Message

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Sent: 12/7/2017 3:54:18 PM
To: Weekly Report Group [Weekly_Report_Group@epa.gov]
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Subject: ORD Weekly Report Dec. 7
Attachments: ORD weekly Update Dec 7.docx

Administrator,

We had a productive call last week with the ECOS ERIS board as part of our regular collaborative efforts on cooperative federalism. We also continue to provide support to Region 5 on the PFAS issue with the Wolverine tannery site in Michigan.

Hot issues

ORD Supporting Vermont Ricin Response

Betty Miller, a 70 year old resident of the Wake Robin retirement community in Shelburne, VT (suburb of Burlington) was arrested after she admitted to making ricin and then testing its effectiveness by putting it in the food and beverages of three other residents of the community. Ms. Miller stated that she made ricin to poison herself. This weekend, EPA was asked to prepare to clean up Ms. Miller's residence. ORD was asked by the Office of Emergency Management's CBRN Consequence Management Advisory Division to provide technical support related to analysis of surface samples that are anticipated to be taken this week. ORD helped select the sample processing and analysis method, using its expertise to assist in a method that met the sensitivity and selectivity requirements with the sample analysis cost and time. ORD recommended use of its "Sample Processing Approach for Detection of Ricin in Surface Samples" and will provide technical support to the laboratory analyzing the samples, likely Edgewood Biological and Chemical Center, in the coming days.

Integrated Science Assessment on Sulfur Oxides

The Integrated Science Assessment (ISA) on Sulfur Oxides is due to be released in early December. The document has been revised in response to comments from the Clean Air Scientific Advisory Committee (CASAC) and the public, and the CASAC review is now complete. A court-ordered schedule requires that the final ISA be issued no later than December 14, 2017, and ORD is on track to meet this deadline.

Region 8 Technical Support on Arsenic in Yellowstone Pubic Water System

Yellowstone National Park has naturally occurring arsenic in their public water system (Old Faithful Water System), which provides water to about 900-5500 people in the park per day. Region 8 contacted ORD for assistance in reducing the arsenic levels below the maximum contaminant level. On December 6 ORD participated in a call with Region 8 and the Old Faithful Water System Operator to review the water system's arsenic removal plan and schedule.

Technical Support Request from U.S. Army on Lead Sampling

The Drinking Water Quality Branch of the U.S. Army Public Health Center contacted ORD regarding a lead sampling effort, requesting ORD's involvement and expertise. The Army has been collecting drinking water samples for lead in schools, day care centers, and some housing on bases and, as of the end of FY17, they have over 17,000 samples.

Upcoming public events

Interagency Meetings on Oil Pollution Research, Washington, DC
On December 12, ORD, OLEM and OITA, will participate in a meeting with representatives from Canada's Department of Fisheries and Oceans (DFO), including Ken Lee, National Senior Science Advisor for Oil Spills Research, Preparedness and Response, and Patrice Simon, Director of DFO Headquarters. The purpose of the meeting is to discuss formal inter-governmental partnerships between EPA and DFO Canada for oil spills research. On December 13-14, ORD will attend the quarterly Interagency Coordinating Committee for Oil Pollution Research (ICCOPR) meeting to deliver FY18 research product updates and meet with OLEM at the U.S. Coast Guard headquarters.

Meeting and Visit from China Ministry of Environmental Protection
Next week, EPA's Research Triangle Park facility is hosting officials from the Chinese Ministry of Environmental Protection and the Nanjing Institute of Environmental Sciences. The December 11-13, 2017, visit is part of continuing meetings to respond to the interest of Chinese officials in how EPA is structured and, particularly, in how research laboratories are organized to support the important statutory missions of the Agency. Presentations and tours will focus on U.S. chemical risk assessment and risk management, including EPA research laboratory contributions to implementation of the Toxic Substances Control Act and other statutes.

Last week Highlights

Update on ORD Support to Region 6 and OK-DEQ on Dewey, Oklahoma Response
EPA Region 6, ORD, and Oklahoma Department of Environmental Quality (DEQ) have been working together in response to multiple cases of girls (ages ~14-18) falling ill in Dewey, Oklahoma. While the cause for their illnesses is unknown, EPA Region 6 was asked to perform a series of environmental tests at their high school. ORD previously provided advice regarding selection of methods to analyze metals, semi-volatile organic compounds, and pesticides in water and air and pesticides on surfaces. ORD is currently supporting Region 6 through review of the data they collected through air and surfaces wipes and is ready to provide additional assistance, specifically interpreting and developing Regional Screening Levels through their Superfund Technical Support Center, if needed.

Prescribed Burn Video Presented to State Environmental Directors: A picture is worth a thousand words. That may be the case with video of research to measure emissions from prescribed burning of Tallgrass Prairie National Preserve in Flint Hills, Kansas. The footage was requested by Region 7 for ORD to share at a meeting on Dec. 6 with State Environmental Directors for Kansas, Missouri, Iowa and Nebraska.

Dover Health Impact Assessment (HIA) Project Meeting
On November 28, the EPA Leadership Team for the Dover, Delaware Rapid HIA Project met with state, county, and academic partners. This project explores the social, economic, and health benefits that could result from the redevelopment of a brownfield site in downtown Dover into a hydroponic/aquaponics mixed-use food production facility. At the meeting, a draft HIA report was presented and discussed and next steps for local partners were developed. Dover's Mayor, Robin Christiansen, joined the group after the meeting to greet and thank everyone for their participation. The Dover HIA Team extended their gratitude to the EPA Leadership Team for their work on the project and the draft final report.

Harmful Algal Bloom Grants Awarded
ORD awarded two grants for a total of $1.4 million for research supporting innovative research on the prediction, prevention, control and mitigation of freshwater Harmful Algal Blooms (HABs). This research also supports greater understanding in the drivers, life-cycle patterns, and fate of and effects from less-common, less-studied, and emerging freshwater HAB species and toxins. Grantees include:

1. Iowa State University for $760,000: This project explores genetic and environmental factors controlling the occurrence of HABs in Iowa's lakes. The project will produce tools and databases accessible and useful for state/local decision makers and managers dealing with HABs. This project improves monitoring and predictive tools targeting future cyanotoxin monitoring and mitigation efforts. Resulting research and tools may be applicable in other states.

2. Ohio State University for $681,343: The project is developing a watershed classification system to diagnose and manage HABs in the upper Ohio River basin. The focus of this project is to determine characteristics related to distribution, duration, and intensity of HABs and develop a classification system to predict and prevent HABs. The system provides a framework that can be used by managers as a standard part of watershed management, restoration, and risk assessment efforts.

These grants were awarded under the Freshwater Harmful Algal Blooms RFA. ORD is currently working with OPA for outreach and announcement opportunities.

Grantee Publication

Emissions of air pollutants that contain or are precursors of fine particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$) have declined over the course of several decades, following the implementation of local, state, and federal air quality policies. However, estimating the corresponding change in population exposure and $PM_{2.5}$-attributable risk of death prior to the year 2000 is made difficult by the lack of PM2.5 monitoring data. In a publication from STAR grantees at the University of Washington, a researcher at Seoul National University and an EPA staff scientist in the Office of Air Quality Protection and Standards (OAQPS), the researchers used a new technique to estimate historical $PM_{2.5}$ concentrations and estimated the effects of changes in $PM_{2.5}$ population exposures on mortality in adults 30 years of age and older, and on life expectancy at birth, in the contiguous United States during the period 1980–2010. The investigators estimated annual mean county-level $PM_{2.5}$ concentrations in 1980, 1990, 2000, and 2010. County-level death rates and national life tables for each year were obtained from the U.S. Census and Centers for Disease Control and Prevention. The researchers used concentration–response coefficients from previous studies to estimate changes in the numbers of deaths and in life years and life expectancy at birth, attributable to changes in $PM_{2.5}$. The results show that between 1980 and 2010, population-weighted $PM_{2.5}$ exposures fell by about half, and the estimated number of excess deaths declined by about a third. The States of California, Virginia, New Jersey, and Georgia had some of the largest estimated reductions in $PM_{2.5}$-attributable deaths. The researchers estimate that if exposures had been held constant at 1980 levels, people born in 2050 would experience an ~1-y increase in life expectancy at birth, and that there would be a cumulative gain of 4.4 million life years among adults 30 years of age and older. The investigators conclude by suggesting that that declines in $PM_{2.5}$ exposures between 1980 and 2010 have benefitted public health.