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# WMRC

Waste Management  
& Research Center

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## 2001 Annual Report

*George Ryan, Governor*

# WMRC

## Waste Management and Research Center

### State of Illinois

George Ryan, Governor

### Department of Natural Resources

Brent Manning, Director

### Board of Natural Resources and Conservation

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Acting Vice Chancellor for Research, UIUC

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Brent Manning, Chairman

John Mead

Southern Illinois University at Carbondale

Jene Robinson

Environmental Consultant

WMRC AD02-032 COLOR  
WASTE MANAGEMENT AND RESEARCH CENTER ANNUAL REPORT FISCAL YEAR 2001 (JULY 1, 2000 - JUNE 30, 2001)


### Illinois Waste Management & Research Center Library

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DEMCO

**Annual Report**  
**Fiscal Year 2001**  
**(July 1, 2000 - June 30, 2001)**

# Inside

Last year, when we published our annual report in the form of a wall calendar, we expected it to be a one time event. However, after a year to think about it, we realized that this format really does represent what we do at the Center and how we think.

Information, technology and expertise have no value if they cannot be put to use. That's our daily message. Why should our annual report be any different?

We've seen many nice reports from other organizations -- we've seen them in recycling bins, we've seen them in trash cans, we've seen them piled on desks. Ours is one of the few that we've seen hanging on office walls and home refrigerators.

We hope you'll take a look at our accomplishments over the past year and see that at WMRC our goal is to make a difference. Every single day.

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**George Vander Velde**  
Director



**Gary Miller**  
Assistant Director



**John Marlin**  
Senior Scientist

## Opportunity.

For many organizations, public and private, it was a challenging year, both fiscally and emotionally. We've heard many discussions of market failures and bubbles bursting. We've listened to numerous experts explain poor performance. We've heard some good reasons, but a few too many excuses.

At WMRC we create opportunities. While it is true that a volatile economy and uncertain production markets impact our customers and ourselves, it is also a fact that in Illinois, business goes on. And every day presents new opportunities.

WMRC's work makes Illinois business more competitive and more efficient. Wasted resources are wasted money and point to inefficiencies. In a period of increased competition, reduced incomes and uncertain markets, we know that companies are hungry for opportunities to eliminate waste from their operations and squeeze a little more out of every dollar they invest. WMRC is here to help them do it. For seventeen years, that has been our business. By preventing and reducing waste, we protect our natural resources, improve environmental quality and make Illinois a better place to live.

But, while we see the next year as one of great opportunity and promise for our services and our staff, we also recognize that our own resources are strained. With fewer than 60 employees in four offices throughout the state, we put huge demands on our people every single day. While we work to leverage our resources in partnerships with private industry and federal agencies, we must still rely on increasing investment at the state and regional level to maintain and to expand our efforts. The need for our assistance is now greater than ever to help Illinois maintain its position as an economic and environmental leader.

We work diligently and carefully to position ourselves to be a provider of solutions to environmental problems. New challenges, whether economic, political or technical, appear almost daily. We choose to meet them head on. There are plenty of people providing excuses, we choose to spend our resources finding new opportunities for Illinois business.

We've included a few examples of our best efforts over the last year to give you an idea of where the Center has been, and where we intend to go. We hope you'll take a few minutes to see what the Waste Management and Research Center is all about.

# January

2002

Sunday

Monday

Tuesday

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Saturday

		<b>1</b> New Year's Day	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>
<b>20</b>	<b>21</b> Martin Luther King, Jr.'s Birthday (observed)	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>
<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>		



# Analysis



## Analytical Laboratory Builds Capability on Last Year's Equipment Investments

WMRC's analytical laboratory is a research support facility providing solutions to analytical problems posed by scientists within the Center, the Department of Natural Resources, the University of Illinois at Urbana-Champaign and other Illinois institutions and businesses. The laboratory supports the analytical needs of the Center's Pollution Prevention Program and often provides analytical services to researchers receiving funding through the Center. These collaborations, partnerships and services result in a better understanding of Illinois' environmental problems, while leveraging our state funds to bring in federal and private funds.

## Past Investments Pay Current Dividends

Major equipment purchases for the WMRC analytical laboratories have created opportunities to expand services available to laboratory clients. The purchase of a new ion chromatograph in FY2000 facilitated development of procedures, using electro-chemical detection capabilities, for the analysis of low level perchlorate and trace level cyanide contaminants in environmental and industrial samples.

Also, using a Center-engineered combination of liquid chromatography with recently acquired inductively coupled plasma mass spectrometry, the lab staff now offers economical and fast elemental speciation services to research clients. The service is currently offered for arsenic with developmental work for selenium and mercury ongoing. This technique will allow researchers to quantitatively determine the chemical forms of arsenic in, for example, ground water, aiding researchers who are trying to better understand the environmental chemistry of this important drinking water contaminant and suspected carcinogen.

The lab staff are refining methods for sediment extraction using the new ASE (automated sample extraction) system. Using the ASE, lab staff can efficiently extract organic contaminants from sediments and other solid matrices using a minimum amount of chlorinated and other organic solvents of environmental concern.

## 2002 — Beyond Analytical Support

As part of a Center-wide strategic planning effort, the lab has established greater involvement in client research projects as a major objective. Toward this end, lab staff is seeking opportunities for collaborative involvement in such projects. Previous experience has shown that WMRC can offer assistance on study design, quality assurance, and results interpretation in addition to providing the traditional analytical characterization work. Greater involvement in client projects offers improved utilization of the skills, experience and expertise of our staff, increased interest (buy-in) and understanding for our staff and promises better coordination between analytical and experimental aspects of the project, with an improved product as the outcome.

# February

# 2002

**Sunday      Monday      Tuesday      Wednesday      Thursday      Friday      Saturday**

					<b>1</b>	<b>2</b> Groundhog Day
<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>10</b>	<b>11</b>	<b>12</b> Lincoln's Birthday	<b>13</b>	<b>14</b> Valentine's Day	<b>15</b>	<b>16</b>
<b>17</b>	<b>18</b> President's Day	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b> Washington's Birthday	<b>23</b>
<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>		

# Assistance



## Customer Requests Take Pollution Prevention Program Forward

Implementation is everything. Talking about pollution prevention is fine. However, if our customer doesn't actually do anything, then we haven't been successful. Our customers know their problems better than anyone else. By listening to them and working with them, we put ourselves in a position to offer real assistance and to find a solution that they can and will implement. We spend a significant amount of time in our customer's plants helping them put new technologies into operation.

## Accelerated Diffusion of Pollution Prevention Technologies (ADOP<sup>2</sup>T)

As part of our customer-driven activities in 2001, we continued our nationally regarded ADOP<sup>2</sup>T (Accelerated Diffusion of Pollution Prevention Technologies) initiatives, continuing work in the metal finishing sector and expanding into the metal-forming and the chemical management industries.

To date, eighteen pilot projects have been conducted, thirteen innovative technologies have been permanently adopted and demonstrations of these pilot sites are being regularly scheduled for other customers.

Through focus group meetings with industrial opinion leaders, WMRC has identified a number of key technologies across a number of industrial sectors that our customers feel offer great waste reduction opportunities, but are not well-understood or shown to work as advertised. As part of our expansion of the ADOP<sup>2</sup>T program, we will begin to explore these technologies and start the process of moving the best of them from the drawing board to the plant floor.

## Environmental Management Systems and ISO 14001 Assistance

A major new effort for the Center is one that was entirely at our customers' requests. The area of ISO certification and environmental management systems (EMS) has been a quickly growing one in Illinois. An EMS establishes a tangible way for companies to manage their environmental issues and look at environmental wastes as a production defect.

Initially we saw these as areas better-addressed by other organizations. However, heavy customer demand for help navigating the complex world of ISO certification showed us that there is an important role to be played by WMRC.

WMRC, in partnership with the state's National Institute of Standards and Technology's (NIST) Manufacturing Extension Partnership (MEP), has been providing a series of informational seminars throughout the state on the ISO 14001 International Environmental Standard. The seminars are designed to impart general knowledge about the International Standard, its benefits, its similarities to the ISO 9000 Quality Standard, and the requirements for implementing the ISO Standard's Environmental Management System. Showing companies the way to better environmental management through a structured program has garnered WMRC two current implementation programs and six programs scheduled to begin in 2002.



# March

2002

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<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	
St. Patrick's Day							
<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	
<b>31</b>							
Easter							



# Information



Information is one of the most valuable commodities in today's economy. The Information Services Program (ISP) is focused on telling business, government and the public about the services provided by WMRC and how innovation and common sense can help the economy and the environment.

Saluting those who have made a success of pollution prevention is a major function of the Information Services Program. It's important to inform the public of these success stories to show others how it can be done.

One of the chief ways WMRC brings this attention is through the annual Governor's Pollution Prevention Awards. This program has for the past 15 years clearly demonstrated that pollution prevention pays. Each year the companies honored report millions of dollars in savings and a reduction of millions of tons of waste through their pollution prevention efforts. Such programs keep Illinois a leader in environmental issues and in the nation's economy.



Nowhere is there greater opportunity to make an environmental difference than among young people, so WMRC is attempting to bring the message to them. One program is the annual "Why on Earth Scientific Quiz Bowl" presented by WMRC and the other scientific surveys on the University of Illinois campus, which pits middle school students in a fascinating "game show" competition about science.

The ISP also houses the Geographic Information Systems (GIS) which uses computers to create, analyze and display data on geographic templates. Through the efforts of Department of Natural Resources employees, GIS has become easier to use and understand, which opens up a whole world of possible ways it can be used to improve environmental decision making.

A key element of the ISP is the Library, which specializes in the science of waste management. The Library is a unique institution with over 5000 reference volumes, hundreds of periodicals and thousands of maps. Our staff of professional librarians ensures quick access and fast response to current issues. WMRC also has a research clearinghouse that offers more than 15 years of Illinois-centered research funded by WMRC available instantly through our web site.



The Internet is a valuable information tool for WMRC. Whether you are a business executive, a government leader, or even a student looking for environmental education, the WMRC web site offers a link to a world of knowledge. Check out our web site at [www.wmrc.uiuc.edu](http://www.wmrc.uiuc.edu).

# April

2002

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>
Daylight Savings Time Begins						
<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
<b>28</b>	<b>29</b>	<b>30</b>				



# Protection



The natural resources of both Illinois and the region as a whole are the backbone of all future industrial and community growth in the state. Managing, protecting and repairing sensitive areas are some of the primary responsibilities of the Natural Resources Trustee Program (NRTP). The NRTP works with state, federal and private groups to determine what sort of actions might be necessary for a given property. The stress is on creative, cooperative solutions that restore, replace or conserve important resources in the state, rather than on regulatory citations or fines.

Based out of Springfield and facing ever increasing demands to respond to various environmental incidents within a very short time-frame, the NRTP has had to continually adjust to staffing, legislative and operational challenges. In a move to streamline the program activities and to allow the staff the greatest freedom to perform, the NRTP is moving from WMRC into the DNR Office of Resource and Environmental Planning.

Major NRTP project successes in FY2001 included:

- Marathon Oil Global Settlement from numerous historical pipeline leaks in southern Illinois — Approximately \$360 thousand to be used for a compensatory project to be finalized in the coming year
- Williams Pipeline spill in Logan County — Compensation to include a \$100 thousand donation for purchase of high quality habitat in Southern Illinois
- ComEd Braidwood leak of diesel fuel from an oil/water separator into a drainage ditch — Compensatory project to create a moist soil unit to provide high quality waterfowl habitat
- Burlington River Terminal spill of urea ammonium nitrate in the Mississippi River — Compensatory project to fund the establishment of a national monetary value system for freshwater mussels through the Freshwater Mussel Conservation Society.
- Lakehead Pipeline spill in Kendall County — Implementation of a plan to restore a unique high quality wetland habitat

It was an extremely successful and productive year for the Natural Resources Trustee Program. In just its fourth year of existence, the NRTP is beginning to hit it's stride and we're certain that the recent transition will bring nothing but even more impressive results in the coming years.

# May

2002

**Sunday**

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<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>
Mother's Day						Armed Forces Day
<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>
<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	
	Memorial Day					



# Research



## Research Projects Funded in FY2001

**Tom Bierma and Frank Waterstraat, ISU - \$106,386**  
*P2 for Metalworking Fluids: Adding CMS to the ADOP<sup>2</sup>T Program*

**Robert A. Sanford and Mark M. Clark, UIUC - \$222,419**  
*Metal Working Fluid Recycling by Centrifugation, Filtration and Pasteurization: Assessing Environmental Benefits and Implications for Worker Health and Safety*

**Christopher McGarry, SGS - \$10,000**  
*Archival and Online Distribution of Illinois Digital Orthophoto Quadrangles at the Illinois Natural Resources Geospatial Data Clearinghouse*

**Lutgarde Raskin and Kent Rausch, UIUC - \$172,351**  
*Use of Biotechnology to Recover Sulfur in Corn Processing Industries, Integration of Biological Waste Treatment, Pollution Prevention, and Sustainable Technologies*

**Kristin Groce (Lynne Cunningham), SCDCOM - \$20,000**  
*Calumet's Eco-Industrial Network*

**Amy Ando and John Braden, UIUC - \$70,000**  
*Natural Resource Damages: Settlement Case Studies and Practical Tools for Assessment*

**James Economy, UIUC - \$96,459**  
*Advanced Separation Systems for Adsorption and Filtration of Environmental Contaminants*

**David Voegtlin, UIUC - \$29,956**  
**(Co-funded w/ Chicago Wilderness)**

*Baseline Survey of Invertebrates at Indian Ridge Marsh, Indian Creek and Hegewisch Marsh*

**Stephen Ebbs, SIU - \$13,374**  
*Metal Bioaccumulation by Garden Vegetables Grown on Soil Derived from Peoria Lake Sediment*

## \$500,000 in Research Grants Awarded in 2001

One of the Center's most dynamic resources is our Research Program. Our sponsored research projects give us the opportunity to enlist substantial sources of expertise and knowledge beyond WMRC in our efforts to identify, characterize and mitigate waste-related problems in Illinois. Our research grants are quite literally an investment fund for the state's environmental future. This program has been a part of WMRC since our founding and remains a keystone in our ability to identify future opportunities for environmental improvement in the state, while supporting the training of future environmental and engineering professionals.

\$508,588 was awarded to new and continuing research projects this year. Out of that amount, \$338,000 was used to fund ten new projects in this fiscal year. The remaining \$170,000 was used to continue projects started last year.

The research solicitation for projects to be funded in FY01 was developed and mailed to prospective researchers in late winter. The focal topic areas in this solicitation were:

- **Pollution Prevention (P<sup>2</sup>) Technologies for the Metalworking Industries**
- **Economic Valuation of Ground Water as a Natural Resource in Illinois**
- **Assessing Sustainable Development Progress and the Role of Pollution Prevention in Illinois**
- **Contaminated Sediment Issues in Illinois**
- **Phytoremediation of DNR Contaminated Lands**
- **Assessing the Sources and Risks of Persistent Organic Pollutants in Illinois**
- **Baseline Bioresources Inventory for Calumet**

Nineteen proposals were received this year and are undergoing internal and external review. Funding decisions will be announced later this year.

# June

# 2002

**Sunday**

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					Flag Day	
<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>
Father's Day						
<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>
<b>30</b>						



# Restoration



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## Illinois River Sediment Dredging Pilot Projects Underway

The Illinois River and its backwaters have accumulated vast quantities of sediment over the past 100 years. Thousands of acres that once supported fish, waterfowl and recreational activities are now choking, with depths falling below eighteen inches. Illinois is planning an ecological restoration project, known as Illinois Rivers 2020, that will focus on floodplain and hydrologic functions, land treatment to control erosion and removal of sediment from selected areas.

Perhaps the largest problem in dealing with sediment removal is, what do you do with it? One option under consideration is the creation of artificial islands in the river that would support native species of plants and animals. WMRC's John Marlin coordinated demonstrations of island building techniques at the Woodford County State Fish and Wildlife Area near Chillicothe.

Geotextile tubes were staked out in shallow water in a trapezoidal pattern in late April (Photo 1). They were then filled with sediment by the DryDredge™ in early May (Photo 2). This new dredge uses a small clamshell bucket to feed a displacement pump, which pumps sediment at *in situ* moisture content. The tubes performed like a berm and kept pumped sediment in place and protected it from wave action. Given the lack of added water, the sediment dewatered rapidly. By late May, deer had walked on the island. Despite high water, which flooded the island during most of June, researchers could walk on it in early July (Photo 3). By early August, the tube-island had consolidated and was supporting active growth of vegetation (Photo 4).

These demonstrations are providing insights into sediment handling techniques and how erosive forces impact unprotected sediment structures at various elevations. Other projects underway include demonstrating other dredging techniques and field and greenhouse tests of sediment as a growth medium. Tests of physical properties such as pumping characteristics and chemical content are also underway.



# July

2002

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b> Independence Day	<b>5</b>	<b>6</b>
<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>
<b>14</b> Bastille Day	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>			



# Collaboration



Our advanced efforts in information technologies have made WMRC a regional and national leader in developing tools for environmental applications. This leadership role has positioned WMRC as a major participant in two federally funded projects that provide decision-making resources to business and government across the nation. The Great Lakes Regional Pollution Prevention Roundtable (GLRPPR) and the Pollution Prevention Resource Exchange (P2Rx) have established partnerships that provide WMRC with the means to draw on the skills of hundreds of experts in dozens of fields, expanding the quality of services we can offer to Illinois.

## **Great Lakes Regional Pollution Prevention Roundtable ([www.glrppr.uiuc.edu](http://www.glrppr.uiuc.edu))**

This project coordinates the exchange of information about pollution prevention activities throughout the Great Lakes Region. The GLRPPR web site remains the key mechanism to share these resources and information. The GLRPPR contacts database also has been redesigned. The scope of information in the database records has been expanded and the number of individuals and organizations has climbed to over 300 contacts.

When membership was initially formalized in 2000, there were 96 members; GLRPPR now has a total of 247 members. GLRPPR has hosted regional conferences for members and stakeholders in Indianapolis and Madison, Wisconsin during the past two summers. GLRPPR staff assisted with planning and organizing the National Pollution Prevention Roundtable's annual conference in Chicago in 2001.

The LINK newsletter is published and distributed quarterly. It contains articles of interest to the members and feature contributions from each Great Lakes state and Canada.

## **Pollution Prevention Resource Exchange ([www.p2rx.org](http://www.p2rx.org))**

GLRPPR and WMRC have been the national coordinator of P2Rx for the past two years. During that time, P2Rx has coordinated the development of two national products - the topic hubs and the programs database.

- **P2Rx Topic Hub** - A Topic Hub is a web-based guide to the resources available on a specific subject. It answers questions about a topic, discusses P2 options, and promotes topic expertise
- **P2Rx Programs Database** is an on-line tool for locating business assistance and services. It is maintained locally but available nationally.

Under WMRC leadership, P2Rx has formulated a strategic plan for the future of the organization, coordinated four national meetings, developed and maintained the P2Rx website, and facilitated issue discussion.

There are eight P2Rx centers across the county, each serving regional and national needs. Their services include specialized information searches, information clearinghouses, contacts and expert referrals, training and conferences, networking and web sites.

# August

2002

**Sunday**

**Monday**

**Tuesday**

**Wednesday**

**Thursday**

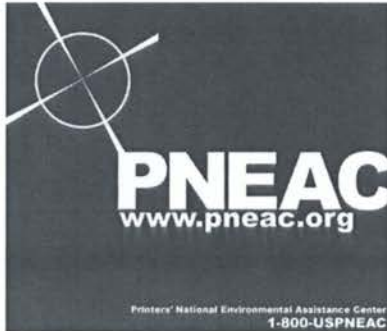
**Friday**

**Saturday**

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<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>



# Partnership



For the past seven years WMRC has directed the Printers' National Environmental Assistance Center (PNEAC). Major partners are the Graphic Arts Technical Foundation and the Solid and Hazardous Waste Education Center at the University of Wisconsin at Madison. PNEAC is one of 11 compliance assistance centers funded by USEPA.

There are about 2,400 printing companies in Illinois ranging in size from the world's largest private printer (Quebecor) to many that have less than five employees. These companies add over \$4.6 billion to the Illinois economy each year.

Over 30,000 visitors each month come to the [www.pneac.org](http://www.pneac.org) to check out the following topic areas:

- Directory of over 1,500 printing industry vendors
- Collection of over 100 fact sheets and case studies addressing priority compliance issues and pollution prevention strategies for each type of printing technology
- Directory of national, regional and state contacts – printing industry organizations, technical assistance programs and regulatory agencies
- Current information about federal and regional environmental initiatives relevant to the printing industry including the Illinois Great Printers Project
- State-specific compliance information
- National compliance information including regulations under development and official determinations by USEPA which impact the printing industry
- “Ask PNEAC” question and answer service and searchable archive
- Webcast archives of the 2000 Videoconference: High Performance Flexo: Printing with a Cleaner, Greener Image

PNEAC operates two popular e-mail discussion boards – PRINTECH and PRINTREG. Industry experts provide responses to questions posted daily by subscribers to those listservs. A fax-back service is also maintained for access to documents such as the various fact sheets.

PNEAC continues to co-sponsor the National Environmental Health and Safety Conference for the Graphic Communications Industry. This event, held in St. Louis this year, attracts hundreds of printing industry professionals each year.

In the coming year PNEAC is developing a compliance and pollution prevention in-plant self-check guide for flexographic printers. This is in cooperation with USEPA's Design for the Environment Program and The Flexographic Technical Association. PNEAC will also be a co-sponsor of the industry's annual Environmental Health and Safety conference and will reach out to technical assistance providers to make more of them aware of the resources available to them through PNEAC.

# September

2002

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>1</b>	<b>2</b> Labor Day	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b> Rosh Hashanah
<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>
<b>15</b> National Pollution Prevention Week	<b>16</b> WMRC Founded 1984	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>
<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>
<b>29</b>	<b>30</b>					



# Us



## Administrative Services

**George Vander Velde, Director**

**Gary Miller, Assistant Director**

**John Marlin, Senior Scientist**

**Katie Day, Manager, HR & Finance**

---

Judy Day

Ed Delso

Jeri Knaus

Tenna Knox

Cindy Melchi

Margaret Morrison

Cheryl Van Ness

Randy Wahlfeldt

## Information Services

**Bob Iverson, Manager**

---

Laura Barnes

Jini Cook

Chris Harris

Deb Jacobson

George Krumins

Todd Schumacher

Prill Smiley

## Natural Resources Trustee Program

**Mike Henry, Manager**

---

Ann Fletcher

Denise Stoeckel

Beth Whetsell

## Pollution Prevention Program

**Tim Lindsey, Manager**

---

Ken Barnes

Malcolm Boyle

Jerry Brown

Georgene Frego

Cliff Jahp

Dan Kraybill

Bill Nelson

Joe Pickowitz

Kishore Rajagopalan

Ray Ronda

Todd Rusk

Mike Springman

## Research & Laboratory Services

**Marv Piwoni, Manager**

---

Gary Bordson

Teresa Chow

Brad Daniels

Julie Hafermann

Yakov Lazovsky

Chris Rohl

John Scott

Jonathan Talbott

Luann Wiedenmann

Monte Wilcoxon

\*WMRC staff as of July 1, 2001

# October

2002

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14 Columbus Day (observed)	15	16	17	18 Governor's Pollution Prevention Awards	19
20	21	22	23	24	25	26
27 Daylight Savings Time Ends	28	29	30	31 Halloween		



# Future



Each year WMRC implements a strategic plan in line with guidance from DNR and the Governor's Office. Our **mission** is to conserve natural resources, reduce wastes, and increase economic viability by providing Illinois businesses, institutions, and citizens with information, research, innovative technologies, and technical assistance. We are **advocates** for responsible uses of natural resources through quality, innovative research; providing accurate, impartial information on environmental issues; and development and implementation of innovative pollution prevention technologies. To accomplish this we serve as **change agents** for businesses, government, educational institutions, and citizens of Illinois. WMRC strives to be a **leader** in innovative pollution prevention technology diffusion, knowledge and integrity on environmental issues, providing educational opportunities on waste management issues, and developing effective partnerships. Our **quality employees** are empowered to be responsive to our customers, use a teamwork approach in a safe and stimulating work environment, and maintain their professionalism through training and recognition.

Major objectives for the coming year are:

- Initiate a technology diffusion initiative with the printed wiring board manufacturing sector in Illinois
- Demonstrate innovative P2 technologies at electroplating and metal finishing facilities
- Develop new and refine existing analytical methods to address complex industrial process efficiency, waste reduction and environmental contamination problems
- Test the effectiveness of phytoremediation for cleaning up contamination in the Lake Calumet area.
- Develop methods to study arsenic problems in Illinois' drinking water supplies.
- Partner with researchers at the University of Illinois and other institutions to obtain federal funding to address water problems through the development of advanced technologies.
- Develop beneficial uses for dredged Illinois River sediment including for restoration of brownfields.
- Provide timely, professional responses to businesses and citizens on compliance and pollution prevention
- Enhance IDNR's program to minimize waste in all facilities to serve as an example for other state agencies
- Enhance public access to waste management and pollution prevention information, specialized collections, a clearinghouse and databases through the Internet
- Develop a pilot program in DuPage County schools in partnership with Argonne National Laboratory to bring waste reduction and pollution prevention education to teachers in middle and high schools.
- Improve the efficiency of WMRC's administrative procedures and operations through greater use of computer technology.



# November

2002

**Sunday**

**Monday**

**Tuesday**

**Wednesday**

**Thursday**

**Friday**

**Saturday**

						<b>1</b>	<b>2</b>
<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>9</b>
		Election Day					
<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>16</b>
	Veteran's Day						
<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>23</b>
<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>30</b>
				Thanksgiving Day			Hanukkah Begins



# People



We spend a great deal of time discussing projects, resources and equipment that WMRC can devote to our problem-solving activities. We are fortunate to have an excellent facility, located on the campus of the University of Illinois, allowing us to take full advantage of one of the top research universities in the country. However, we have always firmly believed that our success isn't due to what we've bought or built, but to who we are.

Not a single one of our many success stories could happen without our staff.

Not one innovative solution would have been developed nor one problem would have been resolved in our seventeen years without our human expertise.

WMRC is not a building. It is not a government agency. It is a unique collection of engineers, chemists, biologists, accountants, writers, librarians and technicians that together, represent a tremendous pool of talent, skill and experience that helps Illinois businesses work cleaner, better and more competitively.

It's not easy getting the best people. And keeping them, that's even harder. But we think we've managed to do it.

We work hard and we play hard.

Please make no mistake, we take our work very seriously.

It's ourselves that we take a little more lightly.

That's how the Waste Management and Research Center works -- effectively and efficiently changing the way it's always been done and providing an outstanding return on the investment Illinois taxpayers make in us every year.

# December

2002

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>
<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>
<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>
			Christmas Day			
<b>29</b>	<b>30</b>	<b>31</b>				
		New Year's Eve				





**Main Office**

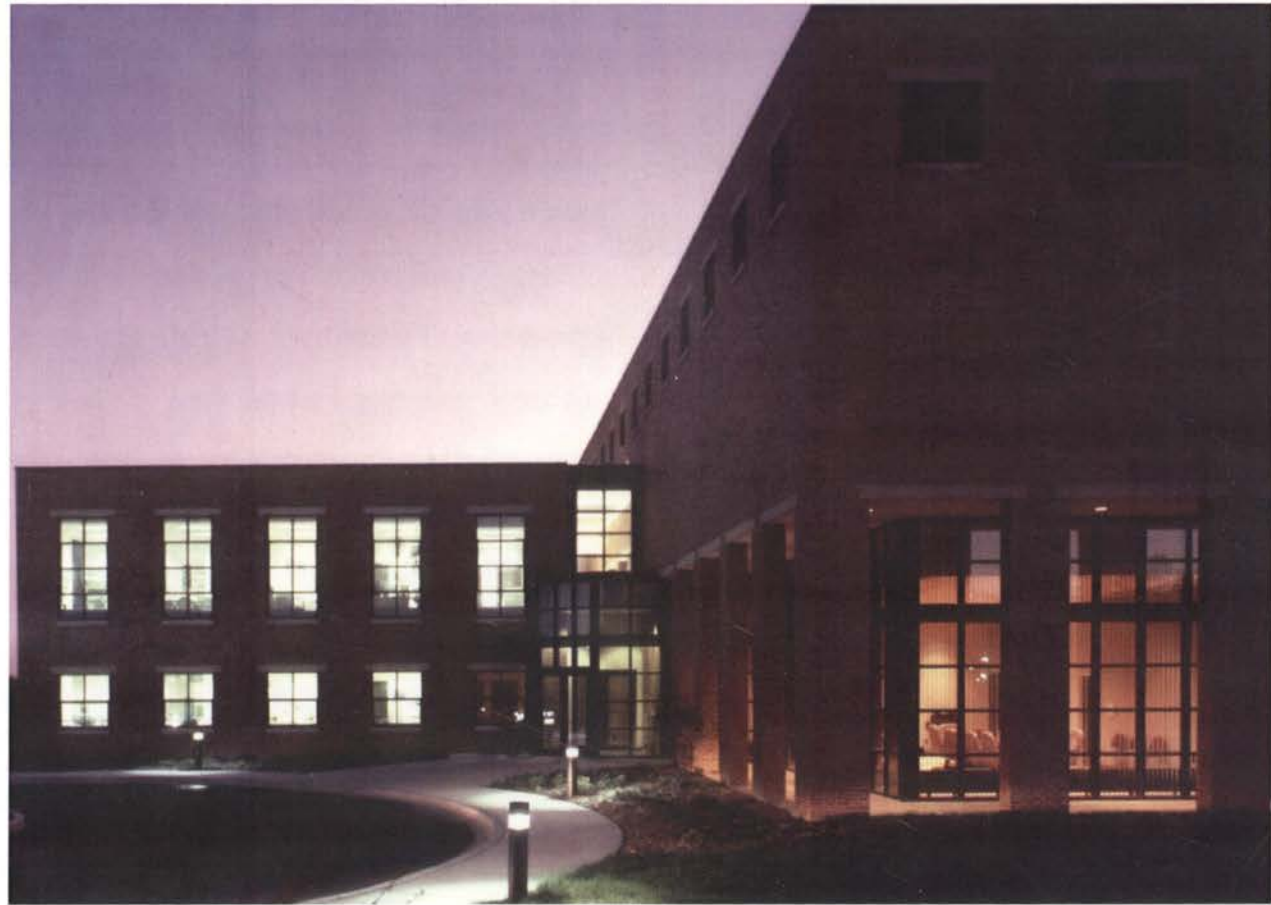
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A Division of  
the Illinois Department  
of Natural Resources