

Interagency Pollution Prevention Advisory Team

AGENDA

May 26, 2011, 9:00 am -12:00 pm

Minnesota Pollution Control Agency

520 Lafayette Rd., N., St. Paul

Training Room 2 – Lower Level

8:30 ORIENTATION SESSION (*new attendees only*)

- 9:00 REGULAR MEETING STARTS
Welcome from MPCA Commission Paul Aasen
Approve May agenda
Approve notes from November 18, 2010
Member updates/announcements - *All*
- 9:35 Quarterly Recycling Report – *Dave Fielding, Dept. of Admin.*
- 9:45 Executive Order Changes – *Cathy Moeger, PCA*
Goal review and status reports
- 10:00 Presentation – “Think Outside the Bottle” – *Jeff Gang or John Stewart, National Organization of Corporate Accountability*
Presentation – City of Minneapolis campaign – *Casper Hill, City of Minneapolis, INVITED*
- 11:00 BREAK
- 11:15 Presentation – “Alternatives to single vehicle trips” – *Damian Goebel, St. Paul Smart Trip Transportation*
- 11:45 Tutorial on Air Quality Steps – *Cassie McMahon, PCA.*
- 11:55 Homework assignment
Next Meeting agenda
- 12:00 ADJOURN

Hosted by:



Minnesota Pollution
Control Agency

IPPAT Meeting Summary May 26, 2011

Welcome

New PCA Commissioner, Paul Aasen, was introduced by Mike Nevala of the Metropolitan Council. Mike explained that they had both been members of IPPAT years ago, so Mike was pleased to welcome Paul back to IPPAT.

Paul welcomed the new and existing members of IPPAT. The 2011 Cabinet Briefing paper about Executive Order 11-13 was handed out. The Commissioner noted that the Governor wants government to lead by example. He also noted that the MPCA was not coming out of this legislative session the same. So his challenge is how to get more businesses out of regulatory work and move from 18,000 permits down to 15,000 through pollution prevention for example. This and the work IPPAT is doing will help convince others to do the same. Paul will be presenting to the Cabinet in the future on the progress on Executive Order 11-13.

This meeting is the first one for many new IPPAT members, so the group introduced themselves, who they represent, why they are attending and what they hope to learn and achieve.

Agenda and minutes

Chair, Cathy Moeger, convened the meeting at 9:10. The current agenda was approved with minor revisions—Casper Hill of Minneapolis was unable to attend for his presentation. The presentation on “Think Outside the Bottle” was placed later on the agenda. Approval of the November 18, 2010 minutes was deferred to the next meeting, due to problems posting them on GovDelivery prior to the meeting (copies were passed out).

Updates and Announcements

Cathy Moeger, MPCA, reviewed some changes to EO 11-13, including:

- IPPAT can now change and the PCA Commissioner can waive the sustainability plan targets
- IPPAT’s organization is going to look at key measures versus detailed information
- The 60% recycling goal is new

Cathy Moeger used the yearly update with Sally Grans as an example of updating your sustainability plan using organizational goals versus a detailed list of items and plans to abide by.

The ripple effect from enforcement of recycling will help add to the \$3 billion new jobs. Examples of reduction are encouraging single use water bottles and reducing single vehicle commuting. In addition, agencies have resources like the Grainger catalog that includes a section that is geared toward sustainable products.

Ken Oas, MNSCU, announced that they are working on small energy efficiencies.

Dave Fielding, Admin., gave an update on its recycling progress. They have a new vendor, Accessibility Inc., for waste management service to the Capitol Complex. They split up the categories of waste by bottles and cans, non-confidential paper, corrugated, and pallets. All of these were measured in pounds monthly. Dave showed two graphs, one showing tons of waste from 2004 to 2011. This graph showed that there was roughly 50 tons in 2008 and peaking to 63 tons in 2009, then dropping to roughly 53 tons

in 2010. The second graph was pounds per employee and it had a steady decline from 2004 at 20 pounds per employee to 15.

Their main focus is energy. Their goal was 12% reduction in energy for 2011. Total consumption is down 14.5%, \$1.25 million was saved, and carbon dioxide was reduced about 90,000 tons (from 2008 to end of FY 2010). Hot water and heat are the biggest consumers.

There are also two lighting initiatives: 1) putting through central controls for putting lights on and off in the next twelve months; and 2) retrofitting ramp lights over to LEDs and adjusting the times these are out by using controls. The controls result in 95% efficiency compared to high pressure sodium lamps. Cost to retrofit the whole campus is \$1.5 million with a pay back in ten to twelve years.

Cal Brumbaugh, DMA: The Guard now has a Sustainability Coordinator and an Environmental Management Systems (EMS) Coordinator. They have the largest Guard Maintenance Facility which is LEED silver qualified, along with its parking area. Camp Ripley achieved 50% reduction on natural gas use by putting in geothermal heating in three of its buildings. There will be more to report in the future.

Tony Becker, Dept. of Agriculture: Agriculture also has a Sustainability Coordinator on staff. They are conducting ongoing sustainable efforts. They have 400-500 employees residing in a new building on the Complex, so they have energy savings there. And all of their vehicles are flex-vehicles so that they use E85 fuel only.

Marilyn Jordahl-Larson, DOT: The DOT has established an Office of Environmental Stewardship (OES). It conducts environmental modeling and testing. Marilyn works in the air quality area. Their new sustainable coordinator is looking at the big pictures and will be attending future IPPAT meetings. Marilyn is setting up a Climate Change group and Jackie Klein is leading the recycling program in one building.

Amy Short, UMN System: Amy is the Sustainability Coordinator and is pleased to learn about all the sustainability work being done by IPPAT. She must bridge between programs and build synergy. She also likes to integrate sustainability into research work on all campuses. A committee was formed to share across campuses. For example, Duluth has great stormwater management. Students are great drivers of this and at pulling others along. Other project examples include:

- “It All Adds up” energy conservation with a 5% reduction goal that was reached early on;
- Students pledges were used for this and then rolled out into recycling for a two year period;
- 2012 will include transportation (sold 300 [rebuilt] bikes for less than \$50 to reduce carbon);
- Held a “Conservation Madness” competition among residence halls to reduce energy and showers; reward was a tail-gating party;
- The new “Science, Teaching and Student Services” building is gold LEED certified and a tour map was created to highlight its sustainable features.

Cathy Moeger noted that this building could be a potential local tour for IPPAT.

Cecelia Jackson, Labor and Industry: DLI has submitted its Sustainability Plan which 1) encourages more electronic transfer of information versus paper; and 2) includes records retention schedules so they are cleaning out and recycling old data.

Ron Winkel, DNR: Ron noted that Kathy Ouska is the Sustainability Manager and will attend in the future. He announced that DNR approved and now has established composting in the building.

Sheryl Goldberg, MHFA: The Housing and Finance Agency is trying to comply with the Executive Order but so far not much is established in their building.

Nancy Walters is interested in what they can do in leased facilities, and Cathy Moeger said that the next IPPAT meeting would be about this topic.

Jeff Ledermann, MDE: Jeff is encouraging Education's directors to take part in IPPAT and form a green team to get efforts underway. Energy conservation and electronic communication are already rolling.

Tim Myers, MDH: There is a sustainability coordinator at Health. The Rochester District office is working in partnership with PCA on a green cleaning pilot project. (This is possible because the PCA and MDH offices are co-located and had the same green cleaning goal in their Sustainability Plans.) Health is also working with Agriculture and Administration on other green efforts.

Amy Short was interested in more information about the Rochester facility.

Cathy also noted that there are also partner opportunities in the Golden Rule building which is gold LEED certified. Dave Fielding suggested two staff from Administration that could be presenters on this topic.

Steven Johnson, DEED: Steven is the Facility Project Manager for DEED and is to work with three state owned and 50 leased sites across the state on reorganizing and restructuring buildings to reduce cost and increase efficiency. For example, the agency is cleaning offices and scheduling them during working hours versus when the building is empty so that they can shut down earlier and reduce energy consumption. He'll meet with Sue Estes at Administration regarding lease negotiations to find ways to take more initiatives in other areas.

Kathy Anderson, DOR: Kathy was involved in the paper reduction project where documents were reverted to electronic files. They are participating in the Dept. of Administration's lighting challenge and are part of the ramp study. Revenue also just installed instant hot water heating. She noted that most of their buildings are leased, from Eveleth to Rochester.

Char Sokatch, BWSR: The Board is looking to form a team to address travel management and other sustainability issues.

Steven Maki, Metro. Sports Commission: Steven is Director of Facilities, and the Commission is a very small agency. Several initiatives are underway and they have accomplished some big projects. He also briefly discussed short term leases and the dome collapse this past winter.

John Thompson, Metropolitan Mosquito Control District: MMCD is reducing its E85 fleet and auctioned off about 15 vehicles, with no new vehicles coming in this year. They are expanding the parking lot and building in Plymouth, employing green building components and adding a permeable parking lot.

Mike Nevala, MCES: Mike explained that the Metropolitan Council encompasses the following services in the seven-county metropolitan area:

- Metropolitan Council – housing and infrastructure matters

- Metropolitan Transit – coordinates bus, light rail and other transit issues

- Metropolitan Council Environmental Services – manages eight waste water treatment plants and industrial storm water. These systems serve a population of 2.4 million.

Mike noted that a new topic to address might be the new five-year general permit for industrial stormwater management. It requires that they take water samples four times per year.

Mark Wacek, MAC: Mark agreed that stormwater management is a big issue for the Airport Commission because lots of industrial permits are involved. He also deals in tank regulation, hazardous materials management and construction and demolition matters.

Their recent project was diverting organics from vendor operations at the Lindbergh Terminal, which has 34 million people go through per year. This was a one year pilot last year so they're now expanding the effort to both terminals and all concessions (food preparation and background operations, not including consumer waste). The challenge is moving waste between security stations. A team meets regularly on this, and it has been funded in part from a \$40,000 grant from Hennepin County.

Cathy Moeger, MPCA: The Agency signed a land lease on a closed landfill and will be installing a one megawatt solar system there this fall. This is sited near Rochester.

Energy efficiency in leased space project: The MPCA St. Paul offices were part of a formal energy conservation project that recently ended, but the conservation continues. The Energy Star score ranges from 81-88, and the office was able to take one set of hot water heaters offline. Thus far \$16,000 has been saved after a \$250 investment.

Presentation - "Quarterly Recycling Report" by Dave Fielding, Dept. of Administration
The Department changed to a private recycling vendor for the Capitol Complex in the fall of 2010. He reports that this has resulted in a 12% increase in recycling weight. He suggests this is due in part to two dynamics: 1) the turnover in political majority/minority in the legislature caused an increase in recycling volume. Also, there were many office changes so that lots of recycling was done from those Government Building offices. 2) State recycling and collection of confidential paper for recycling are separately contracted. Now that agencies pay separately for paper destruction, Administration expects there will be less confidential paper going into recycling bins.

The new vendor is "State Certified Rehabilitation Services." They accept commingled paper now, and will do the separation manually as they benefit from better prices between mixed and white paper streams. The current containers need to be relabeled to "mingled." Also, legislation may be changed in 2012 to reflect this change.

At the same time, disposed waste is up. He expects data for two more quarters will be needed to get a more accurate reading.

Cathy noted another big change at the legislature was for PCA to take overall recycling data from state operations to be put in an electronic database. In September it will begin collecting data from statewide reporting systems or surveys for a progress report. This may even include hauler input. The intent was to do this even without legislation.

Presentation - "Focus for Executive Order 11-13" by Cathy Moeger, MPCA (refer to slides found on web – <http://www.pca.state.mn.us/yhiz3fb>)

EO 11-13 focuses on reducing greenhouse gas emissions at the lowest cost. The most cost effective areas come out in energy, fleet and waste management. The EO had plans set actionable targets with timelines and measurable progress toward results. Highlights of the presentation are as follows:

- Agencies will report on key metrics and not all that each agency is doing overall. This should help make all our jobs simpler.
- IPPAT has chosen to address waste, toxics and air quality; the Department of Administration has chosen to address energy, procurement and fleet.
- EO changes: New target added to IPPAT for reduction in single vehicle commuting because the metro area is so close to air quality non-attainment; a new responsibility for IPPAT team is that it can change targets based on need; PCA Commissioner can waive targets for good cause.
- EO efforts provide a new opportunity for private/public partnerships
- IPPAT goals: Minimize solid waste by recycling-60% recycling goal for all state operations (new statutory language); Public entities recycling requirement for 3 materials; and reduce waste generation—suggested focus on reduction of single use water bottles in 2011; and toxics use reduction will focus on environmentally preferable procurement

Fielding noted that Administration found that the single largest cost and waste to reduce was paper hand towels. They installed high-speed driers by “World Drier.” Amy Short and Cathy added that the UM, PCA and DNR all compost these with food waste.

- IPPAT goal, cont.: Comply with county solid waste plans (statutory requirement). With around 5500 state facilities need to determine easy way to see what waste is generated and how to get compliance. PCA piloted and may present in August on the outcome.
- PCA will be doing more enforcement of public entity laws which would equate to thousands of jobs created and reduction of greenhouse gases.
- IPPAT goal, cont.: Reduce air pollution via education of staff on actions to take on air alert days; air alert contacts and backup for each agency; and promote alternative transportation
- IPPAT goal, cont.: Conserve energy in leased facilities; Administration will focus on state-owned buildings and operator training; IPPAT focus on energy conservation strategies through employee behavior change.

Executive Order 11-12 - State agencies that own real property

- Additional requirements for assessment of operations for energy improvements
- Administration is lead
- Reporting on progress in Executive Order 11-12 to occur thru process established in the Sustainability Executive Order 11-13

Next steps are to assure each IPPAT agency member has completed its Sustainability Plan, make changes if needed and submit it to cathy.moeger@state.mn.us by 6/30. [NOTE: DUE TO STATE SHUTDOWN THIS DEADLINE WAS CHANGED TO AUGUST 31, 2011]

Presentation - “Bottled Water: Social & Environmental Impacts and its Alternatives” by John Stewart, National Campaign Organizer of Corporate Accountability International. (Refer to slides found on web – <http://www.pca.state.mn.us/yhiz3fb>)

Cathy introduced the topic by noting that IPPAT would be looking at reduction of single use water bottles as an area where all agencies can share data based on procurement of bottles. The state has seen a reduction in the past year and will need to see why, based on data.

John explained that the idea is for everyone to avoid purchase of bottled water for meetings and other events where these are not a necessity.

Minnesota is the birthplace of Corporate Accountability International, beginning in the seventies with a Nestle Boycott with UM students and faith communities and ended in a World Health Organization treaty. They continue to use this INFAC model today. So there's an international effort to improve worldwide access to clean water.

However, the "think outside the bottle" campaign is to help rebuild confidence in our tap water. City, county and state governments have taken great strides in this. He shared common misperceptions about bottled water as:

- Bottled water is healthier than the tap
- Bottled water is safer than the tap
- Bottled water tastes better than the tap
- Water fountains are dirty, unsanitary

He reviewed the story of bottled water and referred the group to the "Story of Stuff" YouTube piece on the topic of bottled water (see <http://storyofstuff.org/bottledwater/>). In the U.S. one of five distrust tap water and turn to bottles. It costs \$2,000 more than tap water, yet in 2009, U.S. bottled water revenues were \$10.5 billion. Also, industry polices itself and labels are not required regarding derivation or quality.

A Government Accounting Office study found that 44% comes from tap water anyway. Then John showed examples of marketing by the industry that casts doubt on tap water. To counter this, some facts about tap water include:

- Public water supplies in the U.S. deliver clean, safe, & affordable drinking water.
- Bottled water is no safer than tap water.
- Bottled water is subject to less oversight than tap water.

For government there are budget impacts. For example, purchasing bottled water is often more expensive than gasoline and hundreds to thousands of times the cost of tap water. The waste involves:

- 4 billion pounds of PET plastic bottles.
- Less than 20% of plastic water bottles are recycled.
- Energy equivalent of 32-54 million barrels of oil.

Minnesota has gone from spending \$475,000 down to \$125,000 and is a leader in actions, such as Minneapolis' policy and education on using tap water; Macalester passed a policy on Earth Day; and 25 local businesses don't sell it.

States can have a profound influence on public attitude. In addition, the U.S. water infrastructure is regressing in funding so there's a need to rebuild the political will to trust in investment. To date five states have passed policies to cut spending on bottles in support of public water.

His organization offers the following policy proposals:

1. Phase out purchases of bottled water for state offices, meetings, & events.
2. Invest in public water infrastructure.
3. Promote tap water.

Finally, see the slides for images of various refillable alternatives, such as:

- Installing or bringing back drinking fountains
- Installing bottle filler nozzles to existing fountains
- Adding chillers to existing fountains
- Adding Brita filters on sinks
- Providing stainless steel water bottles
- Adding “Hydration Stations” as found on campuses

John endorses stainless steel refillable bottles, and offered to send a list of vendors who offer safe reusable bottles. www.ThinkOutsidetheBottle.org. He also offered to share the “Guide to Bottled Water Alternatives.”

Presentation – “Alternatives to Single Vehicle Trips” by Damian Goebel, St. Paul Smart Trip Transportation.

Damian explained that his organization deals with transportation management for all of St. Paul and that greater Minnesota is handled by the state Department of Transportation.

He noted that Executive Order 11-13 includes a goal of reducing air pollution, in part, by promoting alternative transportation. This presentation reviewed the impacts of driving alone; what St. Paul does and what we could do differently, showing the reduction advantages of alternative transportation (cost of car ownership is about \$8500/year or 16% of a median income).

Addressing mobile air sources, he reports the national average is one-third of air pollution is in congested corridors, and asthma is also higher there. Also, research found that 2% less cars equates to 5-8% decreased congestion.

What can one do? Purchase transit passes or get “Metro Passes” which are good deal. And many are still subsidized by government or private employers. The financial benefits include purchasing them pre-tax (through payroll deduction) which saves about 30% of the cost.

Other options:

Ride sharing- internal – Can be shown on maps and dots where riders live; or list on a share board

Ride sharing – regional – A rideshare map is available; also lists of available carpoolers.

Car or van pool – Best for those not served by mass transit

Biking and walking – Bike commuter benefit is being worked on for 30% savings.

Tele-commuting and flex-scheduling – All state agencies have access to these programs; some are custom tailored to individuals.

Those using any of these transportation alternatives three or more times/week are entitled to the “Guaranteed Ride Home” benefit. That is, one can be reimbursed up to \$50 for a cab ride home when warranted.

Getting the word out about all of these options is done through hosting fairs; promoting it at benefits time (e.g., Open Enrollment) and marketing it through health and wellness events. Then there are regional promotions like the 1) Commuter Challenge April to June including a prize pool; Bike/Walk Week three times/year in summer, fall and winter. Here the greatest participating agency gets a prize, for example bike racks installed; and 3) Commuter Choice Awards that encourages bike/walk to work or to the Mall.

Other agency's activities:

- Lafayette Park Commuter Team (DHS, DNR, PCA and DLI) provide parking, transit and biking options for these commuters
- MNDOT offers Walk to the Capitol, telework and Bike to Work Day events
- MDH has secure, indoor bike parking in the Freeman and Golden Rule buildings
- MN Housing Finance also has indoor bike parking
- PCA won an award for its fleet carpool program, which includes an auto notification of carpool options when booking state vehicles; PCA also set up single meeting days to encourage regional staff to carpool to St. Paul central or any regional offices.

Cathy Moeger offered to do training on the PCA's car reservation "Access" system that includes the carpool option feature noted above. Members seemed eager to know more about this.

Damian concluded that LEED certification for buildings also calls for at least 5% of parking space to be devoted to bike parking.

Presentation – "A Tutorial on Steps for Air Quality Compliance" by Cassie McMahon, PCA

Again, EO 11-13 established that IPPAT reduce air pollution via education of staff on actions to take on air alert days; air alert contacts and backup for each agency. This education is to take place in March and October each year – those periods when the most air quality alerts occur, especially regarding ozone. Cassie provides guidance on dealing with bad air days. This guidance is posted on the IPPAT web page at <http://www.pca.state.mn.us/index.php/view-document.html?gid=16023>.

Meanwhile members are reminded that each agency is to appoint an air alert contact and backup person who will be charged with disseminating information about air alerts and encouraging employees to subscribe individually for "enviro-flash." These help ensure greater reach when there are bad air days, especially for those who are most sensitive or have respiratory problems.

Meeting adjourned.

Next meeting: August 25, 2011

Attending

Auer, Ken
Anderson, Kathy
Becker, Tony
Brumbaugh, Cal
Countryman, Linda
Fielding, Dave
Fortin, Connie
Goebel, Damian
Goldberg, Sheryl
Jackson, Cecelia
Johnson Steven
Jordahl Larson, Marilyn
Ledermann, Jeff

Maki, Steven
Moeger, Cathy
Myers, Tim
Nevala, Mike
McMahon, Cassie
Oas, Ken
Short, Amy
Sokatch, Char
Sulzbach, Mark
Stewart, John
Thompson, John
Wacek, Mark
Walters, Nancy

Interagency Pollution Prevention Advisory Team

AGENDA

July 22, 2010, 9:00 am -12:00 pm

Training Room 2 – Lower Level, MPCA building
520 Lafayette Rd., N., St. Paul

- 9:00 Approve July agenda
 Approve notes from May 20, 2010
 Member updates/announcements - *All*
- 9:45 Walk through DNR and Dept. of Revenue “Sustainability Plans”
 -How was the plan accomplished?
 -Who took part?
- 10:15 PRESENTATION – “Preventing Toxic Pollution” – *Cindy McComas on how we determined the goals for IPPAT; Review of MnTAP accomplishments with businesses and institutions.*
- 11:00 BREAK
- 11:15 Review Session on IPPAT report goals and strategies to achieve – *based on small group efforts*
 -“Reduce air pollution” *Completed; Overview by Cathy Moeger*
 -“Waste reduction, recycling and waste generation”
 [-“Prevent toxic pollution” *Addressed above by Cindy McComas*
 -“Solid waste management compliance by state agencies” *Linda Countryman*
- 12:00 Next Meeting agenda and location
 ADJOURN

IPPAT Meeting Summary
July 22, 2010

Agenda, minutes and announcements

The agenda was approved and minutes from May 20 amended to include Tim Morse and Tim Sobe who were present for the State Surplus Store tour.

Member Updates

Members share what's new and especially what is happening in their agencies regarding waste reduction and pollution prevention.

Ron Winkel, DNR – noted that the the primary author of the Sustainability Plan was not available today, but that Kath Ouska may be able to stop in.

Cal Brumbaugh, US Army – Cal was attending for Ken Auer. He noted that MnTAP has worked closely with the National Guard on their Pollution Prevention plan, and they had been very good to work with.

Tony Becker, Dept. of Ag. – reported that they are working on their sustainability plan.

Jordahl-Larson, DOT – Mn/DOT continues to work on its sustainability plan. Marilyn is working with the Metropolitan Council on air quality issues and hopes that we don't go into non-attainment.

John Thompson, MMCD – reported that half of their fleet will be E85. Also they retrofit their lighting which resulted in 40% energy savings and reduced cooling.

Gene Christenson, UMN – Light Rail construction is underway near the University-Minneapolis Campus. Dorms are now being re-lamped from 40Watt to 24-Watt fluorescent bulbs. The rest of campus lighting will be changed from 32W to 24W bulbs.

Mike Nevala, MCES – The current topic is a survey of industrial groups about perfluoro-chemicals (PFCs) and effluent because infiltration at the treatment plants is affected by PFCs. Negotiations with the MPCA are on hold in order to manage:

1. Direct river studies for level of PFC's, in addition to TMDL studies.
2. Discharge survey of 800 industrial permittees.

Dave Fielding, Admin. – Reported on the Fiscal Year 2010 Capitol Campus Operations through June 2010 ([refer pdf report provided in email with these notes](#)).

- ENERGY CONSUMPTION - Reductions began in 2007 and the decline has been continuous, based on managing temperatures in summer and winter; operating schedules of lighting; and some lamp changes. Utility cost saving is greater than one million dollars.
- 14TH ST. LIGHTING RETROFIT PROJECT – Consumption at the ramp is down about 80 percent. The new lighting also has a control capability (subsidiary of Phillips) that detects ambient light and then overrides the electronic lighting. These are still costly but will buy more as the price goes down.
- They will finish the 14th St. Ramp and then retrofit the Administration Ramp.
- They are also updating the campus Honeywell controls and hope to include the whole Capitol Campus.
- WASTE CONSUMPTION – They have consistently reduced waste back to the original rate in spite of increasing employees. This is worth note and sharing with all agencies. (see graphs 2 & 3) (Reduced total waste generated from FY08-FY10 by at least 15%)

- **CAMPUS IRRIGATION** – The challenge is to show how much of reduced irrigation is due to Mother Nature. The now can plug in predicted precipitation too.
- **RECYCLING UPDATE** – The legislature removed general funding for Resource Recycling operations so Administration had to generate its own revenue and after July 1 would have to charge customers. An RFP was issued on general waste and recycling (but not including confidential document handling). Three to five bids were received as of the deadline on 7/21/10. The specifications are the same as all previous years. If one is in a leased facility, the agency still must recycle but will likely do it through other haulers. Administration could not compel the landlords to do other than assure recycling is done.

Roger Wirkkunen noted that the Dept. of Revenue is doing base numbers in its Sustainability Plan. And Kathy Anderson is joining Roger as he phases out of this effort.

Cindy McComas, MnTAP- Announced that the 2010 Intern Presentations will be on August 19th. Of the eight interns several were funded by Xcel Energy. MnTAP is also celebrating its 25th Anniversary—agencies should have received invitations to this event. MnTAP is also offering U. S. Dept. of Energy (DOE) workshops with DOE grant funds, with the first one held on July 20th. It was aimed at hospitals, colleges and those steam users with boilers. Attendance at the workshops includes a free steam systems assessment. Land 'O Lakes is the first to get an assessment of its steam generation and distribution to find efficiencies. A final note is that Cindy McComas is retiring in December 2010.

Cathy Moeger, MPCA – The PCA's waste sort included plastic film and the agency sought outlets for recycling more of this waste. Merrick Inc. now has a paper contract delivering paper to state offices, so it agreed to also pick up plastic for recycling by the "It's in the Bag" program. Plastic to be recycled includes "Subway" bags, cafeteria film and shrink wrap on the loading dock. For more information, see the web site <http://www.itsinthebagmn.org/> for examples of what's accepted for recycling; contact is John Cray. Email for Merrick Paper Products is paperadmin@merrickinc.org; 651-789-6218.

Presentation: Sustainability Plans

Ron Winkel & Kath Ouska, DNR – When asked how the agency completed its Sustainability Plan, they reported that the statewide facility and energy managers completed this. This is also part of the Commissioner's plan strategic goal. See the "Minnesota's Next Generation Energy Act of '07 which shows targets inside DNR, including strategies and measures used to meet them. Commissioners and Senior Managers all worked to accomplish this. DNR also has a green team called "DEEP" that is working on strategies like fleet and fuel efficiencies, including "green driver" training along with the MPCA.

DNR hired an energy person, Rob Bergh, who drafted their plan using the Conservation Agenda too plus information the Dept. Energy/environmental Efficiency Performance committee and other groups within DNR. The CREST group is focused on carbon in field and flora; he's meeting with purchasing, facility staff and looking for opportunities throughout the 2700 buildings in the 200 sites. The fleet program is already developed, but there are unusual items of equipment, from bulldozers to boats to deal with too. Their plan was reviewed with facility staff and other groups and then was shown to the Commissioner.

Each of four regions will have a pilot site including parks in the twin cities area. The first year report is about stationery [greenhouse gas emissions], then mobile and then refrigerants, which gets complex.

The DNR joined the Chicago Climate Registry along with the MPCA and Metropolitan Council. This is a non-profit group where business makes up the majority with some government members. There's a

joining fee based on number of employees but is not a high cost.

Roger Wirkkunen & Kathy Anderson, DOR – Dept. of Revenue is part of the Capitol Complex. Its offices are compact and there are not other buildings spread around the area or region. So DOR is working with Administration on energy improvements, etc. They selected waste reduction and recycling to act upon first as part of its Sustainability Plan.

Paper Recycling - They went from seven miles of filed documents to scanning everything electronically. Recycling will now be limited to the small number of people who still submit paper documents. This huge paper reduction also reduced the number of people handling trucks of mail.

Air Quality Alerts – Roger and Kathy get alerts via their intranet. DOR also has LCD screens in their elevator lobbies that are used for weather forecasts and air alerts. These could include air quality reminders to check at individual's desks.

Energy Consumption – Light fixtures were changed from two to one fluorescent bulb and this improved energy efficiency. Computers were changed to LCD 245 (40-60 watts) and they now are all laptops. However, staff are adding two monitors and want dockings stations which equates to higher energy use.

DOR keeps good records of what's purchased and what's recycled as a way to monitor energy use.

Purchasing – Purchase of recycled-content paper is easily tracked by looking at the report from their vendor.

Fleet & Fuel Efficiency – DOR now has about 22 cars and are bringing in only E85 models with around three gas trucks. They are urging purchase of E85 fuel.

Meeting Efficiency – The agency uses Tanberg & Maestro video conferencing much more now in place of in-person meetings. PCA echoed their challenge about how to get baseline data using more video-technology. How can this be documented besides just the transportation savings? DOR reports it's easier to measure based on training savings but for other incidental meetings it's much harder to capture savings.

Revenue wrote its Sustainability Plan by first facilitating group communication directly with the Commissioner. DOV already had this information over the years under its efforts on pollution prevention, etc. Staff like Kathy Anderson are now being assigned in the areas of fleets and purchasing, with recycling being accomplished via plant management at Dept. of Administration. They sent a survey to all employees and got positive feedback, including 15-20 ideas such as turning off monitors. This validated what DOR will already be doing.

Cathy Moeger encouraged agencies to join as it helps pull together all reporting areas and helps you find some opportunities from the reporting. Reports provide great transparent ways of tracking and reporting out and great guidance including step-by-step data collection. Members can talk in the same terms (e.g., BTU's), same protocols and numbers by types of units. This also avoids multiple data collection efforts.

REMINDER: All agency Sustainability Plans are due by August 27/10. Go to the MPCA web page for instructions and forms - <http://www.pca.state.mn.us/index.php/living-green/living-green-government/state-agency-sustainability-action-plans.html>

Presentation – “Preventing Toxic Pollution” – Cindy McComas (Refer to slide show included with the emailing of these notes)

This is a review of MnTAP accomplishments with businesses and institutions over the past 25 years.

Of all of the IPPAT agency representatives, MnTAP has worked most closely with the military, including Cal Brumbaugh of DMA who agreed. They have a closer knowledge of Camp Ripley compared to all other agencies. Cindy also has found following agency reports of accomplishments helpful for comparing to their work with businesses.

Cindy noted that P2 (pollution prevention) is still fundamental to all that MnTAP does. And it is still called P2 at the national level. But she's seen business move way greatly from solvents to, for example, more aqueous-based cleaners which are found to be more accepted and just as effective. There's been lots of substitution and changing in formulations. She urges not to emphasize phase-out but phase-in, and eliminating chemicals by design.

She also teaches a course on pollution prevention at the UM. Many private sector students now incorporate environmental standards as part of general “performance standards” so there's not need to use the term “environment.” (Refer to the slide re: the Waste Management Hierarchy-- inverted triangle). Cindy instructed that to get businesses on the road to sustainability it's important to get away from arguing what “sustainability” is and allow them to use whatever works for them. Regulations are used but now we're following “green chemistry” and the “Toxic-free Kids Act.”

MnTAP's mission follows Emory Lovins' concept of saving money through better materials use. Recently they are doing energy work with an emphasis on “Process Energy: compressed air and steam systems, motors/fans/pumps, while relying on UW research on heat and refrigeration processes. There's an upcoming workshop in Mankato covering compressed air, steam and fans.

MnTAP interns went from all P2 work to half energy efficiency work due to funding received from Xcel Energy. The 2009 results were compiled in January. Some large companies and outstate companies have projects lined up for 2010, including ConAgra, 3M and Land 'O Lakes.

“The Materials Exchange Alliance” operated within MnTAP is an informal alliance of various partners statewide. She urged agencies to be in tune and involved with this Alliance when considering waste disposal. Cindy noted that the Reuse Store and the UM is discussing combining with the Materials Exchange Alliance, including possibly combining data collection systems.

Overall MnTAP results in 25 years:

Activities

- Site visits: 3,200
- Interns: 170 students

Outcomes

- Waste reduced: 383 million lb
- Water conserved: 446 million gallons
- Energy conserved: 34 million kWh; 1.2 million therms
- Cost savings: \$29 million

Examples of businesses assisted over the years are Benchmark, Tennant Co., Streater (Albert Lea), and Halcon. Agencies assisted by MnTAP are Metropolitan Airports Commission, Metropolitan Council Environmental Services, MN Dept of Corrections, MinnCor, MN Dept of Transportation, MN Dept of Human Services and MN Dept of Military Affairs.

Toxic Reduction Inventory (TRI) data is used to target business that MnTAP could assist. Other drivers since the 1990's have been the NESHAP (hazardous air emissions) and ROHAS (European) standards. There is a movement toward more green chemistry.

Toxics Reduction Goal for IPPAT

Cindy turned to a review of this goal and its focus on the areas of fleet maintenance, janitorial cleaning supplies, laboratories and furniture finishing. These areas could have the most potential for toxicity reduction among most state agencies. She then reviewed specific areas where MnTAP could reduce, or already have reduced toxic chemical use and exposure for several agencies, including repair and maintenance shops and weapons cleaning at Dept. of Military Affairs, wastewater treatment to reduce phosphorus from a Correctional facility; improved management of pharmaceutical inventory for Dept. of Human Services and energy reduction at the Pigs Eye wastewater treatment plant that resulted in \$775,000 savings. Cindy urged that individual agencies use these examples for idea generation for how they might also reduce toxic use and waste.

Review of Other IPPAT Goals Progress – Cathy Moeger

In addition to the review of the goal **B. Toxics Reduction** by Cindy, Cathy explained that we have compiled information from work on all IPPAT goals over the past year to show where we were to the present. (Refer to Appendix A, attached) A review of this is as follows:

Goal C. Reduce Air Pollution

- PCA's Public Information staff are preparing a sample news article that encourages people in agencies to sign up for Air Quality Alerts.
- Staff searched and found that the number of current agency subscribers to Air Quality Alert emails is 4,000. But less than 300 are state agency enlistees, so we have a ways to go.
- PCA has already had a number of events for alerts.
- The updated list of agency contacts to receive Alert notification is near completion!

Goal A. Waste Reduction, Recycling and Waste Generation

- The Energy and Environment Committee changed this from three separate targets for recycling, organics management and reduction to one overall 60% waste reduction goal by 2014.
- -What do we want to use as a reporting mechanism?
 - One way is to start with the Administrations Capitol Complex and subsequently expand to all facilities including in the regional offices.
 - PCA's challenge is as a leased building waste is blended with other tenants. What category can we all work with together?
 - Another way is to use the EPA "WARM" model – it translated waste as recycling, composting and waste reduction into greenhouse gas emission reductions as an aggregate for all agencies.
 - Grainger Supply has a "Sustainability Initiative" (handout not available in electronic form). They are one of three state contractor vendors But this company has lists that include standard and/or green products by type of purchasers, such as "fleet Maintenance" and "cleaning supplies" and can run custom reports that could help agencies track and report in this way. (PCA and Administration staff are working to be sure all agencies can do similar reporting, as the Legislature wants this.)

Assignment: Before next meeting determine how do you collect and measure for recycling? How can we do this across agencies in a fairly simple way?

Steps to do: Firm up what do we have in common? Target a group of agencies and an activity to be measured by all.

Goal D. Solid Waste Management Compliance

- This turned out to be more challenging than thought so the MPCA will test it first itself. The steps to do so are:
 - Contact the Solid Waste Officers in counties where we have PCA regional offices.
 - Follow the process in our eight regional offices-how well are we following county solid waste plans?
 - o SWA gives us their expectations based on their plan summaries.
 - o What is needed to get into compliance?
 - o Then follow up and share the process with the rest of IPPAT
 - PCA offers assistance counties and other agencies; how and what timeframe?
 - Test this through fall and winter and be ready by mid-2011.
 - Another area to be addressed is what about big industrial waste streams? Recycling can go beyond mixed solid waste.

Roger wondered if individual reporting mechanisms had to match what teams like IPPAT will report. Cathy said teams will use common mechanisms to the extent possible across as many agencies as possible. IPPAT can rely on Administration's and OES' state numbers. The intent is to be as streamlined and simple as possible.

Next Steps

By next meeting all agency plans and the metrics to be used should be done. At or by the September meeting decide overall reporting mechanism to use across all agencies. At the September meetings we need to review the Sustainability Plans and then focus on Goals A & B.

NEXT MEETING: September 23, 2010.

Attending

Anderson, Kathy
Becker, Tony
Brumbaugh, Cal
Christenson, Gene
Countryman, Linda
Fielding, Dave
Innes, Al
Jordahl Larson, Marilyn
Moeger, Cathy

Morse, Tim
Nevala, Mike
Ouska, Kath
Sobe, Tim
Sokatch, Char
Thompson, John
Winkel, Ron
Wirkkunen, Roger

APPENDIX A

WORKING DRAFT FOR REPORTING PROCESS

Interagency Pollution Prevention Advisory Team

July 2010

Note: The Energy and Environment Team wants agencies under the new reporting system, to report by aggregate on target items and not report by each agency.

Executive Orders 03-04 Waste Management/Pollution Prevention and 04-08 Air Quality in Operations

Wrap-up Team: Reena Abraham, DOC; Linda Countryman, PCA; Chris Gilchrist, Energy Security; Cathy Moeger, PCA; Mike Nevala, MCES, Roger Wirkkunen, Revenue.

1. Minimize solid waste and prevent pollution

A. WASTE REDUCTION, RECYCLING AND WASTE GENERATION

State agencies shall achieve 60% reduction of waste disposed by June 30, 2014 through waste reduction, recycling and organics diversion.

(pursuant also to the Waste Management Hierarchy, M.S. 115A.02)

Team members: Ed Birkholz, METC; Scott Albers, National Guard MN; Jeff Anderson, Admin; Tim Farnan, PCA; Madalyn Cioci, PCA; Dave Fielding, Admin.; Roger Wirkkunen (MDOR); Matt Macinnes, Mnscu; Kenneth Oas

1) WASTE REDUCTION

Baseline

Self-report paper purchases of regular white letter and legal-sized copy paper for entire FY2009. Reports will be broken down by recycled content percentage and paper size. (Pay careful attention to reporting purchases of regional offices so that state contract purchases aren't double counted.)

Strategies

- a. For paper purchase reductions, breakdown is as follows:

FY10* -- preparation year

FY11 -- action year, 10% reduction by end of FY11

FY12 -- 15% reduction from FY2009 baseline by end of FY12

FY13 -- 20% reduction from FY2009 baseline by end of FY13

FY14 -- 25% reduction from FY2009 baseline by end of FY14

FY15 -- 30% reduction from FY2009 baseline by end of FY15.

*Expectations: First year (FY10 or start of FY11) will focus on process, figuring out who purchases paper, when and on what authority (who decides when to purchase paper and how much?).

- b. Track progress by measuring greenhouse gas and other emissions reductions using the EPA WARM model

Reporting

2) **RECYCLING**

Materials to recycle are as defined in the SCORE mandate and reporting forms. (These include construction and demolition materials, used tires, waste electronics, etc.)

NOTE: MPCA will run the EPA WARM model to track greenhouse gas reductions.

Baseline

Beginning in FY 2010 report the percentage of waste generated per agency; percentage of waste recycled; percentage composted; etc.

Strategies

- a. Conduct agency self-audit of waste generated (use EPA template).
- b. Track progress by measuring greenhouse gas and other emissions reductions using the Climate Registry protocol.

Reporting

- a. Use SCORE reporting system; measure by volume and use standard SCORE diversion.
- b. Report annually directly to the Governor.

B. PREVENT TOXIC POLLUTION

Each state agency shall reduce the type and amount of toxic products used in fleet maintenance, laboratories, and building & grounds maintenance and operations by 10% over the next 5 years, based on the average of the preceding 5 years.

(pursuant also to M.S. 115D.02)

Team Members: *Gene Christianson, UMN; Cindy McComas, MnTAP; Steve Bragg, USAR.*

Background:

1. Toxic products; within gradients on the following lists:

- HAPS
- EPCRA
- CERCLA
- Hazardous substances
- TRI
- VOC's

2. Areas:

- a. Fleet maintenance (per vehicle)
- b. Laboratories (per FTE-occupant)
- c. Building and grounds maintenance/operations (ft²/acres)

Baseline

1. Look at 2005-2009 trend line (most reductions happened here) (average of past five years)

2. Maintain/continue reduction. (normalized)-not increased use
3. Normalize by:
 - a. occupant _____
 - b. FTE
 - c. ft2
 - d. unit (vehicle, etc.)

Strategies/Action Items

1. Determine 2005-2009 trend line and baseline
2. Evaluate reporting on product purchase vs. toxic component. (Consider threshold level in definition of toxic product)
 - a. Based on past IPPAT Pollution Prevention Summary Reports, typical examples of toxic/hazardous products or wastes include but are not limited to adhesives, antifreeze, paints, finishes, solvents, mercury, lead and other heavy metals, printer inks, poisonous gas, methylene chloride and trichloro-ethylene and ethane, pesticides and fertilizers.
 - b. Identify a baseline of toxic/hazardous products and wastes used by state agencies by using Grainger product purchase data, by _____, 2010??

Reporting

C. REDUCE AIR POLLUTION (Completed/Determined at IPPAT meeting on 5/20/10)

On days with high risk air pollution, 100% of state agencies are notified of actions they can take to reduce their impact on air pollution. State agencies will notify their staff about the alert 95% of the time. (*pursuant to Executive Order 04-08 and MCCAG recommendations*)

Team Members: [*Determined by whole IPPAT team. Duties are primarily PCA's responsibility*]

Baseline:

Each agency will name a primary contact, plus back up contact. This establishes participating agencies.

Strategies:

1. MPCA will maintain a contact in every state agency that can be notified on high risk air pollution days.
2. State agency contacts will use their resources to notify their staff within their agency, but MPCA would also focus on getting all state agencies' staff (statewide) to sign up for an Air Quality Alert email, or with enviroflash (where people can sign themselves up for a text message about the air alert and actions to take). Enviroflash is on MPCA's website under <http://mn.enviroflash.info/>

Reporting:

1. MPCA tracks number of high risk air pollution days, and alerts to agencies.
2. MPCA tracks number of state agency subscribers to enviroflash.

D. SOLID WASTE MANAGEMENT COMPLIANCE BY STATE AGENCIES

All state agencies shall comply with Minn. Stat. sec. 115A.471 by properly managing solid waste according to their county's solid waste management plans. (*pursuant also to M.S. 115A.471*)

Team Members: [To be determined by whole IPPAT team. Tasks are primarily PCA's responsibility]

1. MPCA informs County Solid Waste Administrators (SWAs) about this solid waste compliance activity; main purpose in doing so; outcomes expected; what happens if there's a problem
2. First test approach on PCA regional offices and resident counties. (Conduct in a way that works for PCA and the counties.)
3. PCA provides a process to go through for IPPAT agencies and a template of a statement for County SWAs to fill out.
 - a. What are their expectations of state agency waste management systems?
 - b. Set realistic expectations about what is most important to accomplish in this effort.
 - c. Use rationale that the best opportunity to get into compliance at the point when hauler contracts are up for renewal.
4. IPPAT agency representatives are responsible for following up with their own regional offices and how their waste management practices match with the County SWA statement of expectations.
5. PCA will offer steps to deal with any issues that may occur.
6. IPPAT reports on outcomes of agency responses toward achieving the compliance goal, if this is chosen as a reporting measure.

Interagency Pollution Prevention Advisory Team

AGENDA

May 20, 2010, 9:00 am -12:00 pm

DOT Training Room #10

Arden Hills Facility

Map and directions found at the following link (click on "Directions and Map" for more detailed instructions)

<http://www.dot.state.mn.us/hr/trngctr/roadmap.html>

NOTE: Call Linda to join our carpool from PCA – 8:00

- | | |
|-------|---|
| 9:00 | Approve May agenda
Approve notes from March 25, 2010
Member one-minute updates/announcements - <i>All</i>
Progress reports on agency "Sustainability Plans" - <i>All</i> |
| 9:30 | Presentation on Composting: Opportunity for waste diversion (Target 1 a.) – <i>Ginny Black, PCA</i> |
| 10:00 | BREAK |
| 10:15 | Meeting the Air Quality Alert (Target 1 c. - decision item) <i>PCA Staff & All</i>
<i>(Refer to slides and notes from 3/25/10 meeting)</i>
-Each state agency coordinator issues Air Quality Alerts?
or
-Coordinators urge state employees to subscribe for EnviroFlash alerts? |
| 11:15 | Head to tour of State Surplus Store (5 minutes away)
<i>Tour conducted by Holly Gustner, Administration-Surplus</i> |
| 12:00 | ADJOURN |

IPPAT Meeting Summary
May 20, 2010

Agenda, minutes and announcements

Cathy noted for the agenda that Tim Morse, Dept. of Administration, will conduct the tour of the State Surplus Store in place of Holly Gustner. She then introduced Linda Grant, PCA, who will be the note-taker for IPPAT from now on.

Attendees were given copies of a letter that was mailed May 18th to all agency Commissioners or Directors, Chancellors or Presidents, and the Adjutant General of the Minnesota National Guard. She explained that this replaces the proposed consolidated Executive Order that the Governor did not sign. Instead, a joint letter was composed and signed by the Commissioners of Administration and MPCA reaffirming state agency's duties under existing Executive Orders #'s 03-04, 04-08, 5-16, 06-03, and 04-10. The main difference in this letter from the proposed Executive Order is that the deadline to complete agency "Sustainability Plans" is moved out to August 27th, 2010. (See document "Finalized Executive Order Letter" attached as Appendix A.)

The MPCA, using a ReDirect program grant, won a Sustainable St. Paul award for energy reduction. Using only no-cost or low-cost (\$250) operational changes, the MPCA's St. Paul office building was able to save 27% of natural gas use and reduce electric use by 6% compared to 2008 (adjusted for weather).

Mike Nevala asked for IPPAT to help promote the Bike Walk Week event, June 5-11, 2010. A rally will be held in Rice Park. For further information, go to <http://www.bikewalkweek.org/>. Linda will email this to the IPPAT email group.

Another event agencies should be aware of is a June 3 Free Telework Seminar - "Everything you need to know about telework". Sponsored by eworkplace and other technology vendors, its focus is on technology, management, and HR solutions presented by successful employer telework programs. Call 612.730.2786 or register free at http://www.transcendunited.com/invites/eworkplace_conference.htm.

Member Updates

Members share what's new and especially what is happening in their agencies regarding waste reduction and pollution prevention.

Klein, DOT – Continuing work on agency Sustainability Plan. She noted that Cindy Carlson is now involved in this work.

Abraham, DOC – Reena introduced Terri Hamenick, oversees the DOC “Green Site.” She’s attending to learn more about composting.

Reena reported that DOC has recycled close to 2500 pounds of tennis shoes from their Faribault facility. They are shipped to the Nike Outlet Store at Medford Outlet Center. Minncor has also started refurbishing mattresses from their facilities. The outer shell is replaced which saves them from disposing of thousands of pounds of waste.

All correctional facilities did something to celebrate Earth Day, April 22nd, and it was a very active day.

Jordahl-Larson, DOT – Mn/DOT is in the process of updating a noise study to prioritize residences for retrofit noise walls. We will be taking noise measurements at over 600 sites throughout the Metro area.

Also, MPCA staff, Margaret McCourtney, Kou Vang and Innocent Eyoh will be reporting to the Interagency Air Quality and Transportation Planning Committee on the recent presentation at an MEI Forum (April 15th, 2010) by MPCA's Frank Kohlasch, Kari Palmer and David Thornton on the state of Minnesota's air quality and the possibility of going into non-attainment for both PM2.5 and ozone. Mn/DOT is also continuing to work with MPCA staff on mobile emission inventories, etc.

Sokatch, BWSR – She commented that she did not get a copy of the Commissioner's letter. [Linda noted this and will email a copy to the full IPPAT email group] They are working on getting the Sustainability Plan started.

Auer, DMA - Construction of the Minnesota Army National Guard's (MNARNG), Arden Hills Readiness Center has begun. This building will be the first of many buildings, constructed on the former Twin Cities Army Ammunition Plant property. Future buildings will include the Joint Force Headquarters for the MNARNG and a new Field Maintenance Facility.

The Governor will be soon appointing a replacement, for the outgoing Adjutant General of MN, Major General (MG) Larry Shellito. He is the commander of the MNARNG, as well as the department head for the Department of Military Affairs.

Christensen, UMN – Construction on the Light Rail extension that runs through the Minneapolis campus has begun. Also, he noted that the university is returning to a centralized purchasing system as it will save money overall.

Nevala, MCES – An EPA rule change proposes to RCRA that sewage sludge now become solid waste. This is a big change involving a nationwide conflict to be sorted out pertaining to the permit language and how it will be written.

At the end of April Ramsey County and the Metropolitan Council arranged for several labs to visit their sewage and wastewater treatment plant and held training on hazardous waste in their own labs.

White Bear Lake is the first Minnesota city and fourth in the county to ban coal-tar based driveway sealer. He has noticed that places are not selling coal-tar based sealer either.

Wacek, MAC – Mark reported that the Metropolitan Airports Commission the first week in May they began a composting organics from its many concessions, including restaurants and retail departments. Starbuck's® started the idea by asking what to do with its coffee grounds, and French Meadows and others were very supportive. They also work with HM Instrumentals and Hennepin County is coaching the project. They're using green compost bags inside of “Slim Jim” containers, for a ninety-day pilot project. Everything is working well; there is no data yet; and everyone is adjusting to it so that they're off to a good start. The full project will roll out in phases over two years.

He noted that they are using 35-40 bags/day at a cost of \$.88/bag. This is funded in part by a Hennepin County grant.

Countryman, PCA - WI DOT reducing paper using the MPCA tool kit -

Rich Wittman, Inventory Control Supervisor at the Wisconsin Dept. of Transportation, is tackling paper reduction in his offices. Mr. Wittman writes that "We have already established our baseline and set our goals. Six months into our campaign we have all ready reduced our paper consumption by 12% simply by making sure we are duplexing. With a goal of reducing our paper usage by 30% by the end of next fiscal year 2011 it's going to be a challenge to encourage our employee's to make the right choices." Rich is planning to post the MPCA's paper reduction video on their internal internet site as a webcast to reach their satellite offices around the state. "I would like to thank you for the materials. I feel they will go a long way in educating our employees to understand the purpose of paper reduction," he said. "I believe the Kit that the MPCA has created is a great tool and the information on the DVD is thorough."

If MN DOT or any other agency would like to find out more, contact Rich at richard.wittmann@dot.wi.gov or Phone # (608) 246-3262 or, for assistance getting something similar going at their workplace, call Madalyn Cioci at the MCPA, at 651-757-2276, Madalyn.cioci@state.mn.us

Presentation on Recycling and Organics Composting – Ginny Black, PCA

Composting started in the mid-eighties and consisted mainly of containers and paper. This has expanded over the years and now the PCA includes composting of food and non-recyclable paper. The cafeteria has also switched compostable flatware as well. This flatware is now more available and can be purchased on state contract.

Slide presentation highlights:

- Signage - Use pictures rather than words and get better results
- A waste sort found that true trash included dirty plastic wrap, chip packages and cigarette butts
- 91% of white, pastel, mixed and confidential paper is being recycled
- 100% of cardboard is also recycled
- 67% of cans, glass and plastic containers (un-recycled containers mainly found near bathrooms likely disposed by visitors).
- 2003-04 major change-out of computer equipment caused a rise in waste generated per person
- 2005 carpet replacement in building increased waste generation that year
- Liquid buckets are great way to add to recycling area (pour out excess liquids from beverage containers = less mess on floor)
- 48% of compostables are thrown in the trash
- PCA essentially reduced 60 metric tons of greenhouse gas emissions from recycling office paper in 2009
- Per capita waste generation per FTE has gone from 234 pounds in 2002 to 176.6 in 2008.

Ginny noted that there's a new law requiring compostable bags – be sure to check for the compostable seal on bags to be assured they are designed for composting (standard is ASTM D6400 for Minnesota).

Also, there was discussion about how so much material could be composted in this case. The commercial process has greater mass and is a hot process that fully composts more items where home composting is a cold process. There's enough mass in commercial piles to keep heat in and reach highest temperatures to thoroughly break down pet waste and plastic material, for example.

The final composted product is used by DOT for landscape along Hwy 610, covering up the sugar sand to successfully could grow permanent landscape. It is also sold in retail areas like Bachmann's under various labels.

Someone asked if there is a state contract for compostable material, and Cathy Moeger will check into this.

Air Quality Alert Discussion and Decision – Cathy Moeger, Chair

IPPAT was to choose between using an agency coordinator for AQ alerts or EnviroFlash alerts (EFA) that would go to individual subscribers within agencies.

Marilyn at DOT uses EFA's now and knows that they get it. They can alert individuals by email or even phone text message. They have a choice of which warnings they wish to receive – how delivered and how often—daily or only high alert days.

Decision – We decided to incorporate both methods:

1. First, we will have an agency primary contact, plus back up contact.
2. Also, these contacts will then encourage agency staff to subscribe themselves via EnviroFlash--
<http://mn.enviroflash.info>.
3. After the first promotion, wait a period and send second promotion (e.g., possibly wait for a very bad air day for this) regarding individual subscription.

We can measure success by tracking the number of people (state agency or individuals) subscribed to EnviroFlash. We noted that this service has already been going for five-seven years--2000 are already signed up. The PCA will set up a web site where people will go in and indicate how they want the information – via email or blackberry etc.

There are also security issues about sending all-staff messages and this varies with each agency. Cathy will work with IT and explain that this message needs to be available for staff.

The steps to accomplish this are a) Linda will email those people on the old Air Quality Alert list to seek new primary and secondary contacts; then a letter to assistant commissioners will be issued to get a full list; and b) PCA will email all new contacts with information on AQI alerts, plus encourage that individuals sign up for EnviroFlash.

Staff pulled up the PCA web page and walked through the revised “Sustainability” web site to show how the “Sustainability Plan” form is laid out. It includes drop-down options for ease of completion.

MEETING ADJOURNED 11:30 p.m.

OPTIONAL Tour of State Surplus Store

Tim Morse escorted our group around the state and federal surplus areas of the store, explaining where items come from and how agencies can contribute to the site. The store opens to the public on Tuesdays and Thursdays, but state employees are not eligible to make purchases. He reviewed how they offer the [Surplus Store](#), [Public Auction](#), and [Online Auction](#). For more information on what is offered and how this operates, visit <http://www.fss.state.mn.us/SurplusServices.html>.

NEXT MEETING: July 22, 2010.

Attending:

Abraham, Reena
Auer, Ken
Christenson, Gene
Countryman, Linda
Grant, Linda
Hamenick, Terri

Jordahl Larson, Marilyn
Klein, Jackie
Nelson, Don
Nevala, Mike
Sokatch, Char
Wacek, Mark

APPENDIX A

May 18, 2010

Dear Commissioner or Director, Chancellor or President, and Adjutant General of the Minnesota National Guard:

For more than seven years, Governor Pawlenty has provided ongoing direction to agency leadership in the areas of energy, fleet and travel management; renewable fuel purchases; pollution prevention, waste management, toxics and preferable procurement; building energy conservation and renewable energy; and response to poor air quality.

The Governor's Executive Orders 04-10, 06-03, 03-04, 05-16, and 04-08, which address these areas, affect all agencies. These orders are designed to drive cost savings, as well as reduce energy use and the environmental impact of state government. However, state agencies have pointed out that there are overlapping requirements for activities in the Executive Orders and statutes, that some of the strategies are not working as well as intended, and that there is overly burdensome reporting.

To assist you in meeting your requirements under these orders, and to make it significantly easier to measure and report your progress, the Department of Administration and the Minnesota Pollution Control Agency (MPCA) have developed a simple, straightforward approach that utilizes existing cross-agency implementation teams. These teams have set targets and strategies (enclosed) that narrow the focus and streamline reporting.

Recognizing that agencies have unique needs, we have created a simple framework to help your staff document their approach and progress. A sample plan from MPCA can be viewed in the "Featured" section, sustainability plan for state agencies, at www.pca.state.mn.us. The State of Minnesota Agency Sustainability Plan tool found on that page will also eliminate the need for your agency to prepare an annual progress report.

Many of you are required by the Executive Orders to participate in these teams (see enclosed). If your agency does not have a representative already participating in these groups, please consider appointing a participant or designating a key person who can be kept up to date on progress via web resources or email.

We know that state agencies have been able to achieve up to hundreds of thousands of dollars of cost savings through implementation of many of the Executive Orders. The new targets and strategies offer even greater potential.

To avoid the need to prepare a progress report on meeting the goals of the Executive Orders for this year, please submit your agency's information, using the electronic tool referenced above, to the MPCA by August 27, 2010.

If you have any questions, please contact Cathy Moeger, Sustainability Manager, MPCA at 651-757-2575.

Sincerely,

Paul Eger
Commissioner
Minnesota Pollution Control Agency

Sheila M. Reger
Commissioner
Department of Administration

PE/SR/CM:ch
Enclosure

Executive Orders 03-04 Waste Management/Pollution Prevention and 04-08 Air Quality in Operations

1. Minimize solid waste and prevent pollution

a. WASTE REDUCTION, RECYCLING AND WASTE GENERATION

State agencies shall achieve 60% reduction of waste disposed by June 30, 2014 through waste reduction, recycling and organics diversion.

b. PREVENT TOXIC POLLUTION

Each state agency shall reduce the type and amount of toxic products used in fleet maintenance, laboratories, and building & grounds maintenance and operations by 10% over the next 5 years, based on the average of the preceding 5 years.

c. REDUCE AIR POLLUTION

On days with high risk air pollution, 100% of state agencies are notified of actions they can take to reduce their impact on air pollution. State agencies will notify their staff about the alert 95% of the time.

d. SOLID WASTE MANAGEMENT COMPLIANCE BY STATE AGENCIES

All state agencies shall comply with Minn. Stat. sec. 115A.471 by properly managing solid waste according to their county's solid waste management plans.

Executive Order 05-16 Reduce Energy Usage in Buildings (ADM)

2. Reduce energy consumption and greenhouse gas emissions, and demonstrate leadership by modeling and implementing energy efficiency and renewable energy measures in state owned or leased buildings.

a. REDUCE ENERGY CONSUMPTION

i. Achieve building energy performance standards as provide in Minn. Stat. 216B, Section 241, Subdivision 9 (Sustainable 2030) in all new designs for new or substantially renovated state buildings by reducing energy use by 60% from an average 2003 building by 2010, and reducing 70% of energy use from an average 2003 building by 2015.

ii. Implement energy efficiency improvements in state buildings by conducting energy audits in at least 10% of state-owned buildings each year.

iii. Each state department in a leased facility shall implement at least two initiatives to reduce energy and waste consumption through efficiency and conservation, and the promotion of changes in employee practices.

b. DEMONSTRATE LEADERSHIP IN ENERGY EFFICIENCY AND RENEWABLE ENERGY

i. Deploy renewable energy technology at state facilities by conducting renewable energy studies as part of pre-design process for all new state buildings and implement technologies determined to be cost-effective.

ii. By December 31, 2012, at least 50% of state building operators and managers will attend training offered through Sustainable 2030 to operate existing energy-consuming equipment in state-owned buildings in the most efficient manner possible.

Executive Order 03-04 Pollution Prevention and 04-08 Air Quality in Operations: Environmentally Preferable Procurement (ADM)

3. Increase the purchase and use of environmentally preferable products and services

- a. **ENERGY EFFICIENT OFFICE MACHINES:**
By June 30, 2013, all multifunctional devices (MFDs) on the state standards program must be Energy Star qualified.
- b. **PREFERRED WASTE STREAM PRODUCTS:**
By June 30, 2013 purchases of remanufactured printer toner cartridges, from the state office supply vendor, shall increase at least 5% per year from the base of FY2009 usage.
- c. **COPIER PAPER**
By June 30, 2013, at least 93% of all copier paper purchased from the copier paper contract vendor will be a minimum of 30% post consumer recycle content paper.

Executive Orders 06-03 Renewable Fuels and 04-10 Fleet and Travel Management (Reduced Dependence on Petroleum Fuels) (ADM)

4. Reduce dependence on petroleum based fuels used in transportation

- a. **REDUCE GASOLINE USE**
Using 2005 as a baseline, the state of Minnesota shall reduce the use of gasoline used in on-road vehicles owned by the state departments by 25 percent by 2010 and by 50 percent by 2015.
- b. **REDUCE PETROLEUM-BASED DIESEL FUEL**
Using 2005 as a baseline, the state of Minnesota shall reduce the use of petroleum based diesel fuel used in on-road vehicles owned by state departments by 10 percent by 2010 and by 25 percent by 2015.
- c. **FLEET COMPOSITION**
Ensure that when reasonably possible all on-road vehicles purchased:
 - i. Use cleaner fuels as that term is defined in Minnesota Statute 16C.135, subdivision 1, or;
 - ii. Have fuel efficiency ratings that exceed 30 miles per gallon for city usage or 35 miles per gallon for highway usage.
- d. **FUELING PRACTICE**
All state employees utilizing vehicles capable of operating on cleaner fuels must, whenever practical, use cleaner fuels when operating these vehicles. For the purpose of this executive order the term “whenever practical” refers to the availability of the cleaner fuel.
- e. **AGRICULTURE-BASED FUEL PRODUCTS**
Increase the use of renewable transportation fuels derived from agricultural products including ethanol, biodiesel fuel, and hydrogen fuels.
- f. **TECHNOLOGY TO REDUCE RELIANCE ON STATE FLEET**
Increase the use of technology to enhance access to and delivery of government information and services to the public, and reduce the reliance on the state's fleet for the delivery of such information and services.

Implementation Teams for Executive Orders

Executive Orders 03-04 Waste Management/Pollution Prevention and 04-08 Air Quality in Operations (MPCA) :

Inter-Agency Pollution Prevention Advisory Team: Contact linda.countryman@state.mn.us

See <http://www.pca.state.mn.us/oea/lc/ippat.cfm> for the list of agencies required to participate by Executive Order.

Executive Orders 06-03 Renewable Fuels and 04-10 Fleet and Travel Management (Reduced Dependence on Petroleum Fuels) (ADM)

Smart Fleet Team: Contact tim.morse@state.mn.us

Executive Order 03-04 Pollution Prevention and 04-08 Air Quality in Operations: Environmentally Preferable Procurement (ADM)

Purchasing Coordinators Team: Contact brenda.willard@state.mn.us

Executive Order 05-16 Reduce Energy Usage in Buildings (ADM)

Enterprise Real Property Team: Contact wayne.waslaski@state.mn.us

Cost Savings Accomplished through Executive Orders

Fleet Management: MPCA reduced vehicle miles traveled by 10% and fuel consumption by 21% in 2009, saving over \$100,000 annually.

Energy Reduction: DNR built the first “net zero” energy facility at Camden Park through conservation using efficient lighting and insulation, and energy production using wind and geothermal energy. MPCA reduced energy consumption in one building saving over \$16,000 through changes in practices of employee behavior and no-cost operational changes.

Waste Reduction: Department of Corrections reduced waste at their Rush City Facility by 30.6%, equivalent to 96 tons. After the first year, Rush City is anticipated to save \$15,647 annually in waste disposal costs. The Metropolitan Airports Commission saved slightly over \$100,000 last year by recycling.

Environmentally Preferable Purchasing: The new state contract for remanufactured toner cartridges offers savings of up to 60%. MPCA purchased remanufactured printer cartridges and saved approximately \$20,000 in FY08.

Interagency Pollution Prevention Advisory Team

AGENDA

March 25, 2010, 9:00 am -12:00 pm

MPCA Training Room 2

(lower level, left of elevator)

Note: Coffee, fruit and rolls may be purchased in the cafeteria, left of the main floor elevators.

- | | |
|-------|--|
| 9:00 | Approve March agenda
Approve notes from January 28, 2010 |
| 9:15 | What we can learn from "The Psychology of Sustainable Behavior" report – <i>Ms. Christie Manning, Macalaster College</i> |
| 10:15 | BREAK |
| 10:30 | Presentation - "Air Quality Alert System", <i>Cassie McMahon, MPCA</i>
Q & A |
| 11:00 | Annual State Agency Recycling Results and Measurement Method- <i>Dept. of Admin – Dave Fielding and Jeff Anderson</i> |
| 11:40 | Member one-minute updates/announcements - <i>All</i>
Progress reports on agency "Sustainability Plans" - <i>All</i> |
| 12:00 | Next steps
ADJOURN |

IPPAT Meeting Summary

March 25, 2010

Member Updates

Members share what's new and especially what is happening in their agencies regarding waste reduction and pollution prevention.

Klein, DOT – Continuing work on agency Sustainability Plan. There's also interest in construction and demolition recovery. They recently demolished a church for the expansion of Lot W and recovered rebar, asphalt, and concrete was crushed for reuse. They also want to increase their recycling percentage.

Auer, DMA – Ken has returned as the IPPAT representative. He reports that they also recycle lots of concrete from demolition. They are now concerned with managing PCB-contaminated caulking and were surprised by this new requirement. It can cost \$75 to sample and there're all old windows on the base. Jackie Klein offered to share with Ken some tools she has on how to sample and other instruments.

Nevala, MCES – Mike reports MCES is now replacing PCB-contaminated transformer oil that are still leaching despite continuous flushing.

Sokatch, BWSR – Char is working on the Board's Sustainability Plan.

Tim Myers, MDH – He is checking with facility staff on how to get started on the Sustainability Plan.

Fielding, Admin – Dave reported on the lighting upgrade underway at the 14th Street Ramp. LED lighting is installed along with motion sensors plus photo cells. These can be adjusted so when there's no motion they work at 10% and are not off, which means safety is assured. Photo cells override motion sensors to save during daylight hours so these should save 85%. This can be expanded to the full ramp if there's funding (there are more than 500 fixtures in Centennial).

Also, there's legislation underway that will change how Resource Recovery is funded. It will no longer be funded out of the general fund but from special revenue funds. After July 1, it will become a stand alone operation and competitive bidding will occur. He reports that the service at agencies won't change.

Wirkkunen, Revenue – Roger announced that they are busy due to the 4/15 tax deadline, but that 70% of their files are now electronic with zero paper files. They are also working on the metrics for video conferencing.

"The Psychology of Sustainable Behavior" Presentation (Christie Manning, Macalester College)
(See pdf of this report at <http://www.pca.state.mn.us/index.php/living-green/living-green-educators/educators.html>)

Dr. Christie Manning and associates conducted surveys at several events and combined their findings with research to produce the report entitled "The Psychology of Sustainable Behavior." Her presentation highlights the findings in that report.

Research shows that there is a gap between people's intent and their actual behavior—consumption is going up much higher than recycling, although people say they want to be environmental stewards but are not doing it. We like easy and change is hard, so she addressed what inspires change.

Our brains respond on a primitive basis either as the "automatic" or "deliberative" brain (the latter is energy intensive and requires time and energy). So what psychology can offer are several tips:

1. Usually we are talking to automatic brain (like Homer Simpson)

It is not enough to just be rational but also appeal to the emotions—why is it important to me? Also, it is useful to find a frame that fits such as relating to money; nation; kids; saving the animals; "Caring for Creation"; etc.

2. Make sustainability the social norm

It's genetic that we feel the need to fit into the community. Doing something outside of the social norm can cause a subconscious crisis and physiological discomfort. We need to feel normal and accepted, so change is slow but we need to understand why.

3. Make hidden information visible

Provide images for example of a huge black cloud of CO₂ emissions behind a car or relative images of a Hummer's CO₂ compared to Smart Car's CO₂. This shows an opportunity to change or improve. Hook to how to solve problems versus leaving people in crisis mode. Feedback loops are very effective in empowering people and giving incentive to change, such as the displays in hybrid car dashboards. Creates internal competition and social norm feedback, seeing how much fuel or money is wasted.

4. Make sustainability the default option

Making sustainability the default option means offering vegetarian meals but if you want a McDonald's burger you must call in; or give bike directions first, then, bus then car. This helps build these behaviors as the norm.

Finally, balance urgency with realistic hope: have a positive vision that emphasizes solutions; show people they're not alone; and set challenging but attainable goals. Our efforts can inspire and empower those around us.

Air Quality Alerts Presentation – Cassie McMahon, PCA
(Refer to pdf of slideshow "StateAgencyAirAlertDistribution")

Cassie began with a review of why air quality alerts are important, and then addressed these questions:

What is the Air Quality Index?

Why and when does the MPCA issue Air Quality Alerts?

How can state agencies notify their staff?

How can we track and measure success?

The Air Quality Index (AQI) is based on expected health effects outcomes for four common air pollutants: Ozone, fine particles, sulfur dioxide and carbon monoxide. The AQI scale ranges from 0 (good) -300 (very

unhealthy). AQI values greater than 151 indicate that air quality is unhealthy for the general population, not just sensitive groups.

Note that air pollution is not just a “metro” problem either; fine particles are a year round pollutant where ozone is a seasonal pollutant. And the cause of air pollution alerts is the chemistry between emissions and weather.

Discussion on how to proceed on distributing air alerts to state agencies

Who decides when an alert will be issued? Cassie said she makes the decision and it goes through PCA Communication.

Mike (MCES) suggested that it would work best if they authorized someone at each agency that has the technical expertise plus interest or passion in issuing these alerts.

Marilyn (DOT) added that timing is of the essence. Also, it would be wise to have a contact and a backup or alternate to cover alerts.

Issue – Cassie noted that each agency will need permission to give messages out to all staff, but PCA just lost this option while DOT has it.

Roger (Revenue) suggested that you can send alerts out on an intranet page. From this you can measure that it was sent 100%, but there would be no record of whether or not it was opened.

Contacts [in charge of issuing air alerts] prefer not to have to track if these are opened, etc.

Tim (MDH) suggested that OET could be the one to go through, using the Executive Order as the backbone. This would be an especially good vehicle since most alerts are in the twin cities metro area. However, Dave (Admin) noted all state employee emails will show so that security is a big issue.

Cassie noted that we might give the opportunity to individuals to subscribe to Air Alerts, and that would involve amending the IPPAT goal.

Linda concluded that she would send out these slides to IPPAT Friday, 3/26. That way everyone could review the questions posed in the slideshow by Cassie and respond to Linda between now and the May meeting:

1st assignment – Review the list of contacts originally designated by each agency as “Air Quality Alert” contacts and send Linda the new contact’s information (Linda will email the old list);

2nd assignment – Submit comments, concerns and preferences for how to effectively reach agency staff with alerts.

Annual State Agency Recycling Results & Measurement Method – Dave Fielding & Jeff Andersen, Administration - Plant Management Division (Refer to pdf of “Resource Recovery Update 3-25-20”)

Dave began by noting that waste generated declined 25% over five years due to the great work of Jeff, Bernie and others. (See slide #4)

Administration conducted an audit by material: weight reduction per employee was assessed in lbs/day/employee by waste type (1991 – 2009). Recyclables were eliminated but non-recyclables grew. This may be due to disposal of half-used toilet paper rolls, but this has now changed.

Wood pallets are no longer in the waste but recycled. Administration is taking a targeted initiative. What’s recyclable is sold; and paper income is back up (see graph in last slide).

Annual State Agency Recycling Report - Jeff Anderson, Admin., Plant Management Division

The first recycling report was in 1991.

Jeff explained that the Resource Management operation first sets a baseline or rate of tonnage of solid waste and paper. They have data on pounds recycled per capita for each agency (serving sixteen buildings around the Capitol). So they have developed a database of progress by agency, and have

found that success is based on how actively an agency embraces environmental education, recycling, etc. and who takes the lead.

So recycling measurements are gathered based on:

- Population of each building
- Solid waste generated at each building
- Pounds of recycled materials per building

From this they can calculate waste generated per capita and recycling per capita. This information is also good for planning purposes.

There are 22 categories of recyclables collected and managed by Resource Management including among them:

- Office paper
- Confidential (shredded by contractor)
- Scrap
- Cans/glass/plastic
- Wood
- Compost
- Fluorescent lights
- Oil and tires

There are around 200 places that recycle so they must work with all agency locations (for example Revenue has more than three). And the numbers are skewed regarding total amount recycled per capita, as MCES has tons of scrap metal and few employees so they look stellar, while the MCES office on Robert St. is not great at recycling. Meanwhile, State Fair recycling is at 80-85%. Minnesota Dept of Health recycling is up to 60%.

Mike Nevala asked who are its competitors (e.g. Eureka Recycling), and who provides containers. Dave Fielding explained that because this operation is now part of a competitive bid they can't discuss this. A set of specs must be created to go in the bid. (The Department of Administration will also be a service bidder.) They will ensure that the service level and method of collection stays the same although the vehicles may change. Also, since confidential shredding is needed this could be a separate service.

Mike also asked if there will be education. Dave said that due to reporting requirements, doing education may change in favor of getting the basic job done as first priority.

Roger Wirkkunen noted that there would also need to be background checks. So the RFP must include this, and if outside vendors are used they'll need to take "disclosure classes."

Linda asked Jeff if they had tried to measure purchased paper input and output to determine how much was recycled. Jeff said they had and found it impossible to do because of all the mail, interoffice mail, magazines, etc. brought in by employees and mixed in with the recycling.

Dave also reported that they had conducted a waste sort of paper that can't be recycled/recovered and found it was mostly contaminated paper (soiled hand towels). So they've changed to a different towel design so they're no clumps. They also found hand driers (\$400 each) that are 75% less cost than Dyson brand dryers and as effective. But these are expensive to install re: wiring for the power needed, etc., so these will only be installed in new buildings, as needed.

Future off-site IPPAT meeting ideas:

- A. East Metro Transit Garage – tour?
- B. Arden Hills – two years after reconstruction is completed.
- C. MCES - Cottage Grove facility

Attending:

Andersen, Jeff
Auer, Ken
Countryman, Linda
Droege, Diane
Fielding, Dave
Jordahl Larson, Marilyn
Klein, Jackie
Manning, Prof. Christie
McMahon, Cassie
Myers, Tim
Nevala, Mike
Nierengarten, Gary
Sokatch, Char
Steele, Bernie
Wirkkunen, Roger

Interagency Pollution Prevention Advisory Team

AGENDA

January 28, 2010

9:00-12:00

NEW LOCATION: Hosted by the Metropolitan Airport Commission (see directions below)
Carpooling available from PCA parking lot at 8:15 sharp. Be sure to RSVP.

- | | |
|-------|---|
| 9:00 | Approve January agenda
Approve notes from October 22, 2009
Member one-minute updates/announcements - <i>All</i> |
| 9:30 | New Executive Order Status - <i>Cathy Moeger, PCA</i>
Q & A on developing "Agency Sustainability Plans" - <i>All</i> |
| 10:00 | "Conducting a facility waste sort" – <i>Susan Heffron, MPCA</i>
Q & A |
| 10:30 | BREAK |
| 10:45 | "Dept. of Corrections Waste Reduction Outcomes" – <i>DOC Staff</i>
Q & A |
| 11:15 | Next steps
March Agenda |
| 11:30 | Tour of roof wind turbines and other sustainability features of the facility <i>Alan Howell, Project Manager, Airport Development Dept.</i> |
| 12:00 | Optional – continue visit and discussion
Adjourn |

IPPAT Meeting Summary

January 28, 2010

Member Updates

Members share what's new and especially what is happening in their agencies regarding waste reduction and pollution prevention.

MnDOT - Jackie Klein is replacing Mark Vogel and will be writing the agency's "Sustainability Plan."

MnTAP – Cindy McComas reported that the summer interns are gearing up and there's been a huge response by business this year, many looking for energy efficiencies. They received grants from the Office of Energy Security. She noted that Scott Albers and Ken Auer at Camp Ripley are looking at steam traps. (Cindy offered to do a presentation about steam trap efficiency in the future.)

MPCA – Cathy Moeger explained that she is working with Westwood Renewables on a 9000-panel, seven megawatt solar system at a state-owned landfill in Olmsted County. The land is being given free for ten years to test this out, using floating sidewalk installation.

In six to eight months the PCA will launch its Green Step Cities certification effort. This will include a series of best management practices that are now being created. A presentation will be coming from Phil Muessig, and IPPAT may be approached for help in getting cities.

Metropolitan Airport Commission – Mark Wacek welcomed the group to the new fire station at MAC and offered to give orientation of the airport campus as part of the overall tour of the facility.

Metro Transit – Ed Birkholz reported that in 2007-08 that Xcel Energy conducted an energy audit of all its facilities and from that created a list of projects. The first project is to change out all incandescents and HID lights to T8 or T5 lighting. They already assessed steam traps and found lots of failed ones. They are waiting for the hard data on their savings. Second phase is to go building to building in a total of five buildings.

Arden Hills Army Training Site (former TCAAP) – Scott Albers explained that the army is employing the environmental management system and is now seeking funds to do some of the suggestions made in the plan. He also said the word on the coal-tar based sealcoat ban got out well and went from the top down in his organization. He announced that Mr. Ebert has retired and Marty Skoglund will replace him.

MCES – Mike Nevala reported that they are done with all of the hazardous waste reporting; the annual recycling and water reports are also due soon. He also noted that the large metro plant (at Pig's Eye) has many abandoned buildings that all contained old incinerators that had a total of 420 mercury switches to remove. They also found PCB-contaminated transformers that had been leaching for twenty years.

Staff took training on mobile firefighting at the Kellogg Community College in Kellogg, Michigan.

MDH – Tim Myer announced that he is the Safety Administration at Dept. of Health and is replacing Rick Kantorowicz who retired. He noted that MDH has been very busy with H1N1 and urging vaccinations. Also he reported that some staff have recently moved to a reconstructed retail area in the Mankato Civic Center, sharing the area with PCA and other state and federal government agencies. They are excited to have the opportunity to use alternative energy and incorporate reduced energy features in a green building that has solar energy and sky lights including a mirrored system to reflect and redirect the lighting to the interior and hallways.

Dept. of Corrections – Reena Abraham, DOC Safety Director, is tasked with overseeing green committees in each facility.

- They are looking at lighting and bulb switch-out now, and looking into a vermi-culture food composting pilot for the Stillwater facility.
- A surplus site has been created for sending anything useable such as office supplies; more efficient than shipping to Arden Hills from all facilities and operations.
- They're working on their Hazardous Waste and Tier Two reports as well.
- The Red Wing school expansion is building green. This can be found at the DOC intranet "green site."

MPCA – Linda Countryman announced that MnDOT expressed interest in construction and demolition (C&D) recovery and recycling. They'd seen an article about an organization in Wisconsin that has been managing large C&D projects like this very successfully (WasteCap Resource Solutions <http://www.wastecapwi.org/>). Jackie explained that the DOT has targeted this as a new goal. Legislation on this has been offered by Representative Paul Gardner. Linda proposed this as a topic for a future IPPAT presentation as well.

New Executive Order Status

Cathy explained that the Order is in the Governor's "Briefing Book" where he takes it under consideration and then signs off. Meanwhile, the Governor's staff are urging all involved such as IPPAT to move forward. All the other functional teams are working on the targets that were set. We cannot predict when the Order will be signed.

Reminder: The letter to the Commissioners about the new order is in the Governor's folder and will be mailed out after the Order has been signed. But Cathy met with EQB agencies already and explained this work and said IPPAT members would be spreading the word.

The March 31, 2010 deadline for all agency Sustainability Plans is now out, but all are to work toward the proposed Executive Order goals anyway.

Note: By September 2010 we must have metrics across the state (e.g., fuel use) regardless of the new Executive Order. This then goes into the Climate Change annual report in January.

Q&A on Developing Sustainability Plans

Cathy handed out PCA's plan as an example of a completed agency "Sustainability Plan." This plan addresses waste reduction, recycling and waste generation as follows:

- reuse of one-sided paper (currently dealing with assuring confidential used paper is not made into bound paper pads)
- urging use of reusable water bottles
- increasing composting 15% from 2009

The agency needs better recycling documentation on what's recycled. The challenge is to get this in shared buildings. Also, the agency's metrics still have some gaps.

Jackie noted that the regional DOT offices don't recycle at all and it is a daunting task. Cathy suggested their baseline be 0%, and then set a goal of something reasonable.

As another example, Cathy suggested 12% reduction of energy use in St. Paul in ten months; then the next task is to do two more buildings [in the regions].

Basic approach in plans:

- Pick a few discreet tasks and move forward, show progress and then continue to gradually achieve more or higher percentages.
- narrow to focus on what can be done in a year
- baseline can be different for different strategies
- focus on what will work for only your agency

For IPPAT reporting as whole:

- pick one metric to be measured across all agencies
- find a cross metric for each of the areas

"Conducting a facility waste sort" – Susan Heffron, MPCA

Susan provided a handout on the process to conduct a waste sort (to be provided electronically). (Refer also to see pdf entitled "IPPAT Meeting 1-28-10"). She noted that there was no forewarning as to when the waste sort will occur. The basis of this PCA sort was to see how the agency is doing in recycling, reuse and composting. They already recycle but wanted to learn if there's more in the waste stream that

could be recovered. For example, could more plastics be recovered including clean yoghurt and deli containers, plastic bags and shrink-wrap. (See Appendix A for sorting categories)

There involved six people sorting 90 lbs/day for one week (waste from 750 employees). Using tracking sheets, they sorted recyclables, compostables and garbage. The majority of the trashed material was garbage (21%) and compostables (~50%). The “other” category was made up of contaminated paper, especially post-its. The final conclusion was that out 450 pounds of trashed material, only .12% was **garbage**/person/week. (Refer to slide #9)

The PCA learned that more education is needed regarding how to properly dispose of things like gum, which goes into compost and post-its which are recyclable.

Mark Wacek noted that they have a contract with Allied Haulers that includes waste sorts at the Hennepin Environmental Recovery Center. However it takes heavy equipment to sort the 800-900 tons of waste on the tipping floor. This is generated by the 35-36 million people going through the airport.

“Dept. of Corrections Waste Reduction Outcomes” – Julie Schmidt and Flore Allen, DOC

(Refer to “DOC Waste Reduction Presentation” pdf)

The Rush City Correctional Facility was selected as a pilot site for a “Green Belt” Eco Team project for waste reduction. The team also did a garbage separation by randomly selecting bags from offender living units. They determined what was recyclable and what wasn’t and found 33.5% could be recycled. Their target was a 10% improvement.

Performance measure targets were: 60% of kitchen waste; 20% offender; 10% employee; 10% industry. The data progression chart (7/07-7/09) shown they exceeded their reduction goal by 7/09.

Kitchen: Recycling cardboard, cans and containers and recycling/diverting food waste to pigs. They noted instant increase in recycling and food waste recovery by posting green signs for recycling and brown signs for food to hogs.

Additional efforts: Changed to paper cups from Styrofoam; changed from disposable to reusable utensils. Added recycling bins in staff lounge and provided recycling labels on bins that were consistent around the building. Offender buy-in to the project was very important and they really jumped into the process.

A big problem was coagulated grease that the city was pushing to have cleaned up as it clogs the whole sewer system. So they turned to SaniMax who paid for recycled grease and saved money by paying the pig farmer by weight of waste food. The facility has also reduced deep-fried items from its menu for nutrition reasons.

Cost/Benefit Analysis: The payback on the initial investment was less than two years (based on a total offender population of 900+). The facility no longer pays fines from compliance to the City from its grease (e.g., \$1000/year in avoided fines). They have increased reduction of food waste to pigs to 15.6 tons. The recyclables dumpster is hauled away each month compared to once/year.

Changes to offender support services: Paper bags have been removed (saved \$6,000); used clothes and shoes that are exchanged each year are recycling (go to Wipers Recycling); switched from paper towels to hand dryers; and more recycling of batteries, posters, etc. from offender’s cells. The cost/benefit analysis finds the facility is saving \$12,000/year just in Offender Support Services.

Employee changes: Switched to a document destruction service to save on the cost of shredded paper as trash; a lot of training includes green team updates along with new employee orientation.

Creating a culture to sustain the project: This is very important and is accomplished using posters to help education about brown and green recycling separation; providing instruction through handbooks, during orientation and on the TV channel. Staff walk around to reinforce right behaviors for both staff and offenders.

Conclusion: Overall savings comes to \$17,000/year. DOC continues to publish data and Green Belts continue to train and share about the project through workshops and presentations. All facilities have taken on parts of this project, such as using recycling teams and contracting with SaniMax. (A current challenge is disposing of thousands of milk cartons as it takes a separate contract to collect them.)

Tour of MAC Fire Station

Highlights of some of the green features of the structure:

- Designed to balance sustainable features, bottom line, employee relations, and affect on continuous improvements.
- Reusable replaced disposables was big cultural change
- roof mounted wind turbine – may be relocated – get ~10% efficiency; all power is used versus stored
- solar collecting deflector brings daylight to basement offices (daylight concentrators\ uses fiber-optic mirrors to send light below).

Next Meeting: March 25, 2010.

Attending:

Abraham, Reena
Allen, Flore - presenter
Albers, Scott
Birkholz, Ed
Countryman, Linda
Heffron, Susan
Klein, Jackie
Jordahl Larson, Marilyn
McComas, Cindy
Myers, Tim
Moeger, Cathy
Nevala, Mike
Schmidt, Julie - presenter
Sokatch, Char
Wacek, Mark

APPENDIX A

APPENDIX B

Interagency Pollution Prevention Advisory Team

AGENDA

October 22, 2009

9:00-12:00

Minnesota Pollution Control Agency

520 Lafayette Rd N., St. Paul

Conference Rooms 2A-2B

- 9:00** Approve October agenda
Approve notes from July 23, 2009
Member one-minute updates/announcements – *All*
- 9:30** New Executive Order Review & Status - *Cathy Moeger, PCA*
10:15 "Resource Management" contract presentation - *Madalyn Cioci, PCA - Source Reduction Team*
- 10:45** BREAK
- 11:00** Work session on creating "Agency Sustainability Plans" - *All*
The Executive Order will require agencies to create sustainability plans by 3/31/09 and to report initial results by September 17, 2010.
- 11:45** Summary and next steps
Set bi-monthly meeting schedule for 2010
- 12:00** Adjourn

IPPAT Meeting Summary

October 22, 2009

Member Updates

Members share what's new and especially what is happening in their agencies regarding waste reduction and pollution prevention.

Member Update highlights:

Dale Thompson, PCA reported on the law passed in 2009 that bans the purchase of coal-tar sealcoat products by state agencies by July 1, 2010. The PCA must notify all agencies by July 15, 2010, so Dale is asking for help in getting the word out to all purchasers, department heads and through any other ways.

The legislation was driven by concerns that coal tar, a byproduct of coal processing, contains high levels of chemicals called polycyclic aromatic hydrocarbons (PAHs). Some PAHs are known human carcinogens. It is commonly used in asphalt sealers. Studies have shown when coal tar-based sealants are applied on parking lots and driveways, PAHs can be released into nearby surface waters, where they can accumulate to potentially harmful levels in sediments. Stormwater ponds were found to have high levels of PAHs in sediment which result in high disposal costs for city cleanouts, for example. Coal tar is one thousand times more than petroleum-based material to leach off PH's to stormwater lakes and streams. As it wears it flakes off into the environment and is toxic to humans, aquatic life, etc. (Refer to fact sheet at <http://www.pca.state.mn.us/publications/wq-strm4-12.pdf>.)

The PCA is doing a study to determine the sources of this, how many ponds are impacted and the number to be cleaned out. Three cities have already banned this product and the EPA attempted to do the same but got great resistance from industry.

Note that agencies will see different messages from other directions on this matter. All other sources of pollution such as from wood burning and vehicles are not being addressed yet.

Meanwhile there are competitive [sealcoat] products available that agencies are encouraged to use instead.

Marilyn Jordahl-Larson, DOT, recently attended a PM 2.5 project level analysis summit conducted by LADCO (Lake Michigan Air Directors Consortium). LADCO is a consortium of air control officials formed to address ambient air quality standards. In this case, they are working on a limited maintenance plan for carbon monoxide levels.

DOT also participates in a Climate Change Adaptation Group where each state agency reports on how climate change will affect its agency and how they will address the issues raised.

Dave Fielding, Admin., presented highlights from the Department of Administration "2009 Operations Report" on progress made in facilities around the Capitol Campus (see [First Quarter FY 2010 Ops Review 10-06-09.pdf](#))

. Some highlights were:

- All energy use was down 10% from July –September (consistently showing real progress)
- Parking Ramp Lighting Study
 - Using LED reflective fixtures with motion controls; can set timing and lighting will be set at 10% of its illumination that goes up with motion;
 - Considering function of lighting and people's acceptance of what's enough light
 - Testing through winter and doing the full project by spring
 - Returned to fluorescent lighting from induction because it was either on or off
 - Linking LED's because of control capability; instantaneous "on" vs. delay
- Sustainable Building 2030 Standards – regarding remodeling reporting 20% better than in July 2008; compares the Capitol building to the city hall.
- Waste generation
 - disposed waste (including food recycled) between the total quarter in 2008 vs. 2010 is down 10%;
 - disposed waste by building is down in spite of there being new buildings and new people on campus;
 - Graph shows consistent decline of all waste for six years (12-month average)
- Irrigation project – learned precipitation only benefits when and how it happens—slow and steady vs. quick dump); watering was up due to drought.

Mike Nevala asked how the sprinklers are programmed or timed to go off. Dave explained that the Capitol Mall irrigation is triggered by moisture, wind speed, etc. Most of the 17 acres are under this control.

Mike Nevala, MCES, informed us about three current projects:

1. South St. Paul sewer line to Armour and Swift meat packing has a Voluntary Investigation Cleanup (VIC) site with 42 types of soil to determine
 - is it geotech acceptable?
 - What are the various contaminants (include a range of compounds)?
 - what is the soil reference value (SRV);
 - is the soil reusable? Must it be treated?
2. River Crossing and up Pig's Eye _____???- Involves a voluntary phase-out of all PCB transformers; seeking a connection to anyone with experience in this kind of project.
3. Paper insulated copper-covered cable (manufactured in the 1970's)
 - can be contaminated with PCB oil, rubber coating and lead.
 - seeking destination(s) to recycling and to handle PCBs. (Gene Christenson will try to recall what the UM did)
 - product still in use nationwide but current product doesn't contain these materials
 - replacing this cable as needed.

Reena Abraham, DOC, reported on their Green Belt Project.

- Rush City achieved 30.6% waste reduction (96 tons) showing all 10 correctional facilities can reduce their waste;
- Green committees exist in all facilities; all are reducing in some way;
- Looking at composting at St. Cloud facility; includes a food to livestock project; half of them send food waste to Berthold Farms (but pay the farmer);
- New Assistant Commissioner is interested in "green";
- Vermiculture is being considered at Sandstone facility;
- Red Wing Juvenile facility added on using green building methods;
- Lots of activities in green initiatives based on bottom line (they're tracking costs too).

Executive Order on Strengthening Sustainability and Agency Sustainability Plans – Cathy Moeger, PCA

(Refer to slide show attached in email, along with these notes)

1. Overview of the new Executive Order consolidating several past executive orders into one, covering Fleet and Travel Management, Renewable Fuels, Pollution Prevention (including waste management, toxics and environmentally preferable procurement), Buildings/Energy, and Air quality in Operations.
2. Review of the focus of the Order: Greenhouse Gas Reduction & Toxic Pollution Prevention, to be accomplished by four functional teams (IPPAT being one of these). Each team's Sustainability Plan Outline sets targets; each agency develops its own sustainability plan; then the functional teams set the reporting measures; then the agencies report to the legislature regarding greenhouse gas reductions.
3. Timing:
 - All agency "kick-off" at State Managers Conference
 - Executive Order published soon
 - Sustainability Plans [from all agencies] due March 31, 2010
 - Reporting beginning September 15, 2010

Following the Governor's signing of the Executive Order and its publication in the "State Register," letters will go out to all agency commissioners explaining what is involved, due date of Sustainability Plans (3/31/10) and results to be reported by 9/15/10.

NOTE: These targets have mainly been in place for awhile under the old Executive Orders. For example, the fleet area has tracked E85 for years and so will report this by 9/15/10 as always.

For IPPAT, we have never had targets so this is new. So our report may be baseline information first.

4. A. Agency sustainability plans are based on the goals and targets established in each of the functional areas. From these, each agency writes up its strategies, actions and measures to meet each team's goals and targets; then
 B. The four Functional Teams create their plans based on agency plans; finally
 C. Legislative reporting will be a statewide measure (representing the majority of operations subject to the Executive Order.)
5. IPPAT has established its goals and targets, with a few changes made in the Executive Order:
 - The paper reduction target was moved under waste reduction as a strategy
 - The recycled paper content goal is now part of the Environmentally Preferable Procurement area;

-the 100% recycled content target was removed and replaced with 30% and elimination of virgin paper purchase

-Zero waste target date of 2025 goal statement was changed to “reduction of waste” of by 2014.

Cathy noted that the PCA has created a simple template linked to a database into which each agency can enter its Sustainability Plan. Then pieces of each plan will go to the appropriate functional team:

- Waste management (reduction/recycling) and pollution prevention (toxics)
- Fleet Management
- Building/Energy Management
- Environmentally Preferable Procurement

“Resource Management” Contract Presentation – Madalyn Cioci, PCA

(Refer to slideshow link - [RM Presentation 10-2009.pdf](#))

Resource Management is about how alternative waste hauling contracts can help us reduce and recycle more. This generally refers to municipal or mixed solid waste (msw).

Mark Wacek noted that the Metropolitan Airport Commission (MAC) does its contracts for both MSW and recycling at the Minneapolis airport which covers the buildings and public areas. Its vendors must report monthly. MAC generates more than 6,000 tons of msw/yr. The contract is set up for all solid waste, as needed with many aspects included. MAC has seven compactors and various recycling containers (the driver records what they are dumping).

Madalyn began with several questions asked in a “Garbage Quiz” about what you generate, how you pay for it and determining whether it is garbage or resource. Also, you can’t manage what you don’t measure. Unlike with utilities, there is no “garbage” meter so you need to look at right sizing your service. RM contracting is different as follows:

- Value-added services to inform and influence waste generation;
- Elevates the contractor to proactive consultant role;
- Fee driver: Gained efficiencies, increased services

RM benefits both the customer and the contractor as customers may reduce waste, increase recycling and gain rebates/shares; and haulers may gain new customers, avoid disposal costs and may earn a performance bonus.

Mark added that MAC has a waste contract that gives credit for old corrugated cardboard to the hauler. Also, haulers respond to their RFP with offers beyond the request and act as consultants, in part, because this is such a large, sought-after contract by many haulers. Their contract includes designation where the waste goes (to HERC) and assures that no fuel surcharges are allowed during the duration of the contract.

Reena reported that the St. Cloud Correctional Facility was the first pilot RM contract and the experiment failed. However, staff stayed the course and they are doing well today. Madalyn added that many lessons were learned and the sample contract the agency developed recently is very different today thanks to those lessons.

Examples of the RM contract in action include ISD #196 – Eagan/Apple Valley/Rosemount schools, Dakota County and Minneapolis Public Schools. Pie charts indicate that the ISD 196 reduced its waste disposed by 491 yards from 2006-2008 by recycling and composting food waste. Overall they went from 11% to 53% recovery of its overall waste by increasing recycling and composting.

Success depends on several points, such as clarity of contract details and calculations, regular measurement and a willing partnership to meet the goals. The MPCA role is to support, monitor, share information, provide technical assistance and partner with contractors and generators toward waste reduction.

Madalyn agreed to provide templates of the RM RFP and contract examples to the IPPAT. [Sent via email to members on 10/30/09 from L. Countryman]

How to Develop a Sustainability Plan – Cathy Moeger


(Refer to slide show attached in email, along with these notes. See slides 10-13)

How to Develop a [Agency] Sustainability Plan:

- Establish a management-level “sponsor”
- Small teams develop concrete actions to take. Establish baseline and “success”
 - Functional teams will provide ideas and resources
 - Review sustainability plans of other state government operations (Massachusetts, Washington, Oregon, Illinois)
- Assign responsibility and timeframe
- Enter into template by March 31, 2010
- Integrate into key decision points
- Track and report on progress by September 15, 2010
- Outreach
 - Employees
 - Customers/stakeholders
- Continuous Improvement

The PCA offers resources on its Sustainability web page at

<http://www.pca.state.mn.us/sustainability/index.html>. See the “Sustainability for Government” heading, and below that open a link to “Sustainability Action Plan”

(<http://www.pca.state.mn.us/sustainability/actionplan.html>). At this page select  [Sustainability Plan Template](#) and use as your agency’s plan template. (Delete the PCA-specific information and fill out for your agency).

The overall goal is for all state agencies to complete a plan that addresses each Executive Order goal, so it’s okay to bring in less than the goal percentage listed in the Executive Order Sustainability goals.

Note that the goals from all agencies will equal a cumulative evaluation and each agency is to look at how to do their part toward holistic success. The challenge is in trying to normalize among all state agencies when some do a little and others a lot.

IPPAT'S Next Steps for target areas:

- Finalize reporting metric and baseline
- Discuss and finalize strategies
- Agenda planning

IPPAT as a functional area, will decide what is the measure across the board to use for all agencies (everyone will use the same baseline). Strategies can all be different for everyone, and targets will be reached over time, not overnight. IPPAT accomplished the team's strategies and measures at its July and August meetings. Now it will go goal by goal as we have done in the past.

Benefits:

- Leadership/growth
 - LEAN or other process improvement
- Cost savings
- Environmental improvement
- Community

At this time, the Governor is expected to sign the new Executive Order within about two weeks. Cathy explained that the Commissioners would be issued a letter about their agency's responsibilities the day the Executive Order is published in the State Register.

NEXT MEETING: January 28, 2010.

May be hosted by MAC, including tour of new fire station. Details to follow in next meeting notice.

Attending:

Birkholz, Ed

Bryan, John

Christenson, Gene

Cioci, Madalyn

Countryman, Linda

Jordahl Larson, Marilyn

LaForce, Joe

Myers, Heidi

Nevala, Mike

Thompson, John

Vennewitz, Mike

Wacek, Mark

Wirkkunen, Roger

Interagency Pollution Prevention Advisory Team

AGENDA

August 25, 2011, 9:00 am -12:00 pm

Minnesota Pollution Control Agency

520 Lafayette Rd., N., St. Paul 55155

Training Room 2 – Lower Level

- 9:00 Approve August agenda
 Approve notes from November 18, 2010 and May 26, 2011
 Announcement of “Pollution Prevention Week 2011” – *Phyllis Strong, MPCA*
- 9:15 Member updates and announcements - *All*
- 10:00 PRESENTATION: TAPP telework assessment process – *John Sanger, Tele-Commuter Resources, Inc.*
- 10:45 BREAK
- 11:00 PRESENTATION: Public Building Energy Efficiency Case Studies – *Gene Scales and Jim Jarvis, E.A. Scales, Inc.*
- 11:45 Next meeting agenda plans
 Need new meeting location for November 17
- 12:00 ADJOURN

Hosted by:



**Minnesota Pollution
Control Agency**

IPPAT Meeting Summary
August 25, 2011
IPPAT web site: <http://www.pca.state.mn.us/yhiz3fb>

Agenda and Minutes

The August agenda was amended and approved. Minutes from November 10, 2010 and May 26, 2011 were approved with revisions.

Announcement: “Pollution Prevention Week 2011” by Phyllis Strong, MPCA

Phyllis displayed a copy of the P2 Week poster for 2011, intending to encourage members to purchase the poster but it’s already sold out. “P2 Week” is celebrated September 19-25, 2011 and agencies are encouraged to join in. The theme is “Pollution Prevention -- a Cornerstone of Sustainability.” Pollution Prevention Week is the third full week in September each year. This week is an opportunity for individuals, businesses, and government to emphasize and highlight their pollution prevention and sustainability activities and achievements, expand current pollution prevention efforts, and commit to new actions.

Phyllis will place an announcement in the internal PCA newsletter in advance of P2 Week, and follow up with a “P2 Tip” each day Monday through Friday, from 9/19-9/25/11. She suggested that IPPAT members do the same within their agencies. Linda would be sharing these same tips with them via GovDelivery.

Member Updates

Kath Ouska, DNR – The agency is adding solar-powered electric charging stations where employees can plug in vehicles. They plan to put these in the DNR parking lot in five spots furthest from the door. These are for a quick charge or longer term charges, and can be used by two vehicles at a time. They will be signed with possibly green stripes on it. They may also buy enough green energy from the utility to offset the cost of these. They will also install one for the public.

Rob is presenting their Sustainability plan and site objectives to management. They are looking at all items, including transportation.

Cathy Moeger, PCA – The PCA will use a “transit connect van” to run water samples by DNR and PCA between labs.

In October agencies are to do education regarding air quality because spring and fall is when we approach the highest air quality warnings. The fall theme will be out soon on the IPPAT web site.

Tony Becker, Dept. of Agric. – The department has one custodial owned facility in Park Rapids. There is much seasonal agricultural activity there so it has good potential for reducing energy.

Nancy Walters, DHS – Human Services’ sustainability plan is to be done by the end of September.

Bob Jeffries, DMA – No news to report.

Mike Nevala, MCES –

-The MCES Laboratory has processed its 2 millionth water sample, in the 20 years since the initiation of LIMS, the computerized Laboratory Information Management System. The MCES

Lab staff conduct analyses of all environmental media samples for plant process controls, permit limits, industrial discharge monitoring, enforcement actions and environmental investigations. It's located at the Metro WWTP and operates every day of the year.

- The seven MCES wastewater treatment plants have maintained 52 straight months of compliance with national clean water discharge permits. This has been accomplished despite prolonged flood or high water conditions in 2011, the sixth year of flooding since 1993.

- MCES Wastewater Operations has met its goal of energy reduction of 15% from 2006 – 2010. The goal has been extended to a reduction of 25% by 2015.

- Perfluorochemicals (PFCs) were a primary ingredient of products such as lubricants, fire fighting foams and flame retardants and are now an emerging contaminant of concern in stretches of the Mississippi River south of the Twin Cities. The levels of PFC in the river and in groundwater are influencing the MPCA's proposed permit limits for the Metropolitan and Eagles Point (Cottage Grove) WWTPs. Industrial monitoring by the MCES has reduced the use and discharge of PFCs.

- The entire Metropolitan Council is committed to following the Governor's Executive Order and preparing a sustainability action plan. Jason Willett conveyed this to Cathy Moeger and the fact that since significant levels of policy and procedure reviews and approvals will be required, the Council plan might be completed by the end of 2011.

Gene Christenson, UMN – The new president, Eric Kaler, will be inaugurated in September. He's an alumnus and interested in chemical use.

Gene reported that they learned a large amount of recyclable paper was not being recycled due to stressed out custodians, e.g. So they now have segmented teams such as one for solid waste and disposal, one for wet cleaning, etc. These four-person teams can now focus on better solid waste management, and their pilot shows that they have increased recyclables collected so far. They'll continue to measure this. Meanwhile they are not sure if these workers will become specialists or rotate their roles instead.

The UM has also switched to one provider of all custodial products ("Green Screen") in order to get as non-toxic/green as possible. This may be a 3M line but it's on the state contract so that all state agencies could purchase this line.

Roger Wirkkunen, DOR – Kath Anderson is working the sustainability report that is to be done soon. Revenue has also used a green clean team, similar to the UM.

Tim Myers, MDH - No news to report.

Tina Folch, DEED – Tina had questions in two areas:

1. The department could use help with fleet service as there are not many options provided by Administration to meet the executive order goals. One hybrid—the Ford Fusion—meets the mpg. Cathy Moeger offered to talk to Tim Morse about the high expense of these vehicles and the difficulty they are having in reaching the goal.

2. Regarding video conferencing, DEED has 57 locations and wants to know where all agencies are on this. Cathy noted that the Office of Enterprise Technology offers training on this, and we would like to have a session about this. The PCA changed its system based on a review of all the options available to us. We are exploring this further ourselves, and will be meeting with the video-conference staff about all the options available for IPPAT meetings.

Roger reported that Revenue has lots of video-conference meetings and they are still not sure how to measure how this saves them money.

Reena Solheid, DOC – Reena is the Safety Director for the Dept. of Corrections. They plan to be done with the sustainability plan by the deadline.

They continue to recycle at their facilities, sending clothing to Wipers Recycling and shoes to Nike. They also received a grant from Minnesota Waste Wise to conduct waste reduction assessments and look for sustainable practice options.

The correctional facility in Shakopee obtained a contract with their local waste management hauler for organics recycling. The facility is actively using compostable materials and sorting their recycling throughout the institution. The Shakopee facility already does food to pigs with food waste, which ends up cheaper than hauling waste to a landfill.

Reena toured the new Shakopee Mdewakanton Sioux recycling facility. This includes source separated organics composting and the facility would like to take the Shakopee facility's waste. This is a new, green constructed facility where they have an organic farm and syrup production too. They may add a transfer station in the future.

Cartons are the largest waste from the facility so they want to recycle them. Tim Farnan of PCA connected them with the carton folks with St. Cloud. They are now doing an assessment and listing costs. Also, Ginny Black of PCA recently made a presentation on composting.

Other Updates

Cathy Moeger noted that the DNR compost is collected in biodegradable bags, sent to the PCA dock, goes to a transfer station and finally to Rosemount.

Sustainability Plans Clarification – Cathy explained that under Executive Order 11-13 all sustainability plans are due by 8/31 and are to be submitted to her. Executive Order 11-12 for facilities under custodial care, these plans go to the Dave Fielding at Dept. of Administration. It is okay to include all goals within one's sustainability plan, though, and Cathy will assure that Dave gets what he needs from that.

All the information from the plans will go into a database and be sorted by each target: Fleet, Building, Purchasing and IPPAT.

There was a brief discussion about what will be provided to agencies on air quality education, and how they would be expected to disseminate it within their own agencies.

Tina Folch asked that all information staff get on air quality in the spring fall be copied to all agency information staff as well. This will help impress them of the importance of these messages per compliance of Executive Order 11-13. Cathy Moeger agreed to notify these staff as well.

Mike Nevala offered additional announcements as follows:

-The Zephyr Wind Turbine is in operation at Mahtomedi High School. The funds and support for this project came from an enthusiastic collaboration of the city, school district, Century College, churches, environmental groups and committed citizens.

-The Green Institute and its Re-Use Centers have been closed by its board of directors. It may be reorganized or merged into other non profits.
-SWANA will have a seminar and tour at Resource Recovery Technologies, Newport, MN on September 14, 2011. This might be a good site for the next IPPAT meeting which will focus on solid waste management. (Registration form handed out)
-Ray Anderson, CEO of Interface (carpets) and advocate of sustainable business died in August. A tribute to Ray by Paul Hawken (“The Ecology of Commerce”) from 8/12/11 *Grist Magazine* was distributed.

BREAK

Presentation: “TAPP- Telework Assessment Process” by John Sanger, Tele-Commuter Resources, Inc.

John gave the history of this non-profit organization that’s been in business twenty years. TAPP was invaluable at the legislature and created the “Checklist for Action.” Their work at Senate Hearings helped create the State Telework Program. Now agencies must do telework assessments anytime a building is needed in the first place. TAPP conducts assessments for various agencies, including the MPCA.

TAPP advocates for “Ubiquitous Telework.” Its premise is creating a virtual work force for many reasons, including in case disaster affects the actual office. They are doing work on what are best management practices for cities and more. See the “Strategic Telework” tool, an organization chart, on how to do “Telework Deployment Programs.” This was prototyped in Las Vegas.

A recent example was that in Houston hurricane Ike hit, and John argued that if people teleworked they could simply flip a switch and move to different computers. When a number of companies go down in disasters, this model would be good business. For example, 9-11 wiped out many businesses all at once.

John also argued that this approach could be the front end of LEED (Leaders in Energy and Environmental Design) because the analysis determines whether a building is needed in the first place.

The key component of TAPP is that it provides a “Decision Support Tool” - an on-line process that examines

- Return on investment and Space Reductions/Savings
- Deployment Potential
- COOP Audit
- Operational and Preparedness Attitudes
- Environmental and Infrastructure Impacts

The PCA Agency Example

The deployment or telework success predictor (slide 5) graphs thirteen factors to indicate potential telework success, using PCA as an example. John explained that one must have ways to measure if work is done in place to determine success.

This study gave looks at four types of workers – task, site based, discretionary, and mobile. These are also broken into staff hierarchies (clerical, manager, professional and supervisory) to determine job class compatibility and number of days/week of deployment. There are various

ways to roll up data to report various aspects of the findings. This could mean, for example, that an agency has standardized policy across the state, such as in procurement.

The PCA results indicate that in St. Paul the “space reduction potential” is 11,500 square feet. But there is no space reduction potential in the Brainerd office. Also, the “Return on Investment” is 60%, noting that workers must use their own equipment at home and no expenses are covered by the agency. So overall the PCA could save about five million dollars after five years, with a potential saving for up to 15 million dollars.

Savings by staff hierarchy shows that task workers save the most; one day per week yields a negative savings; Continuity looks at if the building goes down how fast the agency could get back up and running (see slide 17). Big interruptions carry tremendous impacts, so everyone must have emergency plans and be familiar with them.

The advantages of telework include:

- recruitment retention
- disruption (Pandemic) planning
- reduces costs
- operations (worker productivity)
- addresses regional concerns

Leadership and motivation

John noted that management attitude is very important so they can create a list of all mitigation options. They can build scenarios and staff can use them more modeling analysis. This way management can have several scenarios to consider.

Culture Communications

Revenue holds many video conference meetings and wondered if this tool could measure the effectiveness of these compared to in-person meetings. John offered that there are about twenty areas of operational policy sets that would be put in as a field for analysis. Once a plan is identified they can do a “right size” of facilities. So for example, an agency could change its space design and possibly set up more small meeting spaces and replace a full-time desk/office.

Once a policy plan is set one should develop a pilot; do the employment process; and possibly conduct a multi-lateral, region wide recruitment effort. There are many ways again to look at the data.

Conducting “Vulnerability Audit” (See slides 53-56)

John covered background on RTAP and how it can function in a crisis. This is why standardization is important for continuity. He showed how establishing a GIS map of various worker types can help deploy based on location nearness to an event.

Federal Example (Slides 32-35)

To achieve the “promise of telework” one’s success depends on expectations set. The federal government has done this for years and never met its goals due to flaws in the strategy. The slide on cause for failures shows one example is lack of standardization.

John noted that virtual workers could even be used (like Baby Boomers) who could be linked electronically to keep institutional memory shared, as needed.

The PCA is looking at business case analyses, with the following issues to be addressed first:

1. Manager attitudes which were a big issue.
2. Better performance measures in work plans.

*John Sanger, Tele-Commuter Resources, Inc. jfsanger@telecommuter.org
www.telecommuter.org/emp.html
651-486-8408*

Presentation: “Public Building Energy Efficiency Case Studies—Engaging Occupants and Building Operators” by Gene Scales and Jim Jarvis, ReDirect Energy, LLC.

Gene Scales is a Human Factor Consultant who states that we know how to reduce energy but why aren't people doing it? Jim Jarvis is a Mechanical Engineer who is also Building Operator Certified on lighting, motors, mechanical systems and controls. He works with building operations staff.

Occupants can engage by turning off lights, reducing plug load by unplugging items like chargers, and closing blinds to reduce heating and cooling demand.

Areas Jim has looked at include:

- Schedule changes (like start up as needed, versus habitually)
- Identify control strategies which can save 2/3 energy; one third from behavior
Example – exhaust fans run 24/7; for every dollar spent on fan energy you pay \$30 to heat the inside

Much is happening on the west coast where they are on the forefront on efficiency. Some successful examples include:

1. The University of California in San Francisco with 5-9% energy savings in 3 building types (Administrative, Public and Researchers). Behavior change strategies included pledges, goal setting and prompts through signage;
2. BC Hydro used signs as education prompts like “The easiest thing you'll do all day . . .” listing six things to do that can save energy.

Behavioral change involves first learning why people don't make changes and then identify strategies for change. See slide #9 on “Obstacles to Overcome”:

- “It's not my job” - Identify and allocate incentives (e.g., food, prizes, recognition, financial reward)
- “I can't remember” - Provide electronic reminders (e.g., computer shut-off notices at end of work day)
- “I didn't know it matters” – Provide training (e.g., energy savings information)
- “I can't do it” – Provide tools (e.g., blind cords)
- “I don't have authority” – Management can provide leadership
- Building occupant (from any department) can take action.

There are many opportunities for low or no cost investments:

- Determine building's Energy Star Score (used to calculate savings by comparing buildings to their peer groups). Jim feels this provides occupants a comparative benchmark.
- Pre-retro-commissioning evaluation
- Create green team (in-house program focus & coordination; include people from different functions)
- Identify building operational strategies & opportunities
- Identify building occupant behavior strategies
- Measure and report savings
- Publicize results

There was discussion about two other energy measurement systems – 1) B3 Benchmark system that the state mandates be used in state custodial-controlled buildings. 2) SEE (Schools for Energy Efficiency) uses a regressive model.

Because the PCA is a leased building it can pick and choose its method so chose to use the Energy Star model. But Energy Star is not universal for all building types, like the Armory does not have the data.

See ReDirect case studies (slide #12) for PCA, Onamia Middle High School and UM-Crookston for their collective energy, cost and greenhouse gas savings.

Lessons learned – one of the biggest is that creating a Green Team is imperative.

Next steps – work on two to four more buildings, focusing on commercial and government buildings; form a Green Team; seek utilities for incentives and investment, and invite them to observe.

Question: Does it save more energy leaving fluorescent lights on versus turn them on and off? The response was no, but turning on and off wears down the ballast.

In closing it was emphasized how great the need is to do education based on some low Energy Star scores. For example, Onamia's is 16 where 100 is the best score.

Gene Scales, (651) 636-9928, e.a.scales@att.net

Jim Jarvis, ReDirect™ co-founder, IBD Consulting, (612) 859-7732, jtjarvis@usinternet.com

Bill Sierks noted that the Public Building Enhanced Energy Efficiency Program (PBEEEP) will provide technical and financial support for local governments, with an intended rollout for local governments in the fall of 2011. See this website link for more information:

<http://www.pbееep.org/local/>

PC's for People

A short video was shown promoting this non-profit that accepts useable personal computers, cleans the hard drives and distributes them to those who could never afford computers. Their state contract for accepting used state computers is in effect until February, 2012. For more information, go to <http://pcsforpeople.org/>

TOPICS FOR NEXT MEETING: Solid Waste Compliance; the Evergreen Clause issue; and Minnesota Waste Wise' new web page.

IPPAT will need an off-site location for its November meeting due to lack of space at PCA. Mary Telega, MDE will look for space at the Department of Education. Jackie Klein will see if there may be DOT training space available.

Next meeting: November 17, 2011.

Attending

Becker, Tony
Chikkala, John
Christenson, Gene
Countryman, Linda
Folch, Tina
Jarvis, Jim
Jeffries, Bob
Klein, Jackie
Moeger, Cathy
Myers, Tim

Nevala, Mike
Ouska, Kath
Sanger, John
Scales, Gene
Sokatch, Char
Solheid, Reena
Telega, Mary
Walters, Nancy
Wirkkunen, Roger

Interagency Pollution Prevention Advisory Team

AGENDA

November 17, 2011,

9:00 am -12:00 pm

**NOTE NEW LOCATION: Minnesota Dept. of Education Building
(Map and details on back side)**

After the November meeting, you can join Cathy Moeger's video meeting room by clicking this link:
<http://vidyo.pca.state.mn.us/flex.html?roomdirect.html&key=8nnnPpT3xQBe> Type your name in the Guest field and click on Guest Login.

You must notify Linda Countryman or Cathy Moeger in advance that you are attending this meeting by video.

- | | |
|-------|--|
| 9:00 | Approve November agenda
Approve notes from August 25, 2011 |
| 9:15 | Member updates and announcements - <i>All</i> |
| 10:00 | PRESENTATION: "Evergreen Clauses" in Waste Hauling Contracts – Dick Lambert,
R. C. Lambert & Associates, Inc. |
| 10:30 | Agency Sustainability Plans update – Chair Moeger |
| 10:45 | BREAK |
| 11:00 | PRESENTATION: Agency Solid Waste Compliance – Arlene Vee, PCA |
| 11:45 | Discuss Optional Facility Tour Options:
--Newport RDF Facility (Process for waste to energy)
--Rock Tenn (paper recycling)
--Rosemount RRT(compost facility) |
| 11:55 | Next agenda items |
| 12:00 | ADJOURN |

Hosted by:



**Minnesota Pollution
Control Agency**

DIRECTIONS TO MEETING, hosted at MN DEPARTMENT OF EDUCATION:

You are advised NOT TO GO by Mapquest directions. Go instead to
http://education.state.mn.us/MDE/About_MDE/004657

Park in lot next to, or across from the MDE building.

Go to Conference Center A (door left of the main entrance), room 14. Check in with the guard but there will not be name tags to pick up.

NOTE: There is no cafeteria available for coffee, etc., so two suggestions are:

- 1) Dunn Brothers in Roseville Library at Co. Rd. B and Hamline (Drive-through available)*
- 2) Caribou – west side of Snelling, just south of Co. Rd. BW (Drive-through available).*

IPPAT Meeting Summary
November 17, 2011
IPPAT web site: <http://www.pca.state.mn.us/yhiz3fb>

Agenda and Minutes

The August agenda was amended and approved. Minutes from August 25, 2011 were approved with a revision.

Member Updates (*moved to end of agenda*)

Presentation: “Agency Solid Waste Compliance” by Arlene Vee, MPCA – Local Government Assistance. (Refer to slideshow pdf on web page “Compliance of Public Entity Laws”)

Arlene reviewed the content of the laws under Minn. Stats. 115A.151 and 115A.471, and the goal in Executive Order 11-13 4.a.iv which incorporates those laws:

Solid Waste Management Compliance by State Agencies. Each state agency must comply with Minnesota Statutes §115A.151 and 115A.471, which require all public entities must recycle and manage all mixed solid waste (MSW) according to the approved solid waste plan of the county in which they are located. The MPCA’s internal process involved a decision to use the MPCA as a pilot test agency on how this goal could be reached. Arlene led the team of local government planners to develop and execute a prototype process. This was accomplished between December 2010 and May 2011. In summary,

- There are 8 MPCA offices statewide, located in 8 different counties
- Only office-generated mixed solid waste was considered
- Public entity team worked with MPCA regional administrative staff and county solid waste officers.

The team developed the media to gather and document data, including an interview survey of eight office building staff; compilation of requested data; review of Solid Waste Plans related to resident agency offices; and an evaluation of findings for compliance. All eight offices were found to be in compliance.

Next, based on the MPCA’s experience, Arlene laid out a proposed plan for other agencies to follow. First, IPPAT members are asked to set a completion goal of September 2012. Then the slides spell out in detail how to:

1. Develop a work plan;
2. Gather the data; and
3. Determine compliance

In particular, members are urged to get familiar with their agency’s management of Municipal Solid Waste (MSW) and Recycling, where the MSW brought to for processing or disposal, and what materials are or should be recycled, including whom the haulers are for all services. In addition, identify facilities, locations, and contact persons who’ll be involved in the effort. Next, identify best means to gather the necessary information, compile it and determine if the various offices are in compliance.

Finally, these steps, sample summaries and tools developed for this project will be placed on the IPPAT web site: <http://www.pca.state.mn.us/yhiz3fb>. These include:

- Table of County Plan Information
 - Identifies county’s preference re: management of MSW and recyclable materials
 - Lists county solid waste office contact information

- Sample questionnaire used to obtain office's solid waste and recycling management data
- Sample agency MSW management summary table

In conclusion, there will be a Gov Delivery message to and the link to the IPPAT web page, when all of the tools and the slideshow have been posted for members to access.

Discussion

A member asked about the role of administration in managing office building waste. Cathy Moeger noted that Administration has eight building of its own that includes the Capitol Complex and the Governor's residence. Other agencies are dealing with landlords in leased buildings. For example, the MPCA has to work with landlords and determine who to have lead the effort that would know the hauling contract and system.

A member asked that a definition of "MSW" be included with the guidance and tools. Cathy is also to provide a list of all state owned and leased facilities from Department of Administration's Real Estate Management division.

Another question was raised about how much waste generation determines whether the facility needs to be managed. Cathy stated that the statute doesn't spell out the size of a facility (for example, home offices). The most important thing is to look at where the most waste is generated. Then the agency is to make a judgment. One can argue that if there is enough waste to be collected and hauled, then it can be tracked.

Announcements – Cathy announced that the MPCA is now taking over recycling reporting statewide. She noted that MnDOT, DNR and the Military are the largest generators. The deadline for reporting in is September 2012 because the MPCA must meet its deadline of December 31, 2012, for the legislative report.

Agency Sustainability Plans Update by Cathy Moeger, IPPAT Chair

Twenty agencies have submitted their sustainability plans. Cathy noted that the 2010 plan is to include transportation plans as well. She said that the group is doing very well on these, and thanked everyone for their hard work. We are only awaiting four plans. These are all entered into a database, and after the holidays members are encouraged to see the MPCA "MPCA State Agency Sustainability Action Plans" website to read these <http://www.pca.state.mn.us/zihy5c9>.

The next step is for Cathy and Linda Countryman to review the work done to see what we can feature. An example would be the composting success achieved by the Metropolitan Airports Commission.

NOTE: The annual report deadline will be June 30.

Presentation: "Evergreen Clauses" in Waste Hauling Contracts, by Dick Lambert, R. C. Lambert & Associates, Inc.

This topic relates to the "Solid Waste Compliance" work outlined by Arlene Vee, so the Chair thought this would be a timely presentation. Dick has worked in the area of hauler contracts for a few years, including working with the legislature on this issue. He feels it's important for customers, including state agencies, to know about these Evergreen Clauses.

“Evergreen Clauses” represent language in waste hauler contracts where there is an automatic three-year renewal, unless you fill out or follow directions to opt out. This clause also allows for raising prices when haulers feel it’s necessary, or allows one to add fees labeled “environmental fee”, “fuel surcharge”, or even for picking up empty containers when one ends a contract with that hauler.

Clauses like these amount to making these one way contracts. He notes that he has seen even 25% fuel fees allowed, and this amount is taxed as well. Ne notes that seventy percent of most hauler’s budgets are based on fuel. These clauses can prevent one from changing services or adding recycling, for example. However, the haulers are very willing to add to an existing contract and will increase overall expenses to make more profit. The contract language essentially states that they own your waste, so no one else can touch it.

So to help agencies avoid this, Dick and Mindy Greiling have drafted legislation in the past, but the bill was never heard. So Dick suggested that the state draft a sample contract to share among agencies that addresses these and that would have some clout with the haulers.

Dick noted that he has never heard of a hauler not accepting or signing a revised style of contract that removes “evergreen clauses.” In addition, the Dept. of Military Affairs and Metropolitan Airports Commission (MAC) staff noted that they have done this for years. MAC took the leverage away and specifies what it wants, but they keep watch out for added fees.

Members noted that it’s harder to do recycling in leased buildings, so Cathy said that the MPCA has had to specify in the lease agreement that this is a condition of the lease. She also stressed that this is an opportune time to review and revise contracts, while auditing for solid waste compliance.

Dick explained that there have been buying groups for various purchases over time, and this has now branched into waste hauling efficiencies too. Trash is unique in that it’s ugly, out of site, not lots of money, so the industry tends to be ignored and can do what it wants. It was noted that you cannot count on property managers to be interested in reducing trash cost either. For example, property management may pay by percent of operational costs, so there is no incentive to reduce.

Member Updates

Cathy Moeger, PCA:

- We’ve offered a Vidyo option for attendance for meetings held at the MPCA, but would appreciate your personal attendance—it makes meetings much more fun! As a bribe, Cathy will continue to bring treats! (NOTE: We prefer that not more than four attend via Vidyo)
- The Governor Awards for Pollution Prevention (including what was formerly “MnGREAT!”) have been suspended this year due to staffing reductions. We encourage people to apply for the Environmental Initiative awards instead. Linda will send out the announcement in a separate Gov Delivery message.
- Also in that message, we will be forwarding Administration’s data for FY 2011 single water bottle purchases from the state contract. We aren’t seeing a reduction between FY10 and FY11, and the amount of cooperative purchases shows a significant increase—looks like the UMN started using that contract. Please take a look at the data and where you might make reductions (and achieve cost savings). This is likely to be one of the areas where we set reduction targets, so a head start on understanding the data will be useful.
- MPCA will not be processing recycling data for state agencies until next year. At that time, we will ask you for both 2010 and 2011 information, so you should continue to collect that

information. We are starting to develop an (online) e-reporting system and this will be one of the aspects of that new application.

- Bill Sierks' role: I have been assigned parts of two retiree's jobs since July and it's not going well for me! Bill has agreed to help with coordinating the Governor's Executive Order reporting, give assistance to agencies, and help with needed changes on sustainability plan targets. But I will continue to Chair IPPAT.

Jeff Ledermann, MDE – Announced that state departments are to submit applications of K-12 schools nominated for the new “Green Ribbon School Awards” program. Jeff would send out a notice about this to members. MDE will be creating an advisory group so he's seeking agency members to enlist and assure applicants are in compliance. Applications will be out in January and due the end of February.

Reena Solheid, DOC – In the November newsletter of the National Institute of Corrections and US Justice Department, there was a request for applications for technical assistance from sustainable practices and green jobs for inmates. Up to three correctional agencies in the U.S. will be selected. They are seeking resource assistance to enhance their sustainability practices. A decision is due in three weeks. [UPDATE: The MN DOC was selected by the NIC for this technical assistance grant.]

Mike Nevala, MCES – A lawsuit is shaping up, jointly with the MPCA, regarding perfluorooctanes (pfos) found in groundwater and effluent (from Scotchguard and Teflon finishes). This could cost one billion dollars to treat. The ideal in this situation is pollution prevention (P2). Surveys show other facilities will still be discharging awhile, and there will still be leaching from landfills into groundwater and sewers. The persistent and toxic data is still unsettled. The MPCA needs to determine what the discharge limits will be.

There is a used holiday lights recycling program set up at various work sites (including in the MPCA lobby). The Recycling Association of Minnesota provides for containers and collection. The MCES central lobby and lunch room has drop sites. See a video on RAM by TV Channel 11 that explains the process.

It was noted that Home Depot and Ace Hardware may also collect cords, lights and other old wires for recycling. A question was raised about how the lights are recycled or processed, and this was not well known.

MCES' sustainability plan must go through many layers for approval. They have added a water component to the plan, too. Mike expects this will be done in early 2012.

Mike attended a workshop on 11/9/11 entitled “Waste Minimization for the 21st Century.” He passed out the agenda and noted that it was hosted by the US EPA Region 5, MPCA, Ramsey and Hennepin Counties and the Minnesota Technical Assistance program.

He has been looking at the “Minnesota Nice Ride” project and notes that the MPCA plans to add one station at the Ramsey County Jail site. “Nice Ride” involves depositing money at the site to borrow a bicycle. Dallas offers the same deal but in small “Smart Cars.” These programs work toward the Executive Order 11-3, reducing single occupancy driving goal. This is also supported by the American Lung Association.

Mark Wacek, MAC-

Tanks: They are working on compliance of their underground storage tanks. An operator's license exam is required for certification by MPCA. The exams are specific to the various types of tanks. August is the deadline.

Storm water sampling is required at six reliever airports now too.

Compost project: MAC received funds from Hennepin County to buy containers for composting. Mac can cover the labor and other equipment costs. He notes that John Jaimez from Hennepin County has provided great technical assistance.

Ken Auer, DMA – The new Arden Hills Training facility is now available for meetings, so IPPAT might meet there. Ken noted that Congresswoman, Betty McCollum, was present for the opening of this LEED-certified facility.

They just rebid their contracts for twin cities hauling. They are going to Allied and require monthly reports on actual weights for measures.

Gene Christenson, UMN –

Capital Planning – the operating process is being looked at and demonstrated that four buildings are not needed. The positive to the University is the amount of green space and can manage storm water through permeable surfaces. The new Science & Teachers building opened in the fall, and the U-More Park Wind Mill is up and running.

Tina Folch, DEED – Tina attended the Real Property Governance Team meeting recently. She noted that Dave Fielding retired and that agencies had not yet reported on ways to reduce energy. She also said that the work of this team was similar to that of IPPAT and suggested that there be a synergy developed between them. She and others who are new to IPPAT are confused about how all of the teams work, etc.

Cindy Carlsson, MnDOT – Cindy is the Sustainability Manager for DOT and her position does everything agency wide. DOT just completed a baseline survey of internal transportation, recycling, construction and demolition, and financial planning. They are looking at internal operations now, and they want to conduct an energy audit as well.

Possible Next agenda items:

Linda Countryman will speak to Cathy Moeger about how to build synergy among the four Executive Order teams. Perhaps sustainability coordinators could meet to address such questions raised as how to comply? Who's coordinating the four groups? Is this all being pulled together at the Governor's level?

Members discussed putting on the February agenda the issue of new consistent signage and instructions for internal recycling, now that there is a new hauler with revised instructions. Folks have asked Accessibility and MN Works to produce these and they say the Department of Administration is to do these. Cindy Carlsson offered to share what they are designing, too. The MPCA has just changed its container labels and instructions, so these could be shared.

Optional Facility Tours:

After discussing the options of Newport RDF Facility, the Rock Tenn recycling operation, Rosemount Compost facility and the Waste Management twin cities recycling sorting operation, the group voted to tour the latter of these four. Tentative times for this tour are in the months of January or March, apart from

regular IPPAT meetings.

Linda will try for January, before the legislative session starts, for this tour. Members will be contacted when this is arranged with Waste Management, Inc.

Meeting adjourned at 11:50 a.m.

Next meeting: February 23, 2012.

Attending

Auer, Ken - DMA

Brumbaugh, Cal – Army Reserves

Carlsson, Cindy - MnDOT

Christenson, Gene - UMN

Countryman, Linda - PCA

Folch, Tina - DEED

Jackson, Cecelia - DLI

Klein, Jackie - MnDOT

Kopp, Cheryl - MDE

Ledermann, Jeff - MDE

Moeger, Cathy - PCA

Nevala, Mike - MCES

Solheid, Reena - DOC

Thompson, John - MMCD

Vee, Arlene - PCA

Wacek, Mark - MAC

Winkel, Ron - DNR

Interagency Pollution Prevention Advisory Team

AGENDA

May 24, 2012

9:00 am -12:00 pm

PCA Training Room 2, Lower Level

Now you can join Cathy Moeger's video meeting room by clicking this link:

<http://vidyo.pca.state.mn.us/flex.html?roomdirect.html&key=nXYM28Atgxnj> Type your name in the Guest field and click on Guest Login. **You must notify Linda Countryman or Cathy Moeger in advance that you are attending this meeting by video.**

- | | |
|-------|--|
| 9:00 | Introductions
Approve May agenda
Approve notes from February 23, 2012 |
| 9:15 | Member updates and announcements - <i>All</i>
Introduction to new IPPAT Goal - <i>Cathy Moeger</i> |
| 10:00 | PRESENTATION: "Water Supply Statewide Drought Management Plan" – <i>Princesa Van Buren Hansen, DNR and Greg Spoden, State Climatologist</i> |
| 10:40 | BREAK |
| 10:55 | PRESENTATION: "Water Flow Tool Kit" <i>Lanya Ross, P. G., Principal Environmental Scientist, Water Supply Planning, Metropolitan Council</i> |
| 11:30 | PRESENTATION: "EPA Water Sense" program – Cary McElhinney, EPA Region 5
(presenting via Vidyo or WebEx) |
| 11:55 | Next agenda items
-REMINDER: facility tour will be at Waste Management's TC's sorting facility Thursday, June 21, 10:00 am-11:00 am |
| 12:00 | ADJOURN |

Interagency Pollution Prevention Advisory Team

AGENDA

February 23, 2012

9:00 am -12:00 pm

PCA Training Room 2, Lower Level

After the November meeting, you can join Cathy Moeger's video meeting room by clicking this link: <http://vidyo.pca.state.mn.us/flex.html?roomdirect.html&key=nXYM28Atgxnj> Type your name in the Guest field and click on Guest Login. **You must notify Linda Countryman or Cathy Moeger in advance that you are attending this meeting by video.**

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|-------|--|
| 9:00 | Introductions
Approve February agenda
Approve notes from November 17, 2011 |
| 9:15 | Member updates and announcements - <i>All</i> |
| 10:00 | PRESENTATION: Reporting on Executive Order – <i>Cathy Moeger, MPCA</i> |
| 10:30 | BREAK |
| 10:45 | PRESENTATION: <u>Holistic Sustainability Assessment</u> Project in St. Louis County – <i>Nancy Shultz or Laura Malwitz (Compass Rose) and Tony Mancuso - Property Manager.</i> |
| 11:30 | PRESENTATION: <u>Toxics Reduction in Fleets</u> DNR Fleets using Green Star Certified Mechanical facilities – <i>David Schiller</i> |
| 11:55 | Next agenda items
-Optional facility tour will be at Waste Management's TC's sorting facility in June
Set a date and time
- |
| 12:00 | ADJOURN |

IPPAT Meeting Summary
February 23, 2012
IPPAT web site: <http://www.pca.state.mn.us/yhiz3fb>

Introductions – All present introduced themselves and their affiliations. Ed Potter from Department of Labor and Industry was standing in for Cecelia Jackson.

Agenda and Minutes

The current agenda and minutes from November 17, 2011 were approved with minor amendments.

Updates

Cathy Moeger, MPCA – The PCA will not host its annual Governor's Awards program in 2012, but all were urged to apply for the Environmental Initiative Awards whose application deadline is March 2. (www.environmental-initiative.org/projects/environmental-initiative-awards)

There is a webinar currently being aired at MPCA that will be available later to IPPAT members on the topic of materials consumption. The title is "New tools for putting environmental life cycle thinking into action." See the webinar site at <http://stream2.video.state.mn.us/mnoet/Viewer/?peid=a53527322d7646039084d61e8c8cd32a1d>

Jeff Ledermann, MDE – Jeff has coordinated the "Green Ribbon Schools" awards effort which closed on Wednesday. There were 12-15 applicants. He is also the lead for the MDE "Green Team" which involves auditing of all staff electrical use in their cubicles, as well as preparing for a waste sort within the next few weeks.

Ed Potter, DLI – Ed reports that they are reducing paper use by setting all printers to duplex and doing more online transactions. They met their ink cartridge goal; are working on switching to green cleaning products with custodians; and considering many more office operations changes.

Steve Maki, MN Sport Facilities Commission – in the Metrodome, the MSFC:

- previously had done a major lighting retrofit
- Is in the process of taking care of some smaller office areas
- Has recently installed a number of motion detection lighting controls in office/restroom areas
- Is evaluating changes in cleaning chemicals to go more green
- Currently recycle cardboard and plastic bottles
- Has passed and trained employees on UST requirements Class A, B, & C requirements.

Mike Nevala, MCES – Mike brought several items as handouts to share:

- The Metropolitan Council's – "Vision Opportunity Service – 2011 Annual Report."
- The 2010 Environmental Services "River Water Quality Summary for the Twin Cities Metropolitan Area;"
- An article "Beware of Evergreen Clauses" from Detroit Business Law

The MCES has been renegotiating its hauling contracts and created a handout of "Evergreen" changes. They are also planning a solar panel project in Shakopee next to Valley Fair.

The results of their energy project from 2006-2010 was a reduction of 17%, from a goal of 15% reduction. They reduced 11.2 giga-watts –the equivalent of taking 11,206 homes off the grid. This included aeration . . .

A new storm water reuse guide became available online the fall of 2011 for use by city planners, engineers and green thinkers.

The Metropolitan Council passed its Sustainability Policy two days ago and will be submitting a plan to IPPAT soon.

Ed Birkholz, Metro Transit – Ed announced that they are in their third year of lighting retrofits at all large facilities. They will be working on an audit of HVAC and heating facilities too.

Ken Auer, DMA – The MNARNG's Arden Hills Army Training Site (AHATS) first Readiness Center has been completed. The facility is the home of the 1135th Combat Support Company (CSC), as well as the 147th Human Resources Command (HRC). This facility is the first of several buildings to be constructed on the former TCAAP property. Currently construction of a new field maintenance facility is underway adjacent to the Readiness Center.

Future plans include construction of an additional Readiness Center and Division/Joint Force Headquarters. The DMA will gladly host a future IPPAT event, where a tour of AHATS could be provided. We could book an IPPAT meeting through Ken.

In addition, the Army has established a goal that all installations become Net Zero in Energy, Water and Solid Waste. Net Zero Energy means to produce as much energy on the installation as we consume. There may be times when we can export energy to the grid, there may be times when we need to take energy from the grid but over the course of time we will be "Net Zero". They will need to start with highly efficient buildings that incorporate advanced envelope, lighting, day lighting, HVAC and facility management systems. They will need to produce energy on site from Solar Thermal, Solar PV, Wind Turbines, and Biomass sources. Regarding wind turbines, they have made initial contacts with the University of Morris. Cathy Moeger urged that they also see the utility for assistance.

This goal will also need educated building occupants empowered to operate these buildings to their fullest potential. They are also planning to conduct a long term wind study to support future turbine decisions.

There were a couple segments of the National Geographic program on "The Wild Mississippi" that followed Camp Ripley. One segment featured a time loop showing the river freeze and thaw. In the other segment they talked with MNARNG/DMA personnel.

Reena Solheid, DOC – Corrections has just been awarded a grant and was one of three states approved for this. It is to enhance sustainable practices through actions and education. There will be more training and education of offenders for potential opportunities to enter the green jobs market. They are also looking at working with MNSCU to help with this.

Stillwater is the first facility in DOC to implement vermi-culture composting so that the facility can reduce some of the food waste removal costs. The Department is seeking opportunities to get needed equipment to sustain this vermi-culture project as this initiative will provide jobs to offenders, and in turn, reduce idle rates.

Also, MNTAP recently assessed two of their facilities and gave recommendations on managing pharmaceutical and medical wastes.

Reena noted that the Wilder Center located at University and Lexington Ave in St. Paul also has great rooms for meetings that are free or low cost.

Wayne Cavadini, DNR – Wayne will be making the presentation in place of Dave Schiller today.

Gene Christenson, UMN – The UM was awarded a Green Corps worker who has been working since October on two projects:

1. Organizing recycling and composting by turning bathroom paper into compost. The pilot at the UM Medical Center is to provide a roll out plan.
2. One of the policies that resulted from the Regent's Sustainability Policy was an Environmental Management Policy which included a procedure for waste management. The Green Corps worker will assist with putting together a web-based, comprehensive waste guide for the U of MN community.

Chris Guevin, Admin. – Chris is replacing David Fielding who retired in November. Their focus in 2011-12 is:

1. Re-lamp parking facilities. Energy use is reduced 22-23%, even adjusting for the warmer winter. They continue to look for new ideas.
2. Working to replace most towel dispensers with air driers and will cut down on paper and disposal costs.
3. The Governor's residence has been refurbished for \$2.5 million [to do what??].
4. Water collection for irrigation in the Capitol Complex is being looked into [??]
5. They will be renovating the Capitol as much as possible to go green while keeping the historical perspective.
6. Green design is also planned for the State Office Building. They are looking at LEED criteria and plan a full HVAC rehabilitation.

Ken Auer asked Chris about people's preference—paper or hand drier. Chris said they found most people prefer air. Jackie noted that all waste goes to the RDF so this should be considered when making the switch. Cathy reported that Madalyn Cioci, PCA, is looking at life cycle analysis on paper versus drier use.

Discussion followed about the importance of considering all direct and indirect costs, what is most sanitary, etc. The UM retrofitted all residential halls. Rush City Prison reduced solid waste by 40% and reduced fines and sewer service charges due to backups from flushed towels.

Chris reported that the Sears parking lot is being retrofitted by using user funds. A pre-design for a ramp is being done as there's a fear of losing the lot to the city. The state would like to maintain parking for DOT, etc.

Steven Johnson, DEED – A full FCA was conducted for our North Minneapolis Workforce Center site and we are working with Admin to have FCA's conducted for South Minneapolis and our St. Cloud UI call center. Regarding some buildings that are too small to audit or redo, Cathy offered to put them in contact with ReTAP for help in auditing.

They found that they met all of the B3 standards so are very good there.

Wayne Cavadini, DNR – The agency has three years of data on its B3 system. Records are online and can be mined. They are committed to 20-25% energy reduction, including having more than 165 KW of photovoltaics.

They brought in six sites for energy training on basics, how to use B3; showing how energy flows on site (e.g., in Park Buildings). They are also sub-metering in large buildings to get plug loads, and will have a competition on energy reduction to encourage behavior change. So there is lots of momentum regarding fuel and building energy issues. They want to leverage with other agencies to see what can be accomplished.

Wayne and Cathy announced that the DNR and PCA buildings now have an electric vehicle recharge station that has been installed in the DNR guest parking lot. The DNR has a Chevy Volt, which uses this station, and MPCA has a "Transit Connect" van which is being used by MPCA to run samples between agencies, and will be used during the State Fair as well. The recharge station is available to the public for charging personal electric vehicles as well. At this time there is no cost to the public for use of the charging station. DNR is subsidizing them through its fleet budget.

Jackie Klein, DOT – The DOT is retrofitting its lighting and adding motion sensors. Jackie is also working on getting consistent recycling established among all DOT locations. Mankato has a new building and a new contract so it should increase recycling. Willmar and Marshall buildings are being worked on too.

Their sustainability coordinator is on leave so Jackie is leading the effort in her absence.

Roger Wirkkunen, DOR – There is a new office in Arden Hills so DOR is expanding and hiring. They are working on lighting and recycling in existing buildings.

All CRT monitors have been changed to LCD to cut 250-270 watts. But now many desks have two monitors so there is a creeping increase in number of screens.

Ledermann asked if any agencies have policies about number of screens/monitors allowed. PCA has leadership approve the number. But it was noted that LCDs use 80-90 watts each so productivity is greater, and they are shut down at night.

Bill Sierks, PCA – Bill Sierks, PCA – Commerce is developing a “Guaranteed Energy Savings Program (GESp) for state and local agencies and working with Administration on contracting details for the state agency component. The program’s concept is that agencies repay the cost of the work through the energy savings. Upfront financing can be provided through the energy companies that will be approved by Commerce to provide these services. It would be worth having a presentation by Commerce at an upcoming IPPAT meeting. Also, IPPAT may want to hear more on B3 such as what tools could be useful.

Mick Jost, MNTAP and Steve Maki, Metro Sports Commission participated via Vidyo but lack of audio connection didn’t allow them to give updates.

Presentation – “Reporting under Executive Orders 11-12 and 11-13” – Cathy Moeger, PCA
The form for reporting on the Executive Orders (EO) is found on the IPPAT web page - <http://www.pca.state.mn.us/yhiz3fb>

Past reports were long and not read very much so the EO was the result of pulling back and addressing how Administration, Commerce/Energy and MPCA would work together to improve reporting. Bill Sierks, PCA, is the coordinator for the new annual report – “Progress on Addressing Climate Change.”

IPPAT 2011

IPPAT reporting for 2011 took recycling and energy data and linked to legislation to see what all agencies proposed. For each agency the report would be based on its own needs and expectations.

Cathy applied the PCA sustainable dashboard to select the goals of recycling, source reduction, preventing toxic pollution and responding to air alerts for its first year report.

Air alerts data showed a 28% increase of agency staff subscriptions to EnviroFlash indicating a positive environmental impact. But in recycling, data was limited so the MPCA is taking over collection of data statewide. Forms will soon go out to some agencies to get FY10 and FY11 data. An intern will help Cathy reconstruction data from all agencies for 2009-10.

Data is based on a state fiscal year basis. This is evolving to an e-reporting system to be used by counties and other local government eventually in about one year.

Cathy urged agencies to begin work on solid waste compliance. Also, be sure that your haulers collect data if not using the state resource recovery contractor.

Buildings: Energy Conservation and Renewable Energy reporting – EC 11-12

Buildings, Benchmarks and Beyond (B3) is where state agencies are putting data. The Real Property Governance Team is responsible and led by Administration. A chair will be elected and the team will be staffed by Department of Administration.

Environmental Preferable Purchasing

Items listed in left column of slide have green aspects; those on the right have green aspects but not data yet. The dollars spent on grant contracts indicates lots of funds spent on computers but the majority meet the EPEAT standards. Over fourteen percent spent was for remanufactured toner cartridges, for example, but it represented 60% savings by purchasing these over new. (Cathy notes that staff may resist these but in blend tests, there was no difference in quality.)

Grainger data shows that 14.4% of state agencies expenditures went for green products.

Reena asked and was assured that warranties are valid so there should be no warranty issues.

Adaptations

Better data collection and expanding to new contracts: The PCA got a Sustainable Materials Management grant that will result in 2-3 additional contracts with environmental specifications.

Recycled content paper purchase is up by .01%. Agencies purchase virgin but the cost difference is so slight that they can buy recycled content. We need to work with Administration to learn why people don't purchase recycled content.

Next Steps

- Consider amending targets to other areas since IPPAT exceeded its recycled paper and toner cartridge goals.
- Work with Commerce on how EO 11-12 (energy) and IPPAT will work together.

Presentation – “Holistic Sustainability Assessment Project in St. Louis County” by Nancy Shultz and Laura Malwitz of Compass Rose with Tony Mancuso and Erik Birkeland – Property Management Division of St. Louis County, MN.

Nancy explained their business strives to

1. Design in building best management practices (BMPs)
2. Retrofit existing building to make them as energy efficient as possible.

They do this as a portfolio – wide area effort—leveraging resources most effectively. Two thoughts:

1. Data-driven process to give quick, sound decisions – give the decision makers the information they need to make a sound decision and the implementers the plans to make it happen.
2. About asset-preservation that includes a) cost and energy savings; b) asset preservation (life cycle analysis)/ extend building life; c) improve health and safety; d) community-wide benefits such as job creation.

Laura explained how this is a different process. Integrated/whole systems means that all systems are reviewed in an aggregate. How changing a light can have trickle-down effect (see slide – “Integrative Process”). When we change one system, it affects all others it touches.

For not much more, this process delivers much more positive impact.

Slide – current use of energy in US buildings. Shows we're doing well with low hanging fruit like changing lights, but we need to achieve further savings to meet standards such as MN Executive Orders, Federal mandates, CIPs, etc.

Example – system of piping (Rocky Mountain Institute idea). Change from 90 degree angles into “Y” shape pipes to raise efficiency of flow. Re-design by taking blinders off.

Opposed to acting in a reactive mode when it comes to facility management, this process puts the facility managers in control and in a proactive mode - Fix the roof before it caves in.

Gathered data

They reviewed 187 buildings doing rapid-fire facility assessments. (LCA systems; age of building-enter into special software for Duluth, Hibbing, Virginia locations. They gathered energy data at same time as looking at structure. Summary shows what needs improvement and what it will cost (similar to bundling project)

--“select all projects to give 30% savings.”

--Marry energy with facility conditions index (like windows). (Team of architects/engineers/energy experts conduct facility assessments with county staff to get to know the characteristics of ea. facility)

--Then analyze funding scenarios

“FCI” (facility condition index) is based on replacement value and is based on a 0-1 scale. 0= a completely dilapidated building; 1 = a building in like-new or new condition. Use the FCI to see how certain bundles of projects will improve a facility; or how not doing certain projects will shift a facility's FCI to 0. See how FCI changes if fixed.

Funding Scenario (slide)

Compare 3 funding scenarios for 1 building and about 13 million of needed improvements over 20 years:

1. If we invest 150,000 per year for the next 20 years, the building will be at an FCI of 1 and will need to be replaced. This results in over 20 million in deferred maintenance costs.
2. If we want to improve the building to like-new condition (FCI of 0), and pay as we go (do all necessary projects when they need to be done), SLC would have to conduct 10+ bonds over the 20 year period – this is not realistic for their bonding schedule.
3. Use the 15,000 per year plus bonding capability - align projects with the bonding cycle, SLC can conduct all projects over the 20 year period and bond only 4 times. This is the best scenario for SLC, its board, and the building. They know exactly what projects to conduct, when to conduct them, how much the projects will cost, and what energy savings to expect.

SLC can also tap into state programs such as PBEEEP. This shows how when some systems are let go, it impacts rest of system. Note: 99% of the buildings are county owned in this case. This identifies where something must happen.

The analysis is paid for by starting with big buildings so it's possible to use operation levy funds. The software tool SLC uses is web-based and access is easy. Hiring a team (CR) was also very affordable.

SLC and CR use the VFA software tool; however, counties and cities can use whatever software tool that works for them – it has to be a robust tool. Same tool was used on Capitol and Governor's Mansion. Data can match up with ARCHIBUS, Xcel, B3, etc.

Good idea to do a pilot

Brainstorm with county after data is collected to create plan of action, so one can then pick and choose a project(s) that makes the most sense. E.g., found they could get 68% savings that amounts to about six million dollars/year in one building only. **Note – this is a stretch goal, but it's good to know what savings are achievable in case the opportunity arises to implement all energy saving projects.

Not all projects are mechanical. For example:

Look at behavior changes.

For example, Virginia Courthouse – keep windows closed in winter became a solution. Come up with a small lock only for winter. Also, they placed information on intranet page to show how closing blinds are having an impact and this kind of sharing results in occupant buy-in.

It's a dynamic county-wide process that they could use to deal with the next crisis such as water, recycling, etc. The county could get \$8.4 million in savings across the 3 buildings summarized in the presentation.

Tony Mancuso, County Property Management Division

The state and county have some problems. Getting buy-in from people will be tough. The county is conservative, so they looked at the four "Rs": Right, realistic, return on investment and a little bit republican." Government should provide leadership; set the bar.

He said that the order to follow is conservation, efficiency and then new. It all comes back to funding. Must have a plan; plan must have benchmark. It's like acupuncture but not addressing the whole system.

To address staffing challenges, SLC made a new position and Erik joined the team seven months ago as Capital Planning Manager. CompassRose brought Asset Management examples. Decision makers want reports, data, charts and plans. County took chances and the Board has supported this effort.

The process of managing facilities in conjunction with energy strives with a staff member/consultant to be the inner champion.

IT – 1800 computers. They used a software program to put "sleep mode" on. Studied data and asked them to shut down computers centrally at night (saved \$72,000).

Green Roof on parking ramp building grows sedums on half the roof and the other half is recycling rubber tire pavers and raised beds. Low, flat building resulted in greatest energy savings. Energy/heating bill went down 100%. New building roofs will be white (cooler). Air conditioning HVAC on roofs means there's potential for savings.

Presentation – “Toxics Reduction in Fleets Using Green Star-Certified Mechanical Facilities” by Wayne Cavadini, DNR.

Wayne reported that forty percent of maintenance is done in these four shops around the state. They recycle four products: oil, solvents, batteries and cleaners. They work on ATVs, tractors, dozers, trucks etc. In the past month they've gone to changing oil at 5,000 miles. All mechanics have ASE certification All shops are now Green Star certified and get an audit annually.

They recycle tires, changed from lead to steel wheel weights and now require recycled components.

ATVs with tracks mounting capability are being purchased that take the place of an ATV and a Snowmobile. They install the tracks for winter snow groomer capability.

The agency is ordering new equipment that uses diesel versus gasoline whenever possible. The agency is also increasing the length of time between oil changes (from 3000 to 4000 miles) to reduce the generation of old oil. At the same time they are changing out windows and going with energy efficiency and adding additional insulation.

Snapshot: In the DNR Central Office in CY 2011 the following occurred:

- 1600 shop jobs completed
- 15 gallons of solvent recycled
- 680 lbs. lead acid batteries recycled
- 30 lbs. oil sorbent used and recycled
- 260 gallons of oil recycled

Barrels for collection are close and convenient for recycling.

Jackie from DOT asked how to begin and Cathy suggested that she should hook up first with “First Link” from the MPCA assistance group.

Training Announcement

Chris Guevin promoted the “Building Operator Certification” (BOC) trainings, noting that they will be taught in Levels 1 and 2. Level 1 courses are set up from April through July 2012. Cost per person is \$1200 and the deadline to register is April 11. Online registration is at www.boccentral.org 312/784-7269.

Building operator is defined as “physical plant or plant maintenance supervisor.” This course is required under EO 11-13, and half of building operators must be trained.

Make your best judgment as to what would work for you. Have building operators know how to operate efficiently in addition to sound, efficient construction. For example, one person oversees

three leased building (e.g., PCA, DNR and DHS). This is an effective way of getting at low-hanging fruit in many more state buildings.

Optional Facility Tour in June

Date selected for the optional tour of Waste Management's TC's Sorting Facility is Thursday, June 21, 2010. Details to follow.

Next Meeting: May 24, 2012

Attending:

Auer, Ken - DMA
Birkholz, Ed – Metro Transit
Cavadini, Wayne - DNR
Christenson, Gene – UMN
Countryman, Linda - MPCA
Guevin, Chris - Admin.
Jost, Mick - MNTAP
Keegan, Tim - MCES
Klein, Jackie - DOT
Nevala, Mike - MCES

Johnson, Steven – DEED
Ledermann, Jeff – MDE
Maki, Steve – Metro Sports Commission
Moeger, Cathy - MPCA
Potter, Edward – DLI
Sierks, Bill - PCA
Solheid, Reena - DOC
Specht, Gordon - Admin.
Wirkkunen, Roger – Rev.