

Illinois Climate Change Advisory Group
Subgroup: Commercial, Industrial and Agriculture
Policy Name: Programs to encourage forest management, reforestation,
tree- and grass-planting
Policy Type: Other
Estimated 2020 Reductions: 0.16 Mt Carbon Sequestered
5/17/07

Sector: Agriculture, Forestry

Description

This straw man proposal assumes an additional 24 million trees would be planted between 2009 and 2020 (in addition to the 2 million trees/year that the Governor recently announced) and virtually no additional conversion of existing grasslands and forests to other uses. WRI estimates that plants and trees in Illinois sequestered 7.4 MtCO₂eq in 2003. However, WRI's Illinois emissions inventory and projections do not account for Land Use, Land Use Change and Forestry (LULUCF) because the data is highly uncertain.

In 2000, Illinois had an estimated 4,150,179 acres of forested land (11.5% of total acres) and 4,163,599 acres of rural grasslands (also 11.5% of total acres) that are mostly used for agriculture. Other agriculture land covers comprise 64.8% of the state's land cover along with built/urban (6.4%), wetlands (3.9%) and other (1.8%).

Source: Luman, "Land Cover of Illinois 1999-2000." 2003.
<http://www.agr.state.il.us/gis/stats/landcover/index.htm>

Illinois DNR estimates this program will cost approximately \$750,000 per year.

Other policies that could increase tree planting in Illinois include:

1. Expand the Forestry Development Cost Share Program, which provides incentives for private landowners to plant trees, and other existing programs described below.
2. Increase the number of state foresters at DNR to provide technical assistance.
3. Ensure that the new CREP program for the Kaskaskia River watershed is funded.

Rough estimate of reductions from BAU in 2020

Tree plantings

Sequestration rate for 6 year old hardwood, moderate growing trees: 0.83 metric tons per 100 trees. (The average tree in 2020 would be six years old. The majority of trees planted in Illinois are hardwood and grow at a moderate rate.)

Source: Chicago Climate Exchange. Application for Participation in Chicago Climate Exchange Forestry Offset Pool and Credit Sale Contract for Exchange Forestry Offsets.

24 million trees @ 0.83 metric tons per 100 trees = 0.20 million metric tons minus 20% loss rate = 0.16 MMtons.

Conserving grasslands and forests

The subgroup may want to consider expansion of existing state programs for conserving forests and grass lands. See below for program descriptions.

Barriers to implementation

- Paying for tree plantings and additional/increased conservation incentive payments.

Background: Existing government programs that provide incentives to conserve forests and grass lands.

Illinois EPA in partnership with other agencies, the Delta Institute, the Illinois Soil and Water Conservation Districts, and the Chicago Climate Exchange

Through the Chicago Climate Exchange, Illinois landowners can earn and sell carbon offset credits for planting and maintaining trees and grasses.

Illinois Department of Agriculture

Conservation Practices Cost-Share Program

Conservation practices, such as terraces, filter strips and grass waterways, are aimed at reducing soil loss on Illinois cropland to tolerable levels by the year 2000. The Agriculture Department distributes funding for the cost-share program to Illinois' soil and water conservation districts (SWCDs), which prioritize and select projects. Construction costs are divided between the state and landowners.

Eligibility:

To qualify for the program, land upon which the owner plans to install a conservation practice must be experiencing erosion at rates greater than one and one-half times the tolerable soil loss level. Landowners must also be cooperators with their local SWCD and have on file an SWCD-approved conservation plan.

Conservation practices selected for cost-share assistance include those listed below. Each SWCD may limit eligibility to particular practices deemed appropriate for their district. For example, **cost-share assistance for landowners wishing to establish pasture or hayland is at 60 percent not to exceed \$125 per acre.**

Eligible Conservation Practices

- contour farming establishment
- contour stripcropping or contour bufferstrip establishment
- cover and green manure crops *
- critical area planting
- Diversion
- field border strips
- filter strips
- grade stabilization structure
- grassed waterway
- no-till planting systems *
- pastureland and hayland planting
- terraces *
- water and sediment control basin
- * some restrictions apply

Streambank Stabilization and Restoration Program

Streambank erosion is a natural wearing away of soil and rock that form streambanks. This natural process has been accelerated by activities that increase drainage water flow and water velocity, including stream channelization and straightening, removal of streamside vegetation, and construction of impervious surfaces. Streambank erosion, a major source of sediment buildup in bodies of water, threatens soil, water, plant and animal resources. It decreases the depth and holding capacity of lakes and reservoirs and reduces stream channel capacity, which increases the likelihood of flooding and additional streambank erosion. Excessive flooding degrades water quality and damages fish and wildlife habitat.

The streambank stabilization and restoration program is designed to demonstrate effective, inexpensive vegetative and bio-engineering techniques for limiting streambank erosion. Program monies fund demonstration projects at suitable locations statewide and provide cost-share assistance to landowners with severely eroding streambanks. The Illinois Department of Agriculture, Illinois' soil and water conservation districts (SWCDs) and the Natural Resources Conservation Service of the U.S. Department of Agriculture (NRCS) serve as partners in implementing the program. Recipients of cost-share and demonstration project funding must agree to maintain streambank stabilization practices for at least 10 years.

Illinois DNR

C2000

The Conservation 2000 Ecosystems Program is based upon an extensive network of local volunteers working to promote ecosystem based management on private (non-State owned) lands. By partnering with and fostering cooperation between landowners and environmentalists, the Ecosystems Program provides technical assistance, project coordination, funding opportunities and other areas of need for Illinois and its citizens. A major aspect of the program is grants. Grants are awarded annually on a competitive bases in the following categories: Habitat, Land Acquisition, Planning, Research, Outreach and Education and Resource Economics.

Illinois Wildlife Action Plan

The Illinois landscape has changed dramatically since the time of European settlement with natural lands being manipulated and developed. Illinois has lost over 90% of its original wetlands, 99.9% of its original prairie, and currently has 424 state and 24 federally listed threatened and endangered species within its boundaries. Over the past 30 years, populations of many wildlife species have fallen dramatically, and over the past decade, expenditures for the recovery of federally endangered species have increased more than 600%.

To prevent the need for listing more species, reduce the need for costly recovery efforts, and address a chronic shortage of funding for state wildlife conservation efforts, the U. S. Congress has responded with a number of federal aid programs. Two of those programs are the Wildlife Conservation & Restoration Program (WCRP) and the State Wildlife

Grant Program (SWGPA) program. The WCRP and SWGPA are, in part, a compromise to the Conservation and Reinvestment Act (CARA) legislation that many organizations and agencies, including the Illinois Department of Natural Resources, continue to seek. Since 2001, the WCRP and SWGPA have translated into about \$9 million in federal aid for Illinois wildlife, in addition to the typical funding provided by fees and excise taxes derived from hunters and anglers.

A condition placed on the WCRP and SWGPA funding has been for each state to develop a comprehensive wildlife conservation plan. These plans, developed with cooperation from conservation partners and input from the public, will set a course for stewardship of all wildlife species, with special attention given to species in greatest need of conservation. For the implementation phase the CWCP has been renamed to the Illinois Wildlife Action Plan. With guidance from the U.S. Fish and Wildlife Service, IDNR must begin implementation of the Illinois Wildlife Action Plan in 2006.

Land Owner Incentive Program

The Landowners Incentive Program is a new program available to Illinois landowners in the Lower Sangamon River Watershed. It is designed to provide financial and technical support for landowners to manage their lands for species in greatest need of conservation.

Financial and technical resources are available through a partnership with the U.S.F&WS, IDNR and local SWCD's. LIP Coordinators can assist landowners in finding other agency programs which could leverage additional cost-share assistance.

Illinois Conservation Reserve Enhancement Program

The Illinois CREP program is one of the most successful in the nation. Remarkably, since the start of the program in 1998, Illinois has enrolled 110,000 acres. In addition, the United States Department of Agriculture has approved an additional 100,000 acres to be enrolled through December 31, 2007. CREP is a successful partnership between federal, state, and local agencies; it is a voluntary, incentive-based approach to water quality and habitat issues. The entire Illinois River Basin is targeted with an emphasis on the 100-year floodplain. The goal of CREP is to establish conservation practices to reduce sedimentation and nutrients in the Illinois River while enhancing habitat to increase fish and wildlife populations. Landowners enroll eligible agricultural land in a Federal 15-year CRP contract and receive annual rental payments and cost-share incentives. Once enrolled in the Federal side, landowners have the option to extend their contract by entering into a State conservation easement for an additional 15 years, 35 years, or permanently, and the State provides incentives for the different options. Implementation and holding of the Federal and State contracts at the local level has been a key to CREP's success in Illinois. Over 90% of State CREP acres are in permanent easements, ensuring long-term protection of floodplain and other environmentally sensitive land. Participants retain ownership of their land, and CREP does not place restrictions on recreational activities, including hunting and fishing. Restored land corridors along the mainstem of the Illinois River and its tributaries are securing a great amount of protection for water quality.

The Open Space Lands Acquisition and Development (OSLAD) Program

OSLAD is a state-financed grant program that provides funding assistance to local government agencies for acquisition and/or development of land for public parks and open space. The federal Land & Water Conservation Fund program (known as both LWCF and LAWCON) is a similar program with similar objectives. Both are managed in Illinois by the Department of Natural Resources with concurrent application due dates, equal grant maximums and similar general rules. Projects vary from small neighborhood parks or tot lots to large community and county parks and nature areas. The state program is financed by a percentage of the state's Real Estate Transfer Tax. The federal program is financed nationally by revenue from OSOD leases. Under both programs, funding assistance up to 50% of approved project costs can be obtained. Grant awards up to \$750,000 are available for acquisition projects, while development/renovation projects are limited to a \$400,000 grant maximum.

Urban and Community Forestry Grant Program

Provides an opportunity for Illinois based urban forestry not-for-profits, universities with urban forestry programs and local units of government to submit an RFP for Inner City projects to establish, manage, conserve and preserve the urban and community forests from inner city to associated public lands. Projects must be under \$5,000 to be eligible.

Illinois Habitat Fund

The Illinois Habitat Fund is one of three programs funded through the purchase of a State Habitat Stamp. The Habitat Endowment Act, enacted in 1992, provides long-term funding for the State Pheasant Fund, State Furbearer Fund and the Illinois Habitat Fund. The State Habitat Stamp replaced the existing Pheasant and Furbearer stamps, expanding opportunities for enhancement to all types of habitat. For the Illinois Habitat Fund Grant Program, eligible projects are limited to those seeking to preserve, protect, acquire or manage habitat (all wetlands, woodlands, grasslands, and agricultural lands, natural or altered) in Illinois that have the potential to support populations of wildlife in any or all phases of their life cycles. Eligible recipients are limited to any appropriate not-for-profit organization or government agency that has the expertise, equipment, adequate staff/workforce and permission from the landowner (if applicable) to develop and/or manage habitat.

State Pheasant Fund

The State Pheasant Fund Grant Program is dedicated to the conservation of wild pheasants. Eligible projects may include land acquisition, pheasant habitat improvement on public or private land, pheasant research, or education of the public regarding pheasants and pheasant hunting. Eligible recipients are limited to appropriate not-for-profit organizations.

State Furbearer Fund

The State Furbearer Fund Grant Program is dedicated to the conservation of fur-bearing mammals. Eligible projects are limited to those that educate hunters and trappers of fur-bearing mammals within the State and the general public concerning the role that hunting and trapping has upon fur-bearing mammal management; the laws associated with the

harvesting of fur-bearing mammals; the techniques used in the hunting and trapping of fur-bearing mammals; the conservation, management, and ecology of fur-bearing mammals; and the promotion of products made from wild fur-bearing mammals. Eligible recipients are limited to appropriate not-for-profit organization, governmental entities, educational institutions, or corporations.

Migratory Waterfowl Stamp Fund

The Migratory Waterfowl Stamp Fund Grant Program is dedicated to the conservation of waterfowl that pass through Illinois during their migrations. Eligible projects are limited to development of waterfowl propagation areas within the Dominion of Canada or the United States that specifically provide waterfowl for the Mississippi Flyway, and projects to implement the North American Waterfowl Management Plan for the development of waterfowl areas within the Dominion of Canada or the United States that specifically provide waterfowl for the Mississippi Flyway. Eligible recipients are limited to appropriate not-for-profit organizations.

Illinois Wildlife Preservation Fund

The Illinois Wildlife Preservation Fund Grant Program is designed to preserve, protect, perpetuate and enhance non-game wildlife and native plant resources of Illinois through preservation of a satisfactory environment and an ecological balance. Projects proposed for grant funding must focus on management, site inventories or education and cannot exceed \$2,000.00. Management projects are those activities related to stewardship of land and/or water which are of direct benefit to non-game wildlife, native plants and natural communities. Examples of this type of project include exotic species removal, brush cutting, nest structures, and vegetation management. Site inventory projects are those activities which inventory species, taxa (birds, mammals, reptiles, amphibians, fishes, plants, invertebrates, etc.), vegetation, habitats, etc. on an area of land. Education projects are those activities that teach Illinoisans about the natural world around them and hopefully have lasting effects. Examples of this type of project include interpretive trails, trail signs, curricula, displays, workshops, development of ongoing outdoor education activities, instructional packets and materials. ("One time only" projects directed at one small group of students will generally not be funded.)

Forestry Development Act (FDA):

Provides the funding source for a forest landowner cost-share program. This program is funded through the collection of a four (4) percent harvest fee on all timber sales. These funds are only available for the cost-share program and the operations of the Illinois Legislature's Council on forestry Development.

*The Council gathers and disseminates information on the State's forest resources and industries, and makes recommendations on appropriate forest management practices, timber, lumber and forest-based herbal product marketing information, forest resource information for potential new forest industries, and recommendations regarding improved operating techniques.

U.S. Department of Agriculture (NRCS)

NRCS currently administers 3 programs with provisions for providing

incentives for forests and grasslands. There is a proposal to combine the cost share programs into a single one for the new farm bill. GRP could also be combined with the Farm and Ranchland Protection program and the Healthy Forest Initiative (not funded in Illinois).

The Environmental Quality Incentives Program (EQIP)

The agency's largest cost-share program. In Illinois cost-shares are offered for new tree planting and timber stand improvement for existing stands. There is also a special incentive program for having forest management plans developed. EQIP also has cost-share and incentives for grazing lands. These include funds for the establishment and management of grazing lands. EQIP contracts can be from 2 to 10 years. Illinois had a total of \$14.2 million for EQIP this year.

The Wildlife Habitat Incentive Program (WHIP)

Offers cost-share for new tree planting and timber stand improvement in existing stands. WHIP also offers cost-share for establishing grasses for wildlife habitat. WHIP contracts can be from 2 to 10 year or 15 years with essential habitat. Illinois had a total of \$326,000 for WHIP this year.

The Grassland Reserve Program (GRP)

Provides for long-term easements or rental agreements for the management of working grasslands. Easements can be permanent or for 30 years and allow the land to continue to be grazed or hayed under provisions of a management plan. Rental agreements have the same provisions but can last for 10, 15, 20, or 30 years. There were no funds for GRP in Illinois this year.

Written Comments

Jim Jaroza, NICOR

There are two organizations quite active in Chicago: Clean Air Counts (cleanaircounts.org), and Openlands (www.openlands.org) that are doing quite a bit of work on replacement of turf grass with more robust native species and prairie plantings. They may be able to provide some statistics on what kind of plant cover generates the best CO2 capture/sequestration. Openlands has also created a Green Infrastructure GIS Mapping system - this might help identify green space that could be included in addition the the 100,000 acres mentioned on the call.

I also recall reading a paper from Chicago Wilderness (chicagowilderness.org) in the Chicago Wilderness Magazine that compared the relative value (in dollars) based upon the type of vegetative cover. Possibly this could be useful information.