Pollution Prevention Information: What’s Out There and Where To Find It

Laura L. Barnes, M.S.L.I.S
Executive Director, Great Lakes Regional Pollution Prevention Roundtable
l-barnes@illinois.edu
Drowning in information?
Ways We Look for Information

• Search
  – When: You’re doing research or trying to answer a question
  – Where: Google, Bing, Yahoo, or your favorite search engine or article database
    • Scopus
    • Google Scholar
    • Web of Science

• Scan
  – When: You’re trying to keep up with a topic
  – Where: Trusted news sources
Use Your Time Wisely

• Do a preliminary search
• Use browser add-ons to help you sort through results
  – Deeper Web
• If you haven’t found it relatively quickly, ask an information professional
  – GLRPPR Help Desk Librarian
  – P2Rx Rapid Response Service (for those outside of GLRPPR’s service area)
Deeper Web Sample Search – Pollution Prevention

- Ecology Services Add Value to Business
- APPENDIX G POLLUTION PREVENTION
- Recycling Stats | GreenWaste Recovery
- FY10 Executive Summary
- News Search
- Resources Search

Pennsylvania DEP Awards Energy-Efficiency Pollution Prevention Grants to 56 ...
MarketWatch (press release) - 6 hours ago
8, 2012 /PRNewswire via COMTEX/ – The Department of Environmental Protection has awarded $418,049 in grants to help 56 small businesses across Pennsylvania invest in energy-efficiency or pollution-prevention projects. "Since 2004, this program has ...

3M: Sustainability That Sticks?
What They Think (blog) - 10-31-2012
We optimized our manufacturing process and initiated the Pollution Prevention Pays (3P) program, which prevents pollution at the source through product reformulation, process modification, equipment redesign and recycling and reusing waste materials.

How California is harnessing P2 to make safer products
GreenBiz (blog) - 10-9-2012
Twenty-two years ago, the Pollution Prevention Act marked a significant change in how U.S. companies manage hazardous waste. Shifting away from an “end of the pipe” approach to controlling chemical hazards, it focused on controlling those hazards at ...

Pollution Prevention Research Strategy (PDF)
rationale for, and the intended products of, EPA’s pollution prevention research. ... track progress toward achieving its pollution prevention research goals, as re- ...
www.epa.gov - Cached - Similar pages

An Organizational Guide to Pollution Prevention U.S. EPA
Martine Dumais, National Office of Pollution Prevention, Environment Canada. Art Gillen ... Margaret Nower, Pollution Prevention Manager, City of Portland ...
www.um.edu - Similar pages

Pollution Prevention Report ARS $49-966
Pollution prevention (P2) is an innovative environmental management practice ... In summary, the purpose of the department’s Pollution Prevention Program is to ...
www.azdeq.gov - Cached - Similar pages

An Organizational Guide to Pollution Prevention
i. 80% Recycled/Recyclable. Printed with vegetable-based ink on paper that contains a minimum of 50% post-consumer fiber content processed chlorine free ...
www.ecy.wa.gov - Cached - Similar pages
Deeper Web Sample Search – Pollution Prevention
Trust But Verify

• Choose your sources carefully
  – Library resources are evaluated before purchase
  – Don’t assume that the web has the most recent or accurate information

• Trust but verify
  – Always check to see how current a page is
  – Always look for information about the author of the page
When to Use What

Use a search engine
When you’re looking for something specific, an unusual term, or an exact phrase

- Use advanced search features to refine your search
  - [http://www.google.com/advanced_search](http://www.google.com/advanced_search)
- Read the search engine help pages for new techniques
  - [http://support.google.com/websearch/](http://support.google.com/websearch/)

Use a directory
When you’re looking for lots of information on a particular topic

- GLRPPR Sector Resources
- P2Rx Topic Hubs
- P2 InfoHouse
Some Useful Google Search Tricks

• Site search
  – Use site: to restrict your search to a specific web site
  – Example: “pollution prevention” site:epa.gov

• Exclude a word
  – Add a dash (-) before a word to exclude all results that include that word.
  – Example: “solvent use” printers –computers

• Use Google as your dictionary
  – If you’re looking for a definition, try the define: operator
  – Example: define:biomimicry

• More help from Google
  – Search tips and tricks
    http://www.google.com/insidesearch/tipstricks/basics.html
  – Search operators
    http://support.google.com/websearch/bin/answer.py?hl=en&answer=136861
Refining Google Search Results

• Filter your search results by type of content
  – Some options include web, images, maps, videos, news, books, places, blogs, discussions, applications, and patents.

• Other filtering options include:
  – Publish date
  – Personalization
  – Verbatim search

• More help with search
  – From Google
    http://support.google.com/websearch/bin/answer.py?hl=en&answer=142143&topic=1221265&ctx=topic
  – From the University of Illinois Library
    http://uiuc.libguides.com/google
Remember Traditional Resources

• Journal literature
  – Your local public, university, or community college library’s databases
  – [Google Scholar](#)

• Books and reports
  – Your local public, university, or community college library’s online catalog
  – [WorldCat](#)
Ask

• If you can’t find it or don’t know where to start, ask:
  – Your local librarian (especially if you have one on site)
  – GLRPPR Help Desk Librarian
  – P2Rx Rapid Response Service (for those outside of GLRPPR’s service area)
  – Your regional roundtable’s e-mail list
Staying current doesn’t have to be messy
Use RSS to bring content to your desktop or browser
A look at what's new

“flame retardant” + (wildlife or environment) - Google News (8)

Toxic Chemical Levels Continue Falling - Vox. "Toxic Chemical Levels Continue Falling" "Voxxy" The researchers note that the levels of these "flame retardant" chemicals are likely to be considerably higher in our blood. The Ministry intends to continue "..." and more."

Study finds flame retardants in bald eagle blood - Winona Daily News. "Study finds flame retardants in bald eagle blood" "Winona Daily News" The eagles are at the very apex of the Great Lakes food webs, said co-author William Bowerman, professor of wildlife ecology and "environmental" toxicology "..." Study finds ...

Viewing Poisons at Our National Parks - Miller-McCune.com. Miller-McCune.com "Viewing Poisons at Our National Parks" "Miller-McCune.com" The presence of "flame-retardant" chemicals is increasing in the parks. Contamination tends to be worse at higher altitudes. Semi-volatile organic compounds ...

“fuel cell” - Google News (221)

Plug Power Senior Management Team Hits the Road to Promote Fuel Cell Impact - Trading Markets (press release). "Plug Power Senior Management Team Hits the Road to Promote Fuel Cell Impact" "Trading Markets (press release)" Mr. Anderson will give an overview of Plug Power's strategy to commercialize its "fuel cell" power solution in material handling.

LLNL zinc-air fuel cell technology licensed to Montana company - R & D Magazine. R & D Magazine "LLNL zinc-air fuel cell technology licensed to Montana company" "R & D Magazine" based Zinc Air, Inc (ZAI) announced today that it had obtained exclusive rights from LLNL for the zinc-air "fuel cell" (US Patent 5434020) invented by ...


“green building” - Google News (391)

First look: MIT’s newest building, the new heart of the Sloan School of Management - Boston Globe. Boston Globe "First look: MIT’s newest building, the new heart of the Sloan School of Management" "Boston Globe" (They’ve applied for LEED certification from the US “Green Building” Council, and may attain the gold level.) There are shades that descend ...

Eco-conscious travelers can find and book green hotels at Best Western website - This Dish Is Veg (blog). This Dish Is Veg (blog) "Eco-conscious travelers can find and book green hotels at Best Western website" "This Dish Is Veg (blog)" The website lists each hotel that meets all of the ‘green’ standards set in place by the US “Green Building” Council and ...

Former Madison school prep school for sale - Madison Eagle. "Former Madison school prep school for sale" "Madison Eagle" "..." and incentives should be considered to incorporate "green" building practices and other desirable aspects of design, including public and cultural ...

“pollution prevention” OR “clean technology” OR greening OR "ene (409)

Energy Efficiency and PV: Together Forever - RenewableEnergyWorld.com (blog). RenewableEnergyWorld.com (blog) "Energy Efficiency and PV: Together Forever" "RenewableEnergyWorld.com (blog)" We have seen a marriage of the “energy efficiency” and solar energy industries as the US has worked to green its buildings. In fact, some...
What should a sustainability careers column look like?

by John Davies

We got some pushback from the peanut gallery in our debut Movers & Shakers column. Let’s keep the conversation going.

Send to enables you to share the story on social media channels, including Twitter and Facebook.
Alerts

Search query: "pollution prevention"
Result type: Everything
How often: Once a day
How many: All results
Deliver to: lbwmrc@gmail.com

Google Alert for today
From: Google Alerts <googlealerts-noreply@google.com>

News

Ships to treat sea pollution deployed on coast
Jerusalem Post
After the Environmental Protection Ministry threatened it would not give its support in the Planning and Building Committee to the establishment of further oil and gas drilling off the coast, the Finance Ministry agreed on the NIS 22m. sum for ...
See all stories on this topic »

7 steps to effective energy management
GreenBiz.com (blog)
A cornerstone of sustainability is pollution prevention, or P2. Through the effective implementation of P2 and Energy Efficiency (E2) strategies, businesses can incorporate sustainability into day-to-day operations in ways that promote long-term cost ...
See all stories on this topic »

Web

12/06/2012: EPA to Fund Pollution Prevention Projects in New ...
Blogtrottr delivers updates from all of your favourite news, feeds, and blogs directly to your email inbox, giving you the flexibility to stay updated whilst on the go. Yummy!

Getting Started

To get started simply input the URL of the feed you wish to subscribe to and your email address below:

http://example.com

email@example.com

Realtime

Feed Me

http://www.blogtrottr.com/
WHO
WHAT
WHERE
WHEN
WHY
HOW
QUESTIONS
ANSWERS
Resources for pollution prevention (P2) technical assistance providers. Geared particularly toward those new to the P2 field.
Webinar: P2 GHG and Cost Savings Tools

Posted Wednesday, November 21 on the GLRPPR Blog by Laura B. - Comment on this post

Wed, Jan 16, 2013 1:00 PM - 2:00 PM CST
Register at https://www3.gotomeeting.com/register/661478870

EPA, Office of Chemical Safety and Pollution Prevention will be presenting an overview of tools designed to help measure the environmental and economic performance results of pollution prevention activities. Come hear how newly designed tools can demonstrate the unique multi-media perspective that P2 brings to reduce GHG reductions and cost savings. Natalie Hummel and Kathy Davey of the Pollution Prevention Division will be presenting.

P2 Greenhouse Gas Calculator:
The P2 GHG Calculator calculates GHG emission reductions from electricity conservation, green energy, fuel and chemical substitutions with lower GHG-intensities, water conservation, and improved materials and process management in the chemical manufacturing sector. This tool will assist program participants to submit higher-quality data for the program measure, and demonstrates the unique multi-media perspective that P2 brings to reduce metric tons of carbon dioxide equivalent (MTCO2e).

P2 Cost Savings Calculator:
The P2 Cost Calculator assesses cost savings associated with reduced costs for hazardous inputs in a facility process, reduced costs for handling hazardous waste, reductions in annual air permitting fees that are based on actual emissions, reduced water discharge treatment costs based on gallons discharged, reduced charges for water usage, reduced fuel costs, and reduced costs for electricity. Understanding potential cost savings presents a big incentive for action and collaboration to program beneficiaries.

Gallons to Pounds Converter:
This is designed to provide conversions from units commonly encountered in business to units needed for P2 Program measures. It is not uncommon for hazardous materials to be measured in gallons for business purposes – gallons of paint, and gallons of waste water, for example. For program purposes, all these gallon measurements need to be converted to pounds of hazardous materials for the program measure “pounds of hazardous materials reduced.”

http://www.glrprr.org/
http://www.p2rx.org/
Biochar as a Climate Change Mitigation Strategy: Does It Measure Up?

To avoid the worst consequences of climate change, we need to significantly reduce global warming emissions and possibly remove existing carbon from the atmosphere. One proposal for achieving the second objective is to use biochar — plant and animal materials — in a low-oxygen environment to create charcoal, which is mostly just carbon and is called biochar when produced specifically to help reduce global warming.

This report evaluates the potential of biochar as a climate change solution and reviews the scientific literature to assess current data on biochar's long-term stability in the environment.

Warming Lakes: Climate Change and Variability Drive Low Water Levels on the Great Lakes

For people living around the Great Lakes, water levels this past month have appeared much lower than many will remember. The upper Great Lakes reached near-record low water levels in October. This was most evident on Lakes Michigan and Huron, where lake levels dropped to less than two meters (6 ft) above record lows and 20 meters (66 ft) below the long-term average. All five lakes, plus Lake St. Clair, remain below their long-term averages.

Rock and sand recently exposed by low water levels made stretches of the northern Lake Michigan shoreline look like a moonscape. Recreational boaters had trouble navigating the shallow water this fall, and shipping companies tightened revenue to compensate for low water. Lakes Michigan and Huron hovered just above a record-low level nearly 50 years ago, and Lake Superior was within five inches (11 cm) of a record-low set in 1983.

A 2008 National Geographic magazine story, Down the Drain: The Incredible Shrinking Great Lakes, documents declining lake levels and the potential economic and ecological consequences for the region. Ten years later, the story continues to unfold, as water levels remain lower than normal.

Experts blame the record low water on the unusually warm and dry weather over the past year. Rain events in October, including Hurricane Sandy, delayed the inevitable, but forecasts predict Lakes Superior, Michigan, and Huron will likely reach historic low levels in the late fall or winter, a time of year that the lakes are normally already dropping due to high rates of evaporation.
Statistics, Data Sets, and Calculators
Data sets consist of statistics that have been collected, but not analyzed

Compiled statistics are data sets have been turned into usable information through analysis
Pollution Prevention (P2) and TRI

Under the Pollution Prevention Act of 1990 (PPA), TRI collects information to track industry progress in reducing waste generation and moving towards safer waste management alternatives.

When providing this information, many facilities choose to describe the measures they have taken to prevent pollution and reduce the amount of toxic chemicals entering the environment. As a result, TRI serves as a tool for identifying effective environmental practices and highlighting pollution prevention successes.

You will need Adobe Reader to view the (PDF) files on this page. See EPA’s PDF webpage to learn more.

TRI Pollution Prevention (P2) Resources

- Learn about TRI P2 data and how to use it (PDF) (2pp, 175K)
- View the TRI P2 training webinar, Showcasing Sustainability in Your TRI Report
- Check out presentations on TRI, P2, and sustainability from the 2012 TRI National Training Conference (Exit Disclaimer)
- See how P2 reporting is featured in the 2010 Toxic Release Inventory: National Analysis Overview (PDF) (see pages 22–31) (35 pp, 12.8MB)
- Learn more about EPA’s P2 and sustainability programs

http://www.epa.gov/tri/P2/index.html
U.S. carbon dioxide emissions from energy use fell in 2011.

Energy-related carbon dioxide emissions, 1990-2011


ENERGY IN BRIEF ARTICLES

What are greenhouse gases and how much are emitted by the United States?

Greenhouse gases trap heat from the sun and warm the planet's surface. Of U.S. greenhouse gas emissions, 82% are related to energy consumption. Since 1990, greenhouse gas emissions in the United States have grown by about 1% per year.

Read all Energy in brief articles ➤

ENERGY AND THE ENVIRONMENT EXPLAINED

Greenhouse Gases: Effect on the Climate

Levels of several important greenhouse gases have increased by about 40% since large-scale industrialization began around 150 years ago. During the past 20 years, three-quarters of human-related emissions have come from burning fossil fuels. Concentrations of carbon dioxide in the atmosphere are not naturally regulated by numerous processes commonly known as the carbon cycle.

Where Greenhouse Gases Come From

In the United States, greenhouse gas emissions come primarily from the burning of fossil fuels. Energy use is largely driven by economic growth and short-term fluctuations in the economy. However, weather patterns can affect heating and cooling needs. Energy use is also driven by changes in the use of electricity.

Short-Term Energy Outlook

Released November 6, 2012

Includes projections for energy-related carbon dioxide emissions through 2013.

Annual Energy Outlook 2012

Released June 28, 2012

The projections in the Annual Energy Outlook 2012 focus on the factors that shape the U.S. energy system over the long term. Includes includes U.S. emissions projections for carbon dioxide, sulfur dioxide, and nitrogen oxide through 2035.

What is the Voluntary Reporting Program?

Q: How much CO2 does the United States emit? Is it more than other countries? ➤

See more energy and the environment topics ➤

http://www.eia.doe.gov/environment
Manufacturing Energy and Carbon Footprints

Energy and Carbon Footprints provide a mapping of energy from supply to end use in manufacturing. They show us where energy is used and lost—and where greenhouse gases (GHGs) are emitted. Footprints are available below for 15 manufacturing sectors (representing 94% of all manufacturing energy use) and for U.S. manufacturing as a whole.

Manufacturing Energy and Carbon Footprints

- All Manufacturing
- Alumina and Aluminum
- Cement
- Chemicals
- Computers, Electronics and Electrical Equipment
- Fabricated Metals
- Food and Beverage
- Forest Products
- Foundries
- Glass
- Iron and Steel
- Machinery
- Petroleum Refining
- Plastics
- Textiles
- Transportation Equipment

Each footprint visualizes the flow of energy (in the form of fuel, electricity or steam) to major end uses in manufacturing, including boilers, power generators, process heaters, process coolers, machine-driven equipment, facility HVAC, and lighting. The footprints present data at two levels of detail. The first page provides a high-level view of supply and end use, while the second page shows details of how energy is distributed to onsite end uses. The analysis is based on EIA’s 2006 Manufacturing Energy Consumption Survey (MECS) data (the latest year for which complete MECS data is available) and input from industry and subject matter experts.

Footprints show aggregate data for each sector, including:
- Electricity and steam generated offsite and transferred to the facility, as well as electricity and steam generated onsite
- Fuel, electricity, and steam consumed by major end uses in a manufacturing facility

http://www1.eere.energy.gov/manufacturing/resources/footprints.html
http://www.p2rx.org/measurement/
P2 Measurement & Calculators
P2 Greenhouse Gas Calculator

- Developed to assist the P2 community with reporting EPA’s outcome measures
  - Pounds of pollutants reduced
  - Gallons of water saved
  - Dollars saved through adoption of P2 practices
- Used to calculate changes in GHG emissions from P2 projects
- Converts activity values entered (e.g. kWh saved, gallons of water reduced) to CO₂ equivalents
- Aggregates GHG reductions from individual projects and categories
- Provides data transparency through references and justification
- Provides calculations for:
  - Electricity conservation
  - Green energy
  - Stationary and mobile source fuel reduction/substitution
  - Green chemistry
  - Water conservation
  - Materials management (module under construction)
P2 Cost Calculator

• Calculates financial savings in dollars from implementing specific P2 activities
  – Hazardous inputs and wastes
  – Air emissions
  – Water pollution
  – Water use
  – Energy
  – Electricity
  – Non-hazardous inputs and solid waste
Where to Get the Calculators

• EPA’s Measuring P2 Web Site
  http://www.epa.gov/p2/pubs/resources/measurement.html#calc

• NPPR’s P2 Measurement Tools
  http://www.p2.org/general-resources/p2-data-calculators/

• Learn to use the calculators by attending a training webinar on January 16
  – Register at
    https://www3.gotomeeting.com/register/661478870

• Other calculators and software tools available at
  http://uiuc.libguides.com/p2/tools
What’s that web site I wanted to show you?
Recent

**Procurement, Innovation, and Green Growth**
2 saves http://www.isd.org/pdf/2012/procurement_innovation_green_growth_continues...
- green_business
- green_purchasing
- p2tagteam

**Environmental Sustainability and Behavioral Science Meta-Analysis of Proenvironment...**
2 saves http://eab.sagepub.com/content/44/2/257_
- behavior
- p2tagteam

November 15, 2012

**Petroleum and Emission Reduction Planning Tool**
1 save http://www.afdc.energy.gov/prep/

This planning tool helps your vehicle fleet reduce petroleum consumption and greenhouse gas (GHG) emissions. Create a comprehensive plan for your fleet by using several savings methods. If your fleet includes multiple vehicle types, add more vehicles to each method.

- P2TagTeam
- green_libraries
- green_business
- alternative_fuels
- calculators

January 10, 2012
When you find something you want to view later, put it in Pocket.

SAVE FOR LATER
Put articles, videos or pretty much anything into Pocket.
Save directly from your browser or from apps like Twitter, Flipboard, Pulse and Zite.

WAYS TO POCKET:
- Your Web Browser
- Via Email
- From Over 300+ Apps

VIEW WHEN READY
If it's in Pocket, it's on your phone, tablet or computer. You don't even need an Internet connection.

VIEW POCKET:
- iPhone and iPad
- Android
- Kindle Fire
- In Your Browser

Start saving to Pocket. SIGN UP NOW It's totally free.
Welcome to Goodreads

Have you ever wanted a better way to:

- Get great book recommendations from people you know.
- Keep track of what you’ve read and what you’d like to read.
- Form a book club, answer book trivia, collect your favorite quotes.

sign up »

Already a member?

email address: 
password: 

keep me signed in
Forgot your password?

sign in

Over 100,000,000 books added!
Learn how Goodreads works.

people recently on goodreads

Jakob 455 books
Dawn 62 books
Daniel 238 books
Rebecca 96 books
Emily 233 books
Sarah 776 books
Crystal 1356 books
Kyrsin 165 books
Summer 118 books
Mary 84 books

Flaherty’s Crossing by Kaylin McFarren
An estranged father’s dying confession opens a vault of dark family secrets—shocking revelations that threaten all his daughter holds dear
www.goodreads.com

The Good Daughters by Joyce Maynard
A novel about love, family secrets and friendship, critics call it “exquisite,” “evocative,” and “absorbing.” Add it to your shelf now.
www.goodreads.com
view 23 reviews »

more links...
It’s time to change the way we do research.

Mendeley is a free reference manager and academic social network that can help you organize your research, collaborate with others online, and discover the latest research.

- Automatically generate bibliographies
- Collaborate easily with other researchers online
- Easily import papers from other research software
- Find relevant papers based on what you’re reading
- Access your papers from anywhere online
- Read papers on the go, with our new iPhone app
- View more features...

Cross-platform Mendeley organizes, indexes, and even stores your documents in the cloud to make document management painless.

Download at http://www.mendeley.com
I found it! And it didn’t take all day!