

**REAP Five-Year Plan, 2000-2005**  
**Jackson County, Iowa**  
**Jackson County Resource Enhancement and Protection Committee**  
**January, 2000**

**I. BACKGROUND**

A. Purposes and Policies of REAP:

The REAP program shall be a long term integrated effort to wisely use and protect Iowa's natural resources through the acquisition and management of public lands; the upgrading of public park and preserve facilities; environmental education, monitoring and research; and other environmentally sound means. The resource enhancement program shall strongly encourage Iowa residents to develop a conservation ethic, and to make necessary changes in our activities to develop and preserve a rich and diverse natural environment.

B. Makeup of the Jackson County REAP Committee:

The Jackson County REAP Committee was established in October, 1989 for the purposes of coordinating and reviewing resource enhancement program plans and projects, as outlined in the Iowa Code, section 455A.20.

The committee is comprised of representatives of organizations as outlined in the Iowa Code. The executive members of the committee are the Chair, the Vice Chair, and the Secretary. The committee meets at least three times per year, and operates under rules established by the committee.

C. History of Resource Enhancement and Protection in Jackson County:

Jackson County has had a long term commitment towards resource protection. Early in the century, the Soil Conservation Service (now known as the Natural Resources Conservation Service or NRCS) was established, as well as two State Parks - Bellevue State Park and Maquoketa Caves State Park. The Izaak Walton League was established locally in 1923. Federal land was acquired for construction of locks and dams for navigation on the Mississippi River in the 1930's. Water fowl, fish and wildlife protection became active in the 1940's. The Jackson County Conservation Board was established in 1959. The Jackson County Conservation Board environmental education program began in 1983 under the executive director. The program was expanded in 1985 with the hiring of a county naturalist.

#### D. Outdoor Recreation Planning Process:

The Jackson County Conservation Board (JCCB) has had a formal recreational planning process since its formation.

#### E. REAP Programs in Jackson County:

1. Open Spaces Account: Money from the this account has been used to purchase property to protect a cold air slope and associated federally protected species (Monks Hood and Pleistocene Snails). Open Spaces funds have also provided for wetland development at the Green Island Wildlife Area, park development at Maquoketa Caves State Park and additional land at Bellevue State Park.

2. State Land Management Account: Money from this account helped restore sections of hiking trails at the Maquoketa Caves State Park.

3. Conservation Education Board: Funds were awarded to St. Ambrose University in Davenport to conduct a summer teacher's in-service in Jackson County. The resulting curriculum materials have been given to all county schools, and made available as a model to other areas of the state. Teachers from Jackson County have had opportunities to attend REAP funded EE workshops. A series of booklets by the Iowa Association of Naturalists has been placed in all school and public libraries in the county. These booklet series cover six broad topics on ranging from "Environmental Issues" to "Iowa Wildlife". The booklets are designed to provide Iowa specific information to broad topics, and were funded by REAP Conservation Education grants.

4. County Conservation Account: Along with a major effort in the environmental education aspect of REAP, the JCCB has emphasized the protection of the river greenbelt areas throughout Jackson County. These include both forks of the Maquoketa River, and the Mississippi River. County Conservation allocation funds and county conservation competitive grants have funded recent acquisitions by the JCCB along both river corridors of the Maquoketa River. Funds have also been used to purchase the Baldwin Marsh, protect a population of the federally threatened prairie fringed orchid, and provide park improvements.

5. Soil and Water Enhancement Account: The Jackson County Soil and Water Conservation District offers REAP funds as a payment incentive for landowners to put in contour strip cropping and terrace practices. Payment

incentives are also offered for planned grazing systems, pasture and hay land planting, animal waste management systems, native grass plantings, field/farmstead windbreaks, timber stand improvements(TSI), tree plantings and water quality projects.

6. City Park and Open Spaces Account: The city of Preston received funds to complete a bike trail project along the north west corner of the city. Plans are to eventually connect this trail with the County Recreation Trail that ends nearby in Spragueville.

7. Historical Grant and Loan Fund: Jackson County has several organizations devoted to identifying and protecting the county's historical resources. These include the Jackson County Historic Resources Commission, the Maquoketa Historic Preserves Committee, the Jackson County Historical Society, and the Jackson County Conservation Board. There are also many private individuals who are working to preserve significant buildings and homes in their care. REAP funded projects have included public and private building renovations, building stabilization, archaeological assessments, and climate control for the county museum for collection stabilization.

8. Living Roadway Trust Fund: Jackson County received money from this fund for a no-till grass drill and native grass seed for plantings along roadways. The drill is also available for plantings on public recreation land. Private landowners can rent the drill for native seeding projects for CRP ground and habitat plantings.

## **II. RESOURCE NEEDS AND OPPORTUNITIES IN JACKSON COUNTY**

### **A. Natural Resource Inventories**

The total area in Jackson County is 419,840 acres. Land area is 412,160 acres and water area is 7,680 acres. There are 239,522 acres of crop land in Jackson County. Pasture land equals 62,000 acres, non-grazed woodland is 58,000 acres and "other" comprises 52,638 acres (urban, roads, etc.) Of the cropland acres, 36,328.4 acres are enrolled in the Conservation Reserve Program (CRP) in Jackson County as of September 14, 1999.

1. Soil: There are 8 major soil associations in Jackson County. The largest portion of soil association that is farmed is Fayette, consisting of 255,539 acres. These are well drained, moderately permeable soils on upland ridges and side slopes and on high stream benches. The native vegetation was deciduous

trees. Downs-Fayette ranks second at 70,067 acres. These soils are found in the same locations as the Fayette soils. They are different in that native vegetation on Downs soils was mixed prairie grasses and deciduous trees. The third largest soil association would be Chaseburg-Caneek-Orion at 45,338 acres. These soils are found along the drainage ways, creeks and rivers. They range from poor to well drained soils. Soil conservation issues include continued promotion of traditional conservation practices as well as new practices such as rotational grazing. There is a need to promote the use of buffer strips along the Maquoketa River and smaller county streams to reduce the bank erosion that occurs when row cropping occurs to the rivers' edges. There is always room for improvement and upgrading of soil conservation practice systems as crop and grazing situations change.

2. Water: The Mississippi River and its associated back waters border the county on the east. The North Fork and South Fork of the Maquoketa River traverse the county. There are 13 major streams that run through the county. Jackson County has 10 major cold water streams. At least two of these streams have naturally reproducing brown trout. Three streams are sites for Iowa Department of Natural Resources trout stocking program. There are four major impoundments in the county, Leisure Lake, Wildwood Acres, North and Middle Sabula Lakes, and the Green Island Wildlife Area. Spring fed Dalton Pond, near Preston, is a stocked trout pond. There are numerous farm ponds in the county. The karst/sinkhole topography allows for close communication between runoff water and aquifers which supply the drinking water for all county residents. Continued protection of our ground water and surface water resources is a priority.

Water resource issues include the Army Corps of Engineers proposal to increase lock lengths along the Mississippi River to allow increased barge traffic. All Iowa residents, especially those associated with the Mississippi River should be concerned about the negative impact increased river traffic would have on the aquatic habitat and recreation. There is considerable need for additional funding for agricultural waste control structures to protect the county's smaller streams and rivers, as well as drainage into the aquifers. Also needed is increased use of filter strips along the streams and rivers to decrease bank erosion and chemical runoff.

3. Vegetation: Some of the acres in Jackson County were historically covered by native prairie grasses, including areas of oak savanna prairie complexes. The pastures in the county are predominately bluegrass and brome grass covered. There are several hundred acres of moderate to good quality prairies and a much larger amount of low quality, degraded, grazed native grassland. Some producers are looking at planting their pastures to native grasses to manage for grazing. Use of native species for road right of way plantings during re-grading or construction should be encouraged for both DOT and county

secondary roads projects. A prairie species of special note is the eastern prairie fringed orchid which is known to occur on one area managed by the County Conservation Board.

Forest cover in Jackson County consists of oak/hickory and maple/basswood associations in the uplands. There are a few Oak Savanna remnants. The flood plain woodlands in the county are silver maple/ash/cottonwood forests. Privately owned woodlands in the Forest Reserve Program total 12,198.55 acres. The Forest Reserve Program provides protection from grazing and other adverse impacts while offering the landowner tax incentives for utilizing proper forestry management methods. Other private woodlands are grazed woodlands. Public lands in the county total approximately 18,893 acres, most of which include forest cover which is protected from grazing. One woodland species of note is the federally threatened monkshood. It is found on several areas protected by public land.

Efforts and incentives for better forest management practices including protection from grazing, reforestation after logging, and timber stand improvement practices. If not already a policy, county and state foresters (public agencies providing free services) should involve landowners in livestock exclusion from timber as a condition of providing services.

Wetland areas are mostly associated with the Mississippi River and consist of cattail/sedge/lotus marsh or forested wetlands made up of silver maple, hackberry, cottonwood, ash swamp white oak and pin oak. Most of the Mississippi River wetlands are managed by the Fish and Wildlife Service, the Iowa DNR, and the Army Corps of Engineers. Several Army Corps parcels are leased to the DNR or the Jackson County Conservation Board. There are 3 known upland marshes of 10 acres or more.

Issues include loss of the county's few remaining upland wetlands to drainage or fill during construction or for agriculture. Potential loss of flood plain wetlands from the Army Corps' proposals to increase barge traffic on the Mississippi River is also a concern.

4. Wildlife and Fisheries: Jackson County is home to a healthy blend of forest, grassland and wetland wildlife species. Species of special interest include: river otter, bobcat, timber rattlesnake, resident nesting bald eagles, stocked and naturally reproducing trout, migratory and nesting waterfowl, neotropical songbirds and the globally endangered Iowa Pleistocene snail.

Protection of these and other wildlife species will be enhanced through continuation of the Federal Conservation Reserve Program, reduction of grazing in timber areas, monitoring of the Corps disposal of dredge materials from the Mississippi navigation channel, promotion of good seeding plans for CRP and other crop set aside ground, and replanting harvested timber.

The Upper Mississippi River (UMR) bordering Jackson County harbors a very diverse fish fauna. Ninety-two species of fish representing 21 families of fish have been collected from Pools 12 and 13. Unusual species include chestnut and silver lamprey, paddlefish, skipjack herring and the American eel. The American eel is unique because this species spawns in the Sargasso Sea near Cuba. Other migratory fish historically found in the Mississippi River, and still found in Pool 13 include the river goldeneye and blue sucker. The river goldeneye migrated throughout the river - movement which is impeded by the lock and dam system. The blue sucker is more common in tributaries of the Mississippi, but is also found in the river proper. Also found in Pool 13 are lake sturgeon, burbot, western sand darter, and weed shiner, species classified as threatened by the state of Iowa. The blunt nose darter is considered very rare. The grass pickerel is found in isolated back waters at the Green Island Wildlife Area. Several trout streams are maintained by stocking. There are also some naturally reproducing trout populations in county streams and several brown trout put and grow streams. Smallmouth bass are becoming more abundant in the UMR bordering Jackson County. Also, good numbers can be found in the upper reaches of the Maquoketa River and its tributaries.

Severe sedimentation in many backwater areas of the UMR since lock and dam construction has resulted in significant habitat loss, degradation and alteration to the extent that many will cease to function as backwater complexes in the next decade. Because these areas are the major winter habitat for many species of fish, especially Centrarchids such as largemouth bass, bluegill and crappie, it is expected these species of fish will decline in numbers during the next decade.

5. Parks, Recreation Facilities, and Open Space: Jackson County's largest recreation facility and economic draw is the Mississippi River. This river provides numerous recreational opportunities for the residents of the County and surrounding areas. It is along the Mississippi River that the majority of Park and facility development has taken place.

Federal holdings are concentrated along the Mississippi River and fall under the jurisdiction of the Army Corps of Engineers or the U.S. Fish and Wildlife Service. Federal land holdings in Jackson County total approximately 11,686 acres. The Army Corps holds title land as a part of its navigation system. Pleasant Creek Park

is managed as a campground and river access area. The Fish and Wildlife Service manages land as a part of the Upper Mississippi River Wildlife Refuge. These areas are open for multiple use with minimum improvements regarding facilities.

Iowa Department of Natural Resources holdings total approximately 5,328 acres. They include the Green Island Wildlife Area, a 3,722 acre wetland complex adjacent to the Mississippi River. The area is managed for waterfowl production. It is open for multiple use, with minimum facility improvements. Big Mill Wildlife area is a 737 acre upland forest complex. consisting of approximately 75% forest, 20% cropland and 5% wetland. A stocked trout stream also flows through this multiple use area. Bellevue State Park overlooks the Mississippi River south of Bellevue. The 547 acre park has a nature center, trails, a lodge, butterfly garden, ranger quarters and camping and picnicking facilities. Public hunting is allowed on a portion of the park. Maquoketa Caves State Park is comprised of trails through woodlands and natural cave formations. The 272 acre park has camping and picnic areas, ranger station, a visitor center and a restored prairie. Recent improvements to the campground have increased visitor usage and length of stays. Trail improvements have improved visitor safety while protecting the parks resources. Additional state management sites include the Little Mill Wildlife area and Dalton Pond which are stocked trout fishing sites.

The Jackson County Conservation Board manages 34 areas totaling a little over 1,879 acres. The areas range in size from less than an acre at some canoe accesses along the Maquoketa River, to 628 acres of forest and grass uplands at the Pine Valley Nature Area. The conservation board also maintains several historic sites. A complete list is available from the Jackson County Conservation Board office. The county maintains two public campgrounds along the Mississippi River. Both campgrounds receive heavy use because of their access to the river and modern facilities that are available.

While many of the city parks in Jackson County's towns reflect the traditional playground or ball field setting, some parks are taking on other characteristics. The city of Bellevue has enhanced Riverview Park with a walkway, plantings, and bench/gazebo facilities. The City of Preston has incorporated the Copper Creek trail in its industrial park development. This trail is also enhanced with plantings and benches. Maquoketa has started a re-development project at Horseshoe Pond Park which includes a walking trail, improved fisheries in the pond, handicapped access to the pond, and plans for expansion of the small campground. Maquoketa and Bellevue also have plans in place for pedestrian/bike trails through sections of their towns.

Increased demands for recreation require updated and expanded facilities. Boat ramp areas, expanded campgrounds with modern facilities, public hunting, and sight seeing areas continue to receive considerable public use. Local governments should incorporate development of trails, parks with natural settings, and river/stream front enhancement projects in their planning processes. Access to these outdoor activities and natural resources enhance the quality of life for their residents through healthy life styles, and increased awareness and appreciation for local resources

6. Human population, distribution trends: Jackson County is predominately a rural county with agriculture and agricultural based businesses the leading economic resources in the County. The population of the County showed an increase of .6% from 1990-1998 (The population of 20,078 in 1998 is an estimated figure. This follows a decline of 11% from 1980-1990.) With the agriculture based economy continuing to decline, Jackson County has made an effort to promote tourism in the county. With the Mississippi River and the Maquoketa rivers as a recreational opportunities, the tourism industry has continued to increase yearly.

#### B. Trends in Natural Resources

Once abundant natural woodlands, savannas, and prairies are declining in quantity and quality. This is primarily due to clearing of land for highways, rural residents and agricultural use. The continued construction of homes in rural areas is impacting the timbers, bluffs, and agricultural land.

Despite the large amount of woodlands in the county, a significant amount of the woodlands are poor quality with secondary growth and a poor diversity of associated woodland plants and animals. Native prairies are for the most part converted to pasture or grazed to the extent that diversity has been severely limited. While the Upper Mississippi River Wildlife Refuge is largely a timbered wetland, most upland wetlands have been drained or filled in for construction or agricultural purposes.

Soil erosion is a significant problem due to the large amount of highly erodible land in the county. Surface and groundwater quality is a greater than average potential problem due to the karst topography with thin soils on permeable carbonate/sinkhole bedrock. Soil erosion magnifies this problem. The formation of the Maquoketa River Alliance in 1999 will help promote protection of the Maquoketa River watershed through private landowner actions.

The Jackson County Soil and Water Conservation District deals with improvements for water, wildlife habitat, woodlands, grasslands, and other resources that are connected to the land. This federal agency is the key agency that offers technical support for the private landowner. Approximately 95% of the land in this county is privately owned. This agency provides the best guidance for the public in the best use of these resources.

The protection of critical and unique areas throughout the state of Iowa continues as a priority in the conservation field. Iowa has lost 99% of its wetlands and native prairie areas within the State. The Iowa Department of Natural Resources along with County Conservation Boards and private conservation groups such as the Iowa Natural Heritage Foundation, The Nature Conservancy, Ducks Unlimited, and Pheasants Forever, the Iowa Wild Turkey Federation, and Whitetails Unlimited have emphasized the acquisition and protection of woodland, wetland and prairie areas throughout the State.

In Jackson County, the protection of wetlands and prairies, and unique areas such as algific talus slopes which contain federally listed endangered or threatened species are a priority. The protection of river corridors is also part of the JCCB's long range goal. Greenbelt areas of the Maquoketa River have been acquired by the JCCB to protect this unique river system. The JCCB will also be working with the Iowa Natural Heritage Foundation on an effort to protect the bluff area along the Mississippi River through conservation easements and acquisitions.

### C. Existing and Projected Needs

The continued protection of unique natural areas throughout Jackson County remains a high priority. The County currently contains a diverse amount of recreational opportunities including modern and primitive camping areas, primitive wildlife areas, and wetland areas. Expansion of these existing facilities should be an ongoing effort. Continued protection of the river greenbelt areas either through acquisition or easement should also be pursued. Jackson County currently maintains a 3.7 mile recreation trail for biking and cross country skiing. An expansion of this trail system should also be considered.

The public still needs education regarding the value of timber and its management for forestry products and wildlife. Many of the REAP soil and water enhancement funds go toward tree plantings and forestry oriented projects. Efforts should also be made to encourage more crop rotation to improve land use.

Efforts should be made to expand the existing environmental education programs, both in formal (school) and informal settings.

### **III. ISSUES IN JACKSON COUNTY**

#### **A. Resource Based**

Jackson County contains numerous recreational areas providing the public the opportunity to camp, hike, boat, hunt, fish, bike, cross country ski, and more. The conservation groups and public agencies in Jackson County continue to maintain, develop, and promote these activities for everyone to enjoy. The protection of these unique natural areas including the Mississippi River and the Maquoketa Rivers will be continued.

#### **B. Population Based**

Jackson County saw a 11% decline in the total population of the County from 1980-1990. More recently, Jackson County's population has increased slightly. The 1998 county population was estimated at 20,078 - an increase of .6% from 1990. In addition, the populations of major cities surrounding Jackson County are expanding. Natural resource and recreation areas in Jackson County are seeing increased use by out of county visitors.

#### **C. Financial**

REAP funding is critical to providing expansion of existing programs and facilities to meet the needs for outdoor recreation opportunities while protecting our land, water, and other natural resources. Acquisitions and expansions will be accomplished only through grants or by donations from private conservation groups.

Jackson County has 14.3% (represents 2,811 persons) of its population living below the poverty level. The rate of unemployment is 2.9% (June '99 statistic). Public recreation areas provide equal access to Jackson County's natural resources for all its residents and visitors.

### **IV. ROLES AND RESPONSIBILITIES IN JACKSON COUNTY**

**A. City:** City governments, park and recreation boards

**B. County:** The Jackson County Conservation Board is responsible to acquire, develop, maintain, and make available to the people of Jackson County public museums, parks, preserves, parkways, playgrounds, recreational centers, county forests, wildlife and other conservation areas, and to promote and preserve

the health and general welfare of the people, to encourage the orderly development and conservation of natural resources, and to cultivate good citizenship by providing adequate programs for public recreation. Other county organizations involved in natural and historical resource conservation include the Jackson County Historical Society, the county board of supervisors, and the Jackson County Historic Preserves Commission.

C. School Districts: Administrators and School Boards

D. State/Federal: The REAP Soil and Water Conservation funds are administered by the Natural Resource Conservation Service. The district commissioners determine who receives the funds for the various projects. Other state and federal agencies involved in resource conservation include the Iowa DNR, the U.S. Fish and Wildlife Service, the Army Corps of Engineers, the Consolidated Farm Services Agency, and the Limestone Bluffs Resource Conservation and Development office (RC&D).

E. Regional Planning Agencies: The East Central Iowa Intergovernmental Association (ECIA) assists cities and counties in development grant applications.

F. Private: The Jackson County REAP Committee is open and receptive to input from private organizations and individuals. Private conservation and recreation groups such as the Izaak Walton League, Wild Turkey Federation, Pheasants Forever, Ducks Unlimited, and others have local chapters or members who are residents of this county all are welcome to become active members of the Jackson County REAP committee.

G. Cooperative Efforts: All federal, state, and county governments work collectively to promote and enhance the recreational opportunities in Jackson County. The U.S. Fish and Wildlife Service along with the Iowa Department of Natural Resources and the Jackson County Conservation Board are dedicated to the preservation and protection of unique natural areas throughout Jackson County. Private organizations such as the Iowa Natural Heritage Foundation, The Nature Conservancy, Izaak Walton Leagues, Pheasants Forever, Iowa Wild Turkey Federation, White Tails Unlimited, and Ducks Unlimited work collectively with government organizations providing additional funding for enhancement of natural areas in Jackson County.

## **V. ACTIONS IN JACKSON COUNTY**

A. Acquisition: The Jackson County REAP committee will continue to encourage protection of unique areas and acquisition of natural and recreation

areas throughout the County with an emphasis on the greenbelt areas along the major rivers in Jackson County. The REAP committee encourages cooperation between conservation organizations, both public and private, when working to protect and acquire natural areas throughout the county.

B. Development: Development should strive to meet the demand for recreation opportunities while protecting the resource. Developments can include facilities for camping, boating, biking, hiking, and other outdoor related activities. Consideration should be taken to identify and protect unique natural areas, river greenbelts, and historic resources during planning stages of development.

C. Operations and Maintenance: Each agency is responsible for providing funds for the operation and maintenance of their properties.

D. Education: Demonstrations and tours of REAP funded projects in Jackson County have been held two different years. The tours have included historic sites, wildlife areas, parks, and private land where watershed protection timber stand improvement, and soil protection projects that have been done. Tours have been designed to educate local and state policy makers and the general public about the benefits of REAP to Jackson County. In addition farm tours, public outings and school field trips to various sites help educate the public about projects and practices with the intent that participants will transfer these practices to their own settings and value the work REAP has done in Jackson County.

Education is a key element in the use of REAP funds. Education helps inform the public of conservation practice options and resources available to help implement those practices.

The JCCB will continue to emphasize its Environmental Education program. Currently the JCCB has a part time naturalist on staff. Future consideration would include making this position a full time staff person. The JCCB will continue to employ a seasonal intern naturalist to assist with public and school programs during the spring and summer. The JCCB understands the importance of environmental education and the value of environmentally literate citizens. Future considerations include the development of a nature center and additional staff to allow for expansion of the educational opportunities for youth, teachers, and the general public.

E. Legislation: The JCCB and the county REAP committee will work with local legislators to inform them of the importance of the REAP program and what REAP has accomplished in Jackson County. The JCCB and other organizations will emphasize that environmental programs such as REAP and CRP have

considerable long term effects on the protection and management of our natural environment and the health and well being of our citizens.

## **VI. ONE-YEAR SPENDING PLAN**

Attached is the fiscal year 1999 spending plan for REAP projects in Jackson County. Sources of income and expenditures for individual projects are noted. One-year spending plan updates will be made annually.

## **VII. METHODS OF UPDATING THE PLAN AND BUDGET**

The Five Year Plan will be updated again in the year 2005 by soliciting input from the groups and agencies involved in the REAP program. The Jackson County REAP committee executive committee will compile the information into a report. Annual budgets and project plans will be requested from all participating groups and individuals each year during 2000-2005. These will be compiled into One Year Spending Budgets and will be kept on file with the Five Year Plan

submitted by: \_\_\_\_\_, \_\_\_\_\_  
Jackson County REAP committee secretary

signed: \_\_\_\_\_  
Jackson County REAP committee chair

notes: Land use/ vegetation acres in II. A. are from Jackson County Natural Resources Conservation Service.  
Forest Reserve acres in II. A. are from the Jackson County Assessors office.  
Fisheries resource information from John Pitlo and Mel Bowler, Iowa DNR. Wildlife resource information from Bob Sheets, Iowa DNR.  
Population statistics in III.B. are from East Central Iowa Intergovernmental Association (ECIA)

attachments: Jackson County REAP Committee FY 1999 Budget