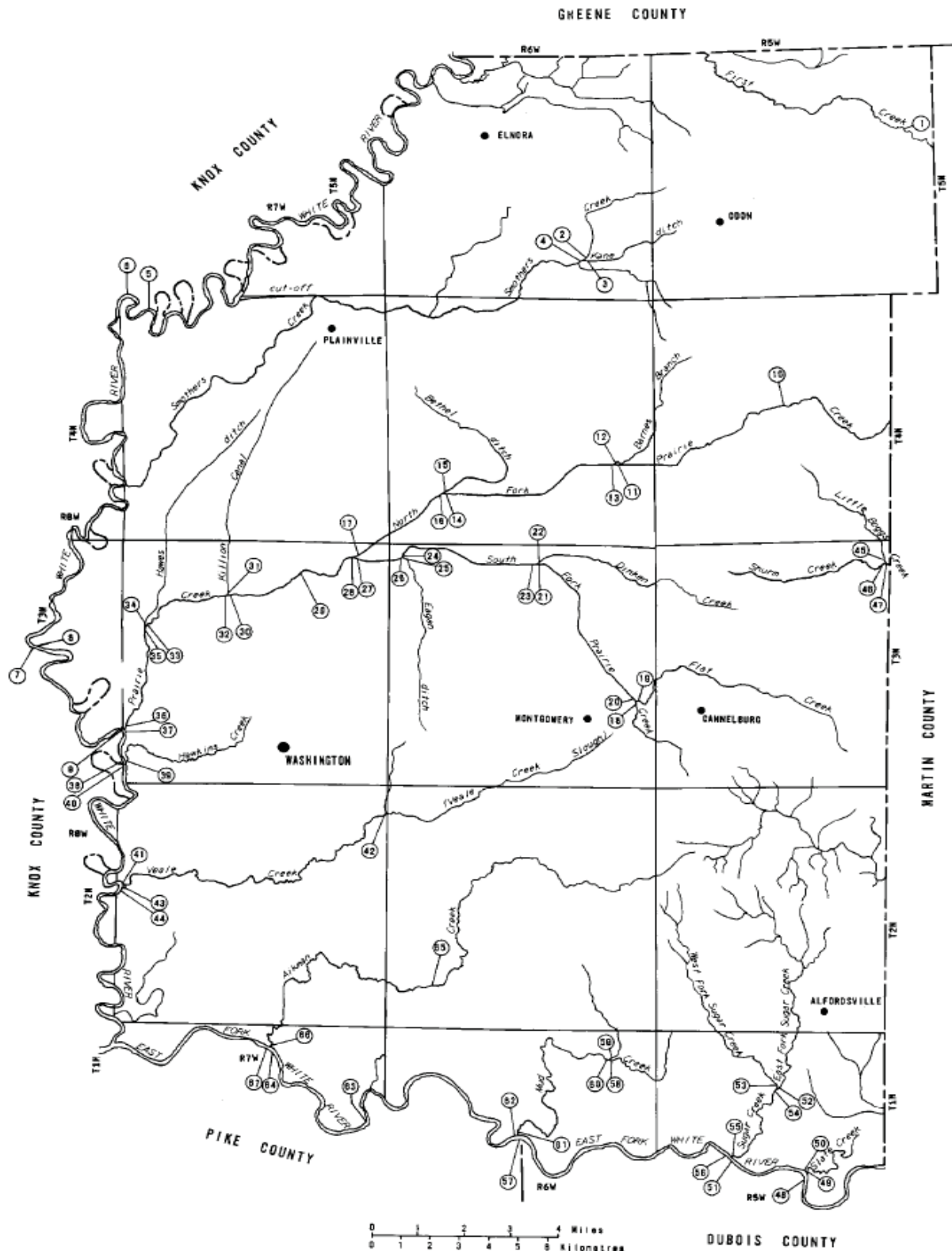


Figure 12: Streams and Drainage Areas



<http://www.in.gov/dnr/water/4936.htm>

Table 4: Drainage Areas

CO#	Stream and Location	Quadrangle	SEC	TWN	RNG	D AREA	R MILE
1	First Creek at U.S. 231	Scotland	12	5N	5W	29.2	
2	Smothers Creek Above Kane Ditch	Epsom	26	5N	6W	4.82	
3	Kane Ditch at mouth	Epsom	26	5N	6W	9.02	
4	Smothers Creek including Kane Ditch	Epsom	26	5N	6W	13.8	
5	White River above Black Creek (Armuth Ditch)	Plainville	6	4N	7W	4852	84.74
6	White River including Pollard Ditch	Plainville	31	5N	7W	5011	82.98
7	White River above Bens Creek	Wheatland	0	3N	8W	5065	67.75
8	White River including Bens Creek	Wheatland	0	3N	8W	5071	67.75
9	White River above Prairie Creek	Washington	30	3N	7W	5080	62.56
10	N. FK. Prairie Creek at bridge in SE1/4 SEC. 16, T. 4 N., R. 5 W.	Odon	16	4N	5W	19.1	
11	N. FK. Prairie Creek above Barnes Branch	Epsom	24	4N	6W	32.6	
12	Barnes Branch at mouth	Epsom	24	4N	6W	4.66	
13	N. FK. Prairie Creek including Branes Branch	Epsom	24	4N	6W	37.2	
14	N. FK. Prairie Creek above Bethel Ditch	Montgomery	29	4N	6W	46.3	
15	Bethel Ditch at mouth	Montgomery	29	4N	6W	6.76	
16	N. FK. Prairie Creek including Bethel Ditch	Montgomery	29	4N	6W	53	
17	N. FK. Prairie Creek above S. FK. Prairie Creek	Washington	1	3N	7W	61.8	
18	S. FK. Prairie Creek above Flat Creek	Montgomery	24	3N	6W	5.27	
19	Flat Creek at mouth	Montgomery	24	3N	6W	14.5	
20	S. FK. Prairie Creek including Prairie Creek	Montgomery	24	3N	6W	19.7	
21	S. FK. Prairie Creek above Dinken Creek	Montgomery	3	3N	6W	28	
22	Dinken Creek at mouth	Montgomery	3	3N	6W	8.36	
23	S. FK. Prairie Creek including Dinken Creek	Montgomery	3	3N	6W	36.4	
24	S. FK. Prairie Creek above Eagan Ditch	Montgomery	6	3N	6W	42.7	
25	Eagan Ditch at mouth	Montgomery	6	3N	6W	9.77	
26	S. FK. Prairie Creek including Eagan Ditch	Montgomery	6	3N	6W	52.5	
27	S. FK. Prairie Creek above N. FK. Prairie Creek	Washington	1	3N	7W	53.1	
28	N. FK. Prairie Creek including S. FK. Prairie Creek	Washington	1	3N	7W	115	
29	Prairie Creek near Washington--USGS Partial-Record Station (S.R. 57)	Washington	2	3N	7W	120	
30	Prairie Creek above Killion Canal	Washington	9	3N	7W	127	
31	Killion Canal at mouth	Washington	9	3N	7W	12	
32	Prairie Creek including Killion Ditch	Washington	9	3N	7W	139	
33	Prairie Creek above Hawes Ditch	Washington	18	3N	7W	140	
34	Hawes Ditch at mouth	Washington	18	3N	7W	9.14	
35	Prairie Creek including Hawes Ditch	Washington	18	3N	7W	150	

Drainage Areas Cont.

CO#	Stream and Location	Quadrangle	SEC	TWN	RNG	D AREA	R MILE
36	Prairie Creek at mouth	Washington	30	3N	7W	152	
37	White River including Prairie Creek	Washington	30	3N	7W	5232	62.56
38	White River above Hawkins Creek	Washington	62	3N	7W	5232	61.52
39	Hawkins Creek at mouth	Washington	62	3N	7W	11.5	
40	White River including Hawkins Creek	Washington	62	3N	7W	5243	61.52
41	White River above Veale Creek (Veale Creek Slough)	Sandy Hook	13	2N	8W	5254	64.14
42	Veale Creek at S.R. 257	Washington	1	2N	7W	21.9	
43	Veale Creek (Veale Creek Slough) at mouth	Sandy Hook	13	2N	8W	38.8	
44	White River including Veale Creek (Veale Creek Slough)	Sandy Hook	13	2N	8W	5292	56.14
45	Little Boggs Creek above Shrum Creek	Loogootee	2	3N	5W	7	
46	Shrum Creek at mouth	Loogootee	2	3N	5W	6.13	
47	Little Boggs Creek including Shrum Creek	Loogootee	2	3N	5W	13.1	
48	E. FK. White River above Slate Creek	Alfordsville	22	1N	5W	5581	72.64
49	Slate Creek at mouth	Alfordsville	22	1N	5W	18.7	
50	E. FK. White River including Slate Creek	Alfordsville	22	1N	5W	5599	72.64
51	E. FK. White River above Sugar Creek	Alfordsville	20	1N	5W	5600	70.66
52	E. FK. Sugar Creek above W. FK. Sugar Creek	Alfordsville	9	1N	5W	9.66	
53	W. FK. Sugar Creek at mouth	Alfordsville	9	1N	5W	6.79	
54	E. FK. Sugar Creek including W. FK. Sugar Creek	Alfordsville	9	1N	5W	16.5	
55	Sugar Creek at mouth	Alfordsville	20	1N	5W	18.3	
56	E. FK. White River including Sugar Creek	Alfordsville	20	1N	5W	5619	70.66
57	E. FK. White River above Mud Creek	Glendale	16	1N	6W	5645	64.33
58	Mud Creek above tributary	Glendale	2	1N	6W	3.3	
59	Mud Creek tributary at mouth	Glendale	2	1N	6W	6.55	
60	Mud Creek including tributary	Glendale	2	1N	6W	9.85	
61	Mud Creek at mouth	Glendale	16	1N	6W	16.8	
62	E. FK. White River including Mud Creek	Glendale	16	1N	6W	5662	64.33
63	E. FK. White River above Beech Creek	Sandy Hook	13	1N	7W	5683	57.65
64	E. FK. White River above Aikman Creek	Sandy Hook	3	1N	7W	5694	53.82
65	Aikman Creek at S.R. 257	Glendale	29	2N	6W	16.5	
66	Aikman Creek at mouth	Sandy Hook	3	1N	7W	30.5	
67	E. FK. White River including Aikman Creek	Sandy Hook	3	1N	7W	5725	53.82

c. Wetlands

Wetlands, as defined by the US Army Corps of Engineers (USACE) (33 CFR 328.3) and the Environmental Protection Agency (EPA), are “those areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” Wetlands are an important natural resource because they support rich biological communities. Because of their functions and values, there are several federal and state laws that regulate activities that affect wetlands. The major laws protecting wetlands include the Federal Clean Water Act, the River and Harbors Act, and Indiana’s Flood Control Act.

Daviness County has over 12,931 acres of wetlands, according to the National Wetlands Inventory (NWI) digital shapefiles.¹⁹ Many of these wetlands are located within the floodplain of the White River and along its tributaries such as Prairie Creek, Veale Creek and Aikman Creek. Figure 13 shows the location of NWI wetlands in Daviness County.

Most of the wetlands within the county are classified as forested wetlands, consisting of 11,770 acres. Forested wetlands are wetlands that are characterized by woody vegetation that is six meters (20 feet) tall or taller. Forested wetlands are the most common wetland type in Indiana where moisture is abundant particularly along rivers and streams.²⁰ Forested wetlands normally possess an upper canopy of trees, an understory of young trees and shrubs, and a herbaceous ground layer.²¹ Emergent wetlands make up 906 acres and are emergent characterized by erect, rooted, herbaceous hydrophytes (excluding mosses and lichens). Emergent wetlands are also known as marshes. Scrub-shrub wetlands, which consist of shrubs and/or small trees, make up 255 acres of the wetlands Daviness County.

4. NATURE

a. Conservancy District

The Indiana Conservancy Act, IC 14-33, provides a vehicle by which landowners can organize a special taxing district to solve problems related to water resources management. Daviness County is served by the Prairie Creek Conservancy District headquartered in Washington.²² Its stated purpose is drainage, erosion, flood control, and recreation. Problems that can be solved through the Indiana Conservancy District Act are as follows:

- Flood prevention and control.
- Improving drainage.
- Providing for irrigation.
- Providing water supply, including treatment and distribution, for domestic, industrial, and public use.
- Providing for collection, treatment, and disposal of sewage and other liquid wastes.
- Developing forests, wildlife areas, parks, and recreational facilities where feasible in connection with beneficial water management.
- Preventing loss of topsoil from injurious water erosion²³.
- Storage of water for augmentation of stream flow.
- Operation, maintenance, and improvement of any work of improvement for water based recreational purposes, or other work of improvement that could have been built for any other purpose authorized by the Act.

¹⁹ Calculated by adding the acreage value of polygons, the length of lines in feet multiplied by 100 feet for estimated width converted to acres, and the number of points multiplied by 0.1 acres.

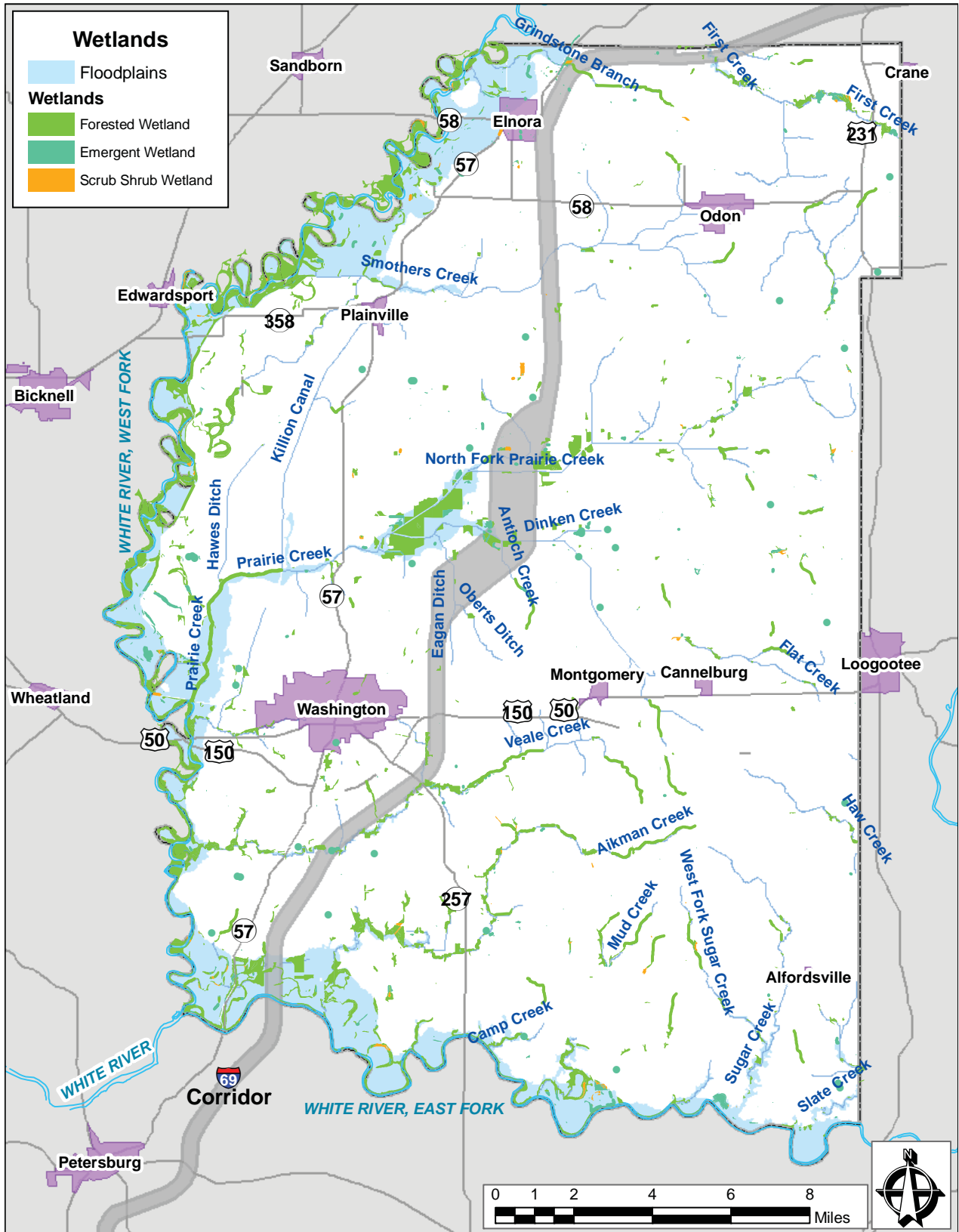
²⁰ Cowardin, L. M., V. Carter, F. C. Golet and E. T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. United States Fish and Wildlife Service, Office of Biological Services. Government Printing Office, Washington, D.C. FWS/OBS-79/31. 103 pp.

²¹ United States Geological Survey. 1998. Classification of Wetlands and Deepwater Habitats of the United States: Emergent Wetland. United States Geological Survey, Northern Prairie Wildlife Research Center. /http://www.npwrc.usgs.gov/resource/1998/class/emergent.htm/

²² Indiana Department of Natural Resources, Department of Water. Community Assistance and Information. Conservancy Districts Directory. Accessed 09/10/08. <http://www.in.gov/dnr/water/9690.htm#8>

²³ Indiana Department of Natural Resources, Department of Water. Community Assistance and Information. What is a Conservancy District? Accessed 09/10/08. <http://www.in.gov/dnr/water/9690.htm#8>

Figure 13: Wetlands



b. Water Use²⁴

The Water Resource Management Act (Indiana Code 14-25-7, previously 13-2-6.1) passed by the State Legislature in 1983, mandates that owners of all wells and surface water intakes register with the Indiana Department of Natural Resources (IDNR), Division of Water if their pumping facilities have the capability of withdrawing 100,000 gallons or more of water per day (70 gallons per minute). A yearly inventory is done of each registered facility that includes the owner’s best estimate of totally monthly withdrawals for each pump. Indiana Geological Survey (IGS) and IDNR prepared a report that aggregated the inventory data for the years 1986-2006 by county and category of use. Categories are:

- Energy production facilities – primary purpose is power generation including coal mining. A major component is water for cooling condensers at fossil fuel power plants.
- Industrial facilities – manufacturing and sand a gravel operations
- Public supply – water supply utilities, self-supplied mobile home parks or apartments, schools, and institutions.
- Agricultural – irrigating crops or golf courses and dewatering farm sites
- Rural use – livestock and fish hatcheries
- Miscellaneous – other uses like fish and wildlife areas, maintaining lake levels, construction dewatering, and landfills (through 1995).

Results for Daviness County are shown in Figure 14.

Total water withdrawal for Daviness County in 2007 for each category is presented in Table 5.²⁵

Table 5: 2007 Water Withdrawal (million gallons)

	Energy	Industry	Agriculture	Public Supply	Misc.	Rural	Totals
Surface	68.62	0	0.98	0	0	701.3	770.9
Wells	0	1082.62	510.24	1479.31	0	2.84	3075.01
Totals	68.62	1082.62	511.22	1479.31	0	704.14	3845.91

c. Wildlife Habitat and Threatened and Endangered Species

Natural Regions are “a major, generalized unit of the landscape where a distinctive assemblage of natural features is present. It is part of a classification system that integrates several natural features, including climate, soils, glacial history, topography, exposed bedrock, pre-settlement vegetation, species composition, physiography, and plant and animal distribution, to identify a natural region.”²⁶ Natural regions are similar to physiographic regions, but whereas physiographic regions may give information on predominant topography and land use, natural regions give more information about the native plant and animal species of an area. The majority of Daviness County is within the Glaciated Section of the Southwestern Lowlands Natural Region, followed by the Plainville Sand Section of the Southwestern Lowlands Natural Region. The Crawford Upland and Escarpment Sections of the Shawnee Hills Natural Region is on the eastern border. The Southern Bottomlands Section of the Southern Bottomlands Natural Region is associated with the floodplains of the rivers and Prairie Creek. Figure 15 shows the locations of natural region sections in Daviness County.

24 Arvin, D.V. and R. Spaeth. Water Use in Indiana: Graphs by County and Water Management Basin, 1986-2006. Indiana Department of Natural Resources and Indiana Geological Survey. Accessed 09/11/08. http://www.in.gov/dnr/water/files/water_use_graphs1986-2006.pdf

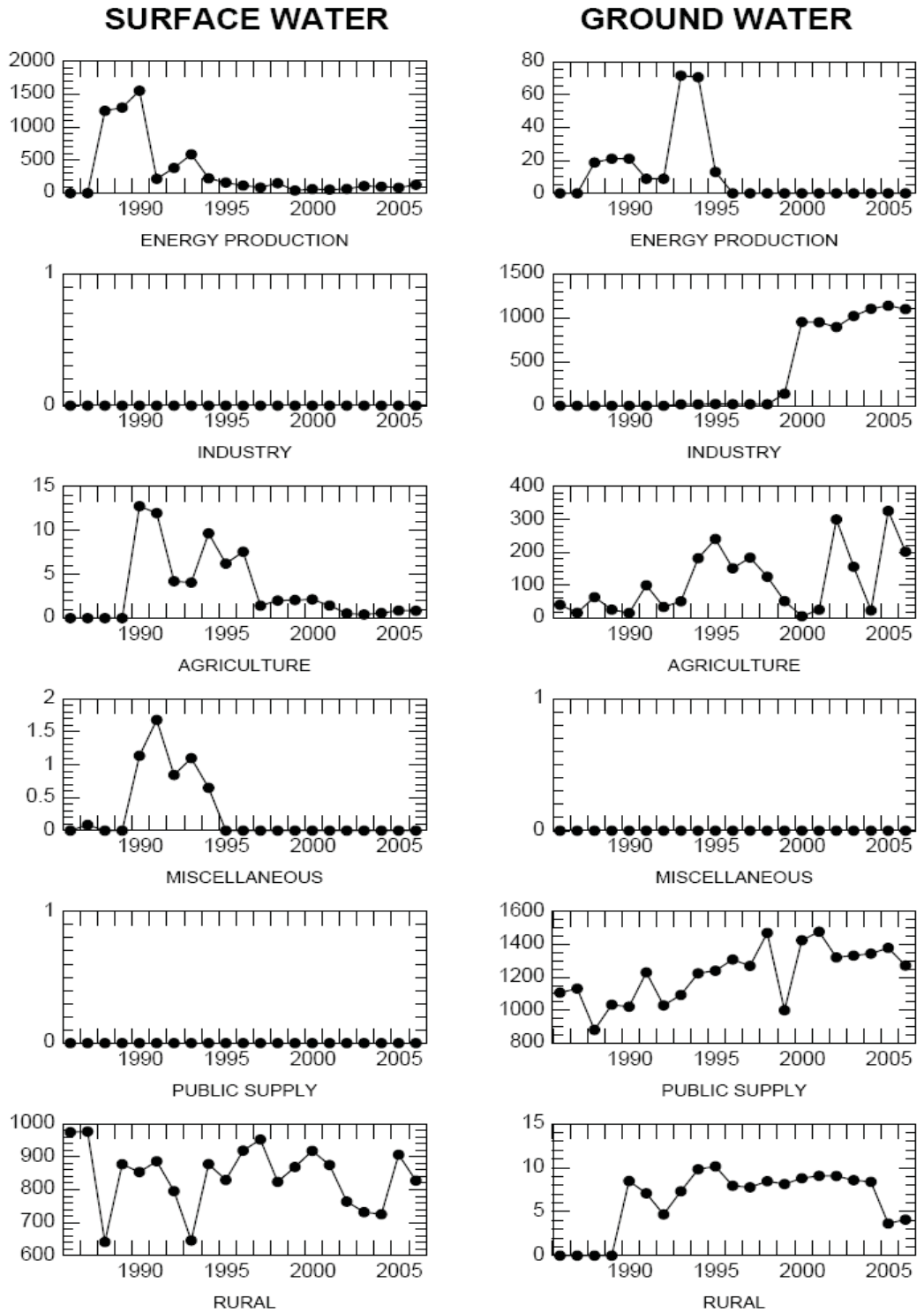
25 Indiana Department of Natural Resources, Division of Water, Water Use System. Withdrawal Amounts by County / Category for 2007. Accessed 09/14/08. <http://www.in.gov/dnr/water/8542.htm>

26 Homoya, M. A., B. Abrell, J. R. Aldrich, and T. W. Post. 1985. Natural Regions of Indiana. In Proceedings of the Indiana Academy of Science For 1984, Vol. 94, edited by Donald R. Winslow, pp. 245-268, Indiana Academy of Science, Indianapolis.

Figure 14: Reported Water Withdrawals

Daviss County Reported Withdrawals, 1986-2006

ANNUAL WITHDRAWALS IN MILLIONS OF GALLONS



The following natural region and section descriptions are from “The Natural Regions of Indiana” by Homoya et al. (1985).

The Shawnee Hills Natural Region consists of areas where Pennsylvanian and Mississippian bedrock, mostly sandstone, crop out to form cliffs and rockhouses. Most of the region is driftless with rugged and sparsely populated areas. The majority of natural communities are upland forest types with a few sandstone and limestone glades, gravel washes and barrens.

The Crawford Upland Section has distinctive hills with sandstone cliffs and rockhouses.

Characteristic soils include the well drained acid silt loams of the Wellston-Zanesville-Berks Association. The upper slope forest vegetation is a mixture of an oak-hickory, including black oak (*Quercus velutina*), white oak (*Q. alba*), chestnut oak (*Q. prinus*), scarlet oak (*Q. coccinea*), post oak (*Q. stellata*), pignut hickory (*Carya glabra*), small-fruited hickory (*C. ovalis*), shagbark hickory (*C. ovata*) and sourwood (*Oxydendrum arboreum*). The coves have a mesic component and consist of beech (*Fagus grandifolia*), tulip tree (*Liriodendron tulipifera*), red oak (*Q. rubra*), sugar maple (*Acer saccharum*), black walnut (*Juglans nigra*), white ash (*Fraxinus americana*), yellow buckeye (*Aesculus octandra*), white basswood (*Tilia heterophylla*), umbrella magnolia (*Magnolia tripetala*), hemlock (*Tsuga canadensis*) and yellow birch (*Betula lutea*). Mountain laurel (*Kalmia latifolia*), mountain spleenwort (*Asplenium montanum*), sourwood, umbrella magnolia, filmy fern (*Trichomanes boschianum*), alumroot (*Heuchera parviflora*), Bradley’s spleenwort (*Asplenium bradleyi*), French’s shooting star (*Dodecatheon frenchii*) and the Appalachian gametophyte (*Vittaria sp.*) have an affinity to the sandstone cliff and rockhouse communities.

The acid seep spring community, rare in Indiana, has flora consisting of cinnamon fern (*Osmunda cinnamomea*), royal fern (*O. regalis*), sedges (*Carex bromoides*, *C. lurida*), small clubspur orchid (*Platanthera clavellata*), black chokecherry (*Aronia melanocarpa*), winterberry (*Ilex verticillata*), tearthumb (*Polygonum arifolium*), jewelweed (*Impatiens biflora*), crested wood fern (*Dryopteris cristata*) and Sphagnum spp.

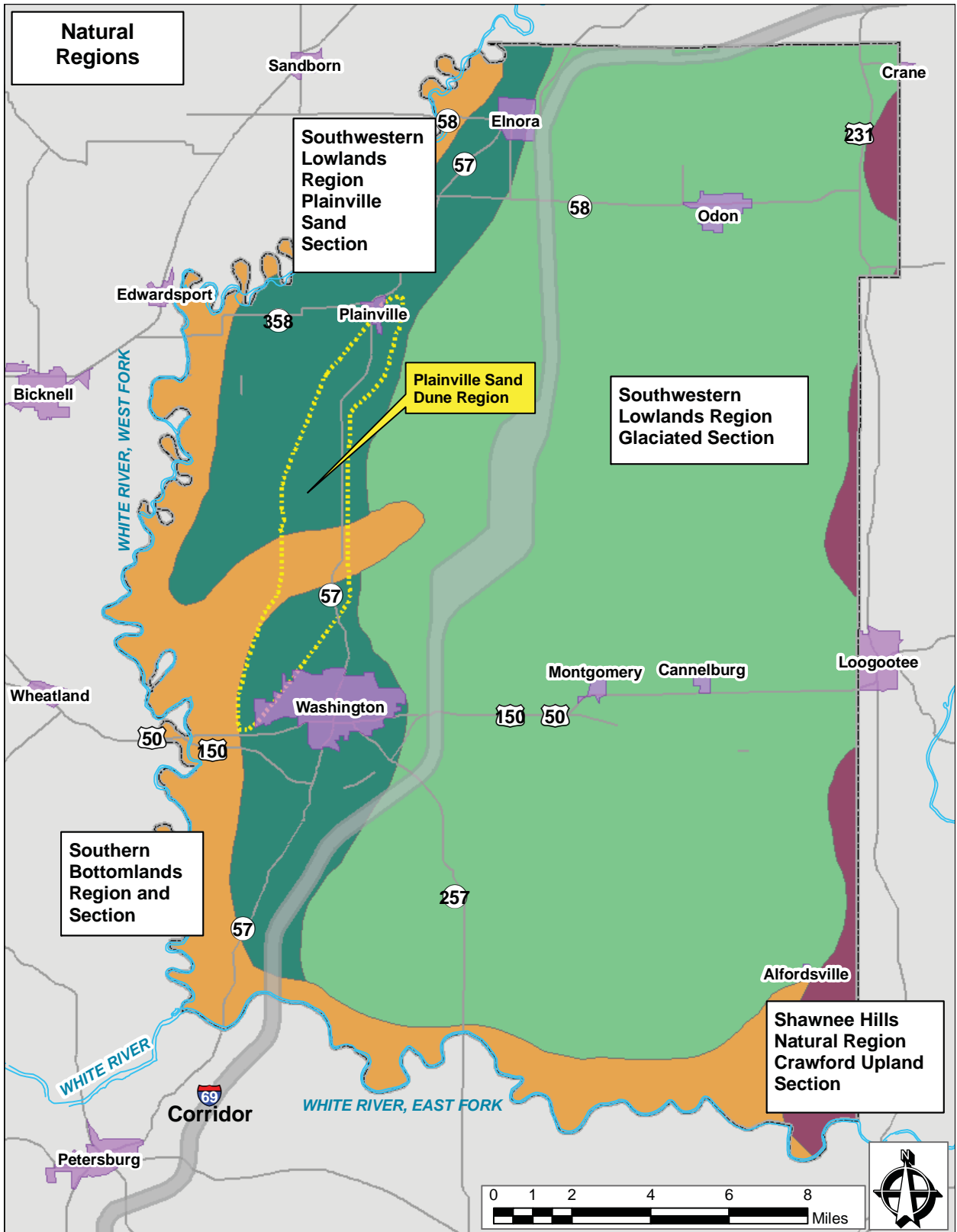
The barrens community is a minor component of this section with only a few remnants remaining. Sandstone glades are rare in Indiana but at least two small ones exist in this region. Most of Indiana’s timber rattlesnake (*Crotalis horridus*; state endangered) have come from this and the Brown County Hills Section. The smoky shrew (*Sorex fumeus*; state species of concern) and the pygmy shrew (*S. hoyi*; state species of concern) are restricted in Indiana in this and the Highland Rim Section.

The Southwestern Lowlands Natural Region is known for its low relief and extensive aggraded valleys. Much of the region is nearly level, un-dissected and poorly drained. The northern portion was glaciated by the Illinoian ice sheet. The extant natural communities are mostly forest types.

The Plainville Sand Section is a small area of eolian (wind blown) sand dunes east of the Wabash and White rivers. The sandy, acid soils are mostly in the Princeton, Bloomfield and Ayrshire series. The once prominent barrens community is virtually gone from the landscape. However, in a few degraded remnants, little bluestem (*Andropogon scoparius*), big bluestem (*A. gerardi*), Indian grass (*Sorghastrum nutans*), side-oats grama (*Bouteloua curtipendula*), New Jersey tea (*Ceanothus americanus*) and blackjack oak (*Q. marilandica*). The bull snake (*Pituophis catenifer*), ornate box turtle (*Terrapene ornata*; state endangered) and six-lined racerunner (*Cnemidophorus sexlineatus*) are geographically restricted here.

The Glaciated Section has an abundance of acid to neutral silt loams with a thick layer of loess (usually Iva, Cincinnati, Avon, Vigo and Alford series). Natural communities are mostly forest types but several types of former prairies are known. The flatwood community type is common and includes shagbark hickory (*C. ovata*), shellbark hickory (*C. laciniosa*), pin oak (*Q. palustris*), shingle oak (*Q. imbricaria*), hackberry (*Celtis occidentalis*), green ash (*Fraxinus pennsylvanica*), red maple (*A. rubrum*) and silver maple (*A. saccharinum*). Black ash (*F. nigra*) swamps are near their southern limit here. Additional community types include swamp, marsh, pond and low-gradient streams (i.e. Eel River and Busseron Creek). The prairie kingsnake (*Lampropeltis calligaster*) and the crawfish frog (*Rana areolata circulosa*; state endangered) are characteristic species of this region.

Figure 15: Natural Regions



The Southern Bottomlands Natural Region includes the alluvial bottomlands along the rivers and larger streams in southwestern Indiana. The soils are mostly neutral to acid silt loams, and include series such as Nolin, Newark, Huntington, Linside, Stendal and Bonnie. Much of the area is subject to frequent flooding. The natural communities of the region include bottomland forest, swamp, pond and slough. Other typical aquatic features include large bottomland ponds, especially along the Wabash River. The bottomland forest is the major community of this region and is characterized by pecan (*Carya illinoensis*), sugarberry (*Celtis laevigata*), swamp chestnut oak (*Quercus michauxii*), pin oak (*Q. palustris*), swamp white oak (*Q. bicolor*), red maple (*Acer rubrum*), silver maple (*A. saccharinum*), honey locust (*Gleditsia triacanthos*), catalpa (*Catalpa speciosa*), shellbark hickory (*C. laciniosa*), sycamore (*Platanus occidentalis*) and green ash (*Fraxinus pennsylvanica*). The strongest southern influence is reflected in the swamps and sloughs, where bald cypress (*Taxodium distichum*), swamp cottonwood (*Populus heterophylla*), water locust (*Gleditsia aquatica*), pumpkin ash (*Fraxinus*) and overcup oak (*Quercus*) occur.

Other distinctive species (many of which are restricted to this region) include American featherfoil (*Hottonia inflata*), bloodleaf (*Iresine rhizomatosa*), acanthus (*Dicliptera brachiata*), climbing dogbane (*Trachelospermum difforme*), milkweed (*Asclepias perennis*), catbird grape (*Vitis palmata*), woolly pipe-vine (*Aristolochia tomentosa*), sedge (*Carex socialis*), swamp privet (*Forestiera acuminata*), American snowbell (*Styrax americana*), climbing hempweed (*Mikania scandens*), spiderlily (*Hymenocallis occidentalis*), mistletoe (*Phoradendron flavescens*) and giant cane (*Arundinaria gigantea*).

Distinctive southern animals consist of cottonmouth (*Agkistrodon piscivorus*; state endangered), hieroglyphic turtle (*Pseudemys concinna*; state endangered), diamond-backed watersnake (*Nerodia rhombifer*), eastern mud turtle (*Kinosternon subrubrum*; state endangered), northern copperbelly (*Nerodia erythrogaster*; state endangered), swamp rabbit (*Sylvilagus aquaticus*; state endangered), mosquitofish (*Gambusia affinis*), harlequin darter (*Etheostoma histrio*; only occurrence in Indiana) and yellow-crowned night heron (*Nyctanassa violacea*; state endangered).

The Indiana Natural Heritage Data Center is a comprehensive attempt to determine the state's most significant natural areas through a statewide inventory. This program is designed to provide information about Indiana's diversity of natural ecosystems, species, landscape features, and outdoor amenities, and to assure adequate methods for evaluating this information and setting land protection priorities. The inventory is a continuous process to update Indiana's high quality natural communities and endangered, threatened and rare species by county.²⁷ Davie County has an assortment of listed crustaceans, mollusks, fish, amphibians, birds, mammals and vascular plants. Table 6 lists the state and federal species listed for Davie County. Figure 16 shows locations of TES species or sensitive habitats.

In 2004 and 2005, thirteen Indiana bat maternity colonies were discovered in southwestern Indiana. Three of these are located at least partially in Davie County. These are associated with East Fork of the White River near SR 57, Veale Creek south of Washington, and West Fork of White River north of Elnora. The Indiana bat maternity colonies consist of a maternity roost tree or trees as well as a 2.5-mile radius foraging area.

d. Managed Lands and Natural Areas

There are two 2005 record holding "Big Trees" in Davie County. Both the record red elm and the record yellow poplar are near Washington. The Indiana Big Tree Register (IBTR) was initially based on the American Forestry Association's (now called American Forests) Big Tree Register, which began in 1945. American Forests' definition of a big tree was adopted by Indiana. A big tree is defined by three measurements: 1) circumference in inches at four and a half feet above the ground; 2) total height in feet; and 3) ¼ of the average crown spread measured in feet. These three measurements are then added together to give a point index. The tree of each species with the highest point index is considered the champion big tree. The Indiana Register is unique since tree selection is limited to native Indiana species. Trees of Indiana by Charles Deam is the guide used to determine whether a tree is native.

²⁷ IDNR. Indiana Natural Heritage Data Center. "Indiana County Endangered, Threatened and Rare Species List." Accessed 09/10/08 http://www.in.gov/dnr/files/np_davie.pdf.

Table 6: State and Federal Threatened Species for Daviness County

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11/22/2005

Indiana County Endangered, Threatened and Rare Species List
County: Daviess

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Cyprogenia stegaria	Eastern Fanshell Pearlymussel	LE	SE	G1	S1
Epioblasma torulosa torulosa	Tubercled Blossom	LE	SE	G2TX	SH
Fusconaia subrotunda	Longsolid		SE	G3	S1
Lampsilis ovata	Pocketbook			G5	S2
Lampsilis teres	Yellow Sandshell			G5	S2
Obovaria retusa	Ring Pink	LE	SX	G1	SX
Obovaria subrotunda	Round Hickorynut		SSC	G4	S2
Pleurobema clava	Clubshell	LE	SE	G2	S1
Pleurobema cordatum	Ohio Pigtoe		SSC	G3	S2
Pleurobema pyramidatum	Pyramid Pigtoe		SE	G2	S1
Potamilus capax	Fat Pocketbook	LE	SE	G1	S1
Ptychobranchius fasciolaris	Kidneyshell		SSC	G4G5	S2
Quadrula cylindrica cylindrica	Rabbitsfoot		SE	G3T3	S1
Simpsonaias ambigua	Salamander Mussel		SSC	G3	S2
Insect: Ephemeroptera (Mayflies)					
Siphloplecton interlineatum	A Sand Minnow Mayfly		SE	G5	S1
Fish					
Ammocrypta pellucida	Eastern Sand Darter			G3	S2
Etheostoma camurum	Bluebreast Darter			G4	S1
Etheostoma histrio	Harlequin Darter			G5	S1
Etheostoma maculatum	Spotted Darter		SSC	G2	S1
Etheostoma tippecanoe	Tippecanoe Darter		SSC	G3G4	S1
Reptile					
Terrapene ornata	Ornate Box Turtle		SE	G5	S2
Bird					
Circus cyaneus	Northern Harrier		SE	G5	S2
Haliaeetus leucocephalus	Bald Eagle	LT,PDL	SE	G5	S2
Ixobrychus exilis	Least Bittern		SE	G5	S3B
Lanius ludovicianus	Loggerhead Shrike	No Status	SE	G4	S3B
Phalacrocorax auritus	Double-crested Cormorant		SX	G5	SHB
Tyto alba	Barn Owl		SE	G5	S2
Mammal					
Lynx rufus	Bobcat	No Status		G5	S1
Taxidea taxus	American Badger			G5	S2
Vascular Plant					
Armoracia aquatica	Lake Cress		SE	G4?	S1
Carex lupuliformis	False Hop Sedge		SR	G4	S2
Carex oklahomensis	Oklahoma Sedge		SE	G4	S1
Carya pallida	Sand Hickory		SE	G5	S2
Chelone obliqua var. speciosa	Rose Turtlehead		WL	G4T3	S3
Chrysopsis villosa	Hairy Golden-aster		ST	G5	S2
Cornus amomum ssp. amomum	Silky Dogwood		SE	G5T5	S1
Fimbristylis puberula	Carolina Fimbr		SE	G5	S1
Gaura filipes	Slender-stalked Gaura		ST	G5	S2
Gymnopogon ambiguus	Broadleaf Beardgrass		SX	G4	SX
Hypericum adpressum	Creeping St. John's-wort		SE	G3	S1
Hypericum denticulatum	Coppery St. John's-wort		ST	G5	S2
Hypericum gymnanthum	Clasping-leaved St. John's-wort		SE	G4	S1
Isoetes melanopoda	Blackfoot Quillwort		ST	G5	S1
Juncus scirpoides	Scirpus-like Rush		ST	G5	S2
Panicum yadkinense	A Panic-grass		SE	G3G4Q	S2
Penstemon tubaefflorus	Tube Penstemon		SX	G5	SX
Rhexia mariana var. mariana	Maryland Meadow Beauty		ST	G5T5	S1
Rudbeckia fulgida var. fulgida	Orange Coneflower		WL	G5T4?	S2

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern;
SX = state extirpated; SG = state significant; WL = watch list
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

State and Federal Threatened Species for Daviess County Cont.

Page 2 of 2
11/22/2005

Indiana County Endangered, Threatened and Rare Species List

County: **Daviess**

Species Name	Common Name	FED	STATE	GRANK	SRANK
Sabatia campanulata	Slender Marsh Pink		SX	G5	SX
Scirpus hallii	Hall's Bulrush		SE	G2	S1
High Quality Natural Community					
Forest - floodplain wet	Wet Floodplain Forest		SG	G3?	S3
Wetland - flat sand	Sand Flat		SG	G2	S1
Wetland - seep circumneutral	Circumneutral Seep		SG	GU	S1

Indiana Natural Heritage Data Center
Division of Nature Preserves
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 GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G7 = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank
 SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Glendale Fish and Wildlife Area (Figure 17²⁸) has 22 ponds and 1,400 acre Dogwood Lake, as well as 8,060 acres of upland game habitat, marshes, shallow impoundments and small woodlots. Deer, quail, rabbit, squirrel, snipe, dove, woodcock, waterfowl, wild turkey, songbirds, red-tailed hawks, osprey and bald eagles can all be seen at Glendale FWA. Dogwood Lake comprises 1,400 acres and has an average depth of eight feet. Primary fish species include catfish, crappie, bluegill, redear and largemouth bass. It is the only lake in the county listed for canoeing and kayaking in Paddle Indiana.²⁹ Figure 18 shows the fishing map for Dogwood Lake.³⁰ Activities include boating, boat rental, camping, fishing from boat, pier, or shoreline; hunting and dog training, picnicking, wildlife viewing, and collecting wild edibles including berries, nuts, and mushrooms.³¹ Interesting formations left by melting ancient glaciers make for noteworthy hikes, particularly in the fall when the region is ablaze with its legendary color.³² Most revenues used in land acquisition, development, operation and maintenance of Glendale Fish and Wildlife Area are derived from the sale of hunting, fishing and trapping licenses. Funds are also received from the federal Pittman-Robertson and Dingell-Johnson programs to aid fish and wildlife restoration. These funds are derived from taxes levied on sport hunting and fishing equipment.³³ East Fork State Fish Hatchery is located at Glendale FWA.

The beautiful Indiana summers find more people visiting at the Montgomery Lake & Ruritan campground than live in the entire town of Montgomery. Located on Montgomery Lake, this peaceful setting is often the summer home for area residents.³⁴

The Thousand Acre Woods is 943 acres of woods dedicated as a nature preserve in 2001 and owned and managed by The Nature Conservancy and open to the public. It offers a rich variety of species of bottomland hardwoods amidst the miles of flat farmland that surrounds it. It is a remarkable representation of silver maple and elm forest, one the few in Indiana. Green and black ash, sweet gum, sycamore, cottonwood, American elm and silver, red and ash-leaved oak dominate the forest along-side smaller populations of black willow, hackberry, red elm, basswood, mulberry and sugarberry. The understory is composed of buttonbush, Virginia and trumpet creeper, sensitive and ostrich fern, spicebush, elderberry and sumhaw, a native deciduous holly found in only a few sites in Indiana. The spring flooding with provide essential habitat for mud turtles, crayfish frogs and various species of fish. The stewardship activities at Thousand Acre Woods include eradication of non-native Johnson grass, boundary marking and the general protection of one of the largest continuous remnants of floodplain forest community.³⁵

The Prairie Creek Barrens Nature Preserve has historically been mostly grassland with scattered groves of naturally small trees. It is a remnant of the Plainville Sand Section of Indiana. Hall's Bullrush (*Schoenoplectus hallii*) and Dwarf Fleabane (*Conyza ramosissima*), may be seen there; however, access is restricted.³⁶ West Boggs Reservoir is a 622-acre multi-purpose impoundment located in West Boggs Park north of Loogootee, Indiana. The lake was constructed in 1971 with federal funds appropriated under Public Law 566. Operation of the reservoir and park is administered by the Martin and Daviess County Park Boards. Facilities at the park include a boat ramp, boat rental concession, boat mooring sites, shoreline fishing area, disabled fishing pier, beach, and campground. Fees are assessed both for entrance to the park and use of the boat ramp. Fish surveys of the lake in 2000 showed largemouth bass were most abundant by number, followed by bluegill, redear sunfish, green sunfish, channel catfish, black bullhead, and black crappie. The remaining fish (yellow bullhead, hybrid sunfish, and golden shiner) accounted for less than one percent of the sample by number.³⁷

28 Indiana Department of Natural Resources, Fish and Wildlife Division. Accessed 09/11/08 http://www.in.gov/dnr_old/fishwild/publications/glen_new.pdf

29 McPherson, A. 2000. Paddle Indiana: An Access Guide to Canoeing and Kayaking Indiana Lakes & Streams. J. L. Waters & Company, Bloomington, Indiana.

30 Indiana Outfitters. Accessed 09/11/08 http://www.indianaoutfitters.com/glendalefwa/map_dogwood_lake.htm

31 Indiana Outfitters. Accessed 09/11/08 <http://www.indianaoutfitters.com/glendalefwa/index.htm>

32 Daviess County, IN Chamber of Commerce. Accessed 09/12/08. <http://www.villageprofile.com/indiana/daviesscounty/index.html>

33 Indiana Department of Natural Resources, Fish and Wildlife Division. Accessed 09/11/08 http://www.in.gov/dnr_old/fishwild/publications/glendale.htm#history

34 Daviess County Visitors Bureau. Accessed 09/12/08. <http://www.daviesscounty.net/default.asp>

35 The Nature Conservancy. Accessed 09/11/08. <http://www.nature.org/wherewework/northamerica/states/indiana/work/art21862.html>

36 Cincinnati Wildflower Preservation Society. Newsletter May – September 2008. Accessed 09/11/08. <http://home.att.net/~cwfps/newsletter.htm>

37 Schoenung, B. M. Indiana Department of Natural Resources, Division of Fish and Wildlife, Fisheries Section. West Boggs Creek Reservoir: 2000 Fish Management Report. Accessed 09/11/08. <http://www.in.gov/dnr/files/wboggs00.pdf>

Figure 16: Threatened and Endangered Species

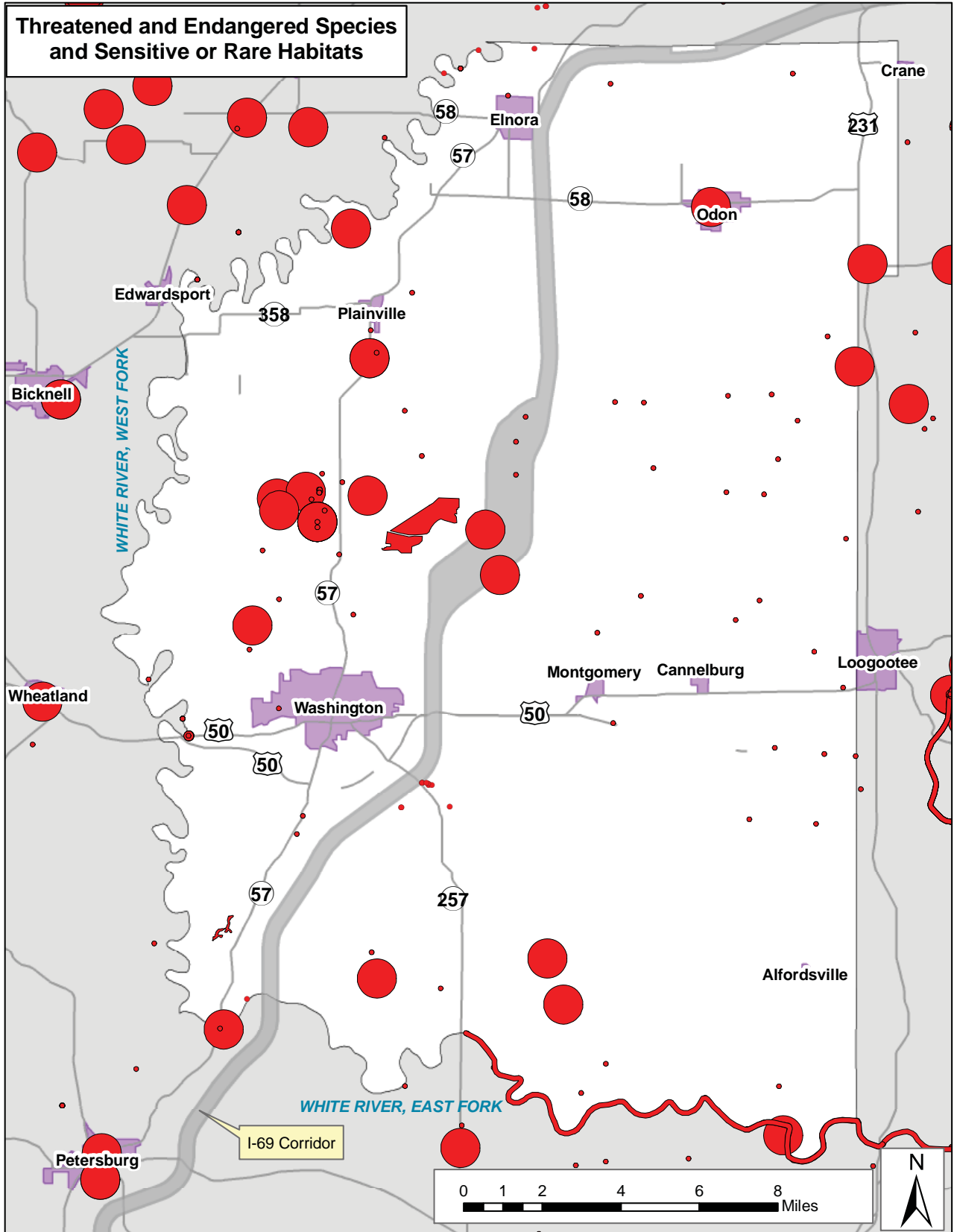


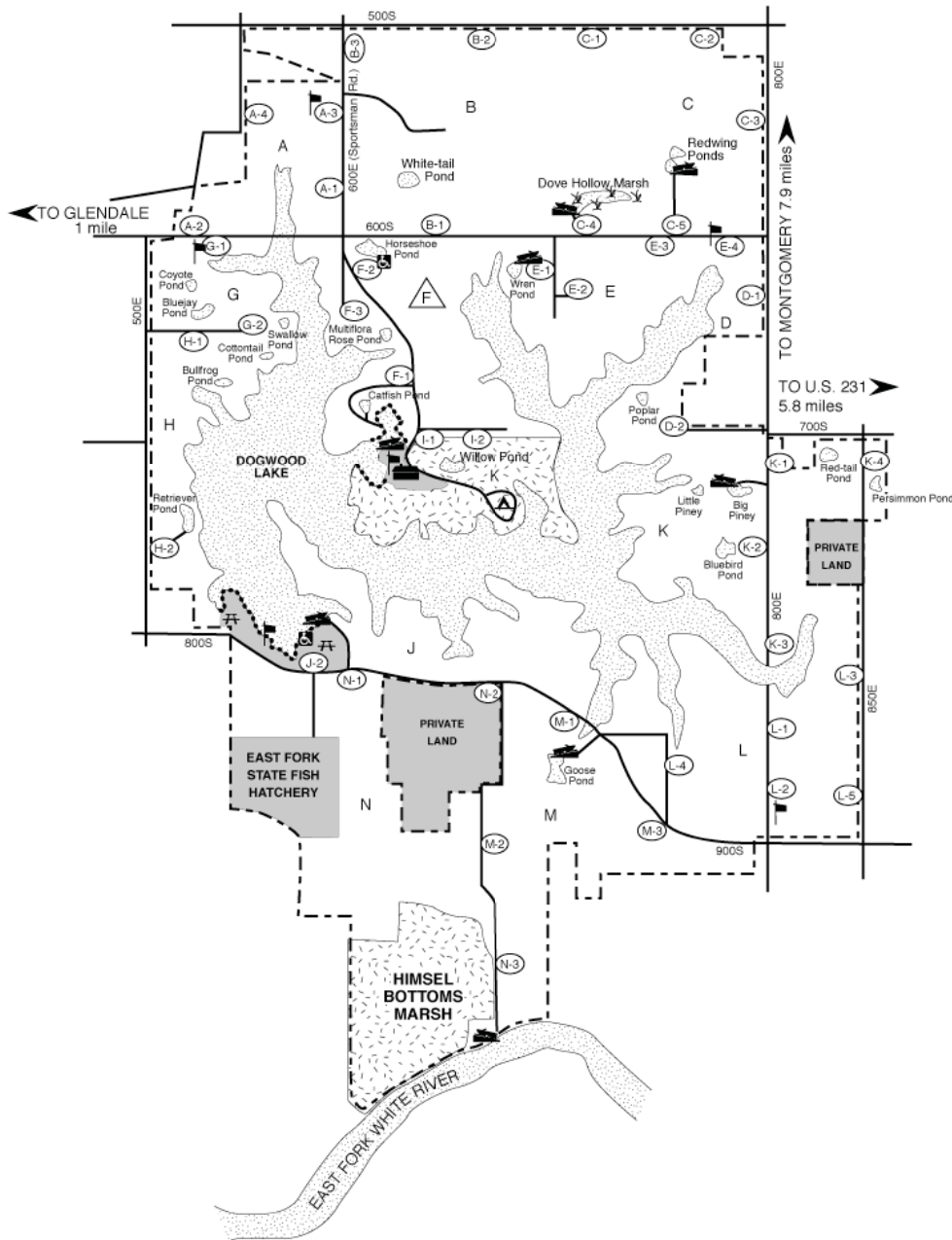
Figure 17: Glendale Fish and Wildlife Area

GLENDALE FISH & WILDLIFE AREA

This program receives federal aid in fish and/or wildlife restoration. Under Title VI of the Civil Rights Act of 1964 and Section 504 of the Rehabilitation Act of 1973, the U.S. Department of the Interior prohibits discrimination on the basis of race, color, national origin or handicap. If you believe you have been discriminated against in any program, activity or facility, or if you desire further information, please write to: Office of Equal Opportunity, U.S. Department of Interior, Washington, DC 20240.

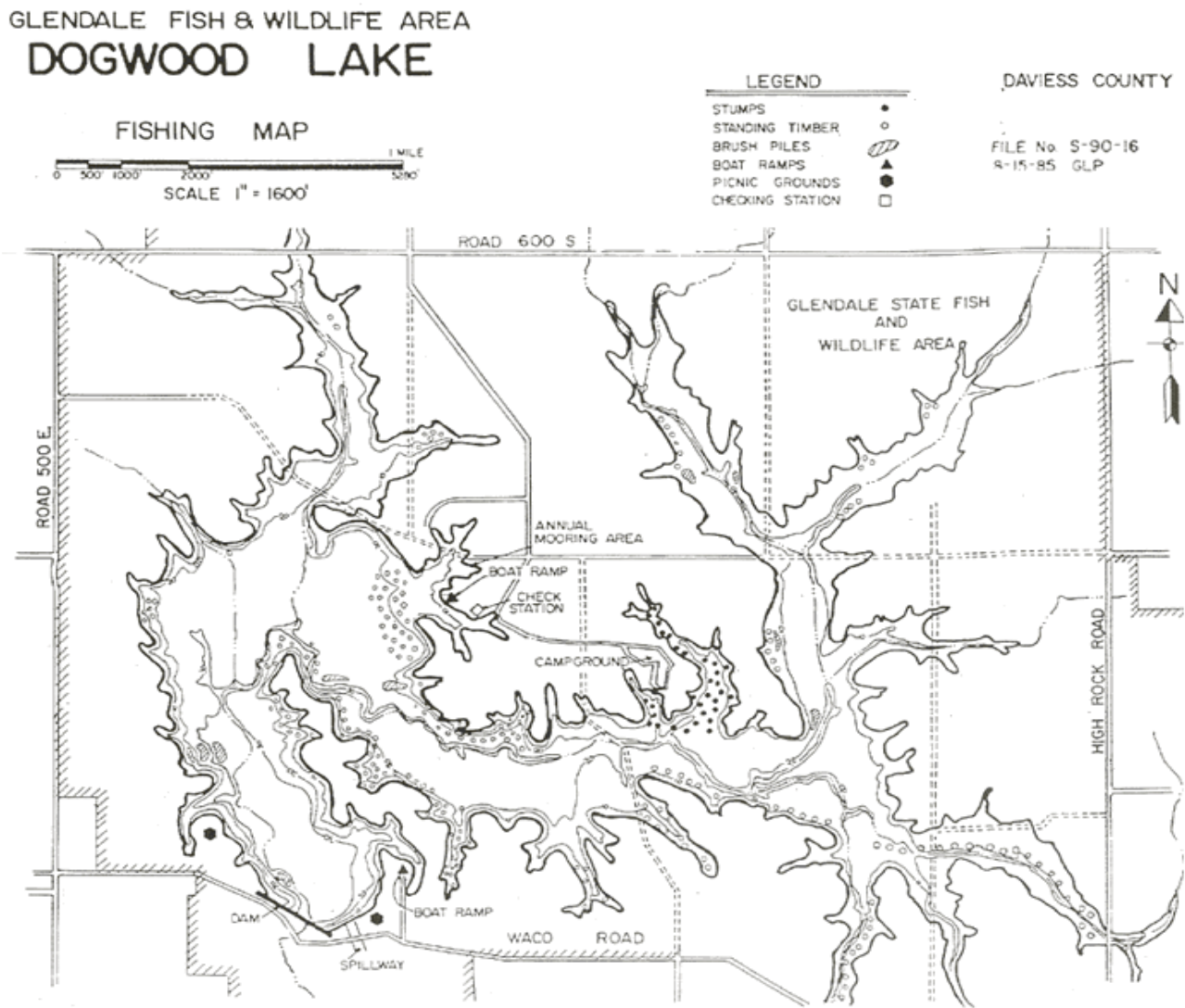


- | | | | |
|--------------|------------------------|----------------|----------------------------|
| --- | property boundary | (P-1) | parking |
| | shoreline fishing | [Building] | headquarters/check station |
| [Wavy lines] | waterfowl resting area | [Box] | self-service drop box |
| [Dotted] | water areas | [Wheelchair] | handicap fishing pier |
| [Grey] | safety zone | [Ramp] | boat ramp |
| [Plant] | marsh | [Picnic table] | picnic area |
| [Triangle] | dog training area | [Tent] | camp sites |
- 0 1
Approximate Scale in Miles



http://www.indianaoutfitters.com/glendalefwa/map_dogwood_lake.htm

Figure 18: Dogwood Lake



http://www.indianaoutfitters.com/glendalefwa/map_of_glendale.htm

In their work, *Natural Areas in Indiana and Their Preservation*, Lindsey, Schmelz, and Nichols (1969)³⁸ identified three patches of woods less than a mile north of Odon (Odon and Epsom quadrangles) that were inhabited by white squirrels. They referred to the woods as the “White Squirrel Area”. The site where the squirrels were most often seen was a 40-acre wood north of west of a cemetery. The authors noted that the site was well known to IDNR personnel. It is unknown if this area supports any white squirrels today.

The West Fork of the White River (273 miles long) creates the western border of the county. The banks of the West Fork are lined with woods of maples (*Acer sp.*), oaks (*Quercus sp.*), sycamore (*Platanus occidentalis*), river birch (*Betula nigra*), cottonwood (*Populus deltoides*) and others. Canada geese (*Branta canadensis*), cranes, ducks, white-tailed deer (*Odocoileus virginianus*), muskrat (*Ondatra zibethicus*), fox, herons, squirrels, turtles, groundhogs (*Marmota monax*) and other animals can be seen near the river. Fishing varies from section to section with possibilities for largemouth (*Micropterus salmoides*) and smallmouth bass (*Micropterus dolomieu*), catfish, perch and crappie. The White River and its Forks are common routes for canoeing and kayaking.

Public access to the East Fork White River is available at the Pottersville Bridge Public Access Site southeast of the Glendale Fish and Wildlife Area and the Flat Rock Public Access Site within the FWA. Public access to the West Fork of the White River is available at the Washington public access site west of Washington, Carnahan public access site near State Highway 358 and the Elnora Public access site northwest of Elnora.

Indiana Department of Natural Resources, Division of Outdoor Recreation, maintains a database of all outdoor recreation facilities in the state that are publicly accessible. This includes access to playgrounds, picnic areas, sports fields, open spaces, and all manner of other outdoor recreation. The parks, schools and other facilities in Daviess County identified in this database are listed in Table 6 and grouped by the closest city (data currentness: June 2006). Recreation sites, managed areas, and natural features are shown in Figure 19.

D. SOCIAL CHARACTERISTICS

Population, housing and income characteristics are important considerations in determining the future land use and infrastructure needs of the county. These characteristics help determine the magnitude of future housing demand, the ability of residents to afford housing, and the ability of residents to support commercial activities.

1. POPULATION CHARACTERISTICS

a. Existing Population

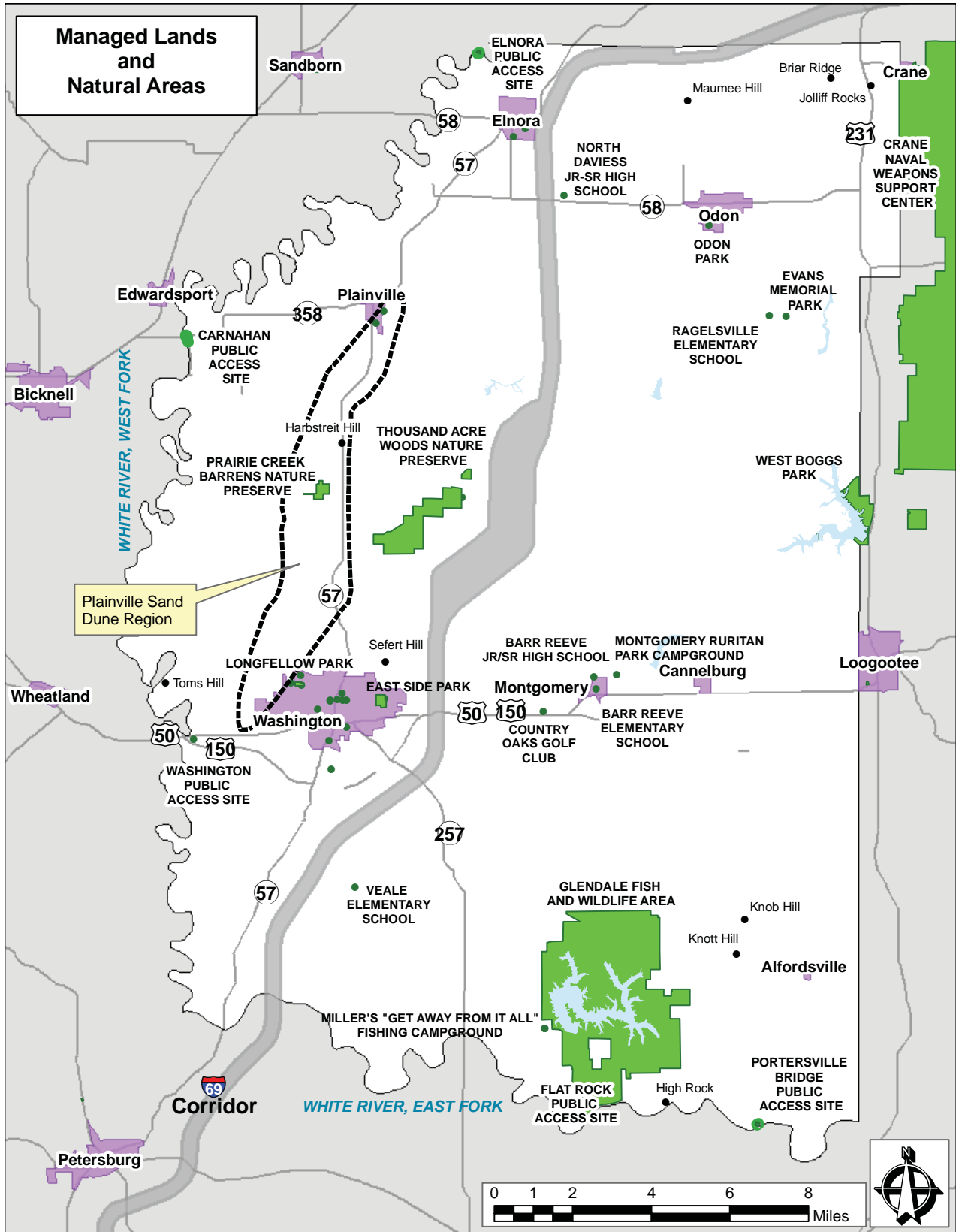
Daviess County’s population has decreased by 94 people between 1900 and 2000. Daviess County’s population has remained fairly steady in the last 100 years (within the 26,000 to 29,000 range). The county had its lowest population of 25,832 in 1930, but has been on the rise ever since. The population estimate from the U.S. Census for 2007 is 30,035 for Daviess County, which is 215 people higher than the 2000 Census shows. Figure 20 shows the population trends for Daviess County since 1900. Table A-1 in Appendix A shows the population trends for Daviess County and the incorporated communities since 1900.

b. Projected Population

Population forecasts for Daviess County and Washington were derived from the Interstate 69 Travel Demand Model Travel Analysis Zones (TAZ) layer developed by Bernardin, Lochmueller and Associates that includes induced growth resulting from I-69. Population forecasts from Woods and Poole Economics, the Indiana Business Research Center, and the Regional Economics Model, Incorporated were examined to determine population projections to the year 2030 for counties through which I-69 will travel. Figure 21 and Table A-2 in Appendix A show projections for Daviess County based on the I-69 TAZ layer, the Indiana Business Research Center, and Woods and Poole Economics.

³⁸ Lindsey, A.A., D.V. Schmelz, and S. A. Nichols. 1969. “White Squirrel Area” Pgs 131-132 in *Natural Areas in Indiana and their Preservation*. American Midland Naturalist, Department of Biology, University of Notre Dame.

Figure 19: Davies County Managed lands



The Indiana Business Research Center forecasts to the year 2040 and is based on a regression analysis of historical population counts; whereas, Woods and Poole forecasts to 2030 and is based on economic forecasts of the U.S. Bureau of Economic Analysis. The I-69 TAZ forecast for Daviness County is more optimistic than projections from the Indiana Business Research Center. The I-69 TAZ forecasts are closer to the Woods and Poole forecasts, but are still slightly more optimistic. The TAZ layer has a population of 33,576 and 12,090 households for Daviness County in the year 2030. Woods and Poole shows an increase in population up to 33,346 by 2030. The Indiana Business Research Center forecast has a slow increase in population to 2030 with a population of 33,288, and a dramatic addition of 2,338 people in the following ten years, increasing the population to 35,626 in 2040. If employment at the WestGate @ Crane Technology Park reaches the forecasted 3,000 jobs, Daviness County’s proportional share of resident employees would result in 1,481 additional persons and 592 additional households.

2. DEMOGRAPHIC CHARACTERISTICS

General demographic characteristics of the population are an indicator of the need for community facilities such as housing, education, and recreation. Table A-3 in Appendix A shows detailed numbers for population, sex, age, households, income, poverty and education.

a. Male/Female Population

In 2000, the male ratio in Daviness County was similar to the male ratio for Indiana (see Figure 22 and Table A-3), which was 49.3 percent and 49.0 percent, respectively. The female ratio in Daviness County was also similar to the state female ratio which was 50.7 percent and 51.0 percent, respectively. All seven of Daviness County’s incorporated areas (Washington, Odon, Elnora, Plainville, Montgomery, Cannelburg and Alfordsville) had a higher number of females than males except Montgomery. Montgomery had a 50.3 male to 49.7 female ratio.

Figure 20: Population Trends

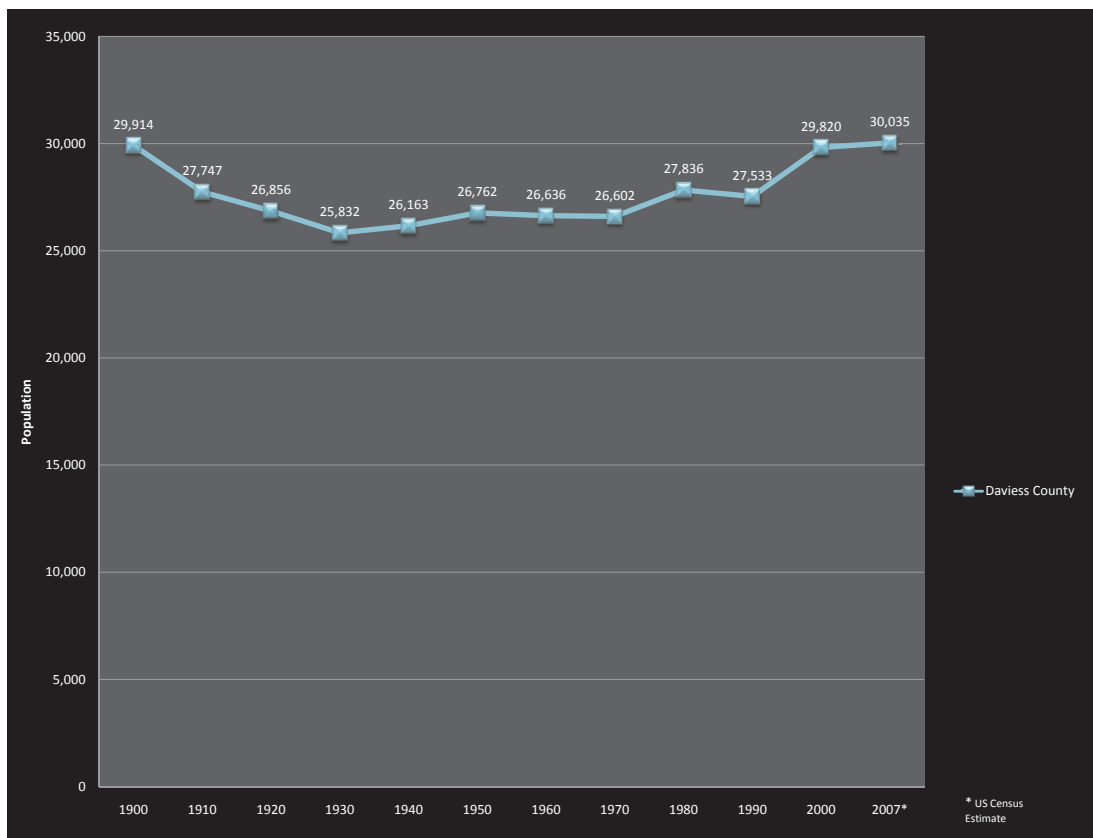
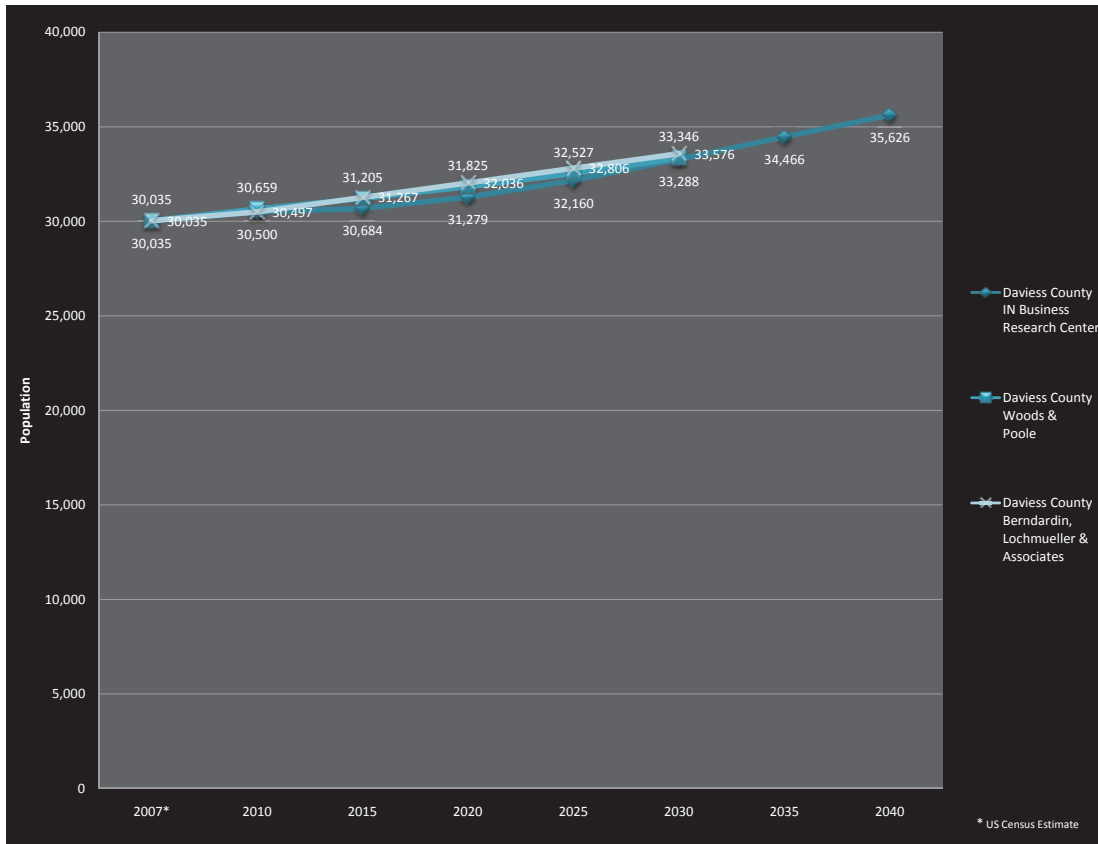


Figure 21: Population Forecasts



b. Age

Davie County had a higher median age (35.5 years) in 2000 than Indiana (35.2 years). They each have a higher median age for females than males. In Davie County, the median age is 37.2 for females and 33.4 for males. All seven of the incorporated communities in the county have a higher female median age than male median age except Cannelburg and Alfordsville. Montgomery and Cannelburg are the only towns that have a lower female median age (36.4, 31.0 respectively) than the county female median age (37.2). Similarly male median age of Montgomery and Cannelburg (32.8, 32.7) also have a lower male median age than Davie County (33.4).

Fifty-one percent of the population that is less than 50 years old is male, making 49 percent of the same population group female. Almost 61.2 percent of the population that is 70 years or older is female, while only 38.8 percent of the same age group is male.

The age pyramid also shows a dramatically lower population between the ages of 20 and 29 than any other age group between ten and 49. For all of Indiana, the age group of 20 to 29 is also the lowest of the age group categories between ten and 49, but the difference is not as dramatic as in Davie County. This could be due to the number of college-aged students leaving the county for colleges and universities in other counties. It may also show that there are not enough job opportunities in Davie County to help keep young adults from leaving the county for jobs and housing.

c. Educational Attainment

The overall educational attainment for Daviness County is slightly lower than that of Indiana. Of the population that is 25 years or older in Indiana, more people have a Bachelor’s degree (12.2 percent) or a Graduate’s/ Professional degree (7.2 percent) than in Daviness County (5.3 percent and 4.4 percent, respectively). In general, Indiana has a higher percentage of population with a High School degree or higher than Daviness County (71.8 percent and 82.1 percent). Figure 23 shows educational attainment for Daviness County, compared to Indiana.

d. Ethnicity

Daviness County is not very diverse. In 2000, over 97.5 percent of the population was white, 0.5 percent African American, 0.2 percent Native Americans, 0.2 percent Asians and remaining from one or more races. Of the incorporated areas, Washington had the highest African American population in 2000 (104). The other six communities had less than two.

3. INCOME CHARACTERISTICS

The median household income for Daviness County is \$34,064 which is lower than the median income for Indiana (\$41,567). The median household income in Alfordsville is \$54,375 which is \$20,311 more than the median household income for Daviness County. A higher percentage of households in Daviness County (12.6) were considered to be in poverty than in Indiana (9.5) in 2000. Of the incorporated areas, Cannelburg has the highest percentage of people in poverty, followed by Elnora and Alfordsville (20 percent, 18 percent and 16.2 percent, respectively). Fourteen percent of Washington is in poverty, 13 percent of Montgomery, 11.8 percent of Odon and ten percent of Plainville is in poverty.

Figure 22: Population Age Pyramid

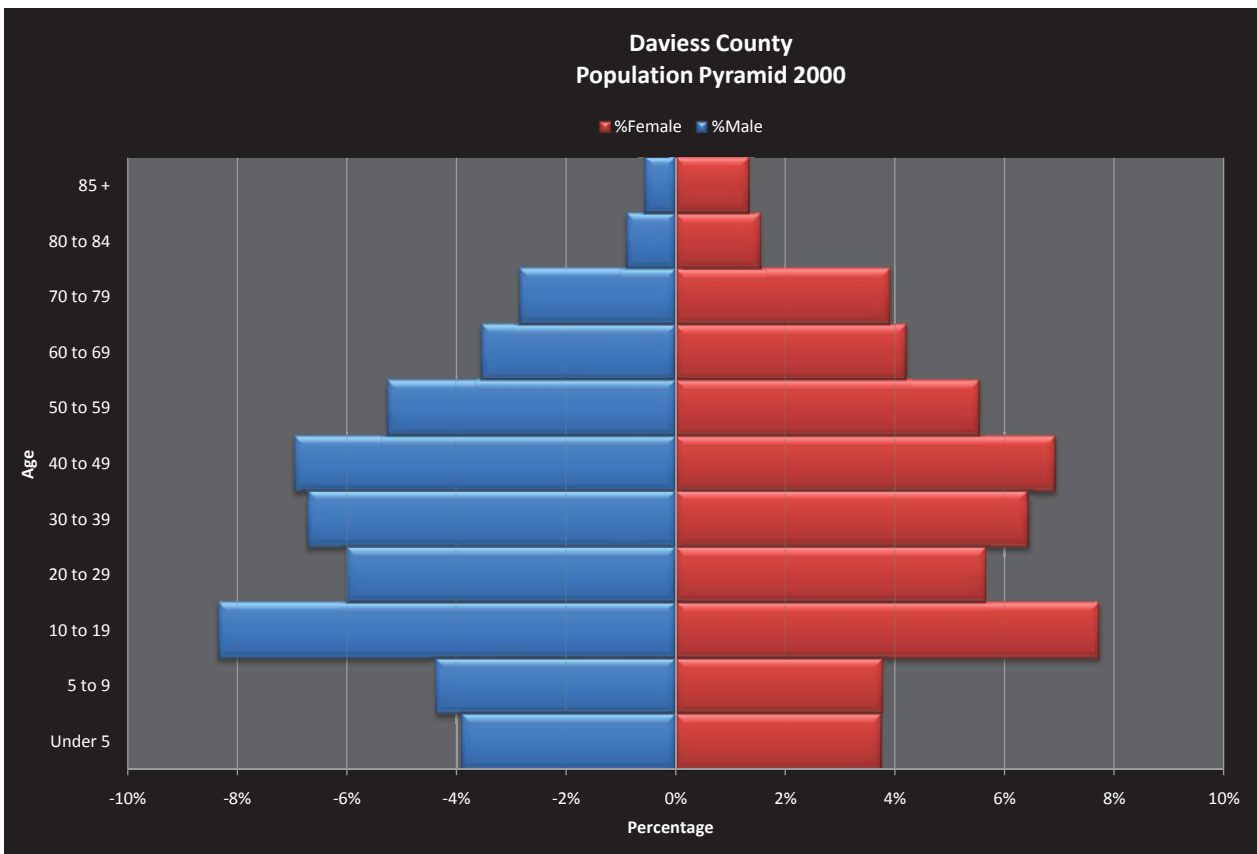
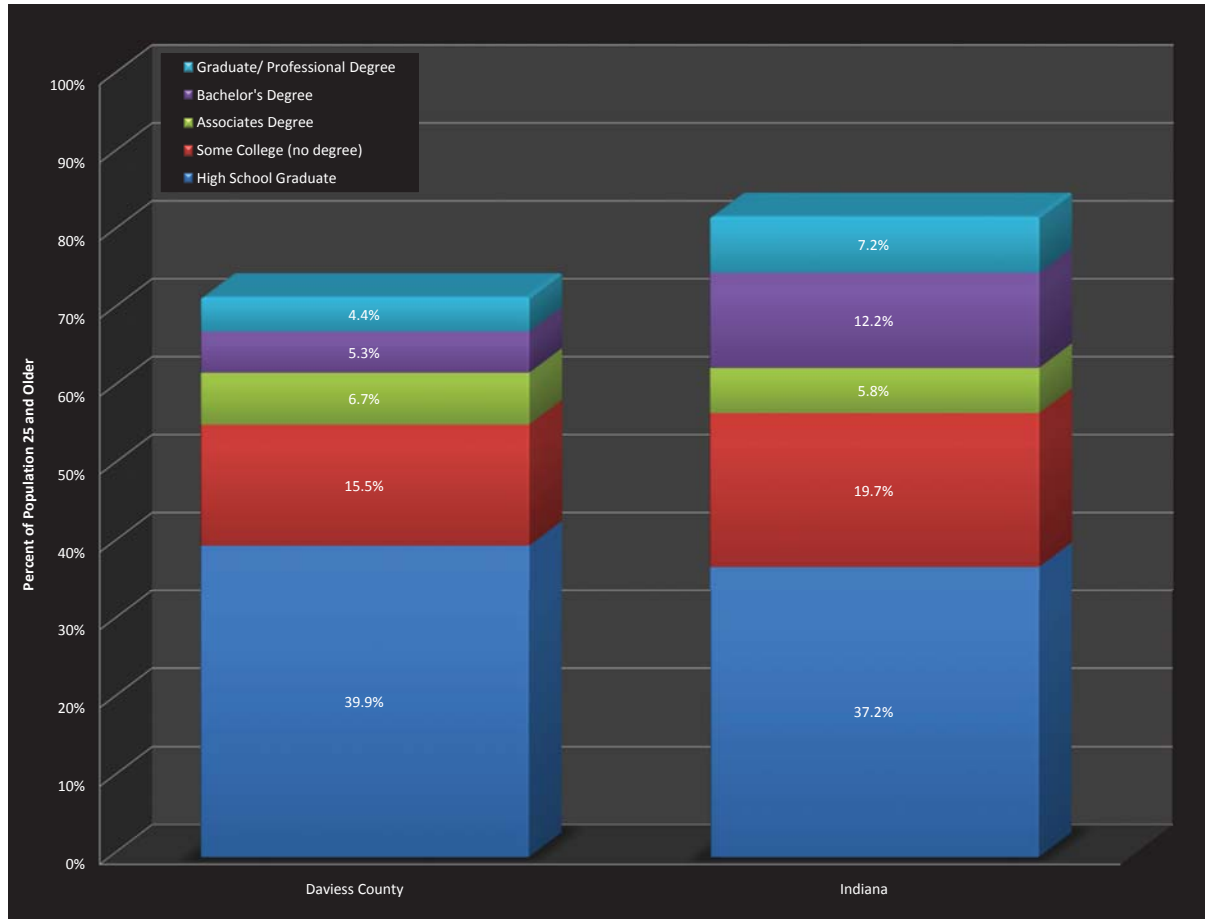


Figure 23: Educational Attainment



In addition to household income, the U.S. Census also tabulates family income characteristics. Median family incomes are higher than median household incomes. Davie County’s median family income is \$41,818 which is higher than the median household income (\$34,064) and is lower than the state’s median family income (\$50,261). The number of families below the poverty level is calculated based on family income and family size. According to the U.S. Census, ten percent of the families in Davie County were below the poverty level in 1999. This is more than the seven percent of families in Indiana that are below the poverty level. Figure 24 shows household incomes for Davie County.

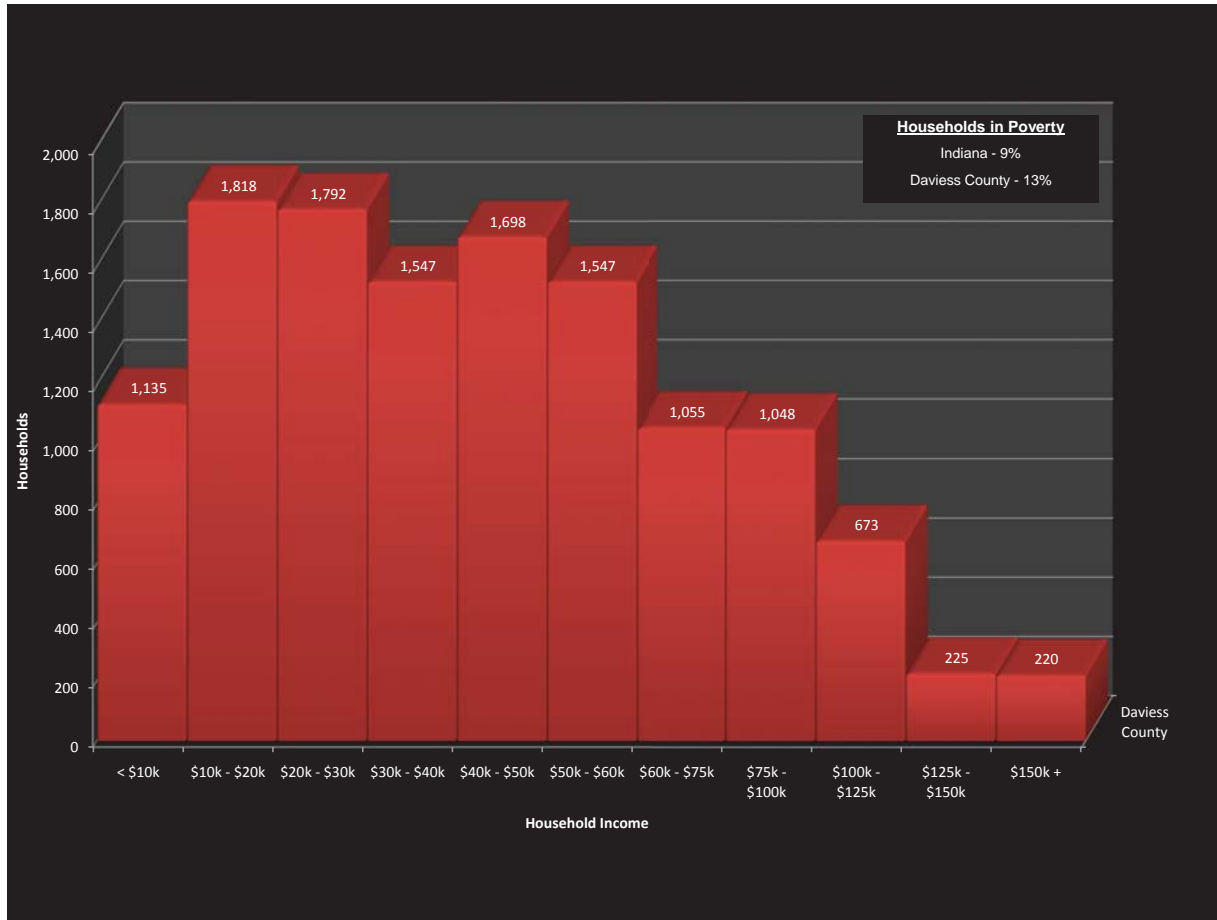
4. HOUSING CHARACTERISTICS

a. Existing Housing

Between 1990 and 2000, Davie County’s population, households and housing units all increased. The population of Davie County increased by eight percent during this time (27,533 persons in 1990 and 29,820 persons in 2000), while the number of households increased by 8.1 percent (10,012 households in 1990 and 10,894 households in 2000). A higher increase in households than population reveals that the number of people per household is decreasing. In 1990, the Davie County household size was 2.70 people per household, dropping to 2.69 in 2000.

The vacancy rate for housing is a strength indicator of the housing market. In 1990, the vacancy rate for Davie County was 8.9 percent, and in 2000 it had decreased to 8.4 percent. Yet, this is still higher than the state-wide vacancy rate of 7.7 percent.

Figure 24: Household Income



The median owner occupied housing value in 2000 was \$92,500 in Indiana and \$72,800 in Daviness County. In Daviness County, 73.3 percent of the homes were valued at \$100,000 or less in 2000. Eleven percent are valued over \$150,000. In Indiana, 56.3 percent of the homes are valued at \$100,000 or less and 19 percent are valued at over \$150,000. Figure 25 shows housing values for Daviness County.

In Daviness County, 21.4 percent of the housing units are renter occupied. This is much lower than the percentage of renter occupied units in Indiana (28.6 percent). Of the incorporated areas, Alfordsville has the lowest percentage of renter occupied houses (8.9 percent) and Washington has the highest (32.5 percent). The median monthly contract rent for Daviness County is \$276, which is much lower than the state (\$432). Elnora has the lowest rent (\$225) of the incorporated communities while Cannelburg has the highest (\$325).

The percentage of single-family homes in Daviness County is higher than Indiana's percentage (79.4 percent and 74.1 percent, respectively). Cannelburg has the highest percentage of single-family homes of the incorporated areas in Daviness County (87.0 percent) and Alfordsville has the lowest (64.4 percent).

The age of housing in a community is a reflection of the rate of growth of the community and is an indicator of the need for housing rehabilitation or housing replacement when rehabilitation is not economical. The median year housing was built in Daviness County is 1963 compared to 1966 for Indiana. Daviness County has a mix of old and new housing. Forty-two percent have been built since 1970 and 47 percent were built prior to 1960. Twenty-six percent were built prior to 1940, but 14.5 percent were built between 1990 and 2000. Figure 26 shows the housing age for Daviness County.

b. New Housing Permits

Davie County has never issued building permits; therefore, there are no records of new housing construction. However, 913 housing units were gained in the last decade (from 10,985 units in 1990 to 931 units added and 18 units lost in 2000). In that same time period, 882 additional housing units were occupied increasing from 10,012 households in 1990 to 10,894 households in 2000. Therefore, there are less vacant houses in 2000 than there were in 1990. This can be seen in the decrease of the vacancy rate from 8.9 percent in 1990 to 8.4 percent in 2000.

Of the 913 housing units gained in the last decade, the change by political jurisdiction was 290 units in Washington, 16 units in Alfordsville, 14 units in Cannelburg, 16 units in Elnora, six units in Montgomery, a loss six units in Odon, 24 units in Plainville and 553 units in unincorporated areas. Of the 553 net housing increase over the last decade in unincorporated areas, the unincorporated areas of townships accounted for 207 units in Barr, 48 units in Bogard, negative 34 units in Elmore, 25 units in Harrison, 75 units in Madison, none in Reeve, a loss of 23 units in Steele, 113 units in Van Buren, 107 units in Veale and 35 units in Washington.

c. Projected Housing Units

The population and household projections from the I-69 TAZ layer, described earlier under projected population, were used to determine projected housing units for Davie County. Assuming a constant vacancy rate between 2000 and 2030, projected housing units could be calculated using the vacancy rate and projected number of households from the I-69 TAZ layer. Using these numbers, a projection of 13,204 housing units is calculated for Davie County for 2030. This is an increase of nearly 1,306 housing units from the year 2000; however this is a far slower pace of growth than the past decade when 913 housing units were gained in a single

Figure 25: Housing Value

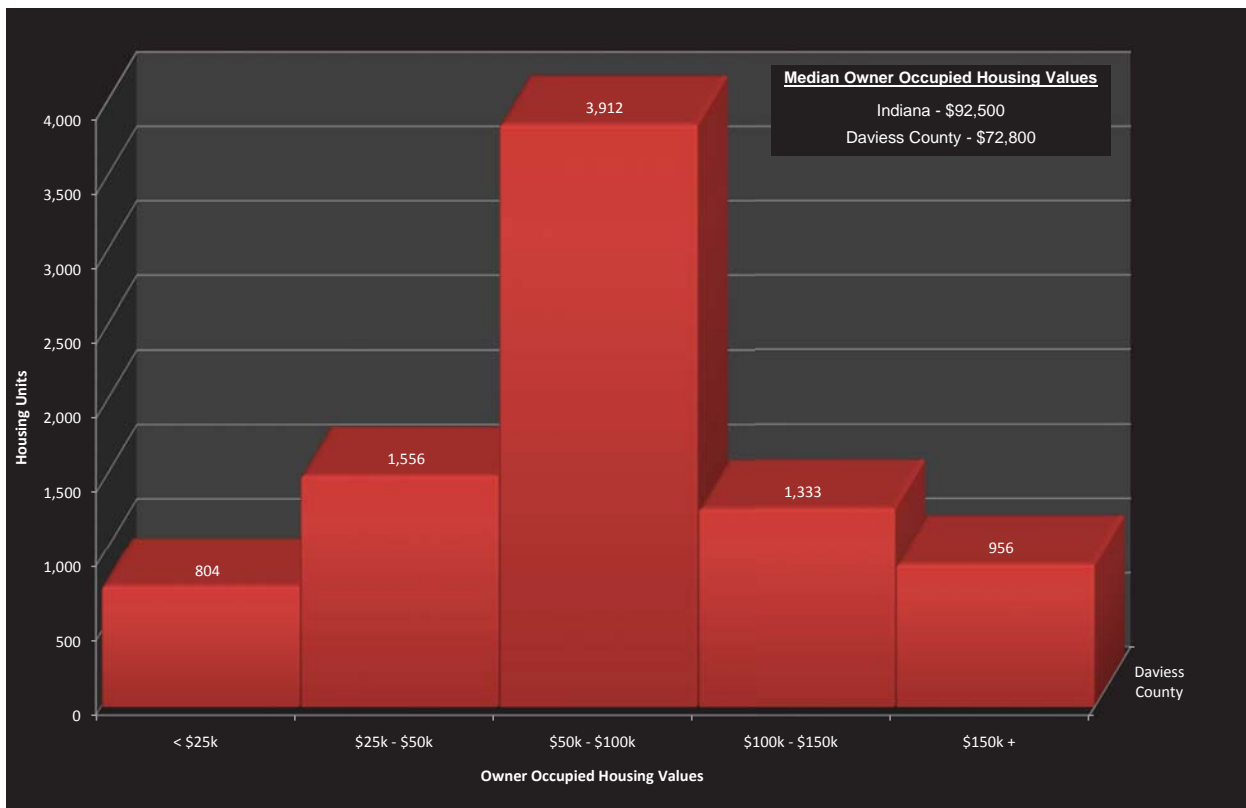
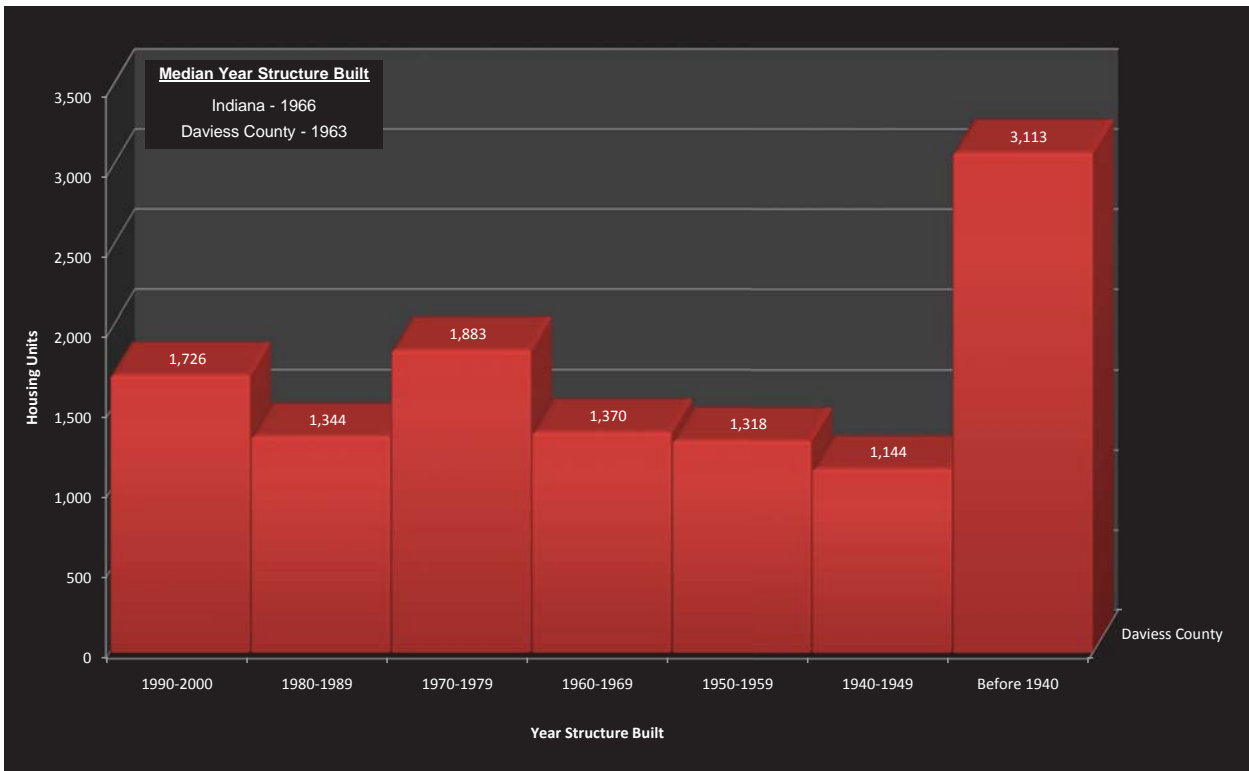


Figure 26: Age of Housing



decade. Continuing historical relationships between jurisdictions of 1,306 dwelling units from 2000 to 2030 is forecasted to be divided 659 dwelling in incorporated areas and 647 dwellings in unincorporated areas. Of the incorporated areas, the City of Washington will capture nearly 80 percent of the additional housing units followed by Plainville with six percent. While Alfordsville, Cannelburg and Elnora will each capture only four percent of the incorporated area growth, the percent increase in the total dwellings in Alfordsville and Cannelburg will be substantial. Montgomery will capture about two percent of the incorporated area growth and Odon will lose a similar percentage. If any of these incorporated areas fails to extend sanitary sewer to new housing, the housing growth may shift toward unincorporated areas. Of the unincorporated areas, Barr Township would capture 34 percent of the 647 new units followed by Van Buren Township and Veale Township with 18 percent each and Madison Township with 12 percent. The growth in unincorporated Madison Township more than offsets the housing loss in Odon which is a part of the township. On the other hand, the housing growth in Elnora fails to offset the housing loss in Elmore Township. Finally, if the WestGate @ Crane Technology Park reaches its full potential, an additional 592 dwelling units will be needed to accommodate the resident employment. See Table A-8 in Appendix A for more information on projected housing units.

d. Housing Affordability

One way to look at affordable housing is to compare the median value of housing to the median household income. The median value of a house in Daviness County (\$72,800) is 2.14 times higher than the median household income (\$34,064) according to the 2000 U.S. Census. In Indiana, the median value of housing (\$92,500) is 2.23 times higher than the median household income (\$41,567). Therefore, it appears that homes in Daviness County are more affordable to Daviness County households than the Indiana average.

Another important aspect of affordability is home ownership. Seventy-eight percent of the occupied housing units in Daviness County are owner occupied. Washington has the lowest percentage of owner occupied units (67.5 percent). The highest percentage of owner occupied units is in Alfordsville (91.1 percent). If the

incorporated communities are removed, the home ownership in the unincorporated areas of Daviess County would be 89.6 percent. With this high number of homeownership, there seems to be little concern about the ability for households to afford housing in the county.

In conclusion, it would appear that the housing market in Daviess County is providing affordable housing needs for almost everyone in the county, outside of the incorporated areas. Although the median household income in Daviess County is less than that of Indiana, the median value of housing is also lower. Homeownership is high, so housing must be affordable for most citizens. The only concern in the county is the low homeownership in some of the incorporated communities, especially Washington and Odon.

E. ECONOMIC CHARACTERISTICS

The economic overview of Daviess County consists of two components including the workforce (labor market) and employment available (the job market). The characteristics of the labor force involve employment characteristics by place of residence that are derived from the U.S. Census. The characteristics of the employment market are reported in employment by place of work in the Complete Economic and Demographic Data Source (CEDDS) by Woods and Poole Economics, Inc. as well as employment studies.

1. WORKFORCE CHARACTERISTICS

a. Existing Workforce

The labor force of a community is the community's population 16 years and older that is working or is seeking employment. In 2000, Daviess County's labor force was 13,913 or 62.9 percent of the population 16 years and older (see Figure 27). There were eight people in the military in Daviess County in 2000, according to the U.S. Census. The unemployment rate in Daviess County in 2000 was 2.7 percent.

b. Projected Workforce

Between 1990 and 2000, the number of people 16 and older in the labor force in Daviess County increased from 60.9 percent to 62.9 percent. During this same time period, the unemployment rate dropped from 5.4 percent to 4.3 percent, which is closer to the state's rate of 4.9 percent. Assuming these trends continue, the number of people 16 and older in the labor force would continue to be slightly higher than 60 percent and the unemployment rate should stay around 5.4 percent and possibly even drop closer the state's rate.

2. EMPLOYERS/JOB

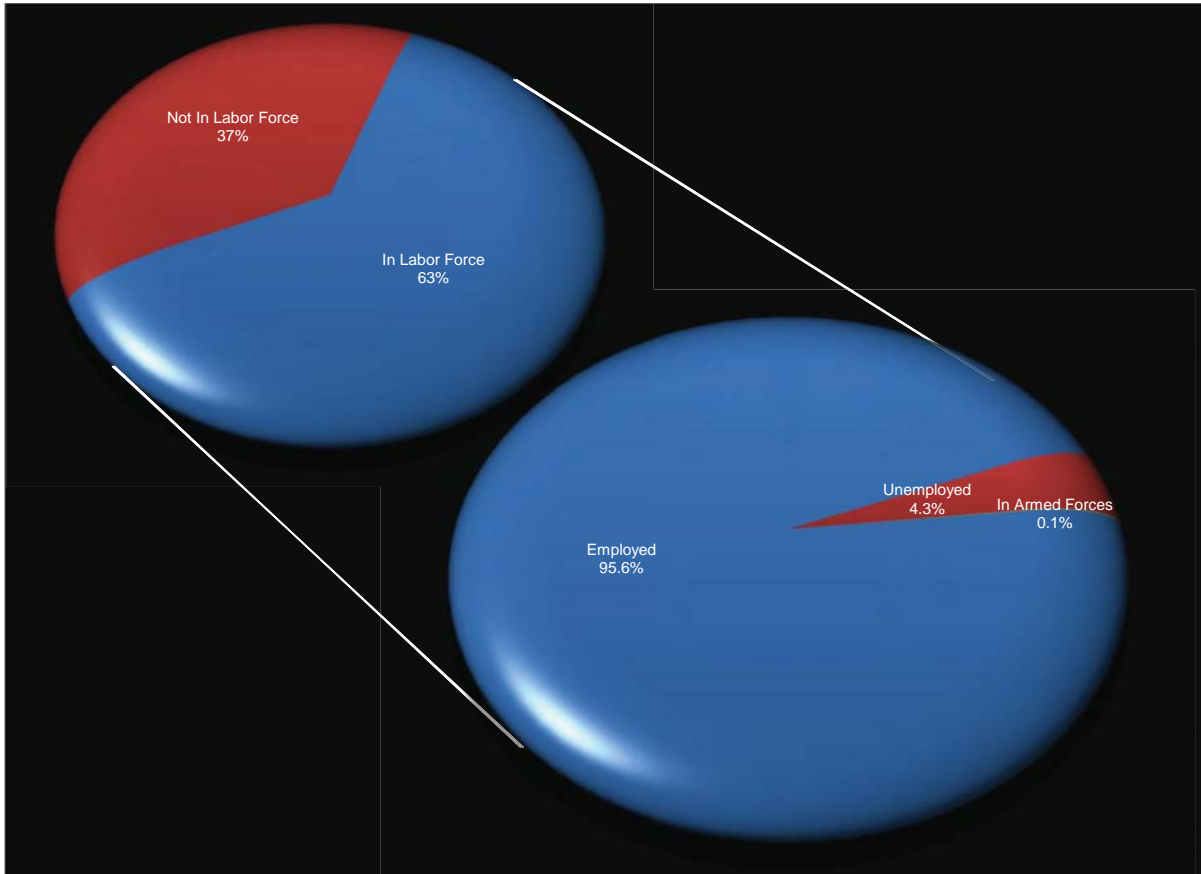
a. Existing Jobs

Employment reported by place of work from the I-69 TAZ layer is categorized by major industrial sectors in Figure 28 for Daviess County. There were 9,989 total employees reported for Daviess County in the year 2000. In 2000, the Services sector employed the greatest number of people with 3,340 (23.1 percent). The Retail sector and Manufacturing sector were the next largest employers (18.0 percent and 16.9 percent, respectively). The Government and Construction sectors had 11 percent of the Daviess residents employed. All other employment sectors employed less than 1,000 people.

b. Projected Jobs

According to projections made in the I-69 TAZ layer, the Services sector will continue to employ the most people in Daviess County in the year 2030 with 4,029 (22.8 percent of all jobs). The Manufacturing and Retail Trade sectors will continue to have the second and third highest number of employees with 3,013 (17.1 percent) and 2,995 (17 percent) respectively. The Mining and Agricultural Services sectors will employ the least number of persons in 2030 (2.8 percent and 1.6 percent, respectively). Figure 28 shows the employment in each sector for 2030.

Figure 27: Labor Force



From year 2000 to 2030, an increase of 3,164 jobs is forecast for all of Davie County. If the existing geographic area of the City of Washington is excluded, there is an increase of 1,807 jobs--about 1,270 jobs associated with industrial uses, 504 jobs associated with commercial uses and 33 jobs associated with governmental uses.

If the WestGate @ Crane Technology Park reaches its full potential of 3,000 employees, nearly 2,100 jobs may be located in the Davie County portion of the park. Resident employees of the park may create another 254 employees, providing retail and personal services to those park employees choosing to live in Davie County.

3. COMMUTING AND TRAVEL TIME

According to the 2000 U.S. Census, 69.2 percent of Davie County residents work in Davie County; therefore, 30.8 percent of Davie County residents work outside of the county. Twenty-eight percent of Davie County residents that work outside of Davie County work in Martin County. Dubois County and Knox County receive the next highest number of Davie County commuters with 27.1 percent and 13.2 percent, respectively.

There are approximately 1,706 surrounding county residents that travel into Davie County for work. The majority of these commuters come from Knox County (26 percent) and Martin County (24 percent).

Figure 29 and Table A-10 show which counties Davie County residents commute to and which residents from surrounding counties commute into Davie County.

Figure 28: Employment by Major Sector

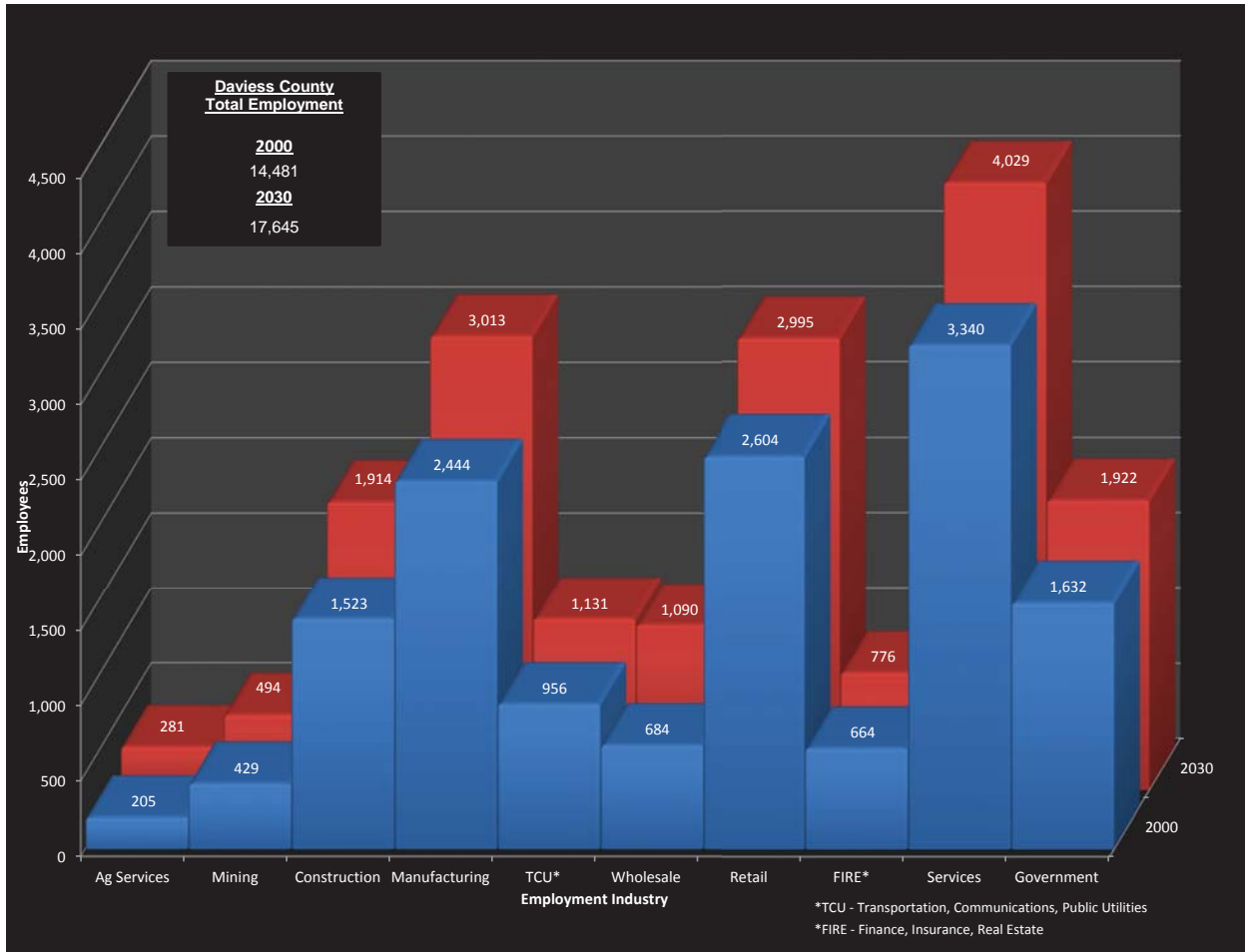


Table A-11 shows the percentage of commuters by travel time for Davie County. Forty-six percent of Davie County workers 16 years and older in the commuter flow have a travel time to work that is less than 15 minutes. Another 24 percent have a travel time of 15 to 29 minutes. That means that 30 percent of commuters travel at least 30 minutes for work. Eight percent of the commuters travel 60 minutes or more to work. Figure 30 shows the approximate distance residents of Washington can travel in 15, 30, 45 or 60 minutes.

Figure 29: Commuter To and From Daviness County

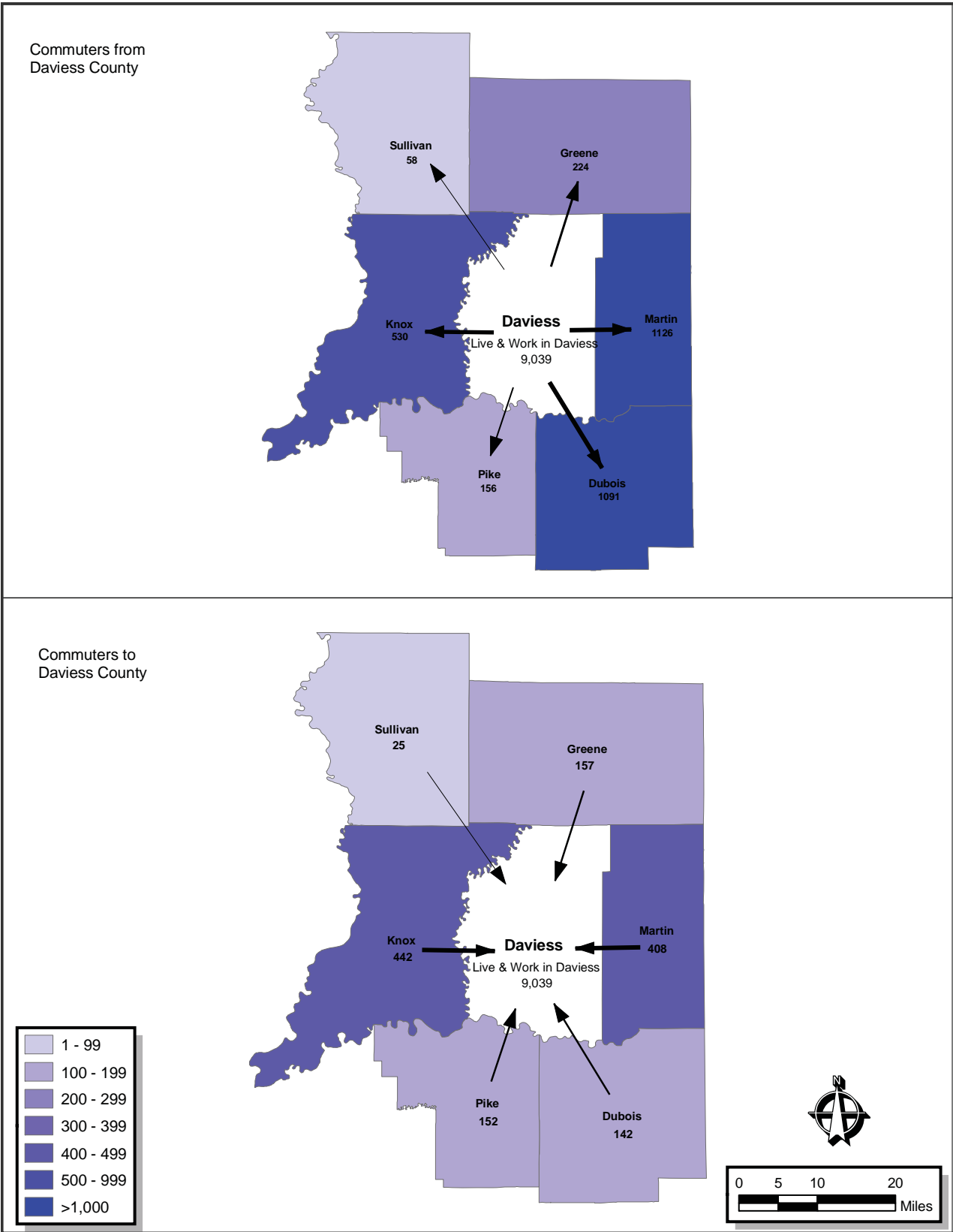
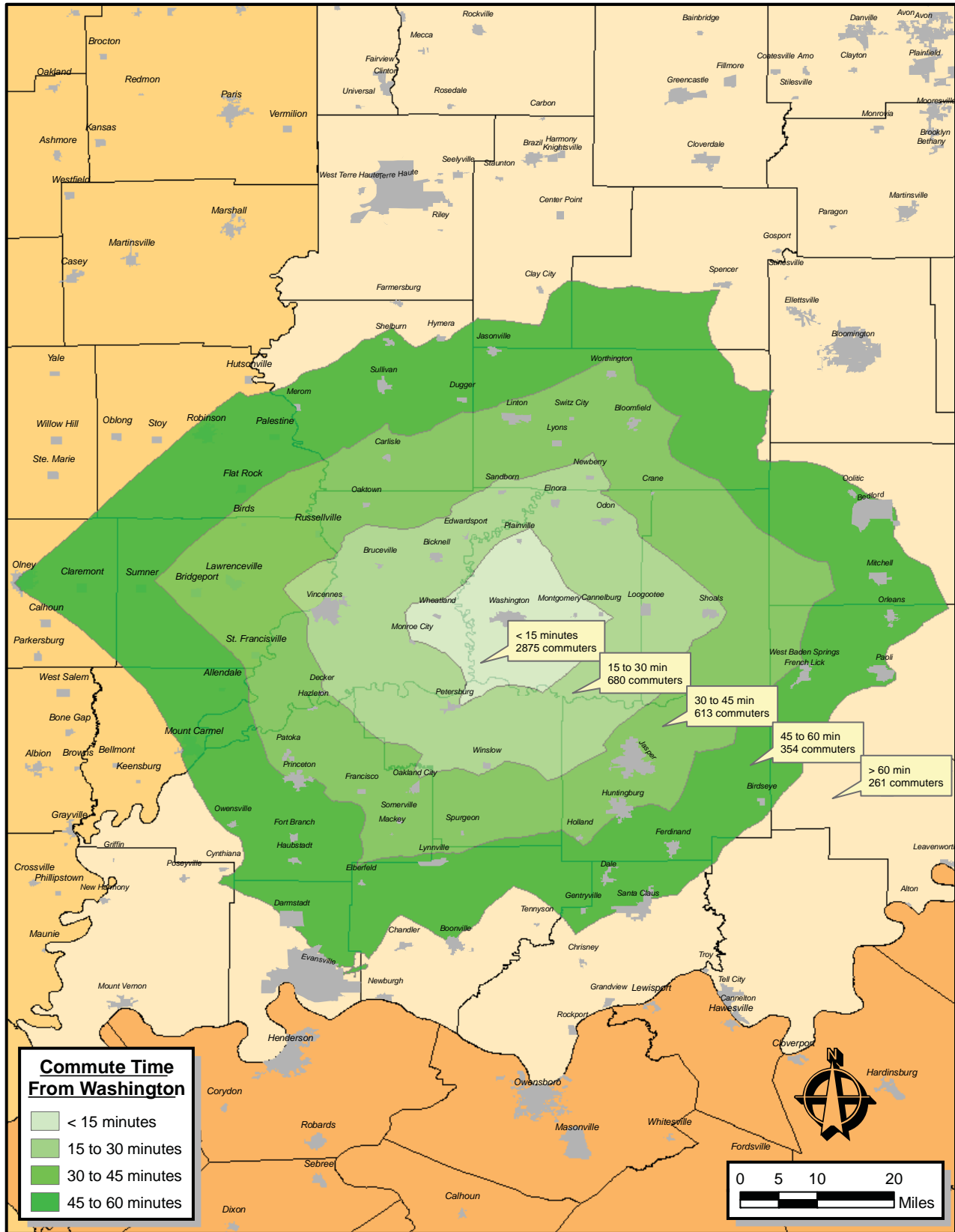


Figure 30: Commute Time From Washington



Chapter 3: Assessment of Existing Conditions

A. LAND USE

1. EXISTING LAND USE

Using 2005 IndianaMap Natural Color Orthophotography of Daviess County as a base map and a field survey of the area surrounding the City of Washington, an inventory of existing land use in the unincorporated areas of Daviess County was completed. The 2005 IndianaMap Natural Color Orthophotography is a high resolution color aerial photograph used to find detailed data for the county.

Figure 31 and Table 7 show the results of the inventory. Built urban land uses comprise 15,837 acres of the total 270,159 acres within the unincorporated area of Daviess County (excludes acreage of roads, right-of-way, and incorporated communities).

a. Residential

The residential land use category includes single-family detached dwellings, mobile homes, and multiple-family attached dwellings. There are 11,371 acres of developed residential land use in Daviess County which makes up 4.2 percent of the county's unincorporated area or 45.5 percent of the developed land uses (excludes agricultural, forest, and undeveloped land).

The majority of the homes in unincorporated Daviess County are single-family detached housing units. Single-family homes cover 10,952 acres, which makes up 96.3 percent of the residential land uses in the unincorporated area of the county. These housing units include typical site-built homes, modular homes, and manufactured homes on a permanent foundation.

Table 7: Daviess County Existing Land Use

2008 Existing Land Use				
Land Use Category	Acreage*	Percent of Category	Percent of Developed Unincorporated Area°	Percent of Unincorporated County Area°
Residential	11,371		45.5%	4.2%
Single-Family	10,952	96.3%	43.8%	4.1%
Mobile Home	398	3.5%	1.6%	0.1%
Multiple-Family	22	0.2%	0.1%	0.0%
Commercial	175		0.7%	0.1%
Industrial	3,389		13.5%	1.3%
Public/Quasi-Public	10,079		40.3%	3.7%
Parks/Recreation	9,587	95.1%	38.3%	3.5%
Education	71	0.7%	0.3%	0.0%
Churches/Cemeteries	280	2.8%	1.1%	0.1%
Other	141	1.4%	0.6%	0.1%
Developed Subtotal	25,015		100.0%	9.3%
Agricultural/Forest Land	245,144			90.7%
Total of Unincorporated County Area	270,159			100.0%
Incorporated Communities	4,743			
Total of County Area	274,902			

source: Bernardin, Lochmueller and Associates, Inc.

* Rounded to the nearest acre.

° Total of unincorporated county area and total of county area excludes roads and right-of-ways.

There are also several mobile homes throughout unincorporated Davie County. Mobile homes cover 398 acres, which makes up 3.5 percent of the residential land uses in the unincorporated area of the county. The mobile home category includes all mobile homes built in a factory prior to the Federal Manufactured Housing Construction Safety Standards law of 1974 and any manufactured homes built in compliance with this law that are not on a permanent foundation.

Unincorporated Davie County also includes 22 acres of multiple-family housing units. Multiple-family uses make up 0.2 percent of the residential land uses in the unincorporated area of the county. Over 17 acres of this land is in apartment complexes located just beyond the city boundary of Washington. The other multiple-family housing units in the unincorporated area are duplexes located in a few different areas of the county.

b. Commercial

The commercial land use category includes:

- Professional offices (doctors, dentists, optometrists, insurance agents, tax accountants, banks, real estate agents, engineers, surveyors),
- Retail/Services (retail stores including grocery stores, hardware stores, drug stores, gasoline stations, department or discount stores, drive-in businesses, motels, furniture stores, appliance stores, and businesses for motor vehicle, boat, trailer, mobile home and farm equipment sales; and services including hair and nail salons, barbershops, gyms, and businesses for motor vehicle, boat, trailer, mobile home and farm equipment repair),

There are 175 acres of developed commercial land use in unincorporated Davie County which makes up only 0.1 percent of the county's unincorporated area or 0.7 percent of the developed land uses (excludes agricultural, forest, and undeveloped land). The majority of commercial land uses in unincorporated Davie County are located just outside of the city boundary of Washington, including Wal-Mart, the Baymont Inn, the BP gas station, and other retail stores near the SR 57 and US 50/150 intersection. Commercial uses in further from the City of Washington mostly consist of small gas stations and convenience stores, restaurants, and banks. Several commercial uses are located along US 50/150 between Washington and Montgomery and west of Loogootee. The commercial land use category also includes the Gasthof Amish Village north of Montgomery. Other commercial small uses are spread out throughout the county.

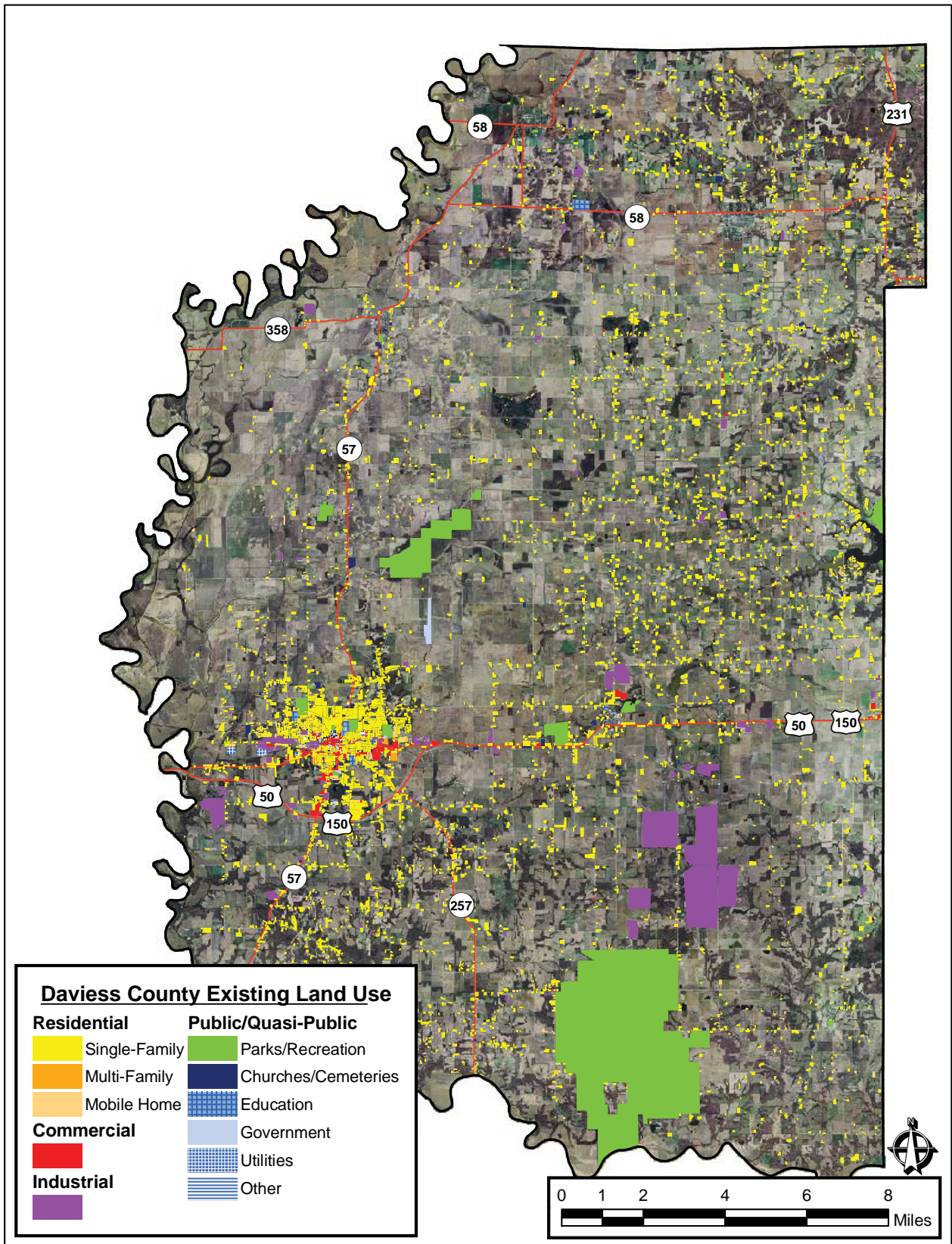
c. Industrial

The industrial land use category includes light industrial uses, heavy industrial uses, junk yards landfills, and coal mines. Uses that involve the manufacturing of products from secondary parts and can be normally contained within a structure are generally considered light industrial uses. Thus, light industrial uses include warehousing, wholesaling and manufacturing from parts supplied to the site.

Heavy industrial uses involve the manufacturing and processing of products from raw materials or the extraction and processing of raw materials. Heavy industrial uses involve the outdoor storage of raw materials and products.

Industrial uses cover 3,389 acres in Davie County which accounts for 1.3 percent of the county's unincorporated area or 13.5 percent of the developed land uses (excluding agricultural, forest and undeveloped land). The majority of this land is located in the large coal mines south of Montgomery and Cannelburg. There are also large industrial uses located just outside of Washington, including the Large Grain Processing Corporation plant located southwest of Washington. Smaller manufacturing facilities are located throughout Davie County.

Figure 31: Existing Land Use



d. Public/Quasi-Public

The public/quasi-public land use category includes public and nonprofit community facilities that serve the community including churches, schools, recreational facilities, governmental uses, and other institutional facilities. These facilities cover 10,079 acres and make up 3.7 percent of the county’s unincorporated area or 40.3 percent of the developed land uses (excluding agricultural, forest and undeveloped land).

Parks and recreational areas cover a large portion of the developed land uses in unincorporated Davie County. There are 10,079 acres of recreational areas located in unincorporated Davie County which make up 95.1 percent of the public/quasi-public land uses in Davie County or 38.3 percent of the developed land uses (excluding agricultural, forest and undeveloped land). The parks and recreational subcategory includes privately owned recreational facilities, county owned recreational facilities, and state and federally managed lands. The Glendale Fish and Wildlife Area (FWA) in southern Davie County, managed by the Indiana Department of Natural Resources, covers nearly 8,100 acres alone. Other recreational areas include the Thousand Acre Woods Nature Preserve which covers just over 900 acres and the West Boggs Lake and Park which covers 150 acres in Davie County.

Churches and cemeteries make up 280 acres of the public/quasi-public land use within Davie County. Most of the churches in unincorporated Davie County are small churches and cover a wide range of denominations. Cemeteries are scattered throughout the county. These cemeteries range from large cemeteries associated with these churches to very small cemeteries.

The educational category in unincorporated Davie County covers 71 acres. There are three public school districts in Davie County, including Barr-Reeve Community Schools, North Davie Community Schools, and Washington Community Schools. There are also several private schools throughout Davie County, including Washington Catholic Elementary School, Middle School, and High School which is part of the Diocese of Evansville, several Amish Parochial Schools, and a Christian school. The North Davie Elementary School, North Davie Junior High/High School, and Barr-Reeve schools cover most of the educational category in unincorporated Davie County. (The Barr-Reeve schools are located just outside of the corporate boundary of Montgomery.) Several of the Amish Schools are also located in unincorporated Davie County, especially near Montgomery and Odon.

The government category in unincorporated Davie County covers 89 acres. Most of the county government offices are located in the City of Washington. City and town government offices are located within the individual cities and towns. The Davie County Airport, which is included in the category, covers nearly all 89 acres. Also included in the category are township fire stations.

Other public/quasi-public land uses include those public/quasi-public uses that are not categorized under any of the previous land uses. This includes governmental facilities, medical facilities, utilities, and organized clubs. This category covers 141 acres in unincorporated Davie County. The Davie County Airport makes up 89 acres of those acres. The rest of this category includes fire stations and utilities.

e. Agricultural/Forest Land

The agricultural/forest land includes all land used for farming and other agricultural purposes, land currently covered by trees, and any other land that is not currently built up or used for any of the previously listed land uses. This category covers over 245,144 acres in Davie County, which is just over 90 percent of the county’s unincorporated total area.

2. EXISTING LAND USE CONTROLS

This will be the first comprehensive plan adopted in Davie County. The county has never adopted any type of land use controls, such as a zoning ordinance or subdivision control ordinance, nor do they currently require a building permit to build within the unincorporated area of the county.

3. PROJECTED LAND USE

Projected land use needs for the year 2030 for Daviess County are derived from demographic projections made in the Interstate 69 Travel Demand Model Travel Analysis Zones (TAZ) layer. In the development of year 2030 population projections for the I-69 TAZ layer, Bernardin, Lochmueller and Associates, Inc. examined Woods & Poole Economics forecasts (released in April of 2004) and Indiana State Data Center forecasts by county, as well as the Regional Economics Model, Inc. (REMI) forecast for the State of Indiana together with historic growth trends. The projected land use needs and ability to accommodate those needs are summarized in Table 8.

a. Residential

Between years 2008 and 2030, there is a projected increase of 958 dwelling units in Daviess County based on a projected population increase of 2,754 people and a continued vacancy rate of 8.4 percent from the 2000 Census. Assuming that 49.5 percent of those dwelling units will be placed outside of the county's incorporated communities, 474 units will be placed in unincorporated Daviess County. If 80 percent of the units are single-family and have a density of one dwelling unit per three acres, there is a demand of 1,139 acres of additional single-family uses between 2008 and 2030. Assuming that the other 20 percent of dwelling units are mobile homes with densities of one dwelling unit per three acres, there is a demand for 285 acres of additional mobile homes between 2008 and 2030.

Table 8: Existing Land Use and Future Demand

Land Use Category	2008		2008 to 2030
	Acreage*	Percent of Unincorporated County Area°	Demand Acres
Residential	11,371	4.2%	1,423
Single-Family	10,952	4.1%	1,139
Mobile Home	398	0.1%	285
Multiple-Family	22	0.0%	0
Commercial	175	0.1%	88
Industrial	3,389	1.3%	181
Public/Quasi-Public	10,079	3.7%	247
Parks/Recreation	9,587	3.5%	0
Education	71	0.0%	36
Churches/Cemeteries	280	0.1%	140
Other	141	0.1%	71
Developed Subtotal	25,015	9.3%	1,939
Agricultural/Forest Land	245,144	90.7%	
Total of Unincorporated County Area	270,159	100.0%	1,939
Incorporated Communities	4,743		
Total of County Area	274,902		

source: Bernardin, Lochmueller and Associates, Inc.

* Rounded to the nearest acre.

° Total of unincorporated county area and total of county area excludes roads and right-of-ways.

b. Commercial

Commercial land is occupied by retail/services and professional office uses. Between 2000 and 2030, the Retail and Services sectors in Davie County are forecasted to increase by 1,080 employees and the Finance/Insurance/Real Estate (FIRE) sector is forecasted to increase by 112 employees. Forecasts for the City of Washington show an increase of 606 employees in the Retail and Services sectors and 82 employees in the Finance/Insurance/Real Estate (FIRE) sector. Assuming a 50 percent increase in commercial property between 2008 and 2030 in unincorporated Davie County, 88 additional acres of commercial uses will be needed by the year 2030. This 50 percent increase allows for the expansion and relocation of existing businesses, as well as any new commercial businesses that may come into the county. This will more than accommodate the anticipated increase in commercial jobs in unincorporated Davie County over the next 30 years.

c. Industrial

Industrial land is occupied by agricultural services, mining, construction, manufacturing, transportation/communication/ utility, and wholesale/warehouse uses. These uses average about 15 employees per acre, ten employees per net acre for sanitary sewer design, and seven employees per acre for planning purposes. There are 1,682 additional industrial employees calculated for the county between 2000 and 2030. This includes 412 additional industrial jobs in the City of Washington. Assuming that new industrial uses in unincorporated Davie County will have an average employment density of seven employees per acre, which will more than accommodate expansion of sanitary sewers and other utilities, 181 acres of industrial land will be needed by 2030.

d. Public/Quasi-Public

The National Recreation and Park Association suggests that a community should have at least five to eight acres of parkland per 1,000 people. With a projected 2030 population of 33,576 people, Davie County would need 168 to 269 acres of parkland. There are 9,587 acres of recreational land currently in unincorporated Davie County. The Glendale Fish and Wildlife Area (FWA) covers nearly 8,100 acres alone. Other recreational areas include the Thousand Acre Woods Nature Preserve which covers just over 900 acres and the West Boggs Park which covers 150 acres of land in Davie County. (The 150 acres includes only the portions of the campground and golf course that are in Davie County. The West Boggs Lake covers another 621 acres.) Other parks and recreational uses include a park south of Plainville, a campground east of Montgomery, the Country Oaks Golf Club, nature preserves, and other small parks. Although existing recreational land is adequate for the suggested parkland, additional recreational facilities or parkland may be considered throughout Davie County. The current parkland includes very few facilities such as field sports, court sports, or other recreational facilities.

Most of the other public/quasi public uses within Davie County should be sufficient for the projected 2030 population. Existing schools, governmental facilities, and churches should be sufficient for the projected 2030 population. However, a 50 percent increase in public/quasi-public land would be desirable through year 2030 to accommodate the expansion and relocation of public/quasi-public uses. This would include 36 additional acres for schools, 140 additional acres for churches and cemeteries, and 71 acres for other public/quasi-public uses, such as clubs and organizations.

e. Conclusion

A total of 1,939 acres of additional land will be needed between 2008 and 2030 to accommodate the anticipated population and job growth in unincorporated Davie County. Nearly three-fourths of this land will be needed to accommodate residential growth in the county, most of which is expected to include single-family, site-built homes. There are also 285 additional acres expected for mobile homes throughout the county. Commercial uses are anticipated to increase by 88 acres, based on a 50 percent increase of existing commercial land in unincorporated Davie County. A 50 percent increase should more than accommodate the need for expanded and relocated commercial uses, as well as the forecasted commercial job growth. Assuming seven employees per acre for new and expanded industrial growth, 181 acres will be needed to accommodate 1,270 industrial jobs.

There is more than adequate park and recreation space in the county to accommodate the future population. A 50 percent increase of land for the other public/quasi-public uses should be more than adequate for the expansion and relocation of existing schools, churches, cemeteries, and other public/quasi-public uses.

B. TRANSPORTATION

1. INTRODUCTION

The transportation system physically links the community to the land use activities within the community as well as activities outside of the community such as state and national activities. Only ground transportation is found in Davie County. The closest interstate to Davie County is currently I-64, which is located approximately 31 miles south of the county line via SR 57. However, once completed, I-69 will travel through the center of Davie County. I-69 will connect to I-64 and I-164 (approximately 30 miles southwest of the county line) and to I-465 (approximately 75 miles northeast of the county line). There is no public bus system or any other type of transit within in Davie County. The nearest intercity bus service is Greyhound Bus Lines in either Evansville or Terre Haute, Indiana (depending on the origin from within the county). There is no rail passenger service in Davie County. The nearest AMTRAK stations are located in Effingham, Illinois; Louisville, Kentucky; Mattoon, Illinois; and Indianapolis, Indiana.

There are sixteen public use airports located within a one hour drive (approximately) from within Davie County, including: Davie County Airport (Washington), V.I. Grissom Municipal Airport (Bedford, Lawrence County), Shawnee Field Airport (Bloomfield), Lake Monroe Airport (Bloomington), Monroe County Airport (Bloomington), Brazil Airport (Clay County), Sullivan County Airport, Hulman Regional Airport (Terre Haute), Sky King Airport (Terre Haute), French Lick Municipal Airport, Patoka Reservoir Landing Area (Orange County), Paoli Municipal Airport (Orange County), Orleans Airport (Orange County), Huntingburg Airport (Dubois County), Boonville Airport (Warrick County), and Skylane Airport (Evansville). Evansville Regional Airport is the closest airport which is certified to handle carrier operations. The nearest airport offering a full range of domestic and international flights is the Indianapolis International Airport.

2. HIGHWAY FUNCTIONAL CLASSIFICATION

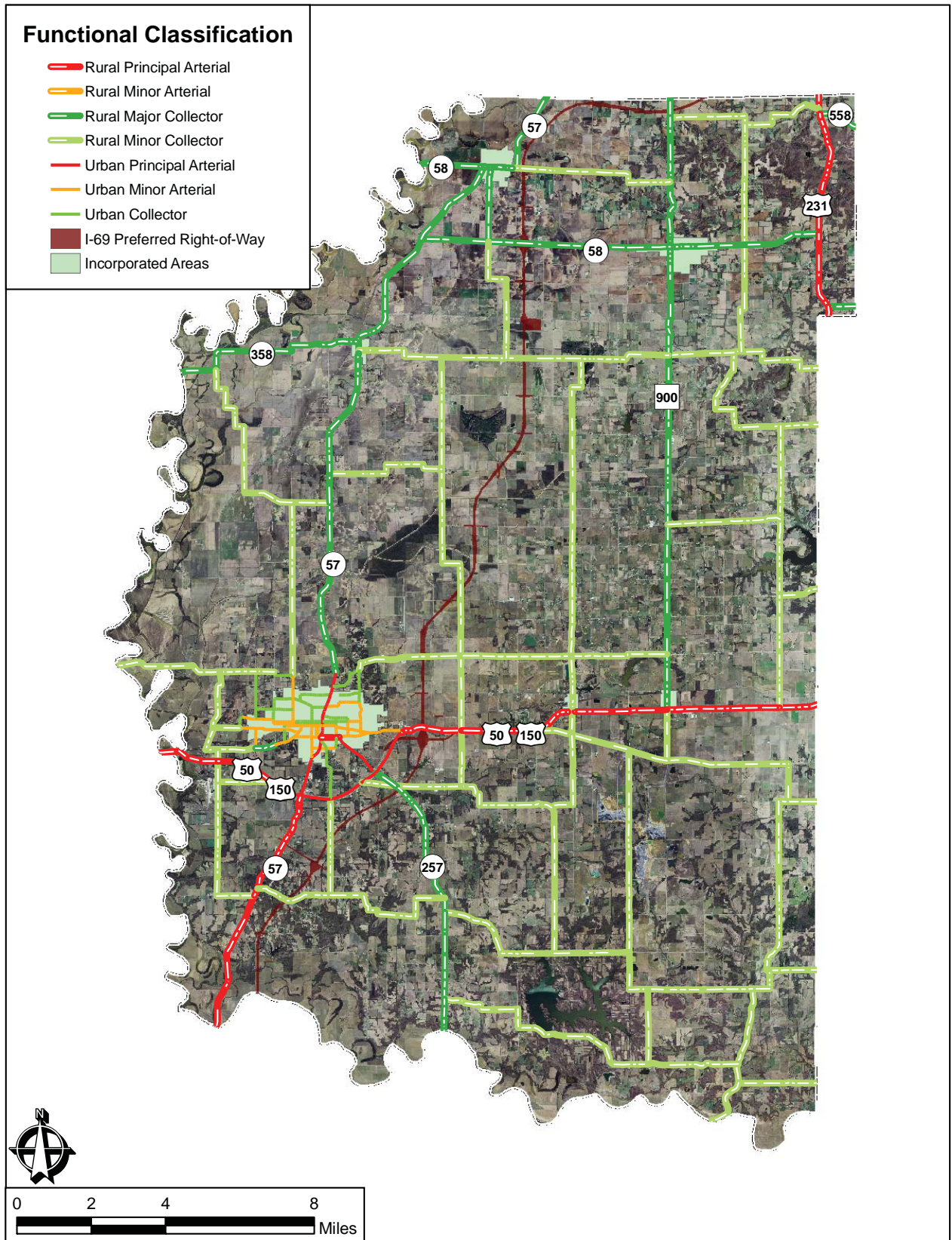
The roadways in the street network are classified according to the function they perform. The primary functions of roadways are either to serve property or to carry traffic through properties. Streets are functionally classified as “local” if their primary purpose is to provide access to abutting properties. Streets are classified as “arterials” if their primary purpose is to carry traffic. If a street equally serves to provide access to abutting property and to carry traffic, it is functionally classified as a collector. These three primary functional classifications may be further stratified for planning and design purposes as described below. The functional class of a roadway is also important in determining federal and state funding eligibility, the amount of public right-of-way required, and the appropriate level of access control. Figure 32 shows the functional classification of roadways in Davie County.

a. Major Arterials

Major arterials include the interstates, freeways/expressways and principal arterials. The National Highway System of 155,000 miles includes the nation’s most important rural principal arterials in addition to interstates.

Interstates/Freeways/Expressways. Freeways and expressways are the highest category of arterial streets and serve the major portion of through-traffic entering and leaving metropolitan areas (i.e., inter-urban traffic). They carry the longest trips at the highest speeds and are designed to carry the highest volumes. In metropolitan areas, intra-urban traffic (such as between the central business district and outlying residential areas and between major inner-city communities or major urban centers) may also be served by streets of this class. Interstates are fully access-controlled facilities that are grade-separated from other roads and railroads, such as Interstate 64. All roadways that are on the nation’s interstate system of about 45,000 miles are fully

Figure 32: Functional Classification



grade-separated with full access control. Freeways are non-interstate, fully access-controlled facilities that are also grade-separated from all intersecting transportation facilities. Expressways are partially access-controlled facilities that may have occasional at-grade intersections, such as the Lloyd Expressway in Evansville.

Principal Arterials. Principal arterials (sometimes termed other principal arterials under the Federal Functional Classification System) are the highest category of arterial streets without grade separation. This functional class complements the freeway/expressway system in serving through-traffic entering and leaving metropolitan areas. Within the metropolitan area, major intra-urban trips are served between the central business district and suburbs, and between major suburban activity centers. Although principal arterials may lack access control, some level of access control is highly desirable, such as the minimum spacing of intersections with public roads and the control of driveway entrances. For principal arterials, maintaining traffic-carrying capacity for through-traffic is more important than providing access to abutting property.

b. Minor Arterials

Minor arterials, the lowest category of arterial streets, serve trips of moderate length and offer a lower level of mobility than principal arterials. This class augments the major arterials, distributing traffic to smaller geographic areas, and linking cities and towns to form an integrated network providing interstate highway and inter-county service. Minor arterials also provide urban connections to rural collectors.

c. Collector Streets

Collector streets serve as the link between local streets and the arterial system. Collector streets provide both access and traffic circulation within residential, commercial, and industrial areas. Moderate-to-low traffic volumes are characteristic of these streets. In rural areas, the major collectors provide service to county seats, larger towns (2,500 or more persons) and other major traffic generators that are not served by arterials. These roads serve the most important intra-county corridors. Minor collectors link local roads in rural areas and serve the smallest rural communities (fewer than 2,500 persons).

d. Local Streets

Local streets are composed of all streets not designated as collectors or arterials. Primarily serving abutting properties, local streets provide the lowest level of mobility and, therefore, exhibit the lowest traffic volumes. Through-traffic on local streets is deliberately discouraged. This class of street is not part of any city or county thoroughfare network and is not eligible for federal aid, with the exception of bridges and bikeway/walkway facilities.

3. THOROUGHFARE NETWORK

a. Daviess County

There are three major arterials in Daviess County, including US 50, US 231, and a portion of SR 57. US 50 runs east-west through the center of the county. It connects to Vincennes to the west and to Lawrenceburg to the east. US 231 runs north-south through the northeastern corner of the county. It connects to Kentucky (via a crossing of the Ohio River in Spencer County) to the south, and it connects to Gary, Indiana to the north. SR 57 is classified as a major arterial from Washington south to the county line. SR 57 runs north-south through the western portion of the county, and it connects to US 231 in the north and to Evansville to the south.

There are no roadways that are classified as minor arterials in Daviess County.

There are several major collectors in Daviess County, including SR 58, SR 358, SR 558, SR 645, SR 257, and portions of SR 57, CR 900E, and Old US Highway 50 west of Washington. SR 58 travels east-west through the northern portion of the county, from the Knox County line to US 231. SR 358 travels mainly east-west through the northwest corner of the county, from the Knox County line to SR 58. SR 558 and SR 645 both travel east-

west a short distance in the northeast corner of the county, from US 231 to the Martin County line. SR 257 travels north-south in the southern portion of the county, from the Pike County line to Washington. The portion of SR 57 which is a major collector travels north-south in the western portion of the county, from Washington to the Greene County line. The portion of CR 900E which is a major collector travels north-south in the eastern portion of the county, from US 50 to the Greene County line. Old US Highway 50 is classified as a major collector from Washington west to US 50.

Within the Washington urban boundary, SR 257 and Old US Highway 50 are classified as principal arterials. Also, several streets are classified as minor arterials only within the Washington urban boundary.

Figure 32 shows the functional classifications of roadways in Daviess County. All of the roadways outside of Washington are designated rural under the Federal Functional Classification System. The roadways within the Washington urban boundary are considered urban roads.

b. Maintenance responsibility

Daviess County maintains 799.11 center-line miles of roadway outside of any city/town limits in addition to maintaining 121 bridges. SR 57, SR 257, SR 58, SR 358, SR 558, and SR 645 are all maintained by the Indiana Department of Transportation. All incorporated communities in Daviess County are responsible for the maintenance of culverts and drainage ditches on non-state roads within their boundary limits. Daviess County is responsible for the maintenance of culverts and drainage ditches on non-state roadways outside of incorporated areas. Daviess County received \$1,992,306 from the Motor Vehicle Highway fund, \$500,298 from Major Moves funding, \$253,244 from the Local Road and Street fund, and \$147,674 from special distribution funds in fiscal year 2006. Daviess County is among the few counties with a horse drawn vehicle tax, amounting to \$77,960 in fiscal year 2006. Only LaGrange County raised more revenue from non-motorized vehicle tax.

4. PHYSICAL CHARACTERISTICS

a. Roadways

The physical characteristics of a roadway system provide insight regarding the structural adequacy (pavement and bridge loading capacities), geometric adequacy (horizontal and vertical curves and turning radii at intersections), and functional adequacy (ability to handle traffic).

The roadway along US 50 through Daviess County varies from a minimum width of 24 feet (two lanes) to a maximum width of 108 feet (four lanes with a median). There are no sections with curb and guttering or parking. The US 50 right-of-way varies from a maximum of 160 feet to a minimum of 60 feet.

The roadway along US 231 through Daviess County is 24 feet wide. There are no sections with curb and guttering or parking lanes. The US 231 right-of-way varies from a maximum of 120 feet to a minimum of 80 feet.

The roadway along SR 57 through Daviess County varies from a minimum width of 22 feet to a maximum width of 44 feet. There are some sections with curb and guttering within Washington and Plainville, but there are no sections with parking lanes. The SR 57 right-of-way varies from a maximum of 70 feet to a minimum of 48 feet.

The roadway along SR 257 through Daviess County varies from a minimum width of 24 feet to a maximum width of 36 feet. There is curb and guttering within Washington, but there are no sections with parking lanes. The SR 257 right-of-way varies from a maximum of 150 feet to a minimum of 40 feet.

The roadway along SR 58 through Daviess County varies from a minimum width of 22 feet to a maximum width of 36 feet. There is curb and guttering and some sections with parking lanes within Odon. The SR 58 right-of-way varies from a maximum of 125 feet to a minimum of 30 feet.

The roadway along SR 358 through Davie County varies from a minimum width of 18 feet to a maximum width of 26 feet. There is curb and guttering within Plainville, but there are no sections with parking lanes. The SR 358 right-of-way varies from a maximum of 76 feet to a minimum of 58 feet.

The roadway along SR 558 through Davie County is 24 feet wide. There are no sections with curb and guttering or parking lanes. The SR 558 right-of-way is 88 feet wide.

The roadway along SR 645 through Davie County is 24 feet wide. There are no sections with curb and guttering or parking lanes. The SR 645 right-of-way is 80 feet wide.

b. Bikeways/Walkways

There are no separate bikeways/walkways in Davie County. The urban areas of Davie County generally have sidewalks in the downtown areas and in older residential areas. Because of the traffic volumes and speeds on the major and minor arterials, bicycles and automobiles would not easily co-exist in Davie County.

5. TRAFFIC VOLUMES

Traffic counts in Davie County were completed by the Indiana Department of Transportation (INDOT) in 1997, 2001, and 2005. These counts covered US 50, US 231, SR 57, SR 257, SR 58, SR 358, SR 558, and SR 645. In general, a significant change in traffic volumes has not been observed from 1997 to 2005. Some locations show a slight increase over time, while others show a decrease. The exception is on SR 57 from CR 150S to Walnut Street in Washington. Along this stretch of SR 57 traffic volumes decreased by almost half from 1997 to 2001 and showed a slight increase from 2001 to 2005. Figure 33 shows the traffic counts at these locations.

6. ROADWAY IMPROVEMENTS

a. Improvement Types

Roadway improvements fall into two major categories: “preservation” projects and “expansion” projects. Preservation projects involve improvements to maintain the existing capacity of the roadway system such as:

- roadway resurfacing and bridge rehabilitation projects;
- safety projects like low-cost intersection improvements, minor horizontal and vertical realignments, signalization improvements, guardrail and marking improvements;
- pavement and bridge reconstruction/replacement projects; and
- transportation enhancement projects such as bikeways, walkways, landscaping and historic transportation structure preservation efforts.

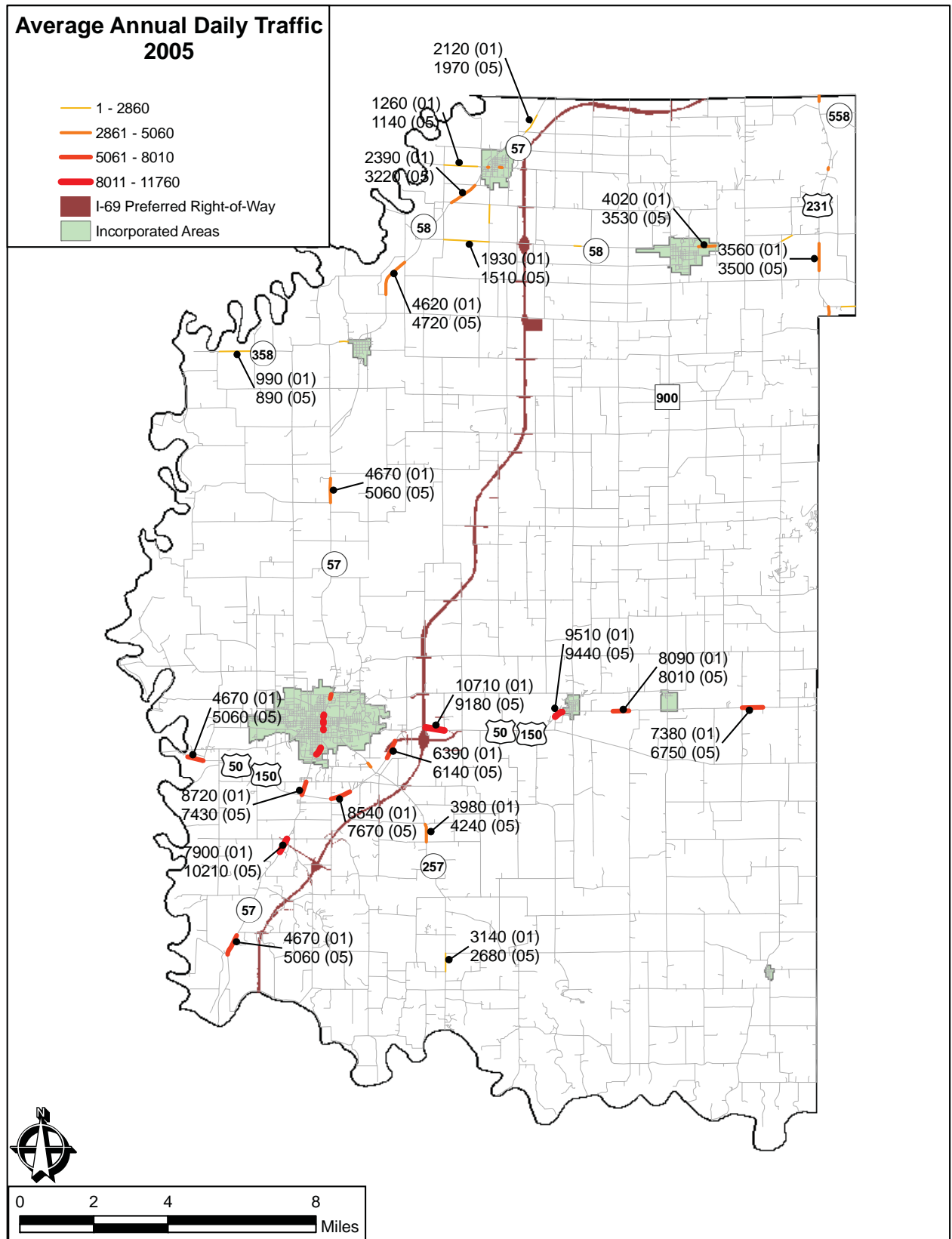
Expansion projects are improvements that add capacity to the roadway system such as:

- major roadway widenings (adding lanes);
- new roadways and roadway extensions;
- major roadway alignments; and
- new freeway interchanges.

b. Planned Roadway Improvements

Planned roadway improvements are found in the Indiana 25-Year Long Range Transportation Plan that was updated in 2007 and the Major Moves 2006-2015 Construction Plan. The Long Range Transportation Plan focuses on expansion projects (i.e., added travel lanes, new road construction, interchange modifications,

Figure 33: Average Annual Daily Traffic



and new interchange construction). Major Moves includes new construction projects, major preservation projects, and resurfacing projects. The Indiana Statewide Transportation Improvement Program (INSTIP) draws individual expansion projects from the Long Range Transportation Plan and Major Moves, and identifies individual or groups of preservation projects.

The 25-Year Long Range Transportation Plan includes four funded long range plan projects and one unfunded long range plan project in Daviess County. The LRP ID numbers for the projects are: 365, 366, 367, and 368. All four projects are for construction of new, four-lane I-69 segments. Project 365 would be from 9.8 miles south of US 50 (the Daviess County line) to US 50. Project 366 would be from US 50 to 8.3 miles north of US 50. Project 367 would be from 8.3 miles north of US 50 to 8.4 miles south of US 231. Project 368 begins inside of Daviess County and ends in Greene County. The section is from 8.4 miles south of US 231 to US 231 near Crane Naval Center. All four projects are a part of the 2011-2015 funding period.

The unfunded long range plan project is LRP ID Number 333. The project would widen US 50 (from two to four lanes) from east of Washington at CR 200E to the US 231 junction at Loogootee in Martin County.

Major Moves has one project within Daviess County. There is a major preservation project scheduled for US 50 from 7.56 miles west of US 231 to 6.66 miles west of US 231 (the start date is listed as 2008).

The INSTIP for 2008 through 2011 includes eight projects for Daviess County that include hot mix asphalt (HMA) pavement rehabilitations, intersection improvements, a small structure replacement, and bridge replacements and new bridge constructions. Bridge replacements are scheduled for SR 257 at Veale Creek and SR 58 2.3 miles east of SR 358.

7. I-69

For Section 1 of I-69 from I-64 to SR 64, construction began on the first segment from I-64 to SR 68 (1.77 miles) on July 16, 2008. The balance Section 1 from SR 68 to SR 64 near Oakland City is currently under design, and funding is programmed for construction by the year 2010 according to the Indiana Department of Transportation (INDOT) 2030 Long Range Transportation Plan.

Section 2 of I-69 from SR 64 to US 50 and Section 3 of I-69 from US 50 to US 231 have been programmed for construction by the year 2015. The Draft Environmental Impact Statements for these two sections were released on February 9, 2009 for public hearings on March 19th and 26th, respectively. Section 4 of I-69 from US 231 to SR 37 in Bloomington is included in the INDOT 2030 Long Range Transportation Plan as an illustrative project dependent on innovative funding (i.e., the source of funds yet to be identified).

Within Daviess County, interchanges are proposed on I-69 at:

- SR 57 (near Daviess County Road 375S) for south Daviess County access (seven miles north of the Blackburn Road interchange and five miles south of the US 50 interchange),
- US 50 (east of Washington roughly on the alignment of CR 250E), and
- SR 58 (in the vicinity of CR 500E).

Northeast of Daviess County, an interchange is also proposed at US 231 just north of the US 231-SR 45/58 intersection in Greene County, near the Crane Naval Surface Warfare Center. On February 9, 2009, INDOT indicated that the south Daviess County interchange may be deferred in the initial construction of I-69 to be built at a later date.

When proposed I-69 crosses the East Fork of the White River into Daviess, the proposed crossroad treatments are as follows:

- CR 700S to be grade-separated,

- CR 550S to be grade-separated,
- CR 450S to be grade-separated,
- CR 125W to be relocated (east and west of I-69, but closed at I-69)
- CR 50W to be grade-separated,
- CR 375S to be interchanged with connector from Horrall Road to CR 50W, SR 57 and CR 300S,
- CR 300S to be relocated tying into Troy Road north and south of I-69,
- CR Troy-Horrall Road to be grade-separated,
- CR 250S to be closed,
- CR 125E to be grade-separated,
- SR 257 to be grade-separated,
- CR 150S to be relocated tying into SR 257 east of I-69,
- CR 200E to be relocated to provide connection from relocated US 50 to Old US 50,
- Relocated US 50 to be interchanged,
- CR 100N to be grade-separated,
- CR 200N to be grade-separated,
- CR 250E to be relocated west of I-69 for continuity from CR 200N to CR 350N,
- CR 350N may be grade-separated but considered for closing in FEIS,
- CR 350E to be grade-separated,
- CR 450E to be grade-separated,
- CR 550E to be grade-separated,
- CR 750N may be grade-separated but considered for closing in FEIS,
- CR 800N may be grade-separated but considered for closing in FEIS,
- CR 900N may be grade-separated but considered for closing in FEIS,
- CR 1000N to be grade-separated,
- CR 1100N to be closed,
- CR 1200N to be grade-separated,
- CR 1250N to be closed,
- SR 58 to be interchanged,
- CR 500E to be closed,
- CR 1400N may be grade-separated but considered for closing in FEIS,
- CR 1500N to be grade-separated,
- CR 1550N to be closed,
- CR 1600N to be closed,
- CR 600E to be closed,
- CR 700E to be grade-separated,
- CR 800E to be closed
- CR 900E to be grade-separated, and
- CR 1000E to be closed.

C. UTILITIES

1. INTRODUCTION

The utility infrastructure of the community is essential to supporting urban activities in the community and includes the water treatment and distribution system, the liquid waste treatment and collection system, the stormwater collection, and the electric, gas, and communications utilities.

2. WATER TREATMENT AND DISTRIBUTION SYSTEMS

All water utilities in Daviess County were contacted for information about their water treatment plant and distribution system. Municipally-owned water utilities serve Washington, Elnora, Montgomery and Odon. Alfordsville, Cannelburg and Plainville purchase water from other sources. Daviess County Rural Water purchases treated water from the Washington Water Works, and serves about 5,900 people in rural areas of Daviess County. The Eastern Heights Utilities in Bloomfield serves the far northeast corner of Daviess County where the WestGate @ Crane Technology Park is located.

a. Water Treatment and Existing Capacity

Washington, Montgomery, Elnora and Odon have their own water treatment plants for ground water extracted from their individual well fields. Alfordsville purchases water from the Dubois Water Company, which treats the water. The Washington water treatment plant has a maximum capacity of ten million gallons per day (MGD). On average, 3.5 MGD to 4.5 MGD of water is used in Washington. The exact capacity at the Montgomery water treatment plant was unknown, but is adequate for the existing average daily usage of 90,000 gallons per day, and projected growth of the community. The capacity at the Elnora water treatment plant is approximately 100,000 gallons per day and average daily usage is 40,000 gallons per day. The Odon water system draws ground water from three wells near the intersection of SR 58 and CR 500E and treats the water for about 1,376 persons.

b. Distribution System

The water distribution system in Washington covers the entire city, plus a two-mile fringe area. The service area of the Montgomery water treatment plant includes the town and a small fringe area. The service area of the Elnora water treatment plan includes only the area within the town limits. Alfordsville distributes the water it purchases from the Dubois Water Company to residents of the town only. Cannelburg and Plainville are assumed to provide water that they purchase to customers inside their incorporated areas only.

c. Water Storage

In Washington, water is stored in three water towers and two clean wells. Altogether, there is a capacity of six million gallons of water that can be stored. Montgomery and Elnora each have a single water tower. The Montgomery water tower has a capacity of 300,000 gallons. The Elnora tower has a capacity of 35,000 gallons. Because Alfordsville purchases its water, they do not have any water towers or wells for storage. The situation in Plainville and Cannelburg is presumed to be similar in Alfordsville.

d. Water System Improvements

Improvements were recently completed for the water and wastewater treatment plants in Washington. The water treatment plant made a switch from chlorine to UV treatment. No other major improvements have been made to any of the water treatment plants.

e. Future Water Needs

Current water usage in all of these communities is less than half of the capacity. The existing water treatment plants will be sufficient for the anticipated population growth in these communities. However, water line extensions and improvements will likely be needed to serve future development outside existing incorporated areas.

3. LIQUID WASTE TREATMENT AND COLLECTION

All sewer utilities in Davie County were contacted for information about their water treatment plant and distribution system. Washington, Elnora, Montgomery, Odon and Plainville provide a centralized waste water treatment system for their residents. Residents of Alfordsville and Cannelburg are all on septic tanks. Montgomery is served by a sewage lagoon system.

a. Sewage Treatment Plant and Capacity

Washington, Elnora, Odon and Plainville each have a sewage treatment plant. The capacity of the Washington sewage treatment plant is six MGD. The current average daily usage is four MGD. The Elnora treatment plant has a capacity of 100,000 gallons per day, with current usage of 40,000 gallons. In addition to the town, the Elnora waste water treatment plant serves the North Davie County School Complex. Odon’s system has a capacity of 240,000 gallons per day and a usage of 150,000 gallons per day. Plainville’s waste water treatment plant has a capacity of 80,000 gallons per day and a utilization of 22,000 gallons per day. Montgomery has a lagoon system for its sewage treatment consisting of two five-acre ponds. The capacity of the lagoon system is 1.6 MGD. Current average daily usage is 90,000 gallons per day.

b. Sewage Collection System

The sewage collection system in Washington covers the entire city, plus a two-mile fringe area. The service area of the Montgomery sewage collection system includes the town and a small fringe area. The Elnora sewage collection system covers only the area within the town limits.

c. Sanitary System Improvements

Improvements were recently made to the Washington sewage treatment plant, including an added centrifuge and lift station. Repairs were also recently made at the lagoon in Montgomery. Other repairs were made to the Montgomery collection system include rehabilitation of a lift station and repairs to control infiltration problems. Elnora is seeking grants to make improvements to their treatment plant. All three of these communities have problems with inflow and infiltration and should work to decrease this issue.

4. STORM WATER DRAINAGE

Washington is the only community with a combined sanitary and storm water sewer. Montgomery, Elnora, and Alfordsville all have ditches for the removal of storm water.

5. OTHER UTILITIES

Duke Energy provides electricity to most of Davie County. Electric power is supplied by four organizations in the county. Washington Light & Power serves Washington and Montgomery. PSI Energy/Cinergy serves Elnora, Odon and Plainville. Davie-Martin REMC (Hoosier Energy network) serves rural areas and communities. Utilities District of Western Indiana (Hoosier Energy network) serves rural areas and communities in North Eastern Davie County.

Vectren supplies natural gas service to most of Davie County including Washington, Montgomery and Cannelburg. A small portion of northern Davie County receives natural gas from Midwest Natural Gas

including Elnora, Odon and Plainville. There are a few internet and phone providers throughout Davie County, including the Davie-Martin County RTC, AT&T, and Smithville Telephone. Charter Communications provides internet, cable television, and phone service in Davie County.

6. SOLID WASTE DISPOSAL

The City of Washington Street Department provides trash pick-up service for residents of Washington. Davie County residents not living in Washington must hire a private hauler to pick up trash or take it to a Davie County Solid Waste Management District location. The Davie County Solid Waste Management District also accepts recyclables. The Davie County Landfill is located about 1.5 miles north of US 50 near the center of the county.

D. COMMUNITY FACILITIES

1. INTRODUCTION

Community facilities are the recreation, education, government, medical, institutional and cultural facilities that provide services and amenities to the residents of Davie County. These facilities provide essential services as well as other services that affect the quality of life in the community.

2. RECREATION FACILITIES

a. Existing Facilities

There are several recreational facilities located in Davie County. The Glendale State Fish and Wildlife Area covers the most recreational land in the county and may be used for hunting and fishing. West Boggs Park, which is split between Davie and Martin County, offers camping and fishing opportunities to residents. Davie County recreational facilities and amenities can be found in Table 9.

b. Park Land and Recreation Facilities Standards

Parks are functionally classified according to the population they serve: neighborhood, community or regional.

Neighborhood parks are oriented toward the surrounding neighborhood, and provide a multi-purpose area with playground facilities for young children, court sports (e.g., basketball, tennis, volleyball) for older children and picnic areas within walking distance of where they live. Neighborhood parks focus on active recreation facilities for abutting residential areas, but also address passive recreation activities such as walking, picnicking, sitting and viewing. For neighborhood parks, the service area radius is one-quarter mile (1,320 feet) reflecting an acceptable or convenient walking distance for 85 percent of the people. For access by bicycle, the park service radius may be increased to one-half mile which is also the maximum walking distance. The National Recreation and Park Association suggests that a community should have at least 1.25 to 2.5 acres of neighborhood parkland per 1,000 people.

Community parks provide for the recreational needs of the larger community and include field sports facilities (e.g., baseball, softball, football and soccer fields) in addition to the facilities commonly found at neighborhood parks. Community parks also focus on active recreation facilities for the community, but may also have some passive recreation facilities. For community parks, the service area radius is one-quarter mile for playground and court sports facilities, and one to two miles for field sports activities. One-half mile is considered the upper limit for walking and is considered a convenient biking distance to recreational facilities. Greater distances involve the automobile as the primary means of access. Community parks may include community centers, indoor gyms, outdoor stages and swimming pools as well as major picnic facilities. The National Recreation and Park Association suggests that a community should have five to eight acres of community parkland per 1,000 people.

Table 9: Daviness County Recreational Facilities

Veale Elementary School - Ten Acres	
One Shelter	One Playground
One Picnic Area	Two Softball Fields
Flat Rock Public Access Site	
Connects to the East Fork of White River	
Glendale State Fish and Wildlife Area 8,060 Acres (1,400 acres of which is water)	
20 Picnic Areas	Campground
Archery Range	Visitor Center
Boat Ramp	
Country Oaks Golf Club - 156 Acres	
18-Hole Golf Course	
Barr-Reeve Elementary School - Two Acres	
One Playground	One Basketball Court
Barr-Reeve Junior/Senior High School - 13 Acres	
One Shelter	One Playground
Five Tennis Courts	Lighted Softball Field
Two Baseball Fields (one lighted)	Four Lighted Basketball Courts
Montgomery Ruritan Park and Playground 50 Acres (26 acres of which is water)	
Two Shelters	One Volleyball Court
One Picnic Area	Campground
Two Playgrounds	Band Shell
One Basketball Courts	Concession Center
West Boggs Lake - 621 Acres (621 acres of which is water)	
Evans Memorial Park (Raglesville Lions Club) - Four Acres	
One Shelter	Two Lighted Basketball Courts
One Picnic Area	Two Horseshoe Pits
One Playground	
Raglesville Elementary School - Seven Acres	
One Playground	One Softball Field
Odon Park - 55 Acres	
Four Shelters	Three Lighted Baseball Fields
One Playground	Four Basketball Courts
One Lighted Tennis Court	Two Horseshoe Pits
North Daviness Junior/Senior High School - 15 Acres	
One Basketball Court	Two Basketball Courts
Two Softball Fields	
Daviness County Fairgrounds - 34 Acres	
One-Shelter	Multiple Picnic Areas
Elnora Park - 6.44 Acres	
One Shelter	One Picnic Area
Two Tennis Courts (one is lighted)	One Playground
Two Horseshoe Pits	One Lighted Basketball Court

Daviness County Recreational Facilities Cont.

Elnora White River Access Site - 1.64 Acres	
One Picnic Area	One Boat Facility
Plainville Elementary School - Four Acres	
One Football Field	One Softball Field
One Playground	Four Basketball Courts
Plainville Lion's Club Park - 16 Acres (Private)	
One Playground	One Lighted Softball Field
One Shelter	One Picnic Area
Carnahan White River Public Access Site - 2.24 Acres	
One Boat Facility	
1000 Acre Woods Nature Preserve - 933.68 (Private)	
The Nature Conservancy	
Washington White River Public Access Site - One Acre	
One Boat Facility	

Regional or metropolitan parks address outdoor recreation activities such as picnicking, boating, fishing, swimming, camping and hiking. These parks concentrate on passive recreation facilities and active recreation facilities that are unique to the region. The primary means of access to regional parks is by automobile. Regional parks contain 200 or more acres and are required to have five to ten acres per 1,000 people. The National Recreation and Park Association suggests that a community should have 15 to 20 acres of regional/metro parkland per 1,000 people.

c. Park Land and Recreation Facility Adequacy

Neighborhood Parks and Community Parks should be provided by the incorporated communities in Daviness County. The county should supply enough regional parkland for all of the county’s citizens. The existing fish and wildlife area, forests, and state park provide a sufficient amount of regional parks that include passive recreational opportunities. Most of these recreational facilities are located in southern and eastern Daviness County. Additional regional or community parkland may be beneficial in the county to supply more active recreational opportunities, such as soccer fields, baseball fields, basketball courts, and other active recreational facilities. These parks should be located away from existing facilities to provide recreational opportunities for other citizens.

3. EDUCATION FACILITIES

Daviness County includes three public school districts and five private schools. The Washington Community School Corporation is the largest of the three corporations in terms of students. According to the Indiana Department of Education, there were 2,461 students enrolled for the 2006-2007 school year in the Washington Community School District. The corporation includes the Griffith Elementary School, Lena Dunn Elementary School, North Elementary School, Veale Elementary School, Washington Junior High School, and Washington High School. Washington Junior High School and Washington High School are located off of US 57 and East Walnut Avenue. The remaining schools are dispersed throughout the city.

The North Daviness School Corporation had a total student enrollment of 1,131 during the 2006-2007 school year. This corporation includes the North Daviness Elementary School and the North Daviness Junior/Senior High School. The two schools are located next to each other on SR 58 southeast of Elnora.

The Barr-Reeve Community School District had a total student enrollment of 744 during the 2006-2007 school year. This corporation includes the Barr- Reeve Elementary School, Barr-Reeve Intermediate School and Barr-Reeve Junior/Senior High School. Barr-Reeve Junior/Senior School is located just outside of Montgomery's city limits on the northwest side. The rest of these schools are located within the town of Montgomery.

There are several private schools located in Washington. Four out of the five private schools have religious affiliations; Grace Christian School (Baptist), Trinity Holiness Academy (Methodist), Washington Catholic Elementary School (Roman Catholic) and Washington Catholic High/Middle School (Roman Catholic). Twin Rivers Vocational School is not a state accredited school.

4. GOVERNMENTAL FACILITIES

Washington is the county seat of Daviess County. The Courthouse is on the corner of East Walnut Street and Northeast 3rd Street. There is also the Daviess County Jail and Daviess County sheriff's office which is on Northeast 4th Street. The Daviess County Highway Department office is located on East 100 North near Montgomery.

There are three public libraries in Daviess County. Carnegie Public Library is located at 300 W. Main Street in Washington. The Winklepleck Public Library is located at 202 W. Main Street in Odon. The Plainville Public Library is located at 255 E. Main Street. Each library offer a variety of services such as youth storytelling and craft classes, genealogy research classes, and computer classes.

5. MEDICAL FACILITIES

The Daviess Community Hospital in Washington is the only hospital in Daviess County. It is located on the east side of Washington. The hospital is an 86-bed facility that offers a variety of services including emergency care and specialty services.

Martin County and Pike County are the only counties neighboring Daviess County that do not have a hospital. Good Samaritan Hospital is the closest hospital with a trauma center and is located in Vincennes. Good Samaritan Hospital is a 192-bed medical facility that provides acute care treatment. There are also hospitals located in Sullivan, Linton and Jasper.

Chapter 4: Community Issues

A. LAND USE PLAN COMMITTEE MEETING

On Wednesday, September 3, 2008, urban planners from Bernardin, Lochmueller and Associates, Inc. met with the Daviess County Land Use Plan Committee at the Washington City Hall. This meeting included a review of the plan development process, the content of the proposed plan, and the schedule for preparation of the plan. Members of the committee reviewed and revised the proposed community survey which was later mailed to citizens of unincorporated Daviess County. An exercise was also completed during the meeting to determine the growth and development issues of the county. Each committee member was given an opportunity to list the issues they believed were important to Daviess County. The committee then scored these issues by importance, giving higher scores to those issues they felt were most important. The top ten issues were included in the community survey, and additional issues were added as survey size permitted. The committee ranked these issues as follows (the score given to each issue is in parentheses):

1. Need to encourage improvements to the county roadway system including the maintenance of the existing roadway system as well as making necessary improvements such as reducing the number of gravel roads. (51)
2. Need to encourage the identification of specific road corridors to provide direct access for industrial sites to identified interchanges. (39)
3. Need to encourage the designation of potential industrial sites in logical areas of the county. (26)
4. Need to encourage expanded sewage treatment service areas and capacity to serve anticipated growth and development (for all five existing wastewater treatment providers in the county). (25)
5. Need to encourage industrial infrastructure development to create shovel-ready sites with an emphasis on water (especially for fire protection) and wastewater utilities. (21)
6. Need to encourage residential development, both single-family units and multi-family units to serve anticipated population growth. (11)
7. Need to encourage motorized and non-motorized vehicular east/west access across Interstate 69 in order to maintain safe and continuous traffic flow throughout the county. (11)
8. Need to encourage the development of a county-wide mixed-use traffic plan that accommodates motorized, non-motorized and pedestrian traffic. (8)
9. Need to encourage the identification of additional stormwater drainage facilities (ditches, streams, etc.), jurisdictional management responsibilities and necessary management techniques. (7)
10. Need to encourage the enhancement and increased utilization of existing railway lines. (7)
11. Need to encourage expanded service areas for existing water utilities. (6)
12. Need to encourage expanded electronic services, including but not limited to fiber optics, T1 lines, and high speed internet service. (6)
13. Need to encourage the identification of additional Amish attractions to increase tourism opportunities. (3)
14. Need to encourage local leaders to improve communications with INDOT in order to expand access opportunities to state highways for commercial and industrial development. (3)
15. Need to encourage improvements to existing recreational facilities and tourism destinations. (2)
16. Need to encourage development of greenway paths throughout the county for walking, jogging and biking. (1)
17. Need to encourage the development of additional medical facilities to serve residents throughout the county. (0)
18. Need to encourage development of a comprehensive county-wide public transportation service with a set schedule. (0)

B. COMMUNITY SURVEY

As part of the land use plan process, 3,329 surveys were sent out to residents of Daviess County by direct mail to specific rural routes on Wednesday, October 8, 2008. Residents were asked to fill out the survey and mail it back to Bernardin, Lochmueller and Associates, Inc. The completed surveys began arriving on October 10 and were collected through November 26, 2008. The results of the surveys were used to determine community issues that need to be addressed in the comprehensive plan. Just over six percent (207) of the surveys

were completed and returned. Table 1 shows a list of issues from the survey, composite scores, and percent agreement with the issues. The survey that was sent can be found in Appendix B.

C. COMMUNITY LEADER INTERVIEW

In addition to the surveys, community leaders were interviewed by phone about current and future growth in Daviess County. Community leaders are those persons representing one of eight interest groups including Business and Industry, Financial, Real Estate, Developers and Builders, Civic Leaders, Education, Religious and Other Interest Groups.

Of the leaders selected to be interviewed, 16 people were available and agreed to discuss current and future growth in Daviess County. In the various categories, the number of respondents equaled: two (2) from Industry and business, two (2) from Banking and Financial, two (2) from Real Estate, three (3) from Developers and Builders, one (1) from Civic Leaders, two (2) from Education, two (2) from Religious, and two (2) from Other Interest Groups.

1. CURRENT ASSETS TO GROWTH AND DEVELOPMENT

A large number of respondents commented that county leadership and elected officials are assets to growth and development. One person feels the relationship between elected officials and the business sector was integral to the county's success in attracting industry. Respondents also value the efforts of the economic development leaders. Many respondents mentioned the importance of Crane NSWC to area growth and development as well as the opportunities made possible by the new WestGate @ Crane Technology Park. The positive attitudes of the public, the quality of the schools, and the work ethic of the county's workforce were mentioned by several respondents. Other assets included: the agriculture industry, the small business community and existing employers like Olon Industries, the presence of a local hospital and airport, adequate lodging, recreation opportunities like the golf course, the availability of tax credits to attract new business and tax rates, available land and builders, the proximity to Vincennes University, the rural atmosphere, the county's geographic location, the anticipation of I-69, the coal and natural gas industries, the beauty and the quality of life.

2. CURRENT OBSTACLES TO GROWTH AND DEVELOPMENT

Lack of interstate access was the most often cited obstacle among respondents. In fact, nearly half of the respondents feel the anticipated I-69 project is overdue. The only other obstacle mentioned by more than one person is the public's attitude and a feeling that the vocal minority often defeats efforts to bring about growth and development. Other obstacles included: leadership and excessive government involvement in private business, including unnecessary red tape, lack of high paying jobs, the perception that the county is not a destination location, lack of big city amenities, land prices, inadequate training among the workforce, lack of vision, lack of railroad, limited infrastructure, growing poverty, and lack of local post-secondary education.

3. DESIRES FOR FUTURE GROWTH AND DEVELOPMENT

Five respondents desire to see I-69 built as soon as possible. One respondent expressed a desire to see the interstate reach Daviess County by 2012. Three respondents feel additional infrastructure improvements should be made in preparation for the interstate. Other respondents hope for continued growth at the WestGate @ Crane Technology Park and the welfare of Crane NSWC. Respondents desire good paying jobs and jobs at all skill levels, more manufacturing, diversified industry, and opportunities to compete for big industry. Respondents also desire county-wide zoning and land use planning. Other desires include: warehousing and distribution, protecting the rural nature of the area, higher graduation rates, and more business tax incentives.

Table 10: Community Survey Results

	Composite Score	% Strongly Agree	% Somewhat Agree	% Somewhat Disagree	% Strongly Disagree	Did not Respond
Strongly Agree (1.0 - 1.5)						
Need to encourage improvements to the county roadway system, including the maintenance of the existing roadway system as well as making necessary improvements such as reducing the number of gravel roads..	1.4	71.4%	20.9%	4.4%	1.7%	12.5%
Need to encourage motorized and non-motorized vehicular east/west access across Interstate 69 in order to maintain safe and continuous traffic flow throughout the county.	1.4	72.8%	15.5%	4.9%	3.4%	13.8%
Need to encourage the designation of potential industrial sites in logical areas of the county.	1.5	58.7%	29.6%	5.3%	2.9%	14.2%
Somewhat Agree (1.6-2.4)						
Need to encourage the identification of specific road corridors to provide direct access for industrial sites to identified I-69 interchanges.	1.6	55.8%	30.1%	6.3%	3.4%	14.7%
Need to encourage local leaders to improve communications with INDOT in order to expand access opportunities to state highways for commercial and industrial development.	1.6	51.9%	35.9%	4.4%	3.4%	14.7%
Incentives are needed to attract new industries to Daviess County.	1.6	58.3%	22.3%	9.7%	4.7%	15.1%
Need to encourage industrial infrastructure development to create shovel-ready sites with an emphasis on water (especially for fire protection) and wastewater utilities.	1.7	47.1%	35.9%	8.7%	3.4%	15.1%
Need to encourage expanded electronic service, including but not limited to fiber optics, T1 lines, and high speed internet services.	1.7	47.1%	35.0%	9.2%	3.4%	15.5%
Need to encourage the development of a county-wide mixed-use traffic plan that accommodates motorized, non-motorized and pedestrian traffic.	1.7	45.6%	37.9%	9.2%	3.0%	14.7%
Daviess County needs to build on existing attractions.	1.7	37.9%	45.1%	7.3%	3.0%	16.8%
Need to encourage improvements to existing recreational facilities and tourism destinations.	1.8	35.0%	51.9%	5.8%	2.6%	15.1%
Need to encourage the identification of additional stormwater drainage facilities (ditches, stream, etc.), jurisdictional management responsibilities and necessary management techniques.	1.8	36.9%	44.2%	10.2%	2.2%	16.8%
Need to create additional incentives to aid in the growth of existing industrial and manufacturing businesses.	1.8	45.6%	32.0%	14.6%	3.9%	14.2%
Need to encourage enhancement and increased utilization of existing railway lines.	1.8	39.8%	41.3%	9.2%	4.3%	15.5%
Need to encourage expanded sewage treatment service areas and capacity to serve anticipated growth and development (for all five existing wastewater treatment providers in the county).	1.8	43.2%	35.9%	10.2%	6.0%	14.7%
Need to encourage expanded service areas for existing water utilities.	1.8	36.4%	41.7%	11.7%	3.4%	16.8%
Tourism needs to be better promoted.	1.9	26.2%	51.5%	12.6%	3.0%	16.8%
Need to encourage the development of additional medical facilities to serve residents throughout the county.	2.0	29.6%	44.2%	15.0%	6.0%	15.1%

	Composite Score	% Strongly Agree	% Somewhat Agree	% Somewhat Disagree	% Strongly Disagree	Did not Respond
Need to encourage residential development, both single-family units and multi-family units, to serve anticipated population growth.	2.1	21.8%	43.2%	23.3%	5.2%	16.4%
Need to encourage development of a comprehensive county-wide public transportation service with a set schedule.	2.2	22.3%	41.3%	22.8%	7.3%	15.9%
Need to encourage development of greenway paths throughout the county for walking, jogging and biking.	2.2	26.7%	36.9%	17.5%	11.6%	16.4%
Need to encourage the identification of additional Amish attractions to increase tourism opportunities.	2.3	17.5%	46.1%	18.9%	12.1%	14.7%
Mobile homes should only be located in mobile home parks or mobile home subdivisions.	2.4	31.6%	18.9%	19.9%	23.3%	14.2%

A. INTRODUCTION

1. FUTURE VISION

The future vision for the physical development of Daviess County for the year 2030 is reflected in the policy and objectives statements (and associated development review guidelines) of the community. These policies, objectives and guidelines serve as the basis for developing and evaluating future land use patterns for the community, and as the basis, in conjunction with the future land use map, for determining consistency of proposed development and infrastructure investments with the comprehensive plan.

2. DEVELOPMENT OF THE VISION

With the assistance of the Land Use Plan Steering Committee, the future vision for Daviess County was developed through a community survey, interviews of community leaders, a general public meeting, and written public comment. The initial input of the Land Use Plan Steering Committee, community survey, and community leader interviews helped identify growth and development issues of concern unique to Daviess County. These are documented in Chapter 4 of the comprehensive plan.

B. POLICIES AND OBJECTIVE STATEMENTS

Many people think of a comprehensive plan as only a future land use map. While a future land use map may be one of the end products of the comprehensive plan, it is not the foundation of the plan. Throughout the Midwest (including Indiana and surrounding states), the foundation for a comprehensive plan is the future vision for the community as expressed in goals, objectives, principles, policies, or guidelines. The Indiana state enabling legislation for comprehensive planning (I.C. 36-7-4-500) implicitly recognizes that a plan must be more than a map.

A well-designed plan is based on a set of objectives and policies. It is this collection of objectives and policies that is essential to good planning, not the map. Indiana's planning enabling statute recognizes this fact by requiring only three elements in a comprehensive plan. Indiana Code 36-7-4-502 states:

“A comprehensive plan must contain at least the following elements:

- 1) *A statement of objectives for the future development of the jurisdiction.*
- 2) *A statement of policy for the land use development of the jurisdiction.*
- 3) *A statement of policy for the development of public ways, public places, public lands, public structures and public utilities.”*

Governed by a well-enunciated set of objectives and policies, development decisions will be made in a predictable, orderly manner. While these objectives and policies are the foundation for the Daviess County Comprehensive Plan, the plan includes several other elements (including a land use development plan or future land use map, a transportation/thoroughfare plan, a utilities plan, a community facilities plan, an open space and recreation plan, and an environmental plan) to assist in the interpretation and application of the objectives and policies. These additional elements of the land use plan are expressly permitted by Indiana Code 36-7-4-502 and 506.

In determining consistency of a development proposal with the plan, the Daviess County Comprehensive Plan establishes two tests: Consistency with the future land use map and consistency with development guidelines. If the first test fails, the second test becomes paramount as the development guidelines are an expression of the development objectives and policies of the community.

The development policies and objectives that follow have been drafted to reflect the input of the community as expressed by the community survey, community leadership interviews, Land Use Plan Steering Committee and public comments expressed through workshops and hearings during the process.

1. VISION STATEMENT

Davie County strives to be a great place to live, work, and visit by embracing change that fosters economic development opportunities. Preserving unique historic, natural and rural features that foster a positive living environment, increasing quality employment opportunities, and promoting tourism are all high priorities.

2. LAND USE DEVELOPMENT POLICY

In implementing this comprehensive plan, the land use development policy of Davie County is to foster orderly growth and development that expands future employment opportunities and meets living needs of all people while maintaining the integrity of Davie County as a rural county and protecting its unique natural and man-made environmental assets. Economic development opportunities will be encouraged to expand job opportunities throughout Davie County, building on the transportation assets of US 50/150, SR 57, SR 58, rail, and future I-69. This policy will encourage the establishment and expansion of commercial facilities in an orderly and safe manner. This policy will promote land use practices designed to continue development of Davie County as a desirable place to live and work and to facilitate work places accessible to residential areas. Further, it fosters revitalization, rehabilitation, reuse, and redevelopment of residential and commercial properties where appropriate, to improve property values, stabilize public revenues, and enhance the visual appearance of the county. This policy encourages residential development that provides the appropriate mix of housing opportunities for all ages and incomes. Development will be encouraged to make the most efficient use of existing and planned infrastructure. The unique historic and natural assets of the community will be preserved and enhanced for the enjoyment of the community and to strengthen associated economic development opportunities, including tourism.

3. COMMUNITY INFRASTRUCTURE POLICY

In implementing this comprehensive plan, the community infrastructure policy of Davie County is to develop public ways, public places, public lands, public structures, and public utilities necessary to assure orderly and cost-effective development and to ensure the continued high quality of life for all citizens while protecting Davie County's historic heritage and its surrounding natural and scenic beauty. The Community Infrastructure Policy works to improve transportation facilities to provide improved access from businesses to proposed I-69 interchanges, to improve local circulation across the I-69 corridor for connectivity between residential areas and community facilities, between severed agricultural areas, and between residential areas and employment and commercial areas, and to improve access for emergency services, transportation to schools, public transportation and non-motorized travel. This policy promotes infrastructure improvement practices that emphasize maintenance and enhancement of existing facilities, and the expansion of facilities only when such an expansion addresses a specific need (such as the creation of marketable commercial and industrial sites for expanded employment opportunities) and improves the overall cost-effectiveness of the particular public infrastructure system (whether roads, sewers, waterlines, stormwater drainage, recreation facilities, etc.). Special consideration shall be given to the accommodation of non-motorized vehicles in all new or reconstructed roadways, particularly in and about the Amish community. Adequate infrastructure is necessary for all new and expanded development, and new development should justify the cost of infrastructure improvements that it necessitates whenever possible.

4. GOALS AND OBJECTIVES FOR FUTURE DEVELOPMENT

Goal 1 (Growth Management):

Promote appropriate and orderly development and growth throughout Davie County.

Objective 1.1: Encourage appropriate future commercial and industrial development to locate near the proposed I-69 interchanges at US 50 and SR 58.

Objective 1.2: Consider the creation of land use controls (zoning and subdivision ordinances) to

protect investment in properties and infrastructure, and to preserve the revenue base of the county.

- Objective 1.3:** Consider upgrading, widening and straightening CR 200E from a gravel road to a 24 foot paved road connecting US 50, the Daviess County Airport, and anticipated development.

Goal 2 (Economic Development):

Enhance economic development opportunities in areas appropriate for the expansion of commercial and industrial uses.

- Objective 2.1:** Identify and preserve industrial sites for business expansion, relocation, and attraction.
- Objective 2.2:** Ensure that adequate roadways are available at identified industrial sites that provide easy access to future I-69 interchanges.
- Objective 2.3:** Ensure that there is available and adequate access to State and U.S. Highways at identified commercial and industrial sites.
- Objective 2.4:** Provide incentive opportunities to attract and encourage new business and industry in Daviess County.
- Objective 2.5:** Provide adequate infrastructure to existing and proposed industrial and commercial sites to ensure suitable sites for immediate development (shovel ready sites).
- Objective 2.6:** Provide incentive opportunities to retain and assist in the expansion of existing businesses in Daviess County.
- Objective 2.7:** Enable the location of businesses and industries in and about the Amish community so as to minimize commuting distances for the Amish workforce.
- Objective 2.8:** In the event that US 50 is rerouted, utilize the vacated portion of US 50 for commercial/ industrial access road.
- Objective 2.9:** Consider expanding the boundaries of incorporated towns in Daviess County to enhance growth opportunities. In this way, the towns can support infrastructure, expansion and commercial, Industrial and residential development.

Goal 3 (Housing):

Ensure residential development that is compatible with existing residential areas, consistent with the rural character, preserves property values, provides opportunities for affordable housing, and serves all age and income groups.

- Objective 3.1:** Encourage residential development, both single-family and multi-family units, to serve anticipated population growth.
- Objective 3.2:** Encourage residential development for specific income levels such as subdivision development and gated communities.
- Objective 3.3:** Address decaying and blighted residential properties through a combination of incentive opportunities (such as low cost housing rehabilitation loans) and enforcement (such as building and property condition enforcement targeted at absentee property owners) while ensuring sensitivity to the economic capacity of the property owner.

- Objective 3.4:** Encourage the development of additional moderately priced housing in Daviess County.
- Objective 3.5:** Locate code-qualifying mobile homes (manufactured homes on a chassis that are not placed on a permanent foundation or may not exceed 16 feet in width or have a flat roof) in exclusive subdivisions with appropriate screening and buffering to ensure compatibility with surrounding land uses (particularly traditional single-family detached housing).
- Objective 3.6:** Permit manufactured homes and modular homes on lots in traditional single-family detached home areas provided the structures are compatible with surrounding homes by ensuring such homes have a minimal floor area, a permanent foundation, sloped roof with overhangs and other design features that give the appearance of a site-built home and meet existing land covenances.

Goal 4 (Environment):

Protect man-made and natural environmental features in Daviess County that contribute to the historic, natural, and rural character.

- Objective 4.1:** Determine the status of ownership of blighted/decaying properties and work with owners to enhance the appearance of these properties.
- Objective 4.2:** Identify and preserve the economically viable historic structures in Daviess County.
- Objective 4.3:** Facilitate the adaptive reuse of blighted/decaying historic structures through incentive opportunities (low interest rehabilitation loans, historic structure tax reductions, infrastructure improvements) while ensuring the reuse is compatible with surrounding land use.
- Objective 4.4:** Discourage development in areas subject to severe environmental constraints (floodplains, steep slopes, wetlands, significant natural wildlife habitats, etc.) and ensure any development in such areas minimize adverse environmental impacts.

Goal 5 (Transportation):

Preserve and enhance existing transportation corridors in Daviess County while providing new corridors to address congestion, to facilitate goods movement, and to stimulate economic growth.

- Objective 5.1:** Encourage improvements to the county roadway system, including the maintenance of the existing roadway system as well as making the necessary improvements such as reducing the number of gravel roads.
- Objective 5.2:** Encourage motorized and non-motorized vehicular east/west access across I-69 in order to maintain safe and continuous traffic flow throughout the county.
- Objective 5.3:** Identify and improve specific road corridors at identified industrial sites that provide easy access to future I-69 interchanges such as:
 - a. 550 N to 450E to 200N to 200E from the Amish Community to Washington at US 50 and the I-69 interchange
 - b. SR 57 from Business US 50 to US 50
 - c. 200E from the airport to US 50 and the I-69 interchange
 - d. Cannelburg Road (900E) from US 50 to SR 58 in Odon
 - e. Sr 57 from Business US 50 north to the Daviess County Line

- Objective 5.4:** Improve communications with INDOT to expand access opportunities to State and U.S. Highways for future commercial and industrial development.
- Objective 5.5:** Encourage the development of a countywide mixed-use traffic plan that accommodates motorized, non-motorized, and pedestrian traffic.
- Objective 5.6:** Ensure consideration is given to the accommodation of non-motorized vehicles (including horse drawn vehicles and bicycles) and pedestrians in all new or reconstructed roadways.
- Objective 5.7:** Encourage enhancement and increased utilization of existing railway lines.
- Objective 5.8:** Promote the RIDE Solutions county-wide public transportation service.
- Objective 5.9:** Encourage the development of greenway paths throughout the county for walking, jogging, and biking.
- Objective 5.10:** Encourage expansion and utilization of the county airport including lengthening of runways to accommodate larger aircraft.

Goal 6 (Utilities):

Ensure adequate availability of a sanitary sewer system, water distribution system, stormwater facilities, and other utilities for existing development while taking advantage of new growth opportunities that strengthen the economic performance of the public utilities and that support economic development initiatives.

- Objective 6.1:** Provide adequate infrastructure to existing and proposed industrial and commercial sites to ensure suitable sites for immediate development (shovel ready sites).
- Objective 6.2:** Encourage expanded telecommunication systems in the county, including but not limited to fiber optics, T1 lines, and high speed internet services.
- Objective 6.3:** Ensure that the county has appropriate natural or man-made drainage systems to adequately accommodate stormwater flows in all parts of the county.
- Objective 6.4:** Ensure that all jurisdictions in Daviess County understand their management responsibilities and improve management techniques of the water, wastewater, and stormwater systems in the county.
- Objective 6.5:** Encourage upgrades and expansions by the county's sewage treatment providers to ensure the service is adequate for existing businesses and residents and provides residual capacity to accommodate anticipated future development.
- Objective 6.6:** Consider alternative sewer systems that may be more appropriate in some areas of the county than the extension of existing lines.
- Objective 6.7:** Encourage the development of a long-term capital assets program (maintenance program) in Daviess County to ensure the effective use of financial resources for repairs to the county's infrastructure.
- Objective 6.8:** Encourage the County's multiple suppliers of water to improve the county's water filtration and distribution system to ensure the system is adequate for existing businesses and residents and provides residual capacity to accommodate anticipated future development.

- Objective 6.9:** Examine the financial policies regarding sanitary sewer and water line extensions tap-ins and lateral line extensions to ensure new development pays its own way and examine utility user rates on an annual basis to ensure sufficient revenues to operate and maintain existing capital investments.
- Objective 6.10:** Perform an annual review of sewer and water rates to ensure adequate short and long term revenue, to operate and maintain the existing systems.
- Objective 6.11:** Encourage the implementation of innovative green sustainable utility improvements, such as constructed wetlands for stormwater and wastewater management, solar and wind energy production, and bio-fuel production.
- Objective 6.12:** Encourage utilization and expansion of recycling opportunities, including the potential for capturing methane gases at the county-owned landfill.

Goal 7 (Recreation):

Preserve and enhance the parks and recreational facilities serving the residents of Daviess County.

- Objective 7.1:** Promote improvements and further utilization of existing parks and recreational facilities.
- Objective 7.2:** Maintain, rehabilitate, and replace existing facilities, and consider the addition of new facilities and activities at existing parks to meet Indiana Outdoor Recreation Standards.
- Objective 7.3:** Encourage the development of bicycle, walkway, and trail connections between education, recreation, and other community facilities throughout the county.
- Objective 7.4:** Consider the addition of more parks and public areas in Daviess County to offer residents more recreational opportunities.

Goal 8 (Tourism):

Preserve and enhance tourism opportunities throughout Daviess County.

- Objective 8.1:** Build on existing attractions in Daviess County to increase tourism opportunities, particularly those associated with the Amish community in the county.
- Objective 8.2:** Rehabilitate and replace existing facilities where needed at the county's existing tourism destinations.
- Objective 8.3:** Better promote the available tourist attractions in the county to attract residents of surrounding counties and inform Daviess County residents of what is available in their own county.

Goal 9 (Community):

Ensure adequate availability of entertainment, recreation, education, and medical services to meet all necessities for all residents and visitors of Daviess County.

- Objective 9.1:** Consider the addition of more medical care providers and urgent care facilities throughout the county.
- Objective 9.2:** Retain younger populations by increasing high-quality job opportunities and amenities in Daviess County.

- Objective 9.3:** Support a cooperative, continuing and comprehensive economic development program to retain and attract business to Daviness County.
- Objective 9.4:** Encourage improvements to existing recreational facilities and tourism destinations.
- Objective 9.5:** Promote the diverse cultures in Daviness County, such as the Amish population in the county.

Goal 10 (Government):

Encourage greater communication between county and nearby local governments and Daviness County residents to ensure the accomplishment of future goals.

- Objective 10.1:** Increase the coordination of community planning efforts in Daviness County.
- Objective 10.2:** Consider the creation of development standards such as zoning and subdivision regulations.
- Objective 10.3:** Improve and maintain an adequate tax base to support public expenditures.

C. GUIDELINES

In addition to the Land Use Development Policy Statement, the Public Infrastructure Policy Statement and the Development Objectives, the following guidelines are to be used to determine consistency of the proposed development and infrastructure investment with the plan.

1. LAND USE DEVELOPMENT

a. Residential Uses

R-1: Ensure new residential development is compatible with existing, abutting residential or non-residential development in size, height (not to exceed two stories), mass and scale.

R-2: Ensure adequate buffering and screening (fences, walls or other physical barriers, vegetation, or physical separation) or other techniques (location of structure, windows and balconies) that mitigate nuisances (automobile lights, outdoor lighting, illuminated signs, loud noises, vibration, dust, vehicle fumes, junk, outdoor storage, parking lots, etc.) when new residential development adjoins existing higher density residential uses or existing non-residential uses.

R-3: Encourage the design of new residential development to provide adequate lot sizes and shapes for housing, to preserve natural tree stands to the extent practical, to use natural drainage channels where possible, to discourage speeding and through-traffic on streets, and to provide amenities such as walkways, curbs, trees and vegetation (including street lights and curb-and-gutter when within and adjacent to incorporated areas and major non-incorporated area population concentrations).

R-4: Evaluate residential development on the basis of the following gross densities:

Low: Up to four dwelling units per acre.

Medium: Greater than four and up to eight dwelling units per acre.

High: Greater than eight and up to ten dwelling units per acre.

R-5: Limit residential development to the “low density” category a) when major access is not from a “collector” or “arterial” street or primary access passes through a “low density” residential area and b) when the site is, on, or adjacent to significant natural resources (prime agricultural lands, wetlands and wet soils and forested areas).

R-6: Limit residential development to the “medium” or “low” density category when the site has environmental constraints (wetlands, floodplains, steep slopes) other severe environmental limitations or a “collector” street is the highest available functional class for primary access to the site.

R-7: Locate “high” density residential development only where the major access point is to an “arterial” street and where the site is not affected by wetlands or within a floodplain, on steep slopes or affected by other severe environmental limitations.

R-8: Discourage dwelling unit densities in excess of ten dwelling units per acre and structures in excess of two stories.

R-9: Limit “medium” and “high” density residential structure types to no more than 12 dwelling units per structure.

R-10: Prohibit new residential development in the 100-year floodplain.

R-11: Allow manufactured homes and modular homes on lots created in older areas provided such homes are on permanent foundations and are compatible in size, mass and character of adjoining residential development.

R-12: Permit new mobile homes (manufactured home on a chassis that is never placed on a permanent foundation, or does not exceed 16 feet in width, or has a flat roof) in mobile home parks or mobile home subdivisions with appropriate screening and buffering to ensure compatibility with surrounding land uses.

R-13: Encourage innovative residential developments that mix housing types and densities with appropriate screening and buffering to ensure compatibility with surrounding land uses.

R-14: Permit innovative housing types and designs that enable infill housing on vacant lots while remaining compatible with adjacent residential uses.

R-15: Encourage the clustering of homes in prime agricultural areas to minimize the amount of land lost from agricultural production.

R-16: Encourage large lot, and very low density development when forests and wetlands are affected to minimize the adverse impact on such natural areas.

b. Office Uses

O-1: Encourage the location of offices in planned commercial centers and planned office centers, and as transitional uses from residential to retail uses when the office use involves the conversion of a residential structure or any new structure that has the character of the abutting residential use relative to size (not to exceed 10,000 square feet), height (not to exceed two stories), mass, scale, yards and parking to the rear or side.

O-2: Ensure office development is compatible with existing, abutting residential or other non-residential development in size, height (not to exceed two stories outside downtown), mass and scale.

O-3: Ensure adequate buffering and screening (fences, walls or other physical barriers, vegetation, or physical separation) or other techniques (location of structure, windows and balconies) that mitigate nuisances

(automobile lights, outdoor lighting, illuminated signs, loud noises, vibration, dust, vehicle fumes, junk, outdoor storage, parking lots, etc.) when new office development adjoins existing residential uses or residentially zoned areas, or adjoins other existing non-residential uses.

O-4: Ensure office building setbacks from all property lines, with parking location, signing and lighting that are compatible with any adjoining residential use.

c. Commercial Uses

C-1: Encourage the location of new commercial uses in planned centers, permit the expansion of existing commercial uses as long as the expansion is compatible with abutting uses, and permit the conversion of non-commercial structures to retail uses as long as the converted structure is compatible in character with abutting residential uses.

C-2: Encourage commercial uses serving residential areas (such as nondurable and convenient goods sales and personal services) to be located within or adjacent to residential areas.

C-3: Encourage commercial uses serving the greater community (such as durable goods sales, land-extensive uses, structures over 10,000 square feet and auto-oriented retail uses) to be located on “arterial” streets.

C-4: Ensure retail development is compatible with existing, abutting residential development or residentially zoned areas in size (10,000 square feet), height (not to exceed two stories), mass and scale.

C-5: Ensure adequate buffering and screening (fences, walls or other physical barriers, vegetation, or physical separation) or other techniques (location of structure, windows and balconies) that mitigate nuisances (automobile lights, outdoor lighting, illuminated signs, loud noises, vibration, dust, vehicle fumes, junk, outdoor storage, parking lots, etc.) when new or expanded commercial development adjoins existing residential uses or adjoins office uses.

C-6: Ensure commercial building setbacks from all property lines, with parking location, signing and lighting that are compatible with any adjoining residential use.

C-7: Limit outdoor storage and displays when commercial uses are adjacent to residential, office and other commercial uses.

C-8: Prohibit non-premises signs (i.e., billboards) in commercial areas.

C-9: Locate businesses serving or selling alcoholic beverages away from residential uses and community facilities such as parks, schools, public buildings, medical facilities, churches and other public/quasi-public institutions.

C-10: Confine adult entertainment or the sale of adult materials to industrial areas with adequate separation from residential, public recreation uses (parks and playgrounds), educational uses (schools and daycare centers) and institutional uses (libraries, museums, churches, etc.).

d. Industrial Uses

I-1: Encourage the location of new industrial uses in planned industrial centers or adjacent to existing industrial areas; and permit the expansion of existing industrial uses as long as the expansion is compatible with abutting uses.

I-2: Ensure adequate buffering and screening (fences, walls or other physical barriers, vegetation, or physical separation) or other techniques (location of structure, windows and balconies) that mitigate nuisances

(automobile lights, outdoor lighting, illuminated signs, loud noises, vibration, dust, vehicle fumes, junk, outdoor storage, parking lots, etc.) when new or expanded industrial development adjoins existing residential uses or residentially zoned areas, or adjoins other existing non-residential uses.

I-3: Ensure industrial building setbacks from all property lines, with parking location, signing and lighting that are compatible with any adjoining non-industrial use.

I-4: Prohibit the outdoor display or storage of materials in areas zoned for light industrial use.

I-5: Confine the commercial sale, repair and storage of trucks, trailers, modular homes, boats and farm equipment to industrial areas.

I-6: Allow industries in and about the Amish community to minimize the commuting distance for the Amish workforce.

e. Public/Quasi-Public Uses

P-1: Locate or expand public and quasi-public facilities where there is a demonstrated need.

P-2: Ensure public/quasi-public development is compatible with existing, abutting residential development in size, height (not to exceed two stories), mass and scale.

P-3: Ensure adequate buffering and screening (fences, walls or other physical barriers, vegetation, or physical separation) or other techniques (location of structure, windows and balconies) that mitigate nuisances (automobile lights, outdoor lighting, illuminated signs, loud noises, vibration, dust, vehicle fumes, junk, outdoor storage, parking lots, etc.) when new or expanded public/quasi-public uses adjoin existing residential uses.

P-4: Ensure public/quasi-public building setbacks from all property lines, with parking location, signing and lighting that are compatible with any adjoining residential use.

P-5: Give priority to the maintenance and improvement of recreation facilities at existing parks before acquiring additional park land.

P-6: Ensure the improvement of recreation facilities with a demonstrated need that serves the residents of Davie County and that does not duplicate other facilities in Davie County.

P-7: Improve pedestrian and bicycle access to and within existing parks, historic and nature areas.

P-8: Emphasize the expansion of existing parks over the acquisition of new parks to address the recreation needs of Davie County residents.

P-9: Take advantage of opportunities to expand parkland when such parcels become available adjacent to existing parks, provided such parkland meets a demonstrated need and can be adequately developed and maintained.

P-10: Where major population concentrations exist, provide neighborhood parks that are accessible (1/4-mile walking radius and 1/2-mile biking radius) to community residents ensuring the parks are of a minimum size (at least two acres) to accommodate typical neighborhood recreational facilities and to facilitate park maintenance.

P-11: Consider the reuse of playgrounds and parks that lack sufficient size to accommodate typical neighborhood recreational facilities and are poorly located relative to the residential areas being served.

2. DEVELOPMENT INFRASTRUCTURE

a. Transportation

T-1: Ensure all development and land use changes are served by adequate streets that have the capacity to accommodate the site-generated traffic.

T-2: Provide for the movement of pedestrians through the provision of walkways, trails and sidewalks for all new development; and enhance pedestrian access to educational and recreational facilities, to neighborhood serving retail and office uses, and to churches and other institutional uses.

T-3: Provide adequate right-of-way to accommodate required and anticipated roadway, non-motorized vehicles, walkway and bikeway improvements, utilities and landscaping through dedication; and is consistent with the functional designation and roadway cross section as defined by the thoroughfare plan.

T-4: Incorporate appropriate design features in new or reconstructed roadways to accommodate non-motorized vehicles (including horse drawn vehicles and bicycles) and pedestrians.

T-5: Provide adequate access to, from and through development for the proper functioning of streets, non-motorized vehicles, walkways and bikeways, and for emergency vehicles.

T-6: Avoid the creation of streets or traffic flows for higher intensity uses through low intensity use areas.

T-7: Ensure adequate access control, location and design of driveways along arterial streets to reduce vehicle conflicts and to preserve traffic carrying capacity while providing access to abutting properties.

T-8: Provide adequate off-street parking and loading for the type and intensity of proposed uses and for the mode of access to the development.

T-9: Give preference to the preservation of existing transportation facilities over the construction of new, extended or expanded transportation facilities.

T-10: Give priority to the provision of roadway infrastructure to areas of vacant industrial structures or land when projects that involve new or expanded transportation facilities are evaluated.

T-11: Emphasize low-cost capital improvements to streets to improve safety and facilitate the flow of delivery and service trucks such as minor widenings of town thoroughfares and pavement widenings at corners.

T-12: Confine through-trucks to collector and arterial streets.

T-13: Develop a strategy to preserve and construct new roadway corridors to relieve congestion, facilitate goods movement and foster economic growth.

b. Sewage Treatment and Collection System

S-1: Maintain the existing sewage treatment plant and sewage collection system so that they can adequately accommodate existing development.

S-2: Ensure all development and land use changes are served by an adequate centralized sanitary sewer system that has the capacity to accommodate the magnitude and type of the site-generated liquid waste effluent.

S-3: Take advantage of opportunities to strengthen the economic performance of the sewage treatment and collection system through new development tap-ins and minor trunk line extensions.

S-4: Examine the rate structure of the sanitary sewer system on an annual basis to ensure sufficient revenues to operate and maintain the system.

S-5: Examine the financial policies regarding sanitary sewer tap-ins and lateral line extensions to ensure new development pays its own way.

S-6: Prohibit any new development involving on-site sewage treatment systems (septic tanks with lateral field, holding pits, etc.) with the exception of industrial pretreatment facilities, residential and agricultural uses distant from incorporated areas.

S-7: Examine financial assistance programs for any low- and moderate-income households on septic systems to connect to a centralized sewer system.

S-8: Prohibit the connection of stormwater drains to the sanitary sewer system.

c. Potable Water Treatment and Distribution System

W-1: Ensure the water filtration plant and distribution lines are adequately maintained for existing development while taking advantage of new development tap-ins and minor main extensions that improve the economic performance of the drinking water system.

W-2: Examine the rate structure of the water treatment and distribution system on an annual basis to ensure sufficient revenues to operate and maintain the system.

W-3: Ensure all development and land use changes are served by adequate potable water facilities that have the capacity to accommodate the domestic and fire needs of the proposed development

d. Stormwater Drainage

D-1: Explore the management structures, capital costs and financing mechanisms associated with the improvement of natural and man-made drainage systems to adequately accommodate storm water flows.

D-2: Ensure adequate stormwater retention/detention facilities in conjunction with any new or expanded development to prevent increased water flows onto abutting property.

D-3: Examine the adequacy of flood protection facilities and define appropriate actions to address deficiencies.

3. ENVIRONMENTAL

E-1: Restrict development in the 100-year floodplain by prohibiting new or expanded structures except when no increase in flood elevation and velocity will result and when the area of floodwater storage will not be reduced.

E-2: Prohibit new residential dwellings in the 100-year floodplain unless the first occupied floor is above the 100-year flood elevation, utilities to the house have appropriate flood proof design, and year round access is available to the dwelling above the 100-year flood elevation.

E-3: Avoid alterations or significant modifications to natural stream channels unless flooding is reduced, any increase in erosion or flood velocity will not affect other areas, and only minor impacts will occur to wetlands or endangered species.

E-4: Use best management practices for erosion and sedimentation control during and after site preparation.

E-5: Buffer streams and lakes to prevent water quality degradation.

E-6: Protect, to the extent economically feasible, historic structures that have recognized historic, cultural and architectural value.

E-7: Protect, to the extent possible, areas of endangered species, wetlands, public parks, unique natural areas and other areas with significant natural features.

4. GOVERNMENT

G-1: Develop a comprehensive, coordinated and continuing economic development program for Daviess County for the retention and attraction of businesses.

G-2: Support the creation of more skilled and high-tech jobs in Daviess County by targeting basic industries with skilled and high-tech jobs and by providing the infrastructure and trained labor force to support such industries.

G-3: Promote effective communication between city and county governments, chambers of commerce and economic development organizations to market available and potential industrial and commercial sites for business retention and attraction.

G-4: Provide financial incentive opportunities (low interest loans, public infrastructure improvements and tax incentives) to encourage the reuse of vacant industrial, commercial, and office commercial structures and properties throughout Daviess County.

G-5: Develop appropriate marketing strategies to promote the assets of Daviess County to encourage economic development and to promote tourism.

G-6: Develop a program to provide adequate infrastructure to existing and proposed industrial and commercial sites to ensure suitable sites for immediate occupancy.

G-7: Work with educational institutions in the region to develop educational programs to train and retrain the labor force to match the workforce needs of emerging businesses.

G-8: Provide incentive opportunities (such as low cost rehabilitation loans) and enforcement (such as building and property condition enforcement targeted at absentee property owners) to address decaying, blighted, deteriorated or abandoned properties while ensuring sensitivity to the economic capacity of the residential property owner.

G-9: Determine the status of ownership of blighted/decaying properties and work with owners to enhance the appearance of these properties.

G-10: Provide incentive opportunities (low interest rehabilitation loans, historic structure tax reductions, infrastructure improvements, etc.) to encourage adaptive reuse of historic structures.

G-11: Provide incentive opportunities (such low cost interest loans and public infrastructure improvements) to improve the maintenance of older building exteriors.

G-12: Continue to implement programs to assist in housing maintenance, rehabilitation and new construction for low- and moderate-income families, the disabled and the aging population.

G-13: Develop a greenways plan to define the location and encourage the development of pathways for walking, jogging, biking and non-motorized vehicles in Daviess County.

