

#### **Field Trip # 4: To Hamilton County Department of Environmental Services (HCDOES) Lab**

Hosts: Mr. Keebler Holly, Solid Waste Management, Ms. Anna Kelly, Air Quality, and Ms. Christina Boss, Air Quality

Date: July 20, 2010

Time: 9:00 AM -12:00 Noon

Venue: Hamilton County Department of Environmental Services Lab

Prepared by:

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This field trip was facilitated by Mr. Keebler Holly, Ms. Anna Kelly and Ms. Christina Boss of the Hamilton County Department of Environmental Services. The field trip took place at the Hamilton County Department of Environmental Services Lab. First the hosts discussed their organizations function, their individual responsibilities and resources and opportunities available for teachers through the Hamilton County Department of Environmental Services.



**(Left to Right) Mr. Keebler showing RET participants a compost bin, Ms. Kelly presenting to students, and roof top air monitoring instruments shown by Christina Boss**

The morning began with a presentation by Mr. Keebler Holly. Mr. Holly explained resources available through Hamilton County Environmental Services for teachers. The first program he explained was the Recycling Assistance Program (RAP) which was started in schools in 2005 to assist schools in beginning and maintaining sustainable school recycling programs. Schools that enroll into the program are part of either Gold or Silver level, field trips and grants are available to schools that are a part of the program. The second program Mr. Holly spoke about was a School Waste Reduction Grant available for up to \$5000 a year. Teachers submitting for this grant must focus on reduces, recycle, and reuse. Applications for this grant were provided to all the teachers attending the field trip. Mr. Holly then spoke of the professional development available to teachers that focus on solid waste management. Some programs can even be taken for credit through UC. Some partners of these professional development opportunities include: UC, Rumpke, Abitibi, and the Cincinnati Zoo. The Hamilton County Department of Environmental Service also has classroom outreach program focusing on recycling,

reducing and reusing. Schools must be at Gold level in the RAP Program to be subsidized; programs are aligned with the Ohio standards and are for grades K-8. Field trips are also available for Gold level RAP member schools with a bus provided. Mr. Keebler has also put together a newsletter for teachers, Spencer's Team News, a twice yearly newsletter that focus' on solid waste, this is available online only as a way to save paper waste.

The next presenter was Ms. Anna Kelly from the Air Quality division of Hamilton County Department of Environmental Services. She focused on the different air pollutants that are monitored at the facility, this included: ozone, nitrogen oxides, sulfur oxides, particulate matter, mold, and pollen. After her short presentation, RET participants were taken to the labs where particulate matter, molds and pollens are analyzed. Counts for these items must be calculated and published by 10:00 AM every morning. Real time information is available at [airnow.gov](http://airnow.gov). Teachers were able to examine filters used for particulate matter and observe mold and pollen spores under a microscope.

When done in the lab, the teachers were taken by Ms. Christina Boss to a room that houses ozone and nitrogen oxides. All equipment in the room had internal pumps that pulled in air from an inlet on the roof for examination. For comparison of data purposes all samples recorded are documented using Eastern Standard Time. Once teachers were done looking at the equipment they were able to go to the roof and be shown the equipment for collecting particulate matter, mold and pollen that was examined in the lab.