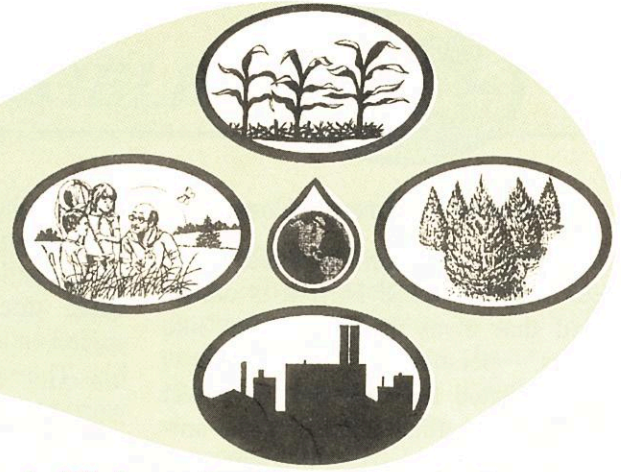
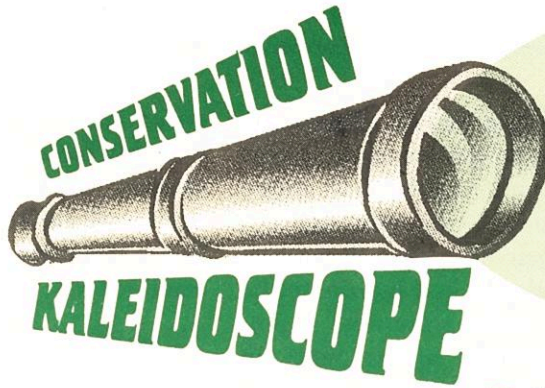




St. Joseph
County
Soil & Water
Conservation
District



Today's Visions for Tomorrow's Future

April/May/June 2008 5605 U.S. 31 South, Ste. 4 South Bend, IN
Volume 10, Issue 2 Website: stjoseph.iaswcd.org

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CALENDAR OF EVENTS

April

- 19 - Tree Order Pick-up at the 4-H Fairgrounds
- 21 - SWCD Monthly Board Meeting, 7:00 AM - Farm Bureau Mtg. Room
- 22 - Earth Day
- 25 - Arbor Day

May

- 6 - Primary Election Day
Office Closed
- 11 - Mother's Day
- 19 - SWCD Monthly Board Meeting, 7:00 AM - Farm Bureau Mtg. Room
- 26 - Memorial Day
Office Closed

June

- 15 - Father's Day
- 16 - SWCD Monthly Board Meeting, 7:00 AM - Farm Bureau Mtg. Room
- 20 - First Day of Summer



"The conservationists most important task, if we are to save the Earth, is to educate."

~ Sir Peter Scott, Founder, World Wildlife Federation



Tree Order Pick-Up

Tree orders will be available for pick-up on Saturday, April 19, 2008, at the St. Joseph County 4-H Fairgrounds Swine Barn, between the hours of 8:00 a.m. and Noon.

Enter the fairgrounds off of Jackson Road. Signs will be posted directing you to the tree pick-up.

Congratulations to the 2008 Annual Meeting Award Winners!

Conservation Farmer of the Year ~ Mike Burkholder

Conservation Educator of the Year ~ Evie Kirkwood

20 Year Service Award ~ Randy Matthys

Wildlife Habitat & Forestry Award ~ Gunter Kison

Tree Sales Dedication Award ~ Bernie Byrd & Gene Myers

Woods-Lands-Lakes Conservation Recognition Award ~ Gene Myers

Training Certificate ~ Jan Ivkovich



Congratulations to
John Dooms for winning the 2008
Supervisor Election!

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THE NATURAL EDUCATOR

Snakes of St. Joseph County

Oh spring time, warm breezes, birds, bees and SNAKES! Now it is understood that many people do not like snakes, personally I do not know why. Granted they are not the cutest nor are they fuzzy, warm little animals, but they are fascinating if you give them a chance. They are also quite useful, eating tremendous amounts of insects, mice, rats and other creatures that tend to eat our food before we can.



Common Garter Snake: This is probably our most common snake. Like all snakes it's color can be quite variable but look for three stripes, one on the middle of the back and one on each side. Garter snakes can be found in every type of habitat we have in St. Joseph County and can get up to 50 inches long. They are most active during the day, which explains why more people see them than other snakes. They prefer earthworms, toads, frogs, salamanders and insects for food, while large ones will eat small mice as well. Garter Snakes are not constrictors but eat their prey whole and alive. And while not actually true live birth, they do not lay eggs but can give birth to as many as 85 young.



Eastern Hognose Snake: This is one of the funniest snakes we have. Commonly called puff or spreading adder, when threatened they rise up and spread out their neck, just like a Cobra. They will also hiss but do not be worried because they are not poisonous and actually seldom bite. In fact if you continue to annoy the snake it will fall over, lie on its back and play dead. The funny thing is if you roll them over, they will flip themselves back over, apparently they can only play dead on their backs. Hognose are one of our many multi shaded, brown blotchy snakes but look for the upturned nose for a positive ID. Hognose prefer dryer habitats.

Water Snakes: Our two most common water snakes are the Northern Water Snake and Queen Snake. The Northern Water Snake has alternating blotches on its back and sides and can be extremely variable in color from reddish-brown to black. The Queen Snake will have a yellow belly and yellow stripe on its lower sides. Both snakes are highly aquatic with the Northern being a more diverse hunter, feeding on a variety of other aquatic life. Queen snakes feed primarily on crayfish. The Northern is extremely aggressive when cornered and will bite repeatedly. They actually have an anticoagulant in their saliva and the wound will bleed profusely because of this. Nether of the snakes are poisonous.

Massasauga Rattle Snake: This is our only poisonous snake. (Copperheads, Cottonmouths and Timber Rattlesnakes are found in other areas of Indiana but not in St. Joseph County) The Massasauga is another of our multi-shaded, blotchy brown snakes. Look for dark bars on its head and neck as well as rattles on its tail for a positive ID. The Massasauga is a state endangered species and unless you are up to your

knees in mud and muck you will probably never even be near a Massasauga. They are a fairly small snake only reaching 40" but can get a thick body. They feed on frogs, lizards and small rodents.

These are just a few of our common snakes. Fox, Black Rat, Blue Racers and many more can be found in our forest and fields. The bottom line is that no matter what kind of snake it is, it will not do anything to you unless you do something to it first. Let's face it, they see us as a big animal and big animals eat little animals, so the next time you see a snake, don't freak, stand still and enjoy and maybe whisper thank you.

DON' FORGET TO RECYCLE!

REUSE, REDUCE, AND RETHINK

IF YOU ARE GOING TO PUT THE RECYCLE BIN ON THE CURB, DO NOT FORGET TO BUY PRODUCTS MADE FROM RECYCLED MATERIALS.

IT IS ALL PART OF THE CYCLE
THINK GREEN!



United States Department of Agriculture

State Acres for Wildlife Enhancement

Overview

On Feb. 21, 2008, U.S. Department of Agriculture Secretary Ed Schafer & Farm Service Agency (FSA) Administrator Teresa Lasseter announced the second round of projects to be approved under the new continuous Conservation Reserve Program (CRP) conservation practice titled State Acres For wildlife Enhancement (SAFE), also known as CP38. Administrator Lasseter announced 30 projects, covering up to 160,100 acres, which benefit a wide variety of species that are endangered,

(Article Continued on Page 3)



FIELD NOTES

(Continued from Page 2)

ARTICLE: "State Acres for Wildlife Enhancement"

threatened or high priority (species of concern) in 16 states. This fact sheet provides a brief summary of each project.

FSA approved SAFE proposals to address state & regional high priority wildlife objectives. SAFE practices provide the flexibility to meet the specific needs of high value wildlife species in a participating state or region. Conservation practices currently offered under CRP are fine-tuned through SAFE to improve, connect or create higher-quality habitat to promote healthier ecosystems in areas identified as essential to effective management of high priority species. SAFE, like other continuous CRP practices, targets CRP acres to the most environmentally sensitive land & establishes the highest value conservation practices on generally smaller acreages. General sign-up CRP acreage, on the other hand, often enrolls whole fields & farms.

USDA's national goal is to restore or enhance 500,000 acres of wildlife habitat through SAFE. USDA unveiled the SAFE practice in March 2007. USDA unveiled the first approved SAFE projects in January 2008. That announcement featured 45 projects in 18 states, encompassing close to 260,000 acres.

FSA state &/or local offices will announce sign-up for SAFE in the near future & conduct sign-up on a continuous (ongoing) basis. Through continuous CRP signup, USDA accepts year-round producer offers, provided the land & producer meet certain eligibility requirements. Producers can offer land for enrollment in SAFE & other CRP programs at their local FSA service center. Service center locations are available online at [http://](http://www.fsa.usda.gov)

www.fsa.usda.gov by clicking on "State Offices." Producers within a SAFE area can submit offers to voluntarily enroll acres in CRP contracts for 10-15 years (the contract length depends on the SAFE proposal authorized for the area). In exchange, producers receive annual CRP rental payments, incentives & cost-share assistance to establish habitat-enhancing natural covers on eligible land.

Producers enrolling in CRP enter into contracts with USDA's Commodity Credit Corporation (CCC). FSA administers CRP on behalf of CCC.

St. Joseph County, Indiana

Indiana Bat SAFE

The goal of the Indiana Bat SAFE project is to enroll 2,100 acres in CRP to restore forest habitat & forested riparian habitat for the Indiana Bat which occurs throughout the state & is a federally listed endangered species. More specifically, the project seeks to increase connectivity between existing forested tracts & restore summer habitat in bottomland & riparian forests.

Indiana Northern Bobwhite SAFE

The goal of the Indiana Northern Bobwhite SAFE project is to enroll 3,875 acres in CRP to restore grassland & shrubland habitats for the northern bobwhite quail. This species has declined significantly throughout the state, as well as the Midwest, & is of significant social & economic value to the people of Indiana. More specifically, the project will work to restore grassland habitat for bobwhite quail & maintain the cover in a diversity of successional stages & vegetation structure that meets the bobwhite quail's nesting & brood-rearing requirements. Project coordinators will accomplish this through an increased use of applied management activities (i.e. prescribed burning, strip disking & strip spraying) over the

life of the contract.

Eligibility Requirements

To be eligible under continuous sign-up practices, land must be in a SAFE project area & meet basic CRP eligibility requirements. Eligible land is cropland that was planted or considered planted to an agricultural commodity during four of the six years from 1996 to 2001. The land must be physically & legally capable of being planted in a normal manner to an agricultural commodity.

Producers with land within a SAFE geographic area may enroll in their state's SAFE project(s) provided they meet the following eligibility requirements:

- the offered acreage meets the cropping history requirement under CRP (four of the six years from 1996 to 2001);
- the site is located within a SAFE area & is appropriate for the practices associated with SAFE;
- the cumulative acreage for all CP38 acreage enrolled in SAFE does not exceed the SAFE allocation for that state.

Find more information about SAFE online at <http://www.fsa.usda.gov>; click on conservation programs.



Historical Trends in Conservation Tillage

By Barry Fisher

State Agronomist, Natural Resources
Conservation Service, Indiana

In all of agriculture, few processes carry the emotional bond between the farmer and the earth, or possess the faith of a bountiful crop from the--

(Article Continued on Page 4)



FIELD NOTES

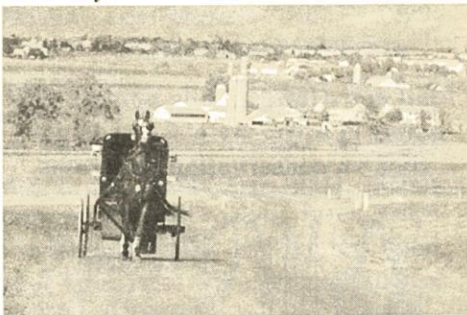
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ARTICLE: "Historical Trends in Conservation Tillage"

-- placement of a small seed into the soil. It's no wonder that breaking from a tradition of working the land or tilling the soil has required great resolve by the most committed conservation farmers to master the no-till system. Yet this seeding process holds the potential to not only produce this bountiful crop, but build health and restore life to our precious soil resource, while offering cleaner air and water to the neighbors and communities throughout the 'farmscape.'

Travel back to 1943 and trace some historical moments in the development of no-till cropping systems.

- In 1943, Edward Faulkner released findings in his book *Plowman's Folly*, which states: by not plowing under the crop residue and leaving more crop residues at the soil surface, farmers could improve soil quality and reduce soil erosion. At that time few researchers or agencies took the book seriously.



- In 1962, the agriculture experiment station in Wooster, OH planted their first no-till plots on erosive soils. These have been in continuous no-till since 1962. Throughout this study, soil organic carbon has continually risen, and water runoff and erosion have become practically nonexistent. Some pioneering farmers in Indiana quietly began some of their own trials about this time.

- In the 1970's, the Universal Soil

Loss Equation (USLE) gave us a quantitative estimate of the soil erosion reduction potential for various conservation tillage practices. This, along with the Clean Water Act, helped to make conservation tillage a priority for the Soil Conservation Service (SCS); later renamed the Natural Resources Conservation Service (NRC). Purdue University began their tillage system studies in the mid 70's.

- The 1985 Farm Bill, for the first time, tied farm program payments to Highly Erodible Land Conservation, and reauthorization occurred with each subsequent farm bill. As a result of the thousands of conservation plans developed by SCS/NRCS under these farm bills, the most widespread implementation of conservation tillage on Indiana's cropland was launched.



- In 1989, Indiana's "T by 2000" program launched the Indiana Tillage Transect to track changes in conservation tillage adoption across the state. This model was soon adopted by most states across the Corn Belt.

- Nothing has had a greater effect on no-till soybean production than "Round-Up Ready" Soybeans, which first became commercially available in 1996. The benefits to the soil and water resources from this biotechnology development were of historic proportion. Over the span of just one decade, Indiana's no-till soybean acres increased from under 20% to over 60%.

- "BT Corn" was registered by the

Environmental Protection Agency in 1997 and made the production of corn possible in many cropping systems without the use of expensive and sometimes dangerous broad spectrum insecticides. "BT Corn" has an introduced gene that produces a compound that is toxic to target pests, such as corn borer and rootworm.



- By 2000, even with advanced technology, no-till corn in Indiana was still only 21% of total production. **An increase of no-till corn to just 30% of production would reduce soil loss by 2,688,000 tons in Indiana.**

- In 2002, Indiana NRCS founded the Indiana Conservation Tillage Initiative to expand the adoption of no-till and other high residue farming systems.

- In 2004, the Tillage Transect showed that 19% of the corn acres and 61% of the soybean acres were planted using no-till technology.

- In 2006, 26 of Indiana's 92 counties participated in the annual Tillage Transect, supported by Indiana State Department of Agriculture, Division of Soil Conservation. Of the 26 counties, 22 had increases in no-till corn and 24 had increases in no-till soybeans from their 2004 results. No-till corn increased by more than 25% in 14 of the 26 counties, and four counties had over a 100% increase.

- In 2007, the Indiana Conservation Partnership once again committed resources to complete the Tillage -

(Article Continued on Page 5)



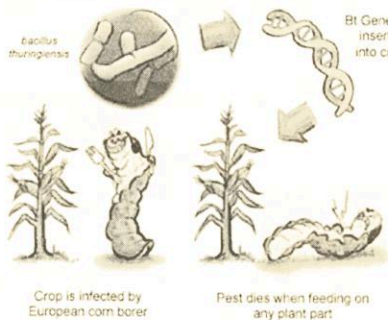
FIELD NOTES

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ARTICLE: "Historical Trends in Conservation Tillage"

Transect. Results are still being analyzed, but early indications suggest large-scale adoption of no-till systems.

•In 2007, the National Agricultural Air Quality Task Force met in Indiana. Some top conservation farmers from Indiana presented concepts and discussion on how the use of conservation systems, along with no-till crop production, is yielding major advances in air quality and greenhouse gas reductions for them and others across the American Heartland. These farmers publicly introduced terms like the following.

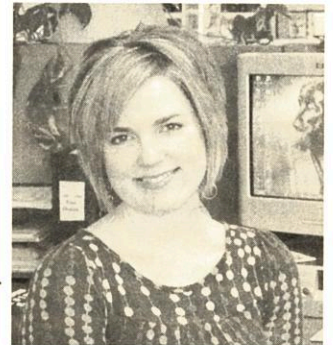


"2 X 4 No-Till," from Ray McCormick of Vincennes: Ray suggests we use conservation innovation to answer the nation's call to reduce the harmful emissions of greenhouse gasses and address the on-going concerns of global warming. McCormick stated, "Unlike previous generations, we have the technology, chemistry, and machinery of the 21st century to make no-till possible."

"Bio-Till System," from Dan DeSutter of Attica: Dan blends no-till, cover crops, manure application, and nutrient balancing to maximize the soil organisms that incorporate crop residues, nutrients, air, and water far more efficiently than any piece of iron could. With this biological approach, he has been able to improve soil, water, and air quality while achieving high yields and reduced soil erosion. **

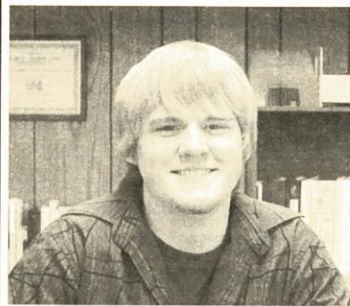
New SWCD Administrative Assistant

Sara McClaran has accepted the position as the SWCD's new Administrative Assistant and Treasurer. Sara is originally from Northern Indiana, and just recently moved back to the area from North Carolina. Sara's background includes business office management. She is very excited to work for the St. Joseph County SWCD.



Welcome, Eric Anderson!

Eric started as our high-school intern in January 2008.

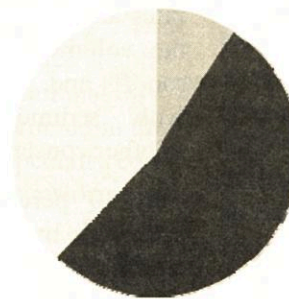


"My name is Eric Anderson. I'm a senior at Penn High School. I'll be attending IUSB next year, but I'm not yet sure what I want to study. Right now it's a toss-up between conservation & medical. I have a few pets; 2 cats, a ball python, a Mali uromastyx, & 3 leopard geckoes. I work at Carrabba's Italian Grill in Mishawaka. I have 2 sisters and 2 step-brothers. I recently started dating a girl from work & its going really well. My life is good right now."

St. Joseph

2007 Cropland Tillage Data - Corn

ACREAGE IN NO-TILL
5,734



NO-TILL (9%)
MULCH TILL (53%)
CONVENTIONAL (38%)

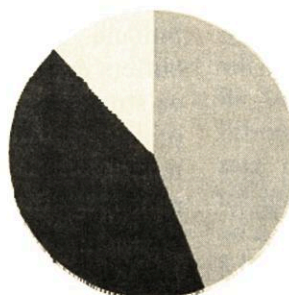
No till - Any direct seeding system, including strip preparation, with minimal soil disturbance.

Mulch Till - Any tillage system leaving greater than 30% crop residue cover after planting, excluding no-till.

Conventional - Any tillage system leaving less than 30% crop residue cover after planting.

2007 Cropland Tillage Data - Soybean

ACREAGE IN NO-TILL
16,694



NO-TILL (44%)
MULCH TILL (44%)
CONVENTIONAL (12%)



FIELD NOTES



2007 Indiana Cropland Tillage Report

Results from the 2007 Indiana Cropland Tillage Transect Survey are complete. Final results indicate that no-till corn jumped from 19 percent in 2004 to 27 percent in 2007. No-till soybeans went from 61 percent in 2004 to 69 percent in 2007. Estimated soil loss reduction on Indiana cropland as a result of these no-till increases is over 1,000,000 tons annually.



Indiana results are compiled annually by the Indiana State Department of Agriculture (ISDA)-Division of Soil Conservation from data collected by staff from local Soil Water Conservation Districts, ISDA, Purdue Cooperative Extension Service, U.S. Department of Agriculture and related partners. Individual county data, as well as numerous additional publications related to soil and its conservation can be found on the ISDA [Web site \(www.in.gov/isda\)](http://www.in.gov/isda).

Please refer to graph on Page 5.

No-till revolutionized the industry of agricultural production during the 1990's. Less than 10 percent of all cropland was managed in a no-till system in 1990. Initially, corn was considered the better adapted crop for no-till. In 1990, crops managed in a no-till system were 9 percent corn and 8 percent soybean. By 1992, the adop-

tion of corn & soybean no-till systems was diverging. Soybeans were better adapted to the no-till environment than the corn hybrids of that time. No-till corn management was more demanding than no-till soybeans. This facilitated a no-till soybean production boom.

The conservation tillage data provides a summary of trends associated with the adoption of no-till crop production, crop residue cover, and soil loss. This data was obtained as a result of spring surveys of Indiana cropland. In an "average sized" Indiana county, a sample size of 450 crop fields produces a 95 percent level of confidence. In the years 1990 and 2007, the number of counties conducting the survey produced valid statewide results.

Conservation tillage is defined as any tillage system leaving 30 percent or more crop residue cover on the soil surface after planting. No-till is without question the most effective conservation practice for reducing soil erosion and improving water quality. The crop residue cover and infiltration rates associated with no-till maximize the volume reduction of agricultural runoff and contaminants associated with sediment loss, when compared to other conservation tillage systems.

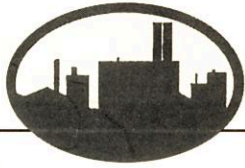
The 30 percent soil cover that is achieved by conservation tillage is significant to reducing soil erosion by 50 percent or more compared to bare soil. Soil erosion & runoff are considered by volume the greatest contaminants of surface water in most Indiana watersheds. Filter strips, buffers & other conservation practices or structures alone cannot adequately protect soil from soil erosion. Nor can they reduce agriculture runoff & maximize their efficiency for improving water quality without the complement of conservation tillage.



More than one-half of Indiana's landscape is used to grow annual crops. The use of conservation tillage on this cropland is vital to maintaining the long-term productivity of the soil, as well as improving surface water quality. Farmers benefit from conservation tillage through reduced production costs and therefore have the potential for increased profit margins. Both farm and non-farm residents benefit from conservation tillage through cleaner surface water for drinking, recreation and other uses. Wildlife also benefits from the reduced runoff, cleaner water and the habitat provided--particularly in no-till fields.

Since 1990, the overwhelming adoption of conservation tillage has resulted in the accomplishment of 75 percent of the state now losing soil at or below "T" (the tolerable level of soil loss). For most Indiana soils, "T" is three to five tons per year and is the rate that new soil can be formed. While soil conservation has come a long way in Indiana, there continues to be more than 3 million acres losing soil at a rate faster than "T" and in need of conservation practices.

Please refer to graph on Page 5 for 2007 Cropland Tillage Data for St. Joseph County.

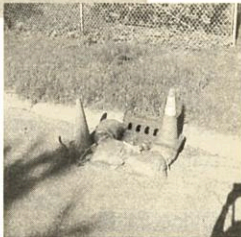
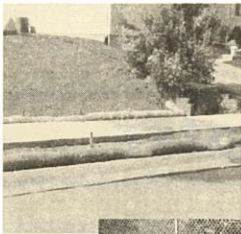


URBAN MEANDERINGS

EROSION CONTROL ON INDIVIDUAL BUILDING LOTS

Developments containing multiple building lots are required to install erosion and sediment control measures on each individual lot. This becomes especially important once homeowners take up residence in a subdivision, or when businesses are open to the public but construction is still occurring in a commercial subdivision.

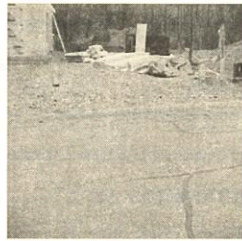
Builders on individual lots should stick to this general rule of thumb: sediment should not leave the building site. This means that, before a project begins, the perimeter of the project site should be protected with silt fence, straw wattles, a vegetated filter strip or an equally effective measure.



Similarly, all adjacent inlets that will receive runoff from the lot should be protected with an appropriate measure, such as pea gravel bag, straw wattle or coir fabric inlet protection. A construction entrance will also need to be installed on each individual lot so that sediment is not tracked onto public roads.

Finally, if working on an individual lot, whether it be in a residential or a commercial development, keep in mind that timely sur-

face stabilization is the only way to be truly sure that sediment will not reach public roads or adjacent properties. Use temporary seed mixes or tackified mulch in areas that will not be worked for 15 days or more and be sure to permanently seed or sod areas at final grade.



UPCOMING WORKSHOP

The St. Joseph County MS4 Steering Committee will be hosting another urban field day in mid-August 2008. The workshop will be similar to the Toscana Park event, held in May 2007, in that vendors will be present to discuss the placement, installation and effectiveness of a variety of erosion and sediment control measures. The Fall 2008 Urban Field Day will focus on preparing sites for the winter, particularly through temporary and permanent surface stabilization. It is an ideal educational opportunity for all those involved in the construction industry, especially contractors, developers and erosion control plan preparers.



The next urban field day is scheduled for mid-August. *Picture taken from May 2007 Urban Field Day.*

Be on the lookout for additional information regarding the Fall '08 Urban Field Day, which will be posted in the Jul/Aug/Sept issue of *Conservation Kaleidoscope*.

RULE 5 PERMIT RENEWALS

As many of you may know, Rule 5 permits have a 5-year time limitation. Thus, if construction is not completed on a permitted construction site within this time frame, the permit must be renewed before the 5-year term is over. Permits can be renewed by completing an NOI form, and checking the box, labeled "Renewal" under "Type of Submittal". This is located in the upper right corner of page 1 of the NOI. Be sure to include the IDEM submittal fee of \$100 along with the renewal NOI. Upon approval of the NOI, the site will be granted an additional 5 years to complete all work.

In addition to noting the date of the permit expiration for your site, it is also important to recognize the location of your project relative to MS4 jurisdictional boundaries. It is possible for a site once permitted under Rule 5 to be located within an MS4. This means that in addition to applying for a permit renewal under Rule 5, you may also have to submit an erosion control plan and the associated filing fee to the local MS4 for approval in order to satisfy the requirements of Rule 13. Contact the local MS4 entities in order to determine the necessary steps to remain in compliance with local regulations when renewing a permit.

City of Mishawaka—

Melissa McGuire, MS4 Coordinator
(574)258-7113

m McGuire@mishawakacity.com

St. Joseph County—

Jessica Clark, MS4 Operator
(574)235-9626

jelark@co.st-joseph.in.us

City of South Bend—

Carl Littrell, Director of Engineering
(574)235-9537



St. Joseph County Soil and Water
Conservation District
5605 U.S. 31 South, Suite 4
South Bend, IN 46614

St. Joseph County Soil And Water

Supervisors:

John Dooms, Chairman
Paul Williams III, V-Chairman
Dave Craft, Member
Jan Ivkovich, Member
Carole Riewe, Member

Associate Supervisors:

John Kulwicki
Melvin Kulwicki
Jim LaFree
Charles Lehman
Joe Long
Randy Matthys
Eugene Myers
Richard Schmidt
Dale Stoner

MISSION

To provide guidance and education to the youth and adults of St. Joseph County and to administer programs to preserve, protect and improve soil, water, air, plant, and animal resources for future generations.

Honorary Members:

Bernard Byrd
Al Gostola
Jerry Knepp
Keith Lineback
William Millar

Office Staff:

Debbie Knepp, NRCS
Rafael Vega, NRCS
Jenny Davis, SWCD
Rick Glassman, SWCD
Troy Manges, SWCD
Sara McClaran SWCD

Farm Service Agency Staff:

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