LIQUID ASSETS

Realizing the Value of Your Community’s Wetlands

2013
Cover photos: Eastern Kingbird (Copyright Kara Pritchard); Flooded Cornfield (FEMA)
This guide to wetlands and their values has been produced by HeartLands Conservancy with funding provided in part through the United States Environmental Protection Agency under Section 319 of the Clean Water Act distributed through the Illinois Environmental Protection Agency.

This handbook should be used to guide communities’ conservation, management, and utilization of wetlands. This handbook was compiled by HeartLands Conservancy, a 501(c)3 organization that is committed to investing in healthy and sustainable agricultural, natural and social communities for current and future generations.

HeartLands Conservancy primarily serves Madison, St. Clair, Monroe, Bond, Clinton Washington, and Randolph counties in Illinois; however, the data contained herein may be applicable to other communities in areas where wetlands are present and ready to be valued.
What Is In Your Portfolio?
This handbook is designed to provide your community with the necessary information to value and protect its wetlands. The loss of wetlands in the American Bottom in Illinois to agricultural or (sub)urban development is staggering. This handbook explains the history of American Bottom wetlands and their role in controlling the ebb & flow of water in our region. Arlington Wetlands, a restored 83-acre wetland in Pontoon Beach is the showcase project for this handbook. By using this remnant oxbow wetland as an interactive illustration, we hope to showcase natural wetlands’ multitude of benefits as well as restore, interpret and preserve a piece of our regional history.

Wetlands and watersheds are explained in the most basic terms to give an understanding of how the American Bottom is affected by and affects the lifestyles of residents in your community. Wetlands provide numerous values, such as stormwater management, flood control, enhanced air quality, and improved quality of life for your residents. Using mechanisms outlined in this handbook to protect wetlands, your community may reap these benefits and avoid the costly challenges that wetland development implies. This handbook is a guide to protecting your community’s “liquid assets”.

While developed for the American Bottom, the general principles outlined here offer significant benefits for watersheds throughout the State of Illinois.
To fully understand the value wetlands provide to communities, it is important to understand how they work. Many times, wetlands are criticized as “swamps” with rotting vegetation and swarms of mosquitoes. A healthy wetland is none of these things. Healthy wetlands are attractive, functioning ecosystems capable of housing a vast variety of plants and animals, all the while cleaning our stormwater and the air we breathe and recharging our groundwater.

Simply put, wetlands are areas where water covers the soil, or is near the surface of the soil during all or part of the year. This presence of water fosters the development of characteristic wetland soils - the real backbone and workhorse of the wetland ecosystem. These special soils attract aquatic and terrestrial species not found in other areas.

A wetland ecosystem consists of 3 basic rings: Upland, Riparian and Aquatic (see graphic below). Upland wooded areas are dominated by hardwood tree species and/or woody vines. Riparian areas consist of wet prairies or grasslands and can be dry or saturated depending on the wetland. The aquatic ring is the open water portion of the wetland. The boundaries between each ring are not well defined, with soil type and elevation determining which areas can sustain unique vegetation and which hold water most consistently.

Recognizing that wetlands are more than just their aquatic areas is the first key to realizing their full potential for community development. The outer dry rings cannot be taken for granted as unnecessary - they serve as the floodplain for the wetland. To maximize the benefits of your wetlands, plan your land uses accordingly. For example, filling in or moving wetlands is not the smartest, “best use” decision. Those special soils described above? They can take years to develop and are not easily recreated under any condition.

You should treat any existing, functioning wetlands as the crown jewels of your municipal stormwater system.
The American Bottom in Illinois is the floodplain of the Mississippi River, extending from Alton, Illinois in the north to the mouth of the Kaskaskia River in the south. Since Euro-American settlement of the American Bottom in the early 1800s, there has been significant modification to the landscape of this region. Wetlands once comprised ~35% of the American Bottom. Contained within a ridge and swale complex, the wetlands provided habitat to an extremely wide diversity of plant and animal species (see map of American Bottom ca. 1800 at left).

Recognizing the fertility of the soil, settlers quickly tiled, drained, leveed and leveled much of the original landscape for agricultural purposes. Today, the resulting landscape reflects a generally dysfunctional natural hydrologic system, represented by canals, isolated wetlands and eroding streambanks. Interior flooding has become increasingly prevalent in the American Bottom over the past two decades. This has been exacerbated through the loss or degradation of wetlands and natural stream corridors, as well as the increase in impervious surfaces in rapidly expanding communities.

The American Bottom was once comprised of 35% wetlands. 85% of those wetlands have been drained, tiled and leveled.

Despite a massive effort during the past 100+ years to prevent flooding through levees, average annual flood damage in the Mississippi Basin has increased 140%. These “flood control” measures actually increase river stage and velocity. A flood management strategy that incorporates wetland preservation to hold precipitation where it falls and store flood waters is a smart strategy.

As you can see in the map below, Illinois has lost the majority of its wetlands. When wetlands are lost to agricultural, industrial or urban development, the critical benefits they provide are also lost. Though wetland loss in our region is high, important areas still exist that can provide the many values wetlands afford. It is imperative to restore wetlands in areas where doing so is feasible and, more simply, to protect those wetlands that remain natural and unaltered.

The most common value associated with wetland preservation is improved water quality. While some may associate the term “wetland” with murky water, the truth is that wetlands are excellent at filtering water and removing pollutants before water returns to the water table and, ultimately, the public water supply.

Wetlands also filter air and improve air quality. Wetlands act as carbon “sinks;” the water itself and the wetland vegetation actively pull excess carbon from the air creating an atmosphere that is more pleasant and healthier for plants, animals and humans. Wetland preservation can be an inexpensive solution for communities striving to meet air quality standards.

Wetlands also relieve community’s flooding issues. Wetlands act as a sponge, absorbing large amounts of overland flow during storm events and hold water when stream and river levels are high.

Many plant and animal species depend on the unique habitat that wetlands provide. A consistent source of water throughout the year is important to many bird and reptilian species. The native grasses, plants and trees associated with wetland ecosystems provide food, and wetlands are also a crucial link in travel corridors for migratory birds and larger mammals which travel throughout a greater landscape during their lifetime.

Lastly, wetlands contribute to residents’ quality of life. Wetlands provide scenic views and buffer differing land uses. Wetlands are optimal for passive recreation opportunities and are often used for science education and nature studies. Wetlands, like most green spaces, increase property values and meet home buyers’ need for a community that is clean and aesthetically pleasing.

Simply put, protect those wetlands that remain natural and unaltered.
ECOSYSTEM SERVICES

Most of us don’t think about, or even realize, the amazing variety of services the environment around us provides every day. We call this myriad of benefits on which we depend “ecosystem services”.

Ecosystem services range from the obvious—crops, fish, fresh water—to those that are harder to see—erosion regulation, carbon sequestration, and pest control. Whether we find ourselves in the city or a rural area, the ecosystems in which humans live provide goods and services that are very familiar to us, and which we often take for granted.

The graphic at right presents a summary of the literature on the monetary values of wetlands and other ecosystems, showing that wetland ecosystems can have among the highest values. Wetland ecosystems can be of particularly high value where they regulate water quality and flow, such as in the American Bottom, thus providing clean water and mitigating natural hazards to nearby towns and cities.

To put this into local perspective, a restored 999-hectare (~404 acre) wetland along the Illinois River could yield a net benefit of $1.99 million to the local economy, after taking into account all costs and benefits.

WATER QUALITY

Degraded water quality can be caused by a wide variety of culprits. Regardless of the source of the pollutants, wetlands are built to treat and clean the water they receive. The most difficult kind of pollution to mitigate is “non-point source pollution”, which contaminates our waterways through stormwater runoff. Many communities strive to treat stormwater where it falls, however, that is not always possible; wetlands are the second line of defense.

$4,280 = maximum documented value of WATER TREATMENT services provided by inland wetlands (int./ha/y)

$5,189 = maximum documented value of FRESH WATER SUPPLY services provided by inland wetlands (int./ha/y)
Southwestern Illinois is home to the second highest amount of carcinogens in the US EPA’s National-Scale Air Toxics Assessment. The State of Illinois ranks 7th overall in total greenhouse gas emissions, contributing 4% of the total US greenhouse gas emissions (An Inventory and Analysis of Greenhouse Gas Emissions in America’s Heartland, World Resources Institute).

Wetland protection and restoration are valuable tools in combating both an influx of greenhouse gases and impaired air quality. Wetlands improve air quality through carbon sequestration. Wetland plants pull carbon from the atmosphere and, in return, release oxygen. Carbon is stored in the living plants as well as in preserved plant biomass called peat (see graphic below). Filling, clearing, and draining wetlands results in a release of carbon into the atmosphere, providing further reason to protect wetland ecosystems.

In addition to the benefits of the aquatic species within American Bottom wetlands, they are also ideal habitat for Bottomland Hardwood Forests, another rapidly declining habitat. Each acre of growing bottomland hardwood forests will sequester 2,566 pounds of carbon each year, according to R. A. Birdsey in 1996 for American Forests. An example of the economic impact of this invisible work? A study of Chicago’s air quality concluded that the city’s trees alone produced $9.2 million (1994 dollars) worth of air quality improvements in just one year.

Another important consideration and benefit from clean air is, of course, health. A March 2011 peer reviewed EPA analysis shows that the Clean Air Act Amendments of 1990 prevented more than 160,000 premature deaths in 2010 and will prevent an estimated 230,000 deaths in 2020.

**Businesses and the economy directly benefit from the prevention of 17 million work days lost in 2020 due to poor air quality.**
Their low topographic position relative to uplands allows wetlands to store and slowly release surface runoff, including flood waters. They accomplish this in two ways: by slowing and storing excess runoff. Trees and other wetland vegetation impede the movement of runoff and distribute it slowly and more evenly over the floodplain. In large rain events, highly functioning wetlands can hold up to five times the amount of peak flow that would otherwise become flood waters. This combined water storage and slowing action lowers flood heights and reduces erosion downstream and on adjacent lands. It also helps reduce floods overall and can prevent waterlogging of agricultural lands. Wetlands within and downstream of urban areas are particularly valuable in this regard, counteracting the greatly increased rate and volume of surface-water runoff from pavement and buildings (see graphic).

The Mississippi River’s bottomland hardwood-riparian wetlands once stored at least 60 days of floodwater. They now store only 12 days of floodwater because most have been filled, leveed, or drained.

A historic example: A “damages-avoided approach” was used to estimate the economic costs and benefits of wetlands preservation in the Charles River basin. It was estimated that the loss of 8,442 acres of wetlands within the Charles River system would result in annual flood damages of over $17 million. For this reason, the U.S. Army Corps of Engineers elected to preserve the wetlands rather than to construct extensive flood control structures. The Corps set out to acquire some 8,500 acres of wetlands in the Charles River drainage, completing this ambitious acquisition program in 1984.

$4,430 = maximum documented value of MODERATION OF EXTREME EVENTS services provided by inland wetlands (int./ha/y)

$9,369 = maximum documented value of REGULATION OF WATER FLOWS services provided by inland wetlands (int./ha/y)
WILDLIFE & RECREATION

Wetlands can be thought of as “biological supermarkets”. They produce great quantities of food that attract many animal species. Some animals consume above-ground live vegetation while others utilize the dead plant leaves and stems, which break down in the water. Some fish and wildlife live in wetlands for their entire lives, others require wetland habitat for only part of their life cycle. Wetlands provide important seasonal habitats, where food, water, and cover are plentiful.

Migratory waterfowl, including ducks, geese, and swans, use wetlands as resting, feeding, breeding, or nesting grounds for at least part of the year. The U.S. Fish and Wildlife Service estimates that up to 43% of the federally threatened and endangered species rely on wetlands for their survival, such as the Ornate Box Turtle, listed as threatened by the State of Illinois.

Public lands used for conservation instead of industrial development purposes are correlated with longer-term and more sustained economic growth, and high-amenity counties have three-times the rate of job growth than low-amenity counties. Businesses frequently move to these high-amenity areas because of their scenic beauty and environmental quality.

In 1996 dollars, the recreational value of wetlands was $9 - $115 per acre per year. Arlington Wetlands, at 83-acres, can provide $1,092 - $13,944 in recreation benefits in today’s (2012) dollars.

Nature-related recreation is the fastest growing activity of the tourism industry – with an annual increase of about 30% since 1987, illustrating that Americans enjoy observing and photographing wildlife. Annually, wildlife viewers spend about $1,427,474 per year on food, transportation, equipment, and other costs in the state of Illinois. Much of this nature-based tourism involves birds, many of which are wetland-dependent. Birding has increased more quickly than other outdoor recreation activities, including skiing and golf.

The recreational benefits associated with wetlands, of course, also serve to educate. Schools can use these valuable ecosystems as outdoor laboratories, giving students a hands-on understanding of biodiversity and plant-animal interactions.
PROPERTY VALUES

According to real estate reports (Representing Property with Wetlands and Riparian Areas, Montana Watercourse), property near open water is worth more and sells more quickly than other property. In academic studies, proximity to a protected riparian corridor increase a home’s value anywhere from 6% (Colby and Wishart, 2002) to 32% (Frost and Sternberg, 1992). People are willing to pay more for homes near protected wetland areas when they realize the benefits such as flood protection, erosion control, and aesthetic appeal.

For communities as a whole, wetlands are important in protecting water quality and reducing the need for costly water treatment facilities that are sometimes associated with increased population and home construction/ownership. Home values increased in the Chesapeake Bay 1.5 percent for every 100 fecal coliform counts removed per 100mL of water, and in the St. Mary’s watershed in Maryland home values decreased $1,086 for every milligram per liter increase in total suspended solids and $17,642 for every milligram per liter increase in dissolved inorganic nitrogen7.

When located near a protected riparian area, such as a wetland, a home’s value can increase 6-32%.

Homes in Prairie Crossing (Grayslake, IL)
Wetlands alone are not the answer to a community’s issues with water quality, air quality or flood protection. There are other forms of “green infrastructure” that a community can adopt to augment wetland functions and values. By extending the mindset of wetlands-as-asset throughout your community’s infrastructure and open space network, the benefits outlined in this handbook can increase exponentially.

Rain gardens and vegetated swales are practices that replace concrete infrastructure with pleasing, low maintenance native vegetation to direct and absorb water from parking lots, subdivisions and along roadways. Filter strips or riparian buffers along streams decrease or even prevent streambank erosion, improve water quality and provide aesthetic and recreation values.

Permeable parking lots reduce stormwater volume flowing to receiving waters, slow the velocity of stormwater to receiving waters, improve water quality by removing solids and other contaminants, and help reduce urban heat island effects that occur with conventional parking lots.

A permeable parking lot is a porous, gap-graded, parking lot, with reduced sand or fines in between the pavers, which allows water to more easily drain through. While permeable parking lots and drives are less common at this time, the success of demonstration sites, such as the Arlington Wetlands parking lot, will promote the environmental and economic effectiveness of using permeable surfaces. Using green infrastructure, such as vegetated swales and permeable parking lots, multiplies the advantageous effects of protecting your community’s wetlands. Using these practices in tandem will dramatically increase the quality of natural resources in your community.

Contact HeartLands Conservancy for more information on these practices and other green infrastructure practices that work in tandem with wetlands.

We would like to thank Kirchner Block and Brick, a division of Midwest Products Group, for providing the Aqua-Bric paving blocks used in the Arlington Wetlands parking lot. For more information on permeable pavers for residential or commercial uses, visit http://www.mpgblock.com.
Throughout this handbook, the benefits of wetland preservation have been explained and encouraged. However, preservation is no longer possible in many locations. While the rate of wetland loss in Illinois continues, efforts at conserving and restoring wetlands throughout the nation have resulted in valuable outcomes. We can learn from these success stories.

Species that were rarely sighted have become more prolific following habitat restoration. Wood ducks are a prime example of a species saved through wetland protection. Considered a beautiful animal and popular game bird, wood duck populations dwindled in the late 19th and early 20th century. Wetland conservation efforts provided these birds the areas necessary to stabilize and increase their populations. The Bald Eagle, our national symbol, was also near extinction at one time in part from lack of habitat. The restoration of wetlands was a key component in the recovery of the bald eagle.

Erosion costs the U.S. economy $63 billion per year, and the restoration of cropland and rangeland to prevent this erosion would immediately yield a positive return on investment, with an estimated $7.52 in costs averted for every dollar invested in erosion prevention.

Watershed restoration can also have positive economic impacts on cities and counties. Much like infrastructure development, which consistently yields a positive Return-On-Investment, watershed restoration can create long-term benefits to communities such as population growth and business creation because of increased natural amenities.

Invest in YOUR nature: The restoration of cropland and rangeland to incorporate wetlands saves $7.52 in erosion costs for every dollar invested.
Major Watersheds of Illinois

Illinois State Water Survey

This map illustrates general boundaries of major watersheds of Illinois. A watershed, or drainage basin, in this context is the land area that drains directly to a common stream, river, or lake. Watershed boundaries shown on this map were drawn from land surface topographic mapping; map features are accurate only to the scale of the source mapping. Additionally, artificial drainage structures such as canals may convey water across topographic watershed boundaries in some areas (not all shown on this map).

On this map, shades of blue and green indicate watersheds in the Upper Mississippi River basin. Watersheds shown in shades of green are located in the Illinois River basin. Shades of yellow and brown indicate watersheds in the Ohio River basin. The Cache River drains to both the Mississippi and Ohio River systems. Land draining to Lake Michigan (Great Lakes basin) is shaded pink. Drainage to Chicago/Calumet watershed area is engineered to flow to the Illinois River basin under most circumstances. Communities are displayed on this map at space allowed.

Map compiled by Sally McCune, Kathy Brown, and Phil Graft.

Illinois State Water Survey
http://www.isws.illinois.edu
217-244-5439

University of Illinois
http://www.isws.illinois.edu

Scale: 1:720,000
WHAT IS A WATERSHED?

A watershed, also known as a drainage basin, is the area of land that drains to a particular body of water. Watersheds often cross city, county, state or even national boundaries. These political and jurisdictional divisions create real challenges in effective watershed planning.

A watershed consists of surface water - lakes, streams, reservoirs, and wetlands - and all the underlying ground water. A watershed is defined by high points such as ridges and hilltops. Ridges and hills that separate two watersheds are called the drainage divide. Water hits these high points and flows into smaller streams, then larger streams or bodies of water. Some water infiltrates and flows underground. The water in streams will continue to flow to larger streams, then a major river, and then to the sea.

The land cover and land use within a watershed strongly affects the quality of water within that watershed and the quality of water that is released into rivers. This is why planning for wetland preservation or wetland mitigation within your watershed boundaries is important.

Watersheds can be as small as a footprint or large enough to encompass all the land that drains water into the Mississippi River. Smaller watersheds are “nested” within larger watersheds. In the map on the opposite page you can find the watershed where you live (“What is a Watershed?”, U.S. Geological Survey).

For additional guidance, your community may wish to consult the EPA’s “Water Quality Scorecard.” This scorecard offers policy options for protecting and improving water quality across different scales of land use and across multiple municipal departments (see Resources & References). Contact HeartLands Conservancy for help in completing yours.
THE POLICY OF WETLAND PRESERVATION

The American Planning Association (APA), the national leader in policy, has produced and formally adopted a policy guide for wetlands (see Resources & References). Wetlands, whether preserved or converted, have a significant impact on land use. The policy guide is summarized below.

• Wetlands in their natural state perform ecological functions, which are vitally important to the environment and economic health of the nation and impossible or costly to replace.
• Wetlands protect the quality of surface waters, provide a natural means of flood control, improve water quality, and are also sources of fish and wildlife habitat.
• Wetlands need to be recognized as part of a complex, interrelated, hydrologic system.
• The APA supports legislation and other actions to achieve the goal of no overall net loss of the nation’s remaining wetland resource base.
• Both conservation and regulatory approaches typically have not been effective in preventing continued, large and small-scale losses.
• Community and watershed-based planning and other non-regulatory approaches are important in protecting wetlands and other sensitive natural resources.
• Replacement of existing wetlands should be considered only after avoidance and minimization and only where the wetland function in-kind can be replaced within the same sub-watershed.

“Community and watershed-based planning...are important in protecting wetlands and other sensitive natural resources.”  - APA’s Policy Guide on Wetlands

POLICY 1. The APA supports a sound compensatory mitigation policy based on science.
POLICY 2. The APA supports public-private partnerships to improve wetlands management. Such partnerships should include [the] use of land trusts, conservation easements and the purchase of development rights.
POLICY 3. The APA supports Congress amending Section 404 of the Clean Water Act and enacting additional legislation as necessary to address the protection of isolated wetlands.
POLICY 4. The APA supports funding and authorizing legislation at all levels of government to establish wetland information clearinghouses.
POLICY 5. The APA supports state and federal legislation to provide funding...to research, classify, and map wetlands and their functions, and perfect restoration and mitigation procedures.
POLICY 6. The APA supports research and demonstration projects in the utilization of created wetlands as solutions to non-point source water quality problems, including but not limited to stormwater management.
POLICY 7. The APA supports efforts for educational and technical assistance programs, for both planning professionals and the general public, on the values of wetlands, and management strategies to protect and enhance wetlands. This would include, but not be limited to, wetlands protection in comprehensive land use planning, zoning, development review processes and performance standards.
POLICY 8. The APA supports augmenting the protection provided by Section 404 of the Clean Water Act by enacting state legislation or local ordinances such as providing protection for isolated wetlands and providing incentives to encourage landowners to protect existing wetlands.
POLICY 9. The APA supports farm policy legislation that contains provisions that encourage private landowners to protect, conserve, enhance and restore wetlands.
How can communities create effective local wetland protection programs? APA’s Planning Advisory Service has produced a report and model ordinance that communities can use.

The authors also provide examples of local regulations that, while not aimed specifically at wetlands, can be used to protect them from drainage and development. Included in the report is a broad sampling of language gathered from an APA survey of local ordinances that are part of wetland protection programs, along with commentary.

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Where Can I Get Funding to Start a Wetland Project?

Once you’ve decided to take on a wetland protection, restoration, or management project, funding may become an issue. Many state, tribal, and local governments, as well as some well-established non-profit organizations, are already familiar with financing programs and projects. But for many community groups seeking funds might be a new experience.

The U.S. Environmental Protection Agency has a 2-page summary document “Funding Wetland Projects” (see Resources & References). Federal, state and other funding sources are included.
Everyone has an impact on water quality.

While citizen involvement is not always necessary or appropriate there are a number of ways to build citizen support for the protection of wetlands and water resources in your community.

• Encourage residents to dispose of trash properly; batteries, pharmaceuticals, oils, and other products can negatively impact water quality if not properly recycled or disposed. Some communities partner with drugstores, law enforcement, and others to host special events where residents can come to dispose of these potentially hazardous items.

• It is also important that residents think about their landscaping: native vegetation requires less watering and promotes a healthier ecosystem in your community.

• Promote the use of rock or hardwood mulch rather than cypress mulch; the deforestation of cypress trees for mulch is degrading wetlands in the southern United States.

• Careful application of fertilizers to lawns and gardens is also important. If leaked into waterways these chemicals can have a hypoxia-like effect on your local streams and lakes.

• Use public buildings to set an example of these lawn & garden practices. Youth groups in your community, such as 4-H and scouts, can partner with city personnel to install native plantings at City Hall, the public library or other community buildings.

• Allow civic organizations, school groups, or private businesses to “adopt” a stream, wetland or lake. These groups are sometimes called “stream teams” and are helpful in assisting with long-term maintenance of a water body.

• Annual clean-up events are another way to integrate residents into the care and maintenance of your community’s water resources. Some communities plan litter pick-up or stream clean-up events in spring around Earth Day (April 22).
RESOURCES & REFERENCES

5. Illinois Flood Fact Sheet - Summer Season 2007: http://www.state.il.us/iema/planning/Documents/Prog_Flood_FactSheet.pdf

Federal Agencies
• US Army Corps of Engineers - St. Louis District: www.mvs.usace.army.il/permits/illinois.htm
• US Fish & Wildlife Service: www.fws.gov
• USDA Natural Resources Conservation Service - Illinois: www.il.nrcs.usda.gov

State Agencies
• Illinois Department of Natural Resources: www.dnr.state.il.us or (618) 594-3627
• Illinois Environmental Protection Agency: www.epa.state.il.us; Bureau of Water: (217) 782-3362

Soil & Water Conservation Districts - Illinois Counties www.aiswcd.org
• Bond County: (618) 644-0555
• Clinton County: (618) 526-7919
• Madison County: (618) 656-7300
• Monroe County: (618) 939-6181
• Randolph County: (618) 443-4381
• St. Clair County: (618) 233-5583
• Washington County: (618) 327-3078

Nonprofit and Community Organizations
• HeartLands Conservancy: www.HeartLandsConservancy.org
• Prairie Rivers Network - Illinois Stream Team: www.prairierivers.org
• The National Great Rivers Research & Education Center: www.ngrrrec.org
• American Planning Association - “Policy Guide on Wetlands”: www.planning.org/policy/guides/adopted/wetlands
For more information about Arlington Wetlands, visit the Collinsville Area Recreation District’s website at www.collinsvillerec.com/wetland - this is a great way to get school-age kids engaged with wetland education!
Our Mission is to provide leadership and solutions to sustain and enrich the diverse environmental resources of Southwestern Illinois

Our Vision is communities with healthy and sustainable air, land and water resources for current and future generations

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