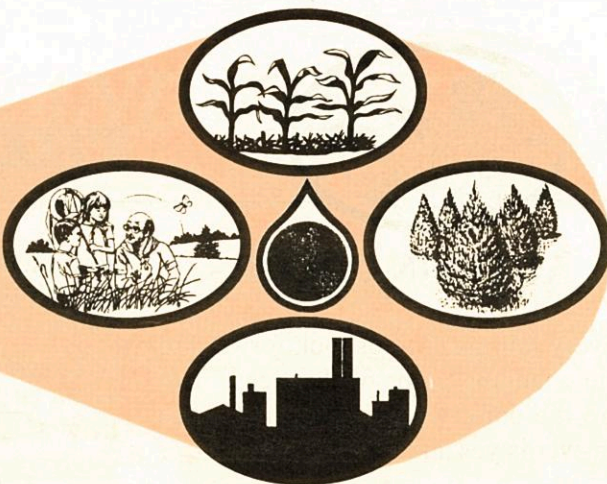




**St. Joseph
County
Soil & Water
Conservation
District**

CONSERVATION

KALEIDOSCOPE



Today's Visions for Tomorrow's Future

Oct/Nov/Dec 2004 5605 U.S. 31 South, Suite 4 *South Bend, IN * Telephone (574) 291-7444 Ext. 3 Editor: Troy Manges
Volume 6, Issue 4 Website: stjoseph.iaswcd.org Fax (574) 291-0284 Tonia Albright

Calendar of Events

October 4

Compost Seminar
7:00 PM – Farm Bureau Mtg.
Room

October 11

Columbus Day
Office Closed



October 18

SWCD Monthly Board Meeting
7:30 PM – Farm Bureau Mtg.
Room

November 11

Veteran's Day
Office Closed

November 15

SWCD Monthly Board Meeting
7:30 PM– Farm Bureau Mtg.
Room

November 25 & 26

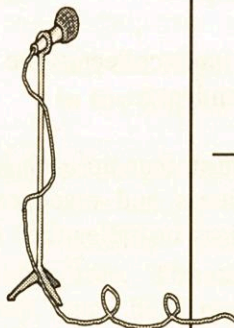
Thanksgiving Holiday
Office Closed

December 20

SWCD Monthly Board Meeting
7:30 PM – Farm Bureau Mtg.
Room

December 24 & 27

Christmas Holiday
Office Closed



**45TH ANNUAL MEETING
OF THE
ST. JOSEPH COUNTY
SOIL & WATER CONSERVATION DISTRICT**

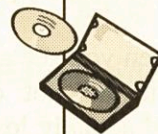
Friday, January 21st, 2005
6:30 p.m.

St. Adalbert's Heritage Center
Reservations Required

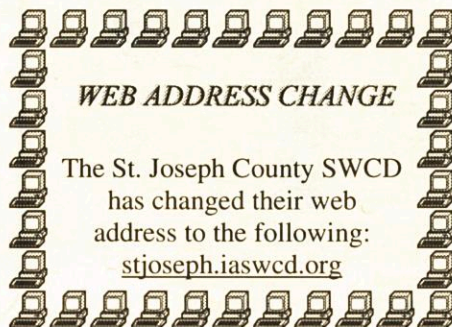
*(in the event of inclement weather the meeting will
be held at 6:30 p.m. on Friday, January 28th, 2005.)*

**ST. JOSEPH COUNTY SOIL SURVEY
AVAILABLE ON CD**

The new soil survey CD's may be purchased at the
office located at: 5605 U.S. 31 South, Suite 4
South Bend, IN 46614



There is a \$5.00 charge for each CD purchased.



WEB ADDRESS CHANGE

The St. Joseph County SWCD
has changed their web
address to the following:
stjoseph.iaswcd.org

What's Inside . . .

The Natural Educator	2
Woodland Times	3
Field Notes	4,5
Urban Meanderings	6,7



THE NATURAL EDUCATOR

AUTUMN COLORS

Every fall many of us look forward to the changing color of the trees. But are the colors really changing? The answer is yes and no.

Yellow and orange colors are actually always in the leaf, you just can not see them. Leaves are green because of chlorophyll which is produced by the tree. Chlorophyll combines with Carbon Dioxide, water and minerals in the soil and the energy of the sun to produce sugars which is used as food by the tree. As daylight lessens, the plant's supply of chlorophyll is reduced. This allows the carotenoid pigment to come shining through. Carotenoids are the colors yellow, orange and brown and the many hues in between.



The reds and purples are a leaf of a different color. Anthocyanin pigments are formed due to complex interactions both inside and outside the tree. Basically they are formed by the breakdown of sugars in the presence of bright light and reduced phosphate in the leaf.

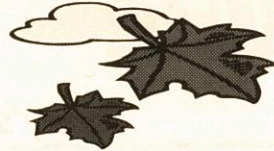
So when you see an orange or yellow leaf, it did not change colors but instead actually lost a color. The red and purple leaf did actually change colors.

Both of these processes depend on the sun. So for the best fall colors we need bright sunny days and cool evening temperatures.

While this is a simple explanation and we do not truly understand all the interactions within the leaf, you can

now finally answer the question – did that leaf really change colors?

Enjoy your autumn colors.



The Colors Of A Leaf

Tear a coffee filter into one inch by six inch strips.

Take a hike and collect three or four nice green leaves.

Once you return, tear up each leaf into small pieces and place each leaf into a glass no taller than six inches.

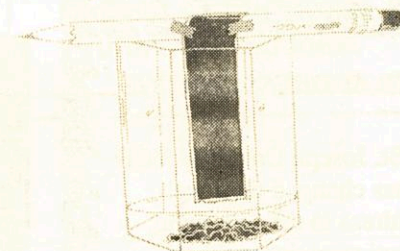
Pour rubbing alcohol into each glass, just barely covering the pieces of leaves.

Tape filter to a pencil and lay the pencil over the glass with the filter laying in the leaves and alcohol.

Wait one hour.

Remove filter and place on paper towel to dry.

You will be able to observe the green bands of chlorophyll and the orange and yellow bands of the carotenoids pigments.



Educational Trunks For Loan

The district has three educational trunks for loan to educators.

Water Quality Trunk — contains posters, activities and even chemicals for testing the water quality of our local waterways.

Mammal Trunk — contains furs, skulls, and activities dealing with Indiana mammals.

Bat Trunk — contains posters, skull and skeleton of a bat and many activities and information.

Call the office and ask for Rick to reserve a time for your class to use these trunks at 574-291-7444, ext. 3.



COOKING WITH COMPOST

Mark your calendar now. The next composting workshop is:

Where – Farm Bureau Insurance Meeting Room.
5605 U.S. 31 South
South Bend.

When – Monday, October 4, 2004
7:00 p.m. – 8:30 p.m.

Each participant will receive a free compost bin.

Sponsored by your local SWCD and Solid Waste Management District.



WOODLAND TIMES

Forestry News Updates for St. Joseph County



The St. Joseph County Soil and Water Conservation District is starting its 19th Annual Tree Sales Program. We would like to **THANK** everyone that purchased trees from our previous programs and have helped support the SWCD.

The SWCD has a variety of evergreen, deciduous, flowering trees and shrubs for you to choose from this year. We have brought back trees from previous years including Bur Oak, Fast-Shade Poplar, Sugar Maple, and Magenta Crabapple. We have also added a couple of new species which are Shagbark Hickory and Black Chokeberry. Our sale will also include Pachysandra, Creeping Phlox and wildflower seed packets. The items being sold have one or more of the following environmental improvement uses: borders/screens, erosion control, shade, windbreak, beauty, home site, timber and wildlife. Most of the trees are native to Indiana. The tree species information sheet also gives you a mature height range, growth rate, soil drainage requirements, what the plant products are, and sunlight needs.

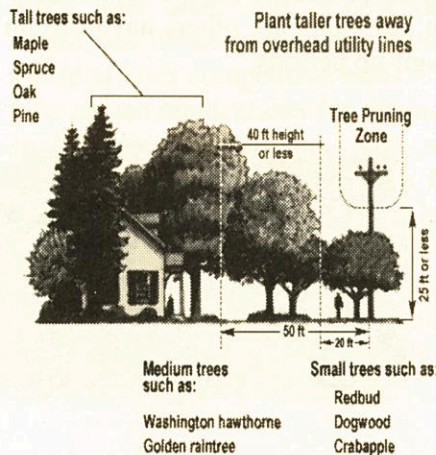


The order forms will be sent out in early October 2004. If you are not on our mailing list and would like an order form, please give us a call and request an order blank or visit our web site at stjoseph.iaswcd.org to download a copy. The deadline to order trees is March 1, 2005. The trees will be available for pickup on April 16, 2005. If you have any questions please contact the St. Joseph County SWCD office.

Plant the Right Tree, in the Right Place.

When you begin to think about planting trees next spring take some time to consider what you want from the tree. You can save some money and headaches later by planting the right tree in the right place. Trees can be planted to provide the following benefits:

- * Shade and cooling in the summer
- * Protect homes from winter winds
- * Screen unsightly views
- * Provide a sound barrier
- * Reduce air pollutants and produce oxygen
- * Increase property values



Trees that are planted in the wrong place may never be able to give you these benefits because they have to be removed. To avoid this costly removal ask yourself these questions before buying and planting your trees.

- ◆ What obstructions are there for the tree to grow? (utilities, buildings, and signs)
- ◆ When the tree reaches its mature height will it fit in the area you want to plant it?
- ◆ If utilities are present, consult the utility company and see what trees they recommend planting in the utility easement.
- ◆ Consider the trees' purpose. Is it to provide shade, act as a buffer or screen? What are the moisture and light conditions in the area?
- ◆ Are you planting a tree that will grow in the soil type present at the site?

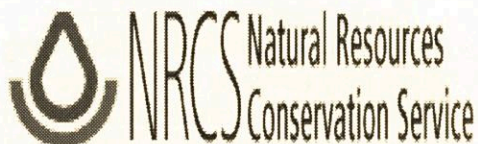
If you consider these questions before you plant a tree it can save you time and money in the long run.

DNR Tree Seedling Orders

The Indiana Department of Natural Resources (IDNR) Division of Forestry's tree sales program for 2004-2005 is now underway. October 15, 2004, is the deadline for submitting orders to be processed in the lottery. Orders placed after October 15, 2004, will be filled on a first come, first served basis. To obtain an order blank you can visit their web site at www.IN.gov/dnr/forestry.



FIELD NOTES



Are You Leaving Enough Residue on Your Highly Erodible Field?

To remain eligible for Direct & Countercyclical Farm Program Payments, commodity loans, LDPs and cost share programs, all producers of agricultural commodities must protect all cropland classified as being highly erodible (HEL) from excessive erosion.

At the time the highly erodible field(s) was identified, producers and/or landowners developed a conservation plan to address the erosion concerns. **YOU ARE STILL REQUIRED TO IMPLEMENT THESE CONSERVATION PLANS.** All of the conservation plans state the amount of residue requirements for the crop rotation selected. For example a corn - soybean rotation requires a minimum of 40 % soybean residue after planting and 50 % corn residue after planting. Please be aware of the residue levels you are leaving behind the planter. You may need to reconsider doing that fall field work if you are not leaving enough residue. Field checks will be done next Spring.

If you have any questions, or wish to discuss your conservation plans, please feel free to contact the office.



Financial Assistance Available for Conservation Projects

Are you wanting to restore a wetland or develop a wildlife habitat? Do you need to implement a conservation practice that stabilizes erosion problems or protects water quality? Our conservation staff is willing and available to do just that. The conservationists are specialized to provide you with quality technical assistance.

Losing Ground? That's a problem



Additionally, there are many cost share opportunities for landowners who want to improve or enhance the natural resources on their property. These programs vary in focus and requirements. Some allow for immediate acceptance, while others are quite competitive and require a ranking process. Most programs accept applications at any time, but others have certain sign-up periods.



No matter the program, if you are interested in protecting the natural resources in your community, contact the Natural Resources Conservation Office to see how we can assist you in meeting your natural resources goals.

New NRCS Soil Conservationist

Hello St. Joseph County! My name is Brook Rieman and I am the new Soil Conservationist with



the Natural Resources Conservation Service in St. Joseph County. Previously, I worked as a Soil Conservationist in both Richmond, Indiana and Danville, Indiana. I have been with the agency for a little over three years and gained lots of valuable experience through my work at my previous duty locations. I can't wait to get out and meet with many of you soon. Please be patient with me as I find my way around the county...I may get a bit lost at first! If you are in the office, please stop by and say hello.





FIELD NOTES

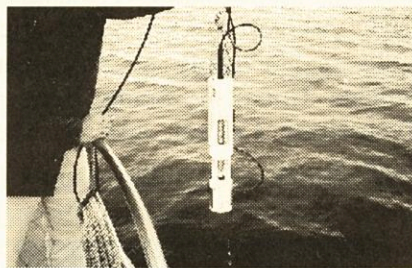
Lake and River Enhancement Cost Share Funds

Lakeville residents are conscientious about the local lakes water quality. The Lakeville Business Owners Association's application for Lake and River Enhancement (LARE) funding for Pleasant and Riddles Lakes was approved at the State Soil Conservation Board's July meeting. The application is for a Diagnostic Study of the lake. The study will describe; the condition and trends in the lake watershed and subwatersheds, identify potential problems and long term resolution. In addition, the study will identify specific direction for future work and predict and assess success factors for future work. The study will be conducted by a consultant to be hired by the association.



The Lakeville Business Owners Association (LaBOA) had expressed interest in conducting a diagnostic study of 77-acre Riddles Lake and 28-acre Pleasant Lake, which is approximately one-eighth mile downstream on Heston Ditch. The lakes' shared watershed is about 7,264 acres. There is no universal association representing all the residents of the two lakes. A new 34-home development adjacent to Riddles Lake has an association that supports the grant application. The 250-member Riddles Lake Conservation Club is also supportive.

The two lakes' economic significance and proximity to the Town of Lakeville prompted the not-for-profit Business Owners Association to act as the project sponsor. There is a DNR-owned access site on Pleasant Lake, from which boaters have limited access to Riddles Lake via Heston Ditch. Residents of the two lakes participate in the IDEM/IU SPEA volunteer monitoring program. Secchi disk, chlorophyll α and phosphorus data from that effort indicate relatively poor conditions in the lakes, which are also impacted by sedimentation.



Since the approval of the project LaBOA members have met with Cecil Rich, Biologist for the IDNR, Division of Soil Conservation. Cecil explained the exact details and scope of services for the proposed project and toured the watershed. LaBOA is currently soliciting proposals from consultants with expertise in this field.

Since the State Soil Conservation Board has limited funding, grants are awarded on a competitive basis. This year eleven applications for diagnostic studies were received, six were funded. Two other applications from St. Joseph County submitted for Juday Creek were not funded, a design application from the Roseland Park and Recreation Board and a construction application from the St. Joseph County Drainage Board.

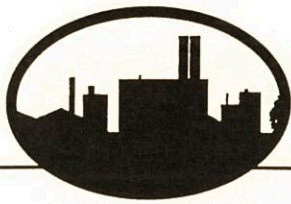
No-till Warm Season Grass Drill Available

Are you planning on planting some warm season grasses (WSG) for wildlife habitat or interseeding a pasture or hay field next year? St. Joseph and Elkhart County SWCDs along with Pheasants Forever have a No-till WSG Drill available for use. If you are planting wildlife habitat there is no charge, however, there is a \$5.00 charge per acre if you are planting hay or pasture.

The drill has a 6 foot planting width and 3 seed boxes for planting a variety of seed. The front box is used to plant small seeds such as wildflowers, clovers and alfalfa. The middle box is used to plant WSG or prairie grasses such as Little Bluestem and Indiangrass. The back box is used to plant cool season grasses such as Orchardgrass, Timothy and Ryegrass or food plot seed such as Sunflowers and Sorghum.

You need a tractor to pull the drill that has a minimum horsepower rating of 50. The tractor also needs to have a place to hook up 2 hydraulic hoses to raise and lower the drill.

If you are interested in scheduling the WSG drill to use next Spring or have other questions, please give us a call at (574) 291-7444 ext. 3.



URBAN MEANDERINGS

Rule 13

The U.S. Environmental Protection Agency (EPA) published final Phase II National Pollutant Discharge Elimination System (NPDES) storm water regulations in the Federal Register on December 8, 1999. This prompted the Indiana Department of Environmental Management (IDEM) to develop Rule 13. Rule 13 applies to communities and other urban entities that have been designated as Municipal Separate Storm Sewer System (MS4) entities.

To become a designated MS4 entity a community or urban area had to meet the following criteria:

1) Any entity located on a Census Bureau urbanized area map is automatically designated (based on 2000 Census data mapping).

2) Any entity whose population (based on 2000 census data) is greater than or equal to 10,000 is automatically designated.

3) Any entity whose population (based on 2000 Census data) is greater than or equal to 7,000 is potentially designated if:

A) The community had a percent growth between 1990 and 2000 greater than or equal to 10; or

B) The community population, when combined with entity populations/full-time equivalent enrollments within the community is greater than or equal to 10,000.

4) Any entity with a daily user population/full-time equivalent enrollments of 1,000 or more is potentially designated if:

A) The entity is located within a designated community or mapped urbanized area; and

B) The entity has, and is responsible for, a storm water conveyance.

5) Any entity that is either physically connected to a regulated MS4 entity, or has documented evidence of contributing to impairment of water quality is potentially designated.

6) Within a mapped urbanized area, a community that has a population under 1,000 people is conditionally exempt, as long as the exempted community is not contributing to an impairment of water quality.

The following lists the initial designated MS4 entities in St. Joseph County: St. Joseph County, South Bend, Mishawaka, Osceola, Roseland, Granger CDP, Georgetown CDP, Gulivoire Park CDP, Bethel College, University of Notre Dame, Indiana University-South Bend, Ivy Tech-North Central, and St. Mary's College.



Rule 13 requires the development of a Storm Water Quality Management Plan (SWQMP):

• Part A – Initial Application

- Notice of Intent letter and Permit application must be sent into IDEM for approval. This is where an MS4 area is defined, meaning which entities make up the MS4 area, who is the MS4 operator, what agreements the entities have and how the MS4 is going to implement the SWQMP.

• Part B – Baseline Characterization and Report

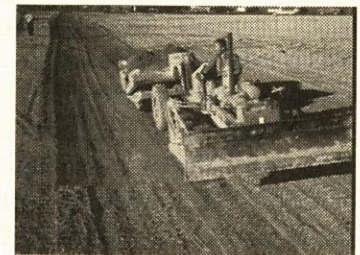
- The MS4 operator will characterize the water quality of all water that receives storm water discharges. The characterization must use existing and new information that describes the chemical, biological and physical condition of the MS4 area water quality. After the data is collected the MS4 operator must determine which areas are in need of additional water quality measures.

• Part C – Program Implementation

- This part needs to include a timetable of how and when the baseline characterization and report are to be done and how and when the 6 minimum control measures will be completed.

The 6 Minimum Control Measures (MCM) are:

- a) Public Education and Outreach
- b) Public Involvement and Participation
- c) Illicit Discharge Detection and Elimination
- d) Construction Site Run-off Control
- e) Postconstruction Run-off Control
- f) Pollution Prevention and Good Housekeeping

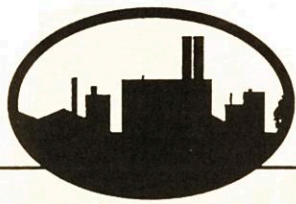


The designated MS4 entities in St. Joseph County have been following this timeline:

Part A is due November 4, 2003

Part B is due May 3, 2004

Part C is due November 4, 2004.



URBAN MEANDERINGS

Storm Water Quality Management Plans and the 6 Minimum Control Measures

For Rule, 13 MS4 entities are required to develop a Storm Water Quality Management Plan (SWQMP) which address storm water run-off quality in their area. The SWQMP needs to address the 6 Minimum Control Measures (MCM) stated in Rule 13. Here are some brief explanations for the 6 MCM.

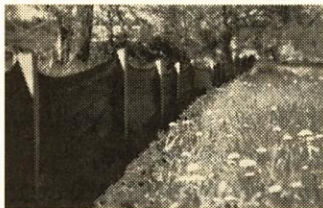
1) **Public Education and Outreach**—The MS4 operators are encouraged to develop programs that will facilitate public awareness and involvement regarding how constituents can minimize their impact on storm water quality. Examples include proper disposal of household hazardous waste, educational materials and pollution prevention commercial brochures for businesses such as lawn care and dry cleaning.



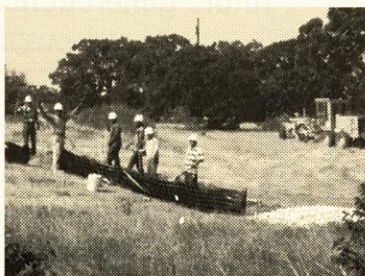
2) **Public Participation and Involvement**—The MS4 operators shall develop an SWQMP that includes provisions to allow opportunities for the public to participate in the storm water management program and implementation. Examples include public meetings to allow citizens the opportunity to discuss viewpoints and provide input, volunteers that will monitor water quality, and community clean-ups along local water bodies and storm drains.

3) **Illicit Discharge Detection and Elimination**—MS4 operators shall design a plan that includes a commitment to develop and implement a strategy to detect and eliminate illicit discharges. The operator also needs to develop a storm sewer system map showing the locations of all outfalls and conveyances in their area, and the names and locations of all waters that receive discharges from said outfalls. They also need to initiate or coordinate existing recycling programs for commonly dumped wastes such as motor oil, antifreeze, and pesticides. Measurable examples include the number of illegal dumps reported by citizens, and the number of illicit connections found through inspections.

4) **Construction Site Storm Water Run-off Control**—The MS4 operator needs to develop, implement, manage, and enforce an erosion and sediment control program for construction activities that disturb one or more acres of land. Examples of measurable goals include the number of certified or trained contractors, and the number of enforcement actions taken.



Proper installation of erosion control measures will help keep sediment on site.



5) **Post Construction Storm Water Run-off Control**—The MS4 operator needs to develop a plan to implement, manage, and enforce discharges of post construction storm water run-off from new development and redevelopment areas that disturb one, or more acre of land, or disturbances of less than one acre of land that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one or more acres of land within the MS4 area. Examples include the acreage of land converted to buffers and the number of grassed filter strips installed.

6) **Municipal Operations Pollution Prevention and Good Housekeeping** - The MS4 operator shall develop and implement a program to ensure that existing municipal, state or federal operations are performed in ways that will reduce contamination of storm water discharges. Examples include the number of gallons of used oil, antifreeze and transmission fluid collected from municipal operations, and the provision for annual staff training on pollution prevention, and on erosion and sediment control.



You can help keep the storm drains clean and help prevent pollution.



**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:

Paul Williams III, Chairman
Dave Craft, V-Chairman
Jim Gries, Member
John Kulwicki, Member
Dale Stoner, Member

Associate Supervisors:

Jerry Dominiack
John Dooms
Steve Horvath
Melvin Kulwicki
Jim LaFree
Charles Lehman
Jay Lindenman
Joe Long
Randy Matthys
Eugene Myers
Beverly Riddle
Carol Riewe
Richard Schmidt

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.**

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Al Gostola
Jerry Knepp
Keith Lineback
William Millar
Harold Mutti

Office Staff:

Debbie Knepp, NRCS
Brook Rieman, NRCS
Rick Glassman, SWCD
Troy Manges, SWCD
Tonia Albright, SWCD
Beth Forsness, IDNR

Farm Service Agency Staff:

Mike Hoskins, CED
Helene Cannoot
Cindy Philhower
Denise Trimboli