



**U.S. Fish and Wildlife Service**

# **Inside Region 3**

*September 2010*

# FRB

***Success by Design***



## Editor's Note:

Connecting with nature does not look the same for everyone. Connecting with nature means different things to different people. For some, it's hunting and fishing. For others, it's walking in the woods or on the beach. What does your nature encounter look like? We want to know. To that end, we have added a regular section called Let's Go Outside!

We invite you to submit personal nature encounters as experienced by you and your children, as well as innovative ideas on how to connect with nature. We will run your accounts in this feature segment.

Please submit your youngsters' stories and photos to our regular section: Kid's Corner. Kid's Corner features the nature writing and photographic pieces by the children of regional employees.

E-mail: [valerie\\_redmond@fws.gov](mailto:valerie_redmond@fws.gov) with your Let's Go Outside! and Kids Corner articles, photos, journal entries and poems.

## On the Cover:

Cover design by Samantha E. Redmond features a collage of 2009 Midwest Region photo contest submissions. USFWS Photos.

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## Success by Design

This month I was honored to be a part of the rededication ceremony of the Minnesota Valley National Wildlife Refuge's Visitor Center in Bloomington. The event was a success for the U.S. Fish and Wildlife Service on many levels.

It was a great opportunity for families to get out and enjoy some of the many educational and interpretive programs that the refuge offers. Children were engaged in ongoing activities throughout the day, including bird banding practicing and pond insect identification. I was very impressed with the dedication and energy of the staff that put such a momentous occasion together. As well, it afforded the Service the opportunity to showcase the state-of-the-art sustainable design that has emerged from the \$2.6 million visitor center renovation project, \$25,000 of which came from the American Recovery & Reinvestment Act funds. I encourage you to read about the energy footprint reductions (page 8) that we made thanks to the designers behind the project. Among other things, the green retrofitted computer controlled system allows the building to be "zoned" to reduce energy use in unoccupied areas.

It was an admirable event—successful by design. The successes that we've had in the past and to date have all been by design. Once more, our conservation efforts mirror design intelligence in nature itself. Like a snow hare's coat that changes to increase its survival or pine cones that are curved, straight or thick, it's all for a reason. Just as there's a reason that we do what we do. Ultimately

the purpose is to solve problems efficiently and with a style that is consistent with our mission.

As well, when we do what we do, we want to make sure that we're communicating the right message to our partners and to the public to ensure that we are all on the same page. Whether we are responding to the Kalamazoo/Enbridge Oil Spill (page 13), facilitating a congressional site visit and boat tour on the Illinois River (page 11), beginning a comprehensive conservation plan or attending a Directorate or Plains and Prairie Pothole LCC Steering Committee meeting, as I did last month, intelligent thought and framework design elements always come into play.

It's easy to appreciate the aesthetics and functionality an event, a restored prairie field,

a new visitor center, or even a birding brochure and forget the thought process that went on behind it. We would all do well to recognize, however, the meticulous decision making and hard work that goes into the preceding design process. As always I want to acknowledge your efforts and all of the hard work that you do. Thank you.

Warm Regards,

*--Tom Melius  
Regional Director,  
U.S. Fish and Wildlife Service  
Midwest Region*



Above: (L to R) Midwest Regional Director, Tom Melius, Senator Amy Klobuchar, John Bessler and Deputy Refuge Manager, Jeanne Holler, enjoy a moment at the grand reopening of Minnesota Valley National Wildlife Refuge's Bloomington Visitor Center. USFWS photo by Tina Shaw.

# On Design

Study nature, love nature, stay close to nature. It will never fail you. --*Frank Lloyd Wright*  
*American architect*

I go to nature every day for inspiration in the day's work. I follow in building the principles which nature has used in its domain. --*Frank Lloyd Wright*  
*American architect*

Design is a response to social change. --*George Nelson*

Design is a form of competitive advantage. People tend to think of design as good art, good visual language, which it absolutely has to be. But it's also about the ability to do systems thinking. --*James P. Hackett, President and CEO, Steelcase*

Design is an integrative process that seeks resolution (not compromise) through cross-disciplinary teamwork. Design is intentional. Success by design simply means prospering on purpose. --*Michael Smythe, Partner, Creationz Consultants*

Design is a plan for arranging elements in such a way as best to accomplish a particular purpose. --*Charles Eames, Architect, Graphic and Industrial Designer, Filmmaker*

Design is the term we use to describe both the process and the result of giving tangible form to human ideas. Design doesn't just contribute to the quality of life; design, in many ways, now constitutes the quality of life. --*Peter Lawrence, Founder, Corporate Design Foundation*

Design—in terms of thinking and process—is the champion of the future, envisaging and interpreting insights and ideas through strategy, ideas, products, spaces and communications. --*Peter Haythornthwaite, Principal, creativelab*

**DESIGN**  
Sustainable Architecture, Building and Culture

Green Building

ENVIRONMENTALLY  
in the field of archi  
tally conscious design  
**Reduce Facility Costs**  
Margaret Save  
SUSTAINABLE ARCHITECTURE  
describes  
ous design techniques  
describes environmen-  
techniques

**Sustainable Design**

Sustainable designs at Morris WMD and Minnesota Valley NWR. USFWS photos. Page design by Valerie Rose Redmond.

# Midwest Region CAD Team Leads the Way in ARRA Contract Execution

Cheers may have echoed as the region learned it would receive \$28.5 million for more than 70 ARRA (American Recovery and Reinvestment Act) projects. Those may also have included some initial gasps from the soon to be formed regional team that realized the mountain to be climbed to get that bulk of projects contracted. The task would require sprinter paced turnaround times.

Those gasps have turned back to cheers again as the professionals from the Construction and Acquisition Division lead the U.S. Fish and Wildlife Service in climbing that steep mountain and moving the paper needed so the construction teams could focus on moving dirt.

With a seemingly overwhelming load of projects to bid and award, layered atop an already full load of the year's regular projects, ingenuity was a key to success for the Construction and Acquisition Division team. Undaunted by the challenge, their staff worked long and productive hours to set the Service standard in awarding all contracts and grants for \$28.5 million in ARRA projects.

"With an additional 70-plus contracts to design and award, and extensive review and oversight guidelines, like 5-page checklists atop the existing 6-page standard checklist, time didn't allow for any slip ups," said Cathy Vanatta, Chief of the Construction and Acquisition Division. "We needed

a strategy and I believe my team came up with a winning formula that we applied to handle the challenge." Regional Director Tom Melius concurred. "Time and time again, I see the people in this region face what might seem like insurmountable challenges at the time and take care of business in such an outstanding fashion" he said. "The value to this region from the ARRA projects is huge for the resource and our work with the resource, and the CAD staff put forth an equally huge effort to move this to the next hurdle



Above: David Swanson, Jack Reasbeck - Project Manager from Arrowhead Contracting, Inc., Craig Swedenborg, Tiffany Breske, Drew McDermott, and Curt Koutelas - President from Arrowhead Contracting, Inc. Front: Cathy Vanatta. USFWS photo by Valerie Rose Redmond.

toward accepting completed work from our contractors. Yet another job well done by those folks."

One of the key contract strategies used that allowed Vanatta and her staff to reach their goals was the use of MATOCs (Multiple Award

Task Order Contracts). MATOCs are pre-placed contracts that are competed for and that successful contractors are pre-qualified for. This enabled an abbreviated solicitation and negotiation period in awarding each project.

Vanatta said, "We awarded 4-5 contracts per state to the most qualified firms and then could compete specific projects by price among those firms in the area. The result was quality competition for projects without the typical 51-day advertisement period."

Chris Jensen, Assistant Regional Director of Administration, said, "I'm so proud of the great work from our entire staff in leading the way for contract awards for the Service. With the goals of ARRA being to move quickly and stimulate the economy, really within a 13-month window, the effort meant about a 300 percent increase in the entire Service's annual construction and acquisition workload. An amazing feat by our staff."

"The project rewards are many for the resource and the communities where these projects are located. Fancy desks aren't important, the resource and tools to work with the resource are," said Vanatta. "There are the visible additions of new energy efficient visitors centers, additions of raceways at some of our hatcheries, habitat improvements, youth employment, private land partnerships and so much more. But just as important is the excitement and appreciation from

Continued on next page.

# Midwest Region CAD Team Leads the Way in ARRA Contract Execution

the local people. It's so touching when many have stopped by our field offices just to see the progress as the work begins. It's just very gratifying to see that people are so happy after all the work that was involved to reach this point."

Vanatta noted that while leading the way in the Service in contract awards for the 70-plus ARRA projects, this really still signifies the beginning. "Now is when the real work begins," she said. "When shovels hit the ground and people are put to work in accomplishing the tasks laid out in each of these projects."

Yes, the work is begun, but Vanatta and her staff cleared many hurdles to help pass the baton to the people on the ground who would do that work. Awarding these contracts came with the unusual challenge of layers of reviews at the national level (looking at both new and existing rules), peer reviews, reviews within her own staff, and the potential for audits all along the way to project completion.

"We've just had many, many more hoops to clear; department review of anything over \$1 million dollars, Service review if over \$500,000, and any ongoing audit completion," she said. "But thanks to our own regional leadership trusting in our abilities and refraining from micromanaging our efforts, we were able to get an amazing amount of work done very quickly. And, despite additional reporting requirements for contractors involved, there was still a tremendous enthusiasm to be a part of making each of these projects happen."

The region's success in these first phases of implementation of the ARRA projects was also a result of the enthusiasm of individuals and companies in the local communities who raised their hand to take part in normally time consuming aspects such as construction inspection.

"We had 34 people alone who sent in resumes from as far away as Neosho, Mo., for construction inspection. They not only brought with them some great credentials of work experience but they were obviously excited to be a part of this amazing initiative that benefits our resources. This saved on staff time and travel expenses as well," she said. "And with MATOC, we've been able to benefit from relying on known contractors who subcontract a great deal of the project in those communities, which keeps the money spent in that local community."

To put into perspective the effort of the regional contracting staff in completing the necessary work to move all of the ARRA projects through, Vanatta notes that this was the equivalent of completing over a year's worth of contract awards within a tight 3-month window.

"There was a lot of strategy involved in meeting our requirements within the timeframe allotted. Each of the Service's regions have some specific

timeframes when construction work reaches its peak. Such as here where the cold weather season impacts what work can be done," she said. "And bringing in known contractors with those high credentials also freed up the local engineering staff, who were just as inundated with these additional



Above: The team reviews plans. David Swanson, Jack Reasbeck - Project Manager from Arrowhead Contracting, Inc., Cathy Vanatta, Drew McDermott, Curt Koutelas - President from Arrowhead Contracting, Inc. Front: Craig Swedenborg, Tiffany Breske. USFWS photo by Valerie Rose Redmond.

projects, so they could focus more on the detail work."

It's been a team effort, Vanatta pointed out, with close coordination by members of the region's RAIT (Recovery Act Implementation Team), flexibility of staff members dealing with the normal turnover of employee retirements and those moving to new jobs, as well as the high level of enthusiasm and support throughout the way by regional management.

# A Deeper Shade of Green Cost Savings through Sustainability

At last the wait is over. On August 7, the U.S. Fish and Wildlife Service's Minnesota Valley National Wildlife Refuge flung open its doors to the public after a year of renovation with a grand reopening celebration of its Visitor Center in Bloomington, Minn. The meticulously planned and heavily anticipated event was a virtual who's who of Minnesota, notably with Senator Amy Klobuchar and Congresswoman Betty McCollum on hand with Midwest Regional Director Tom Melius for the celebrations. After a hiatus of more than 15 months, the visitor center for America's largest urban national wildlife refuge (built in 1989) re-emerged with style—green style. While the efficiency project was retrofitted to a 21-year old building, it is without a doubt, sustainable architecture at its best, the new center features solar panels, a geothermal heating and cooling system, and halogens energy.

The 24 solar panels that top the penthouse of the center are not photovoltaic but are instead used to produce domestic water and to supplement heating. The panels produce 268.8 million BTUs per year. The hot water that is produced from this power heats the building. There are 60 geothermal wells that provide all of the air conditioning needs and provide heat when needed. An ice tank that is linked to the geothermal system and provides additional cooling needs on very hot days. "We put in an ice storage system which is composed of CALMAC," says Marie Niesen,



Above: (L to R) Congresswoman Betty McCollum, Midwest Regional Director Tom Melius, Refuge Manager Charlie Blair, and Senator Amy Klobuchar collectively cut the ribbon to officially re-open the new Minnesota Valley NWR Visitor Center. USFWS photo.

U.S. Fish and Wildlife Service Regional Office lead engineer on the project. "It's a one of a kind design for the region." Niesen who also worked on an Agassiz NWR project to repair the solar panel to heat the maintenance building there, estimates that the installation the state-of-the-art design at Minnesota Valley NWR will reduce the facility's energy

usage and subsequent costs by approximately 40%. Niesen worked on the Morris Wetland Management District renovation, as well.

The visitor center now also features high efficiency lighting system, an air curtain on the back door that reduces energy loss

Continued on next page.

# A Deeper Shade of Green Cost Savings through Sustainability

when door is opened and three energy recovery units that transfer energy from exhaust to fresh air when entering building. “We also put energy efficient lighting throughout the building. And in so doing, we enhanced the building’s appearance,” Niesan notes.

The design was done by MEP Associates out of Eau Claire, Wis. The Construction was awarded to LS Black of St. Paul, Minn., says Niesan. She along with Tom Kerr (St. Croix WMD) and Roy Wassather (retired), worked on the requirements

but being the regional energy manager, I’m familiar with the energy requirements that need to be met in new buildings and major redesigns of existing buildings,” Niesan says. She had to ensure that those requirements were

Renewable Energy Society, a non-profit that promotes the use of renewable energies in Minnesota through education and demonstration of practical applications. MRES would like to put the refuge on its annual

October solar tour (<http://mnrenewables.org/solar-tour>). Doug Shoemaker, Vice-Chair of the Board of Directors of the organization, indicates that the typical sightseers on the tour are people who are looking for what they can do for their own homes. They subsequently become part of the tour themselves.

In addition to the energy reductions, the lobby was gutted and reemerged with a new theme. The new green style answers one

simple question that may be on the minds of visitors who stopover the new center: “Who needs a refuge?”

Renovation highlights in supporting the new theme include a butterfly garden at the entrance, a lobby information kiosk displaying public usage to the tune of 250,000-275,000, a new exhibit area that features an eye spy turtle, a snake den, press to hear wood peckers, and a tiger salamander among other critters. As with the event itself, attention was paid to design detail, as even the leaves in the exhibit area have insect damage to enhance authenticity.

--Valerie Rose Redmond  
*External Affairs*



The 24 solar panels that top the penthouse of the center are not photovoltaic but are instead used to produce domestic water and to supplement heating. USFWS photo.



Tim Bethke, MRES board member mans a booth at the grand reopening. USFWS photo.

and reviewed the designs submittals as they were developed. “They could have just put in a conventional boiler system,

being met by MEP’s design, she says. The sustainable renovation highlights has attracted the attention of the Minnesota

# The Wait Is Over...

After a 15 month renovation of the facility and exhibits, Minnesota Valley National Wildlife Refuge celebrated the grand reopening of the Bloomington Visitor Center.



Above and Right: Regional Director Tom Melius happily engages in the celebratory activities.



# Minnesota Valley NWR

# Members of Congress Tour Illinois River to Learn about Asian Carp

On August 9, the U.S. Fish and Wildlife Service organized a site visit and boat tour of a section the Illinois River near Starved Rock State Park at the request of U.S. Senator Richard Durbin (D-IL) and Congresswoman Debbie Halvorson (D-IL-11). The event was organized in coordination with the Illinois Department of Natural Resources and commercial fishermen engaged in the ongoing Asian carp population control efforts. The tour allowed both members of Congress to get a firsthand glimpse of the threat that invasive Asian carp pose to the aquatic systems. From their boat, Durbin and Halvorson were able to observe Service and DNR biologists apply electro-fishing techniques that force Asian carp to breach the surface, as well as gill-netting and other standard sampling practices.

In recent weeks, Service and IDNR biologists have used nets and electro-fishing in the waters of the Illinois River near Starved Rock Park to capture



Above: Illinois DNR and USFWS fisheries biologists Vic Santucci (left) and Aaron Woldt (right) show Senator Durbin and Congresswoman Halvorson Asian carp specimens that were recovered from the Illinois River. USFWS Photo.

approximately 100,000 pounds of Asian carp, which represents only a small portion the carp population believed to be present in that section of the river. These efforts

are supported in large part by the roughly \$15.5 million made available under the Great Lakes Restoration Initiative in the 2010 fiscal year to fund Asian carp removal in the Great Lakes states. “Asian carp” refers to four species of related fish originating from Asia. Two species of Asian carp—the bighead and silver

carp—were imported into the southern United States to manage water quality on aquaculture facilities and sewage lagoons. It is believed that bighead and silver carp began escaping into the wild in the 1960 or 1970s and have become invasive throughout the Mississippi River Basin and elsewhere in the United States. The Great Lakes are at serious risk from Asian carp. An artificial connection—known as the Chicago Area Waterway System—connects the Great Lakes to the Illinois River, which connects to the Mississippi River. This waterway system unintentionally provides a pathway for Asian carp to enter the Great Lakes.

In July 2010, Illinois Governor Pat Quinn announced that the state

Continued on last page.



Above: USFWS fisheries biologist, Aaron Woldt points out a leaping Asian carp as Congresswoman Halvorson and Senator Durbin look on during a boat tour of the Illinois River. USFWS Photo.

# Greening: A Foot Warming Event!

Much of the government's "greening" has focused on ways to conserve energy and recycling of wastes created during project efforts. Iron River NFH has replaced a number of ballasts with high-efficiency units, purchased LED lighting for office space, and increased roof insulation in the effort to conserve. Another aspect, often overlooked, is to focus on purchasing recycled and renewable products.

Most carpet fibers (nylon, polyester, olefin) are made from petroleum oil. That is why Iron River installed corn carpet into two station quarters. That is correct, we installed a product which uses fibers created using corn by-products. Carpeting made from corn limits the impact on the Earth's natural resources. Environmental benefits include reduced CO2 emissions. Other benefits include: 1) Renewable Resources - The fibers are made from corn so it can be grown annually and won't deplete oil reserves, 2) Biodegradable - The fibers will not fill the landfills

Below: View of bedroom with corn carpeting. USFWS photo by S. Sanders.



Above: New Corn Carpet in Iron River NFH Residence. View of hallway. USFWS photo by S. Sanders.

years later, a special product can be sprayed on to the fibers and it will decompose in a short time, 3) Exceptional Durability - This fiber is said to wear better than nylon under heavy use, 4.) Extraordinary Softness - It's a soft fiber that doesn't compromise quality.

Next time you are shopping for new household carpet, check out the potential of using corn carpet!

--Shawn Sanders  
R3-Iron River NFH

certification, alone, means savings on operating expenses in a facility that will last a very long time."

Much has been accomplished and much remains to be done as the projects head further down the tracks toward completion. "We've met and exceeded the paper goals in leading the Service in obligating funds for the projects, and now we will see those benefits in terms of shovel to dirt and putting people to work. And we'll remain very involved in making sure that all specifications for these projects are met as we accept each of the finished products."

Staff who contributed to the region leading the way in contract awards include: Craig Swedenborg, Sue Humphrey, Kim Maccani, Tiffany Breske, Pete Casillas, Elaine DeGroot, Carol Fix, Rick Hillard, Andrew McDermott, Erin McFadden, Marie Niesen, Lauretha Randle, David Swanson, Delores Aldinger, Jenessa Humphrey, Jamie Lewis, Meaghan Nelson, Dan Richardson, Jim Lindquist, Bill Wilson, Cheryl Schwartz, Scott Cadwallader, Terry Pennaz, Patrick Peine, Gary Hausdorf, Todd Criswell, Matthew Spielbauer, Mike Brickley and Ken Kaseforth.

--Larry Dean  
External Affairs

## ARRA Execution Continued

"Everyone is proud and will continue to be proud of the finished products. These are not inferior products. We're talking about visitors centers with state-of-the-art energy efficiency and 40-50 year lifespan. The LEED

# Michigan Oil Spill Response

As efforts to contain and clean up the Gulf Coast oil spill continue into the fall, the Midwest must now deal with its own environmental contamination crisis from an oil spill in Southern Michigan. A pipeline leak which occurred on July 26, caused more than 800,000 gallons of crude oil to leak into Talmadge Creek and the Kalamazoo River, which ultimately flows into Lake Michigan. The pipeline belongs to Canadian oil company Enbridge, Inc. Over the course of several days, the spill spread 30 miles down the Kalamazoo River, but containment crews were able to respond in enough time to prevent the oil from moving into the Great Lakes.

The U.S. Fish and Wildlife Service arrived on site within hours of being notified of the spill. Service employees have since worked tirelessly to recover compromised wildlife and kick-start damage assessment work.

Since late July, Service biologists, in partnership with the Michigan Department of Natural Resources and Environment (MDNRE), have rescued more than 200 oiled animals, including mallards, muskrats, geese, and turtles from the Battle Creek, Kalamazoo and Marshall areas. Once captured,



Above: Animal rehabilitation after contact with oil. MI DNRE photo.



Above: Leg bands from Michigan DNRE attached to birds from the Enbridge Kalamazoo River oil spill prior to their release. USFWS photo.

turtles became the first wildlife to be rehabilitated and released back into the wild. Since then, many more animals have been successfully cleaned and relocated to safe and suitable habitats.

In addition to assisting Michigan DNRE with wildlife rescue and recovery, Service officials are assessing natural resources to ensure the public resources for the damaged by the oil spill are compensated by the responsible party, and to ensure that the community's lands and waters may one day be restored to their pre-spill state.

--Ashley Spratt  
and  
Katie Steiger-Meister



Above: Valdo Calvert wildlife branch director speaks to reporters about wildlife collection and rehabilitation. Two turtles were released into a pond at Binder Park Zoo on August 2. USFWS photo.

wildlife is brought to the Wildlife Response Center in Marshall, Mich., where animals are stabilized, cleaned and eventually released back into

the wild. The Wildlife Response Center is operated by an Enbridge contractor, Focus Wildlife. On August 2, five soft shell

# TURNING SEA LAMPREYS INTO TV STARS



Left: Filmmaker Jeff Breitenstein, of North American Media Group, films Victoria McClellan while she checks her pesticide application rate during a recent lampricide treatment. Photo courtesy of Michael Fodale.

Sea lampreys are coming to a television station near you! Pete Mathiesen and Jeff Breitenstein, from North American Media Group, an independent filming company attached to Versus Television, are filming various activities of the Sea Lamprey Management Program for an upcoming TV special, likely in December 2010. The film crew is creating four 22-minute shows about invasive species in the Great Lakes and their species of choice are sea lampreys, round gobys, asian carp, and zebra/quagga mussels; they chose to do the show on sea lampreys first. Staff was both interviewed and

filmed conducting adult trapping activities, electrofishing for larval sea lampreys using backpack gear, sterilizing adult male lampreys at the sterilization facility near Rogers City, Mich., conducting a TFM lampricide treatment on Albany Creek (Lake Huron), and most recently, treating specific areas with granular Bayluscide on the St. Marys River with a newly designed aquatic pesticide application boat. The TV special will highlight the success of the management program and emphasize the dedication of the people and the use of state-of-the-art technologies to control sea lampreys in the Great Lakes.

The Service's sea lamprey management program continues to work closely with partners to control populations of sea lampreys in tributaries of the Great Lakes to protect the fishery and related economic activities in the basin (an estimated annual benefit of \$7-8 billion/year to the region). The Service delivers a program of integrated sea lamprey control in U.S. waters of the Great Lakes as a contracted agent of the Great Lakes Fishery Commission.

*Michael Fodale  
R3-Marquette Bio Station*

# Around the Region

## BIG Diesel: An Old Workhorse Takes a Backseat

The year was 1995 and Iron River NFH was replacing a worn out fleet of fish hauling trucks. These trucks were gasoline fueled and achieved only two to three miles per gallon. In addition, most engines needed replacement with less than 100,000 miles of use. Efficient use of regional resources dictated the purchase of larger fish distribution trucks that reduced travel and road costs related to fish distribution season. Iron River NFH chose to purchase a larger vehicle. The purchase was a 1995 Ford L9000 with an Eaton 13-speed Road Ranger Transmission. This vehicle was fitted with a specially built stainless steel tank which consisted of three 1,100 gallon holds. Each of the holds would transport the same amount of fish as was held in each of the smaller transport vehicles, thereby reducing the regional truck fleet by two vehicles and two drivers. Efficiency was also

increased by a diesel vehicle that would average nine to ten miles per gallon for a full trip.

There have been aspects that were not always the most comfortable or accommodating, such as learning to drive a “real” stick shift truck. However, this learning curve was a small price to pay for an overall hauling machine!

On one of my first trips, I was hauling fish to Milwaukee, Wis. over the Labor Day weekend. To see the children’s faces light up, and to see grown men giving me

the thumbs up as they passed was well worth the sacrifice of working a normal holiday weekend. This occurrence was commonplace when hauling fish across Wisconsin and Michigan. You could tell that people were on board with our stocking efforts and excited to see such a truck.

I should say that this vehicle is not totally retired, yet. The Iron River NFH will keep it in our stable as a back-up workhorse in case of a breakdown or emergency. However, once BIG Diesel is finally retired we will all say a heartfelt

“farewell” or at least something like that.

--Shawn Sanders  
R3-Iron River NFH



Above: Iron River NFH employees load fish into transport vehicle. USFWS photo. Left: Distribution vehicle parked outside Iron River NFH. USFWS photo.

# Success for DeSoto NWR/Blair Community Schools Environmental Education Partnership

Through the Blair/DeSoto Environmental Education Partnership, students meet curriculum standards in core and exploratory subject areas while learning in an authentic, place-based experience at DeSoto National Wildlife Refuge. In school year 2009-2010, students from Blair Community school's fifth, seventh and high school environmental studies classes visited the refuges six times for programs integrated into classroom studies. This school year yielded 2,887 student visits to the refuge to participate in 79 programs. This partnership not only promotes academic excellence it also increases U.S. Fish and Wildlife Service awareness and

appreciation while increasing visitation to the refuge.

All students in Blair fifth, seventh and high school environmental science made six successive trips this year to the refuge where they garnered real life experience studying topics they learned about in the classroom as part of their participation in the Blair/DeSoto Environmental Education Partnership. Class visits built upon visits that occurred during the fall semester.



Above: DeSoto NWR Visitor Services Specialist Ashley Berkler assists fifth grade students with wetland investigation project. USFWS photo.



Above: Blair teachers implement journaling in environmental education outdoor classrooms at DeSoto NWR. USFWS photo.



Above: Blair Nebraska students in DeSoto's environmental outdoor education classroom. USFWS photo.

a refuge tour to get to see bald eagles. Seeing the Bald Eagle nest on the refuge was a highlight for many students. The fifth graders have developed observation and critical thinking skills through a scientific inquiry program at the refuge. During this three hour program, rangers guided students through activities designed to help students use their senses like describing the smell of leaves or the feel of a deer jawbone. Students were then asked to use these skills during a one hour silent observation time on a refuge trail. For the fifth grade students, the year culminated with the all day Outdoor Education Day where students got to participate in a variety of outdoor activities including cooking breakfast over a campfire, fishing, canoeing, wetland investigation at Wood Duck Pond, and a snake encounter session. The fifth grade classes visited DeSoto NWR six times for three hour sessions throughout the year.

Fifth grader, Austen Churchill,

three hour program, students took part in an indoor presentation about the bald eagle and then

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# Success for DeSoto NWR/Blair Community Schools Environmental Education Partnership

summed up the year this way, “At first I didn’t know much about nature. That changed this year when I went to DeSoto. Nobody knows everything about nature, but I have learned a lot of things about nature. This summer, I plan to go back to DeSoto and walk on a trail. I might end up studying nature when I grow up.”

For seventh grade students, their spring trip to the refuge included a little bit of everything they had been studying in the classrooms. Students participated in a bird migration game to learn the importance of stopovers and resting spots during migration and how DeSoto NWR helps to fill some of that need. Students spent some time in the woods looking for birds to observe. They also completed a math activity using proportions to estimate the total number of trees in the forest. These activities all tied back to concepts being studied in the classroom. Seventh grade classes visited the refuge six times for an hour and a half at a time during the year.

Middle School exploratory technology students used the refuge to learn about digital photography. A pilot program this school year, students will be assisting the refuge in years to come with documenting habitat projects taking place on the refuge. Other potential projects are being discussed for this exciting new part of the partnership.

The high school environmental studies classes used the refuge to study soil quality, water quality and fire ecology. These are all lessons being taught in the



Above: DeSoto NWR Wildlife Refuge Operations Specialist Steve Van Riper teaches high school students about fire ecology and the refuge’s prescribed burning program. USFWS photo.

classroom but with the refuge as an authentic learning experience helps the students make real world connections to the material learned in the classroom. Wildlife Refuge Specialist Steve Van Riper worked with these classes to provide students the perspective of a wildlife biologist on the refuge. High school environmental studies classes visited the refuge six times for an hour and a half each during the year.

The school year concluded with a teacher’s workshop for twelve Blair teachers and two administrators. The workshop focused on nature journals and was co-taught by DeSoto NWR Visitor Services Specialist Ashley Berkler and Prairie Wetlands Learning Center Instructional Systems Specialist Dave Ellis. Teacher evaluations rated the workshop excellent. One teacher wrote “It [the workshop] gave me

many ideas to incorporate into my classroom. It gave me a chance to enjoy the outdoors.”

Both the refuge and school district are committed to the continued success and growth of this partnership. Blair Community Schools Superintendent Jane Stavem said, “Outdoor education is a unique opportunity for our students to learn district curriculum in a completely authentic environment. It allows students to learn through experience, rather than a simulated situation in a classroom. I have seen the difference it makes and I think every student should have the opportunity to experience this type of hands-on, real learning experience. It is really the essence of what true learning is all about.”

Next school year, the current grades and classes will continue to utilize the refuge with the addition of third, sixth, and eighth grade classes. Art and exploratory technology classes are also beginning to use the refuge for their studies several times a school year. The 2009-2010 school year yielded a total of 79 programs and 2,887 student visits by students in Blair Community Schools.

This is the fourth year of the Blair/DeSoto Environmental Education Partnership. The mission of the partnership is to create a sense of wonder through environmental education in an outdoor classroom, a partnership with the Blair Community Schools “Where all Students Learn” and DeSoto National Wildlife Refuge “Where Wildlife Comes First.”

--Ashley Berkler



# Coneflower Kaleidoscope

Beverly Meyer  
Wildlife Refuge Specialist  
Litchfield Wetland Management District.  
USFWS Photo.

# The Piping Plover Story Continues

As the end of July approaches, the Great Lakes Piping Plover breeding season for 2010 is nearing an end. Although a few late nesters remain with eggs or chicks, many have completed the breeding cycle and are beginning their long journey back to their winter homes.

The 2010 breeding season fell slightly short of our goal of a continued increase in population numbers. Our preliminary estimate for this year is approximately 60 breeding pairs. Last season we set the record, with 71 breeding pairs, and we all hoped for a continued increase. Nevertheless, we had another successful year in many regards, and our long-term population trend continues upward.

Like past years, piping plovers in the Great Lakes faced many challenges, such as severe storms, disease and the threat of predation. Lucky for us, and the piping plovers, the many dedicated field staff and other

members of the Great Lakes Piping Plover, were up to these challenges and helped to mitigate these threats. And once again many landowners offered their

Below: Jack Dingledine is an endangered species biologist with the U.S. Fish and Wildlife Service's East Lansing Michigan Field Office. USFWS photo.



Above: Endangered Piping plover. USFWS photo.

cooperation in protecting the birds by allowing access by field crews and agreeing to limit disturbance. This level of cooperation could not be more evident, than the recent example of the piping plover pair that chose to nest within a few feet of a volleyball net on private property. First discovered by a group of volunteers, the prospect

for success for this plover pair seemed limited. But the good will and efforts of all involved resulted in a successful nest, and, at last count, all chicks remained alive and well. Sometimes a program's success is measured in more than in just numbers.

The many partners in the recovery program will soon meet to discuss the issues of the 2010 breeding season, and plan for the next. Data will be tallied and analyzed, and reports prepared. Some of the field crew, like the plovers, will move on to distant locations. Hopefully both will return next year, in even greater numbers.

*--Jack Dingledine  
East Lansing Michigan Field  
Office*

# Enhancement of Riparian Habitat Through Improved Grazing Practices and Permanent Legal Protection

In 1993 there was a catastrophic mine flooding event that resulted in the release of mine water into the Leading Creek watershed in Meigs County, Ohio and impaired aquatic natural resources. The release of untreated mine water reduced the pH resulting in the death of many types of aquatic organisms. Since the approval of the 1996 Consent Decree and 2003 Amended Consent Decree the U.S. Fish and Wildlife Service has been partnering with local agencies and organizations to restore and protect aquatic natural resources. Previous mining within the watershed has led to severe erosion and sedimentation of streams. Levels of erosion and sedimentation have also been influenced by local land use.

Meigs Soil and Water Conservation District, a local partner, identified the Jewell site for potential restoration. The Jewell site included a stretch of stream that flowed through the middle of an actively used pasture. Cows were free to cross at the stream at any location causing bank erosion and fecal contamination. The active grazing along the streambank impeded the growth of riparian vegetation and led to instability of the banks. Erosion in some stretches of the stream had been so severe that a fence post that had been formerly anchored in the ground was now suspended above the stream.

Several different project ideas were proposed. The Service worked with a variety of partners including the Ohio Department of Natural Resources to determine

what area was required to accommodate lateral stream movement. In the areas where erosion was most significant larger buffer areas, were created to address the potential for more erosion. No stream armoring was to occur due to concerns about potential impacts downstream and altering stream morphology.



Sign installed at Jewell site after project completion in spring of 2010. USFWS photo.

Based on historical information and working with the landowners a consensus was developed to create a riparian corridor of 12 acres to be protected from grazing. This area would be fenced off from the remaining pasture and additional tree planting would occur.

In an effort to reduce erosion and sedimentation while allowing the continued agriculture operation, hardened stream crossings were installed in specific areas. The stream crossings were designed by Natural Resource Conservation Service and included two crossings over Little Leading Creek and an additional crossing over a tributary to Little Leading Creek. These allow the cows to cross the stream in designated areas and prevent erosion of the streambank. Since the cows were no longer going to have unlimited access to the stream, alternative water sources were needed. The Service provided

funding to install the alternative water sources as well as the fencing of the riparian corridor.

In implementing the project and alignment of the fence, the property owners agreed to have additional acres of riparian habitat protected. In total 14.5 acres of riparian habitat have been fenced, planted, and are protected by an environmental covenant. The Jewells were compensated for the area of pasture that was removed from production. The Service worked to address the concerns of the landowners and permitted the planting of low-growing shrubs in a selected area to permit visibility of the cows in the pasture on the opposite side of the stream.

This project permanently protects 3,889 linear feet of stream through an environmental covenant. The riparian plantings and hardened stream crossings will reduce erosion and sedimentation while stabilizing the streambanks and providing habitat benefits to fish and other aquatic organisms. Impacts of the project will also include reduced sedimentation at a conservation area that is currently protected downstream of the site and additional connectivity to existing habitat at the conservation area. Just weeks after the installation of the stream crossings, minnows could be observed swimming within an area that had previously been very turbid due to the activity of the cows.

--Jennifer Finfera, R3-Ohio Ecological Services FO

# Crossings, Culverts and Contacts.... Having Fun with Fish Passage

Fish passage surveys are a great way to get out of the office and I admit I really enjoy the opportunity to go. Every day can be an adventure because in my experience no day is ever the same and one typically sees the strangest things or meets some very unique people on these outings.

We had been cursed at, stared down and questioned to the nth degree already before meeting Carl on this particular outing. He was riding his four-wheeler across my bridge. He saw my FWS patch and turned around asked the standard question, "What are y'all doing?" I quickly explained (in the 100 degree heat) what our mission was, then he proceeded to introduce himself and his position as the county commissioner who was responsible for fixing and installing bridges. Carl explained his personal efforts to do the right thing, as he had five stream crossings he had to fix in the coming months due to rain events that had washed them away. This average looking farmer impressed me further by explaining that since he had taken office he had deduced that his road crews spent way too much time working on a bridge and did a poor job. So he had gone to contracting experts to do the bridges and left the road crews to grading. Realizing there was an opportunity before me and pacifying my heat laden coworker with a glance, I lectured him on the merits of good bridge design and fish passage. Scratching his head, Carl resolved that had never considered that fish couldn't get

over the four foot dam/bridge we were standing on and summarized the thought perfectly in his statements. "I never thought about it before, but I guess you always fish below the bridge where the fish are stacked up at," he said. "How come my boss doesn't know this stuff?" You got it Carl! Usually one can expect to crawl through cobwebs, shuffle over snakes and come back with a good case of poison ivy on a stream survey, but that day we made a difference by a chance encounter with the county commissioner taking an evening ride on his four-wheeler. Fish passage work is a process of education, if we can stop the progression of new bad projects we can eventually catch up and fix the old ones.

--Wyatt Doyle  
*R3-Columbia FRO*

## Rice Lake NWR Celebrates 75 Years

Join Refuge staff in celebrating 75 years of history at Rice Lake NWR on September 3 from 9:00 a.m. to 3:00 p.m.

This free family event will lead you on a historic journey through the development of the refuge. Feature exhibits will include wild rice harvesting, horse logging demos, blacksmithing, story telling, wagon rides, historic photo display and much more. Come discover the wonder Rice Lake NWR has to offer!

For more information please call:  
218-768-2402.

## USFWS Announces \$3.2 Million Plus in Funding for Great Lakes Fish and Wildlife

Midwest Regional Director of the U.S. Fish and Wildlife Service, Tom Melius, recently announced more than \$3.2 million in federal funding under the Great Lakes Fish and Wildlife Restoration Act to support regional projects that will expand mass marking capabilities for lake trout and salmon, and protect important habitat surrounding state and federal wildlife refuges of southwest Lake Erie. Both projects are supported by an \$8 million allocation from the administration's Great Lakes Restoration Initiative (GLRI).

For More Information Visit:

<http://www.fws.gov/midwest/News/release.cfm?rid=266>

## Employment Milestones

The U.S. Fish and Wildlife Service announced today that Mr. Richard Leopold (right) has been selected as the Midwest Region's Assistant Regional Director for Science Applications. Leopold is currently the Director of the Iowa Department of Natural Resources. He is tentatively scheduled to report for his new position on September 12, and will be stationed at the Midwest Regional Office in Ft. Snelling, Minn.

"We have been conducting a long-term, national search for the right person to fill this senior position within the U.S. Fish and Wildlife

Service," said Service Midwest Regional Director Tom Melius.



"Richard's extensive knowledge of, and experience with, state and national conservation agencies, as well as with nongovernmental organizations made him the ideal person for this critical new position."

"I'd like to thank Governor Culver for the opportunity to lead the Iowa DNR during the past several years," said Leopold. "It has been a great honor to work with him and all the DNR staff to help protect Iowa's natural resources. I now look forward to working together with all the states, federal agencies and other organizations across the Midwest to help address the many landscape level challenges our nation's natural resources face."

Sharon Vassar has had a rich and varied 46 year career in public service. She has worked for the U.S Army, U.S. Department of Agriculture and for the last 35 years for the U.S. Fish and Wildlife Service. Sharon was most recently the Executive Assistant to the ARD for Migratory Birds and State Programs in Region 3. She had developed a solid reputation as the "go to" person for administrative personnel in the



Regional Office given her vast administrative experience and her willingness to mentor and coach others. She has been a very valuable and productive team member of the greatest conservation agency in the world and we will miss her



knowledge, expertise and kind and friendly approach. And we wish her only the best in retirement.

--John Christian,  
Migratory Birds and  
State Programs

Above Left: Sharon Vassar. Right: Sharon Vassar with her family. USFWS photo.

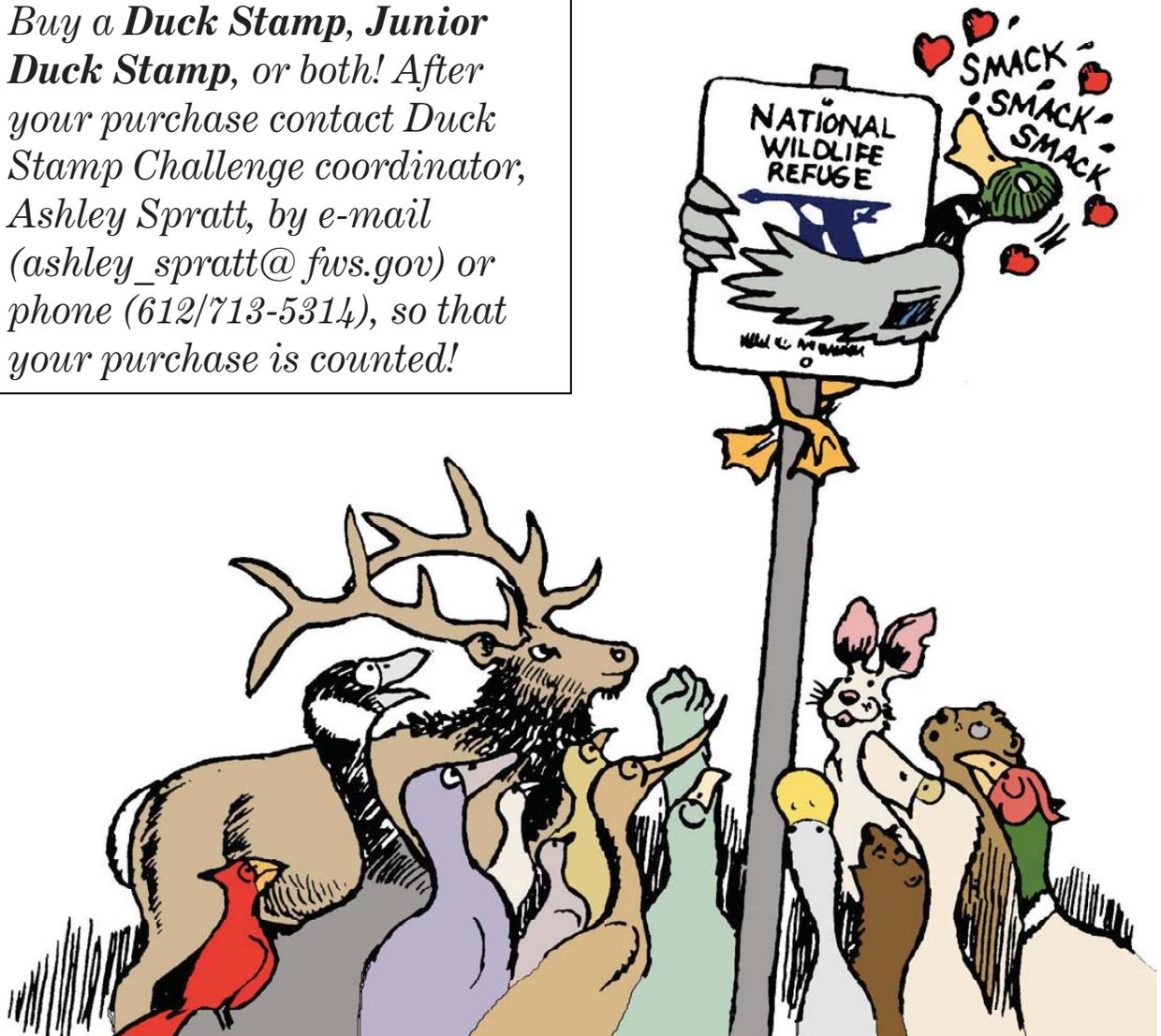


## Regional Office

# 2010 Duck Stamp Challenge

The epic challenge to see which office can sell the most Duck Stamps is back, so **BRING IT ON!** It's the **Geeksters vs. GooseFarmers vs. ShoutOuts vs. LawDogs vs. FishHeads vs. CraneTrackers vs. the Protectors!** It's no holds barred, all-against-all, every office for itself! Who will sell the most...and prevail? The deadline to purchase, and be counted, is January 31, 2011. Buy your stamp from Margie Maldonado in Visitor Services!

*Buy a Duck Stamp, Junior Duck Stamp, or both! After your purchase contact Duck Stamp Challenge coordinator, Ashley Spratt, by e-mail ([ashley\\_spratt@fws.gov](mailto:ashley_spratt@fws.gov)) or phone (612/713-5314), so that your purchase is counted!*



# Upper Mississippi River Floodplain Wetlands of International Importance

Designation by The Ramsar Convention on Wetlands

In January 2010, the Upper Mississippi River Floodplain Wetlands became one of more than 1,800 Ramsar sites worldwide. Over **302,300 acres of Illinois, Iowa, Minnesota and Wisconsin** are included in the Ramsar designation.

The site consists primarily of flowing main and side channel habitats, backwater marshes, and floodplain forests.



Photo by Robert J. Hurt



The Ramsar Convention on Wetlands, is an international treaty signed in Ramsar, Iran, in 1971. The convention provides the framework for national action and international cooperation for the conservation of wetlands around the world.



## Facts about the Upper Mississippi River Floodplain Wetlands of International Importance:

- home to more than **100 native fish species** and **42 native mussels** including the nationally **endangered Higgins eye pearl mussel**
- located at the core of the Mississippi Flyway, through which **40% of North America's waterfowl migrate**. Treasures of the floodplain wetlands are the canvasback duck and tundra swan.
- well over **3 million people visit** each year



Eric Engbretson



US FWS



US FWS



Alan Stankevitz

## Partners of the designation:

The Ramsar site includes the Upper Mississippi River National Wildlife and Fish Refuge, Trempealeau National Wildlife Refuge, and other federal and state-managed floodplain wetlands.



**10/10/10 FOR 10  
CELEBRATING  
WORKING WETLANDS**

**Don't Miss This Event!**

**10/10/10 FOR 10  
CELEBRATING  
WORKING WETLANDS**

Be part of a worldwide event. People around the world will celebrate wetlands on 10/10/10 for 10.

At a 10/10/10 event participants could:

- pick up 10 lbs. of trash
- pull 10 lbs. of invasive species
- identify 10 birds
- identify 10 plants
- list 10 reasons you love this place
- name 10 different types of wetlands
- spend 10 minutes admiring the landscape
- learn 10 new facts about wetlands
- catch 10 fish
- meet 10 new people

You may also host a 10/10/10 event.  
For more information, e-mail:  
[cindy\\_samples@fws.gov](mailto:cindy_samples@fws.gov).

**Come join in the celebration!**

All along the Upper Mississippi River, communities are hosting events on Oct. 10, 2010 to celebrate working wetlands as part of the area's designation as a Wetland of International Importance.

Events are open to the public,  
to find an event visit:  
<http://bit.ly/UpperMiss>.

# Employee Profile Constance Grant

In her job as Administrative Support Assistant at the Minnesota Valley National Wildlife Refuge, Constance Grant is in a unique position. In addition to her administrative duties which include performing clerical, technical accounting, procurement, personnel, attendance and budgeting tasks, she also has the opportunity to shadow co-workers out in the field, which she says makes a real difference in her job. “This enables me to better respond to telephone inquiries from surrounding communities and curious individuals wanting to know what a refuge is all about,” she says.

Upon her arrival to her new job last March, she was given two separate tours of the units. The first was with a park ranger and the other with a fire officer. Grant was amazed at the wide expanse of land. “I could not believe that we managed eight units from Bloomington to Jordan,” she says.

What was great about the opportunity was that she was able to glean information from two diverse perspectives. “Both individuals had



Top: Constance “Connie” Grant in between tasks at her desk. USFWS photo by Samantha E. Redmond. Bottom: Connie helping with the fixings at the Minnesota Valley NWR annual fish day. USFWS photo.

different views of what they were showing me,” she says. She also had the opportunity to go out with a biologist in search of one of our native flowers: the Virginia Blue Bell. Several were found near the Bass Ponds trout stream and the biologist explained to her how they actually created fish ladders. The ladders are created for

Continued on next page.

# Employee Profile

## Constance Grant

small fish that cannot jump over six inches of water to reach the spawning area. Grant says it was an awesome experience.

Also responsible for refuge visitor activities and events, Grant was on hand on August 7 for the grand reopening of the Minnesota Valley NWR Visitor Center. She guided some of the visitors (approximately 250 in total attended the event) through walking tours and helped with children's activities.

Right: Constance "Connie" Grant helping a family of visitors at the grand reopening last month. USFWS photo. Below: Connie (C) with her two daughters Shalanda (L) and Versiree (R).



A native of San Antonio, Texas, Grant says that she enjoyed taking Alamo River walks and looking at all the beautiful missions. Grant says she was attracted to the Service because of its involvement with environmental issues, climate change, and animal migration. "Although I am on the administrative side I enjoy the outdoors," she says. "I feel that the environment should be taken care of and protected for future generations to enjoy."

--Valerie Rose Redmond  
External Affairs

# Fishers & Farmers Partnership for the Upper Mississippi River Basin

The Steering Committee for the Fishers & Farmers Partnership for the Upper Mississippi River Basin met in Ankeny, Iowa, on August 9-10 at the Iowa Soybean Association (ISA). The Fishers & Farmers Partnership, which includes large areas of Iowa, Illinois, Minnesota, Missouri, and Wisconsin, is one of 17 working units of the National Fish Habitat Action Plan. Made up of state and federal agencies and nongovernmental organizations representing both conservation and agricultural interests, the partnership uses non-regulatory means to protect, restore, and enhance the 30,700 miles of streams and rivers of the Upper Mississippi River Basin.

ISA Director of Environmental Services Roger Wolf welcomed the group and stressed the importance of engaging land owners to take the lead when it comes to tackling

these issues. "It's about bringing our resources together to address fish habitats, but also the livelihood of agriculture as a priority," Wolf said. Fishers and Farmers Staff Coordinator Ken Lubinski then gave an overview on the goals of the committee.

"The goals are to engage farmers and ranchers, support fish habitat conservation projects, continue development of long term basin scale strategies and strengthen the organization for long term action," Lubinski said.

Afterwards, the group departed for the Boone River Watershed to see firsthand some of the issues they face, such as stream bank stabilization, livestock grazing and water access, fish passage barriers and potential restoration sites.

ISA State Watershed Coordinator Todd Sutphin said, "Through a watershed assessment and planning process, locally led watershed groups have been able to identify the resources concerns in their watershed, target areas that need conservation efforts, and develop locally acceptable solutions and practices to manage these concerns."

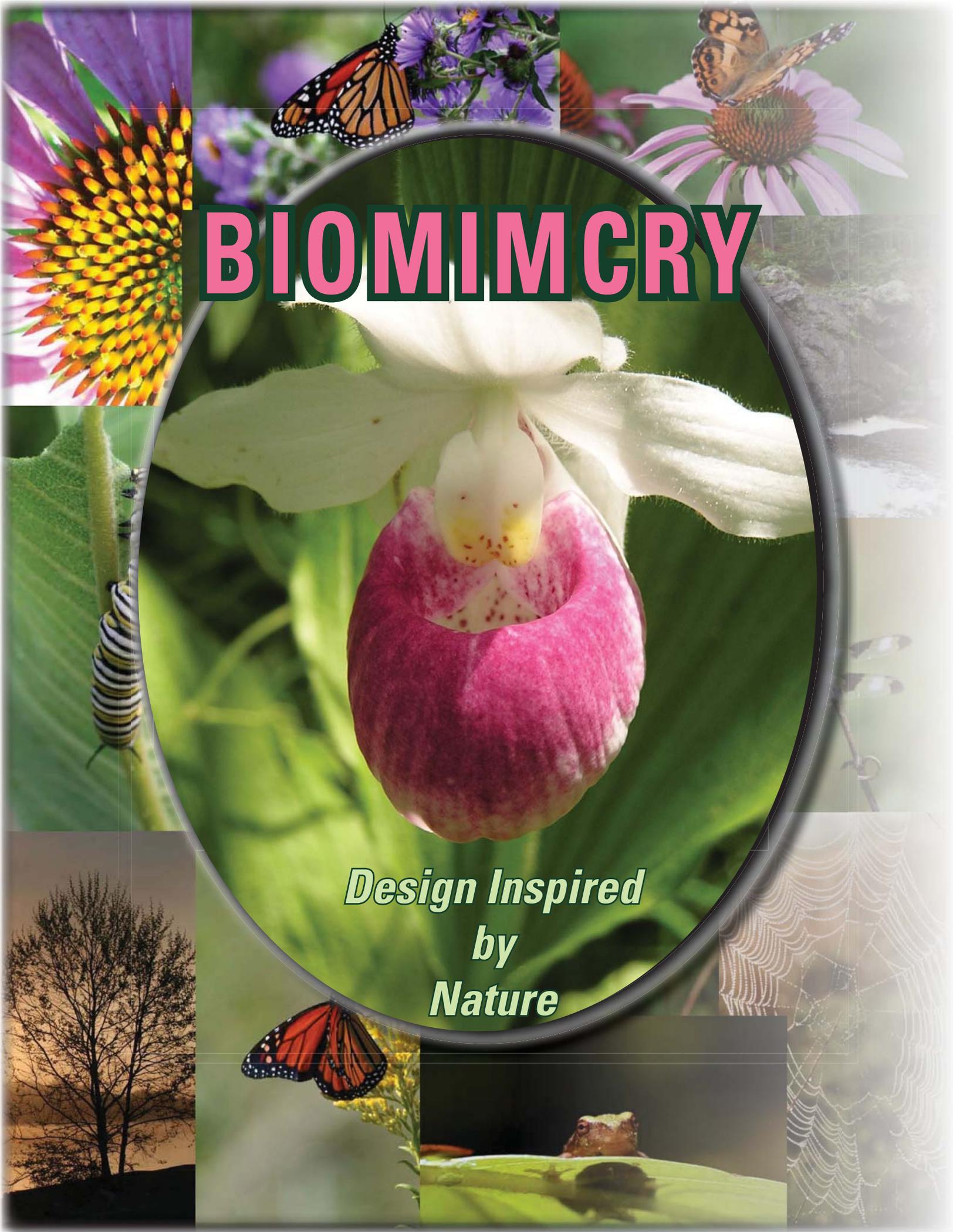


Above: Fishers & Farmers Partnership Steering Committee met on August 9-10 at the Iowa Soybean Association in Ankeny, Iowa. 1st row L-R: Jack Lauer (MN DNR), Scott Grummer (IA DNR), Eileen Bader (The Nature Conservancy), 2nd row L-R: Brian Todd (MO Dept. of Conservation), Martin Conrad (IA DNR). Photo by Carrie Laughlin.

Below: Eileen Bader (The Nature Conservancy), Roger Wolf (Iowa Soybean Association), Jason Palmer and Adam Kiel (IA DNR), discuss restoration of riparian habitats at the Fishers & Farmers Partnership Steering Committee on August 9 at the Iowa Soybean Association in Ankeny, IA. Photo by Carrie Laughlin.



Above: The Fishers and Farmers Coordinator, Ken Lubinski (USGS), gets down to business with a discussion of the Fishers and Farmers Charter that will soon be signed by Iowa Soybean Association, USFWS, IA DNR, U.S. Forest Service, MN DNR, TNC, National Mississippi River Museum & Aquarium, WI DNR, MO Agribusiness Assoc., IL DNR, MO DOC. Photo by Carrie Laughlin.



# BIOMIMICRY

*Design Inspired  
by  
Nature*



# BIOMIMICRY

## The Mother Nature of Invention

In the shimmering brilliance of the final product, the design process can fade, unnoticed and unappreciated, like pale yellow in the sun. There's no denying that the design process is a labor intensive process, but in some cases, it is one that can be mitigated with careful observation of the surrounding environment.

Nature has many lessons to teach. Some of which are best practices of design. From the Greek words that mean life and imitation, biomimery is the art of invention by employing design principles that imitate nature. In short, it is using nature as a model for the creation of the things we need to live, love and play. Many innovations have employed nature's philosophy for efficient and effective problem

solving. The most famous example is the invention of Velcro, inspired by an engineer's observation of burrs stuck to his dog's fur. Other examples include African termite mounds that inspired building cooling systems, butterfly wing influenced solar panels and higher efficiency turbines that feature designs sparked by the flippers of humpback whales. Mother Nature's ability to so effectively and efficiently sustain the complex system of life found on Earth is inspiration in and of itself. For more examples of biomimery, visit the following websites:

- **Coolest Biomimery:** <http://brainz.org/15-coolest-cases-biomimery/>
- **Design Inspiration from Nature:** <http://inhabitat.com/2010/07/16/finding-design-inspiration-in-nature-biomimery->

[for-a-better-planet/](http://www.designboom.com/contemporary/biomimery.html)

- **Biomimery:** <http://www.designboom.com/contemporary/biomimery.html>

- **How would nature solve green building challenges:**

<http://www.asknature.org/>

- **How Biomimery Works:** <http://science.howstuffworks.com/environmental/life/evolution/biomimery2.htm>

- **Butterfly Wing Inspired Turbines:** <http://www.treehugger.com/files/2009/02/biomimery-breakthrough-butterfly-wings-solar-panels.php>

--Valerie Rose Redmond  
*External Affairs*



# Agassiz NWR Completes Repair on Shop Solar Heating System with American Recovery and Reinvestment Act Funds

The completion of the Agassiz National Wildlife Refuge solar heating system renovation was funded through the American Recovery and Reinvestment Act (ARRA).

During FY 2008, Department of Interior bureaus reviewed 1,766 on-site renewable energy projects, including installation of a photovoltaic system on the maintenance building at Agassiz NWR. The review was part of an effort to fulfill the renewable energy goals of the Energy Policy Act of 2005.

The Agassiz NWR upgrade and repair project included removal of existing ducts and installation of solar panel



Inside and Outside Duct Work - Agassiz NWR Maintenance Shop Solar HVAC Renovation USFWS photos.



duct work, return air grills with filters and solar heating thermostat controls for the 6,150-square foot maintenance shop. The resulting renewable energy production contributes toward meeting future renewable energy consumption goals.

Beito Plumbing & Heating of Thief River Falls, Minn. won the contract award and completed the upgrade to the maintenance shop's solar system, keeping ARRA funds in the local community. During a review of ARRA projects at Agassiz NWR, Refuge Manager Maggie Anderson stated, "I'm glad we are able to get this work done, and to have it done by a local company."



# U.S. Fish and Wildlife Service

<http://www.fws.gov/midwest/>

September 2010

## Ground Breaking for New Raceway Building

Nomad Construction of Sault Ste Marie, Mich. broke ground on June 7 for the new clear span building that will be erected over the new raceways at Pendills Creek National Fish Hatchery. Concrete footings and foundation were poured the third week of June. Next they will be onto the piers for the steel beams and rough skeleton of the building.

--Jaime Masterson, R3-Pendills Creek NFH



Connecting Kids with Nature

<http://www.naturerocks.org/>

Left: Construction removing moldings from newly poured concrete footings. Photo by Jaime Masterson.

## Congressional Visit Continued

was investing approximately \$2 million to expand the capabilities of a downstate fish-processing plant that intends to sell as much as 30 million pounds of Asian carp annually to a China-based company for table fare at upscale restaurants in Asia.

Commercial fishing enhancement and overfishing are key components of the *Asian Carp Control Strategy Framework*, which has been prepared by the Asian Carp Regional Coordinating

Committee's participating agencies to outline the actions that will be implemented to control Asian carp migration. To view the entire control framework, or to learn more about the Asian carp control strategies and efforts of the ACRC, visit [www.asiancarp.org](http://www.asiancarp.org).

--Ryan Aylesworth  
*External Affairs*

Thank you for entering your journal reports and photographs in the Fish and Wildlife Journal (aka. ARS)  
<http://ars.fws.gov>.