

**Summary Minutes
Solid Waste Management Advisory Council (SWAC)
August 21, 2008
Lazarus Government Center
50 W. Town Street
Columbus, OH 43215**

The Following Members Announced Their Attendance at Roll Call:

Eilert Ofstead, Statewide Environmental Advocacy Group
Erv Ball, Health Departments
Jack Jensen, Municipalities
Brad Biggs, ODOD
Ralph Jennings, Townships
Chris Jacobs, Joint County SWMDs
Thomas Ferrell, Counties

Everyone was welcomed to the meeting by Andrew Booker, with Ohio EPA's Division of Solid and Infectious Waste Management (DSIWM). Mr. Booker mentioned that five SWAC members were reappointed and two new members were appointed. Chris Jacobs, with the Carroll/Columbiana/Harrison SWMD was introduced. He has replaced Tim Wasserman as the Joint County SWMD representative. Not present was Joe Denen with the city of Washington Court House. Mr. Denen replaces Karl Graham as a municipal representative.

It was noted that there were copies available of the Office of Budget and Management's new travel policy. The mileage reimbursement for SWAC members has increased to 50.5 cents per mile.

Review of the February 21, 2008 and May 15, 2008 meeting minutes

Approval of the meeting minutes from May 15 and February 21 will have to be postponed until the next meeting because there was not a quorum present.

DSWIM General and Legislative Update

DSIWM will be refilling the Fee Rules with JCARR in the near future. Also, The C&DD rule drafting is progressing. Ohio EPA anticipates that the rules could be in the JCARR process late this year, but more likely 2009. It was mentioned how DSIWM is an active participant in the State Debris Management Plan. The beneficial use rules package is making significant progress as well.

Composting and Food Scraps Update

Joe Goicochea, with Ohio EPA –DSIWM, provided a presentation outlining the recent advances in food scraps diversion, specifically Ohio's perspective. There have been a

lot of efforts to capture the largest, least recovered segment of the solid waste stream. A pie chart depicted the breakdown of a typical waste stream, with food scraps comprising 11.7 percent. An audit of university waste streams showed that food waste can account for up to 26 percent of the waste stream for these institutions.

When the initiative was started to target food scraps, an interagency partnership was created between Ohio EPA and ODNR. The first step was to identify who the stakeholders would be. The Ohio Food Scraps Recovery Initiative provides needed education, facilitates partnerships and helps to identify funding to projects throughout Ohio.

Stakeholder meetings have been held with haulers, composters, SWMDs, and grocers among others. Barriers were identified including infrastructure, hauling, collection, and disposal costs. A map showed how Ohio has one of the lowest tipping fees in the region, which does not provide much incentive economically to divert waste. It was noted that there are only a few facilities that are set up to compost food waste in Ohio. There are some major municipalities that have to go outside of the 50-mile radius that is preferred for economic feasibility. However, there are more facilities that are expected to be operating in the near future.

The Ohio Grocers Association (OGA) has developed an environmental task force to look at issues such as food waste diversion, but intends to look beyond that particular waste stream. The task force meets quarterly and has an environmental conference planned as well as a composting pilot project. They are also developing a training manual for use at supermarkets. Kroger pilot project involves 24 stores. They have provided significant training for the employees in their produce, deli, bakery and floral departments. The challenges faced are the time commitment required for a successful program and the amounts of contamination found in the waste stream.

The presentation provided several success stories for food waste diversion. The Ohio State Fair targeted pre-consumer waste in 2006 and expanded in 2007 to include compostable service-ware and post-consumer waste. Many colleges and correctional institutions are moving to capture the waste from their cafeterias as well as other sources. The Hamilton County SWMD has responded to interest from the business community in the county and now is holding regular stake-holder meetings to evaluate the needs and challenges for the area.

The focus on composting is great, but it is only a part of the solution. Many food banks exist that can reuse much of the waste that would otherwise be landfilled. Anaerobic digestion is being used to produce energy. The technology targets high energy feedstocks and is being used in a variety of settings. The technology has been used for 100 years and produces three byproducts: liquid, solid (digestate) and methane. Today, laboratories are used to calculate the optimal ratios and requirements for the operation to achieve energy production. The partnerships and projects will continue and the interest continues to grow.

Chet Chaney, with the Ohio Department of Natural Resources (ODNR), provided an additional presentation to focus on more details of the food waste projects in Ohio. The OGA project has three supermarket chains involved: Howards, Fresh Encounter, and Dorothy Lane. The pilot program has led to a draft of a composting and diversion guide that will be available to all OGA member stores by 12/31/2008. Also, efforts are being made to coordinate a regional taskforce in the Cleveland area amongst OGA members.

The Kroger project mentioned earlier involves stores in the Columbus Division of the company. The materials are transported to one of two Class II compost facilities (Paygro - Garick Corporation and Barnes Nursery). Prior to the project, 21 stores used both compactors and 8 cubic yard (CY) containers for waste and three stores utilized 8CY containers only. The compactor stores have converted their existing compactors to food material and their 8CY boxes for waste. WMI and Rumpke have reported that 167 tons of food material have been collected and composted as of August 15th.

The Hamilton County Taskforce began meeting May 21, 2008 and had a follow-up meeting on June 30, 2008. Participants include Biggs, Whole Foods, Cincinnati Zoo, Findley Market, University of Cincinnati, Cincinnati State University, Christ Hospital, Children's Hospital, St. Elizabeth Medical Center (KY), Proctor & Gamble and the Greater Cincinnati Health Council. The short-term goal is to develop a material (recyclables/compostables, waxed OCC and bio-solids) generation database and the long-term goals are to develop active route density and establish a Class II composting facility in the Greater Cincinnati area.

The food waste project at the State Fair was discussed. The project was conducted at the State Fairgrounds (Rhodes Center, Ranahan's Restaurant and the Ohio Building – Taste of Ohio) between July 30 – August 11, 2008. It was a joint effort between OEC, Concessions by Cox, Paygro, SWACO and ODNR. The project included the purchase and placement of collection containers, signage and volunteers and a special addition was the purchase of biodegradable plate-ware, utensils and cups. Paygro serviced 25 containers, and collected 3910 pounds of food waste with a low level of contamination.

Mr. Chaney then provided information on grants that have been awarded in Ohio that relate to food waste diversion.

- Barnes Nursery, located in Huron, received a 2005 USEPA Demonstration Grant (\$15,000) for waste audits and consulting services and 2007 Special Assistance Grant (\$250,000) for the purchase of a horizontal feed processor, grinder and bagging unit.
- Kurtz Brothers, located in Columbus, received a 2007 Market Development Grant (\$250,000) to cover expenses related to the purchase of an anaerobic digester with an annual capacity of 40,000 tons.
- Ohio University, located in Athens, received a 2007 Market Development Grant (\$250,000) and is intended for the purchase and installation of an anaerobic digester with an annual capacity of 4,800 tons.

- Paygro, located in South Charleston, received a 2006 Market Development Grant (\$250,000) and 2008 Market Development Grant (\$250,000). The grant funds are targeted at the purchase of two grinding units, a radial stacker conveyor and two service vehicles for 95 gallon toters.
- Sagamore Company, located in Hudson (Akron area), received a 2008 Market Development Grant (\$250,000). Project costs will include the purchase of a grinding unit, a conveyor, screening plant and material loader.
- Wood Water Services, located in Bradner (Bowling Green area), received a 2008 Market Development Grant (\$250,000). Grant funds were awarded for the purchase and installation of an enclosed vessel anaerobic digesting system.

It was commented how it was good to see different agencies combining their efforts for the food scraps initiative and it was reiterated that Ohio's low landfill tipping fees are the biggest hurdle to widespread success. It was noted that the large producers, such as Campbell's or Frito-lay, need to be involved as well. The lack of infrastructure in the southeast part of the state is another hurdle

Overview of the Brown County Solid Waste Authority (BCSWA)

Dan Wickerham, coordinator for the BCSWA, provided information on the programs and recent advances in solid waste management in southern Ohio. Brown County has a population of 44,423 and is the 8th Fastest growing county in Ohio. Sixty percent of the land is used for agricultural purposes and an additional 36% is forested. There are only 931 industrial jobs and the three largest industries represent 67% of those jobs. To summarize, the area is a rural part of the state with a lot of farming, including a lot of tobacco.

The basic solid waste information was provided. Important to note is that the BCSWA has one landfill, owned by Rumpke, within its borders. Approximately 43,000 tons of waste are generated annually and a 22% overall recycling rate has been achieved. The BCSWA's solid waste plan is approved under the "access" goal. Uniquely, every incorporated village has curbside recycling service and an additional ten drop-off sites are available for rural recyclers. The BCSWMA has a close relationship with Adams Brown Recycling (ABR). ABR provides the recycling services for all the programs listed, as well as the programs within Adams County and elsewhere. ABR is a private non-profit organization that is a division of the Community Action Agency. The BCSMA's fees for the waste disposed within the county are \$1.50 for in county waste, \$3.00 for waste generated from elsewhere in Ohio, and \$1.50 for out of state waste. This generates approximately \$485,000 per year, with ninety percent of that revenue coming from waste generated outside of Brown County.

The Rumpke Brown County Landfill has plans for a large expansion in the near future. The landfill currently occupies 72.5 acres and the expansion would cover up to 281 acres. The infrastructure is already in place to allow for larger volumes to waste. Currently the expansion permit is under review and has experienced some delays

because of some wetlands that will have to be replaced. The public has recently turned out in larger numbers to oppose the expansion, especially since they were made aware of that most of the waste would be coming from Montgomery and Miami counties.

Mr. Wickerham discussed the improvements recently made to the ABR material recovery facility (MRF). The MRF was expanded to increase processing efficiency and allow them to receive an expanded paper stream. Before, only newspaper was collected. Now they collect a mix of newspaper, cardboard, office paper, magazines and books – hopefully doubling the amount that will be collected annually. The MRF is not automated, so it still requires a substantial amount of labor for processing, but the whole process is more stream-lined.

The unique operation of the Glass Refractory was described. The on-site facility allows for different colors of glass bottles to be separated and melted in a kiln. The facility creates sun-catchers, among other glass products, to be sold and to promote the use of recycled glass. This operation has proven to be quite popular.

The BCSWA also provides residents with special collection days. One day a year is for the traditional household hazardous wastes. On a second day, residents can drop off up to ten scrap tires, electronic wastes, and unwanted appliances, including those with refrigerants.

The BCSWA also provides a variety of other services. These include funding for township clean-ups, open dump and waste tire pile clean-ups, and litter law enforcement. Waste Audits are offered to area businesses as well.

It was commented that the residents of Brown County are seeing a lot of good things come from the money provided by the tipping fee at the landfill. The township clean-ups and litter enforcement are very strong and popular programs.

Waste to Energy in Ohio

Mr. Booker related that he gave a presentation at the recent SWANA conference in Cincinnati. The theme of the presentation was current issues in waste management and recycling. A good portion of that presentation focused on the issue of waste-to-energy (WTE). SWAC members have requested to discuss the topic of WTE and Mr. Booker has created a presentation to provide SWAC members with an overview of WTE in Ohio and to explain the relationship to the State Plan.

WTE has never been a major component of waste management in Ohio. Only four major incineration facilities have operated in Ohio, and only two of those were energy recovery facilities. At its peak in 1992, incineration accounted for eight percent of statewide disposal, or 1.3 million tons. As a result, 400,000 tons of ash were disposed that year.

There are a number of reasons why those facilities ceased operation and why no new facilities have been proposed for many years. One reason is the strong citizen opposition to incineration and another were the challenges to flow control and ensuring

adequate “fuel” for the facilities. The new federal emission standards required upgraded emission control equipment and became too costly compared to the abundant and cheap landfill capacity in Ohio.

Recently, several WTE proposals have been considered in Ohio. One proposal is a “traditional” incineration/energy recovery facility, two are gasification projects, and at least one for refuse derived fuel/pelletization projects. Also, at least five anaerobic digestion projects that could accept organic waste are either moving forward or being considered.

The “traditional” facility being considered is located in northeast Ohio in Mahoning County. The Central Waste Landfill near Alliance, Ohio is owned by TransLoad America Inc (TLA) and a rail infrastructure has been developed to the landfill to help facilitate waste being shipped from the east coast. TLA is partnering with Jefferson Renewable Energy to develop a WTE plant near the landfill. The proposed facility is to accept baled waste from the east coast and would allow for some processing/separation of material on site (mostly metal). The air permit for the facility is under review, but no applications have been filed for the required solid waste and surface water permits.

There are different refuse derived fuel and gasification projects being considered in Ohio. One is for engineered fuel that uses the plastic and paper portions of waste from a dirty MRF. The other is pelletization of waste for energy. The city of Cleveland is evaluating gasification of portion of their waste stream and second municipality is evaluating a gasification facility that would use tire derived fuel, at least initially.

Some of the anaerobic digestion projects are already underway. There is an existing facility in Akron that processes sewage sludge. It is designed to accept sewage sludge, waste cooking oils, as well as other materials and can take over ten percent solids. Facilities are being proposed in Columbus and Zanesville that may take other organic wastes. In addition, at least two facilities are proposed on farms to process manure, agricultural wastes, as well as other food wastes. Ohio EPA is anticipating increased interest in both traditional and innovational projects in the near future.

Mr. Booker explained how WTE fits into the State Plan. ORC 3734.50 specifies the content of the State Plan and it, in turn, is drafted to follow the statute. ORC 3734.50 Requires State Plan to:

- (A) **Reduce reliance on the use of landfills for management of solid wastes;**
- (B) Establish **objectives for solid waste reduction, recycling, reuse, and minimization** and a schedule for implementing those objectives;
- (C) Establish **restrictions** on the types of solid wastes disposed of by landfilling for which alternative management methods are available, such as yard wastes, and a schedule for implementing those restrictions. . . .
- (D) Establish revised general **criteria for the location of solid waste facilities;**

(E) Examine **alternative methods for disposal of fly ash and bottom ash** resulting from the burning of mixed municipal solid wastes;

(F) Establish a statewide strategy for managing **scrap tires**, which shall include identification of locations within the state that qualify as scrap tire facilities and accumulations. In developing the strategy, the director shall examine the feasibility of recycling or recovering materials or energy from scrap tires and landfilling scrap tires in abandoned coal strip mines as well as other methods for managing scrap tires.

(G) Establish a strategy that contains specific recommendations for legislative and administrative action to promote **markets for products containing recycled materials** generally and for promoting the use by state government of products containing recycled materials;

(H) Establish a program for the proper separation and disposal of **hazardous waste generated by households**.

Currently, the State Plan does not address WTE directly nor does it address Waste Combustion directly. It does assume incineration is a component of state infrastructure. ORC specifies to “examine alternate methods of disposal for fly ash and bottom ash resulting from the burning of mixed municipal solid wastes. . .” The State Goals give “credit” for incineration/energy recovery.

The “Waste Management Hierarchy” was referenced, which is part of the US EPA waste management model. This hierarchy is supported by Ohio EPA and is implicit in the State Plan. The hierarchy, from most preferred to least, is source reduction and reuse, recycling and composting, combustion with energy recovery, and the last tier includes incineration without energy recovery as well as landfilling.

The current dynamics affecting WTE technology were examined. The positive dynamics include favorable “Energy Economics”, a desire for domestic sources of energy, more attention on greenhouse gas emissions, and increased interest in alternate technologies. The challenges faced include the large capital costs, ensuring the required waste volumes (throughput), and the emergence of other competing technologies. There are few large-scale examples operating to demonstrate the effectiveness of the new technologies and the biggest challenge, especially in Ohio, is the numerous cheap disposal options that are available.

To summarize, SWAC will be well informed on WTE projects in the future. Presentations are planned to examine different projects and technologies in Ohio. Relating to the State Plan, the revision will include a more direct recognition of waste management hierarchy as well a discussion of changing economics and new proposals. Also, more information on WTE technologies will be included.

Mr. Ball said he appreciated the agency’s perspective. WTE was brought up as an agenda item and he is glad to hear conversation concerning the topic. Mr. Ofstead mentioned the Governor’s alternative energy plan and how biomass is specifically

mentioned in it. He also said he understands that the Cleveland project fell apart because it was a small engineering company and they didn't have the funds necessary¹. Mr. Ofstead asked what amount of resources the Agency might have to focus on WTE topics. Mr. Booker replied that currently there are no employees dedicated to that specific topic. The Ohio EPA does not necessarily issue policy statements supporting one technology or method over another. A company has to meet many design and operational requirements as well as securing all the applicable permits for any facility, whether it is for a landfill, biogas or waste incineration facility. Ohio EPA enforces and ensures compliance with those standards. SWAC should take a balanced approach to all technologies, being cognizant of WTE as an emerging option and address it accordingly.

Terry Termeer, with ODNR, mentioned her agency is keeping an open mind about new technologies such as WTE. She also mentioned they are putting together a conference relating to the subject this fall. She felt that the three agencies represented on SWAC (ODNR, Ohio EPA and ODOD) could help get the subject on the table quicker. She will email the conference information to Matthew Hittle, with Ohio EPA, to distribute to SWAC members.

State Plan Update

Ernie Stall, with Ohio EPA – DSIWM, gave a presentation on the outreach goal for the State Plan. The mission is to revamp the education and awareness goals. The current education and technical assistance goals have been in place since 1995 and are very basic. Education and outreach professionals are assisting with this effort.

The revamped outreach goal has several purposes. First, it is to set a minimum standard while still maintaining flexibility. The focus of the "educational" efforts is changing to promoting awareness to changing behavior. Also, the intent is to make the planning process more meaningful and useful.

In December 2007, Ohio EPA convened a focus group of education professionals to provide recommendations. The group recommended addressing five different target audiences having mandatory outreach programming and recommended best practices as well. The five target audiences are residential, commercial/institutional, industrial, schools and community/political leaders. The mandatory/standard programs for each SWMD included a web page, a comprehensive resource guide, an inventory of existing infrastructure, and to have a speaker/presenter available.

The focus group outlined some best practices for SWMDs when developing their educational efforts. First is to know the infrastructure and ensure that outreach efforts are in context of available/unavailable infrastructure. In other words, don't encourage an activity if the infrastructure necessary to support doing the activity does not exist. Recommendations were made to develop and implement outreach effectively.

¹ Later, information revealed that this project was not discontinued and was still being actively pursued. (from communication with E. Ofstead dated 11/23/08).

Measurable outcomes are necessary to evaluate whether goals are achieved. It is important to understand that different audiences have different needs. The focus should be on changing behavior not just promoting awareness. Also, a consistently and frequently repeated message is helpful.

The focus group also provided other recommendations. Each SWMD should develop an outreach and marketing plan. The group also recommended language for the goal in the state plan as well as recommending a compilation of model programs. Model programs are programs that have been successful in other SWMDs at increasing recycling. When developing the outreach and marketing plan, the SWMD will have the option of selecting "model" programs from a compendium of programs that have been proven to be successful or developing their own programs. Regardless, they will use the best practices when selecting or developing their programs. Ohio EPA convened a second focus group with the purpose of identifying model programs on August 7. There they brainstormed a list of potential model programs.

The next steps to take are to first investigate additional programs. Recommended programs will then be evaluated and the focus group(s) will be utilized to determine which programs will be presented as model programs. Those recommendations will be presented to SWMDs for input and then SWAC. Summaries will then be prepared of those model programs. Preparation of the model program summaries can continue even after the state plan is adopted. It was noted that the process of using a focus group has been satisfying. The concept of model programs has received good feedback from people.

Mr. Stall then distributed copies of two revised chapters of the State Plan for SWAC members to review prior to the next meeting. Chapter IV focuses on restrictions on the types of solid waste disposed. Chapter VIII concerns programs for managing household hazardous waste. SWAC members will be asked to convene for an extra meeting so that the state plan revision process can keep up to schedule. The tentative meeting date is October 23, 2008. The discussion will mostly focus on the SWMD goals.

Agenda items for the November 20, 2008 meeting

WTE technologies will be examined, such as Jefferson Renewable, Kurtz Brothers, and hopefully US EPA. State Plan update will progress depending on what is achieved at the October 23rd meeting.

Respectfully submitted: _____
Erv Ball, Vice Chair

Minutes approved on: _____

Certified by: _____
Kathy Trent, Secretary