# Kentucky Division of Environmental Program Support

Annual Report

## Fiscal Year 2011

(July 2010 to June 2011)



September 2011

## **Energy and Environment Cabinet Department for Environmental Protection**

502-564-2150 and 502-564-6120 (Lab) dep.ky.gov/deps



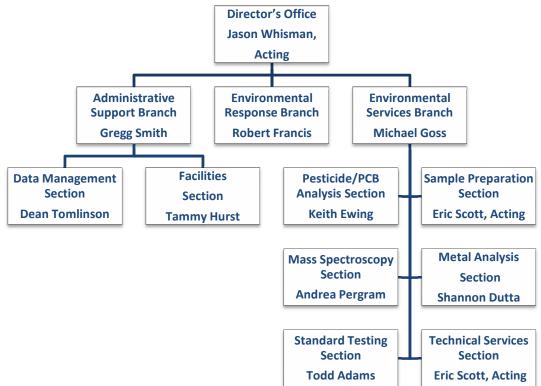
## DIVISION OF ENVIRONMENTAL PROGRAM SUPPORT

## **Introduction**

The Department for Environmental Protection (DEP) was reorganized effective June 16, 2008 (Executive Order 2008-531). DEP consolidated internal support functions for the department into the new Division of Environmental Program Support (DEPS). These functions included administrative functions, environmental laboratory services and environmental response team (ERT) functions. As a result of the reorganization, the former Division of Environmental Response Section in the Commissioner's Office was changed to a branch in the new division.

## **Division Structure**

The Division of Environmental Program Support is composed of three Branches – Administrative Support Branch, Environmental Response Branch and Environmental Services Branch. The Environmental Services Branch is located at 100 Sower Boulevard in Frankfort in the Central Laboratory Complex. The other two branches are located at 300 Fair Oaks Lane in Frankfort.



## Administrative Support Branch – Activities and Accomplishments

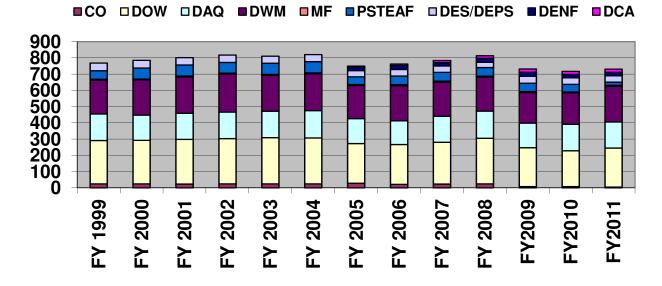
The Administrative Support Branch (which includes the Data Management and Facilities Sections) is responsible for personnel management, budget activity and financial reporting, inventory coordination, printing, communication services (telephone systems), facilities management, mail processing, coordination of grant activities and memoranda of agreement, federal and state statutory and regulatory reporting functions, and information technology (IT)

functions for the department. IT activities include the development and implementation of computer systems, software packages, and database structures; system support services for multiple systems; and coordination and oversight of the TEMPO (Tools for Environmental Management and Protection Organizations) enterprise for the department.

## Human Resource Management

#### Filled Positions

The current number of filled positions within DEP as of the beginning of July 2011 was 738. The FY2011 budgeted personnel cap was 766 positions, although the budget reductions do not accommodate this number of filled positions. Historically, DEP's highest number of filled positions was in FY2003-2004 with approximately 821 positions filled and a budgeted personnel cap of 851.



## **DEP Filled Positions**

## Employee Awards

Due to budget constraints, ACE and ERA Awards continue to be suspended within EEC. On January 21, 2011 the Department held an Employee Awards Program to recognize outstanding employees and employee units (branch, section or program) for Calendar Year 2010.

#### Energy and Environment Cabinet Scholarships

The scholarship program began in 1991 and scholarships are available to college juniors, seniors and graduate students in selected academic disciplines, such as engineering, geology and chemistry. The program is coordinated by the Kentucky Water Resources Research Institute and the scholarship student must agree to work full-time for DEP immediately after graduation. To date, DEP has awarded scholarships to 58 students. In May 2011, DEP awarded 2 students scholarships. Both students were sponsored by the Division of Water.

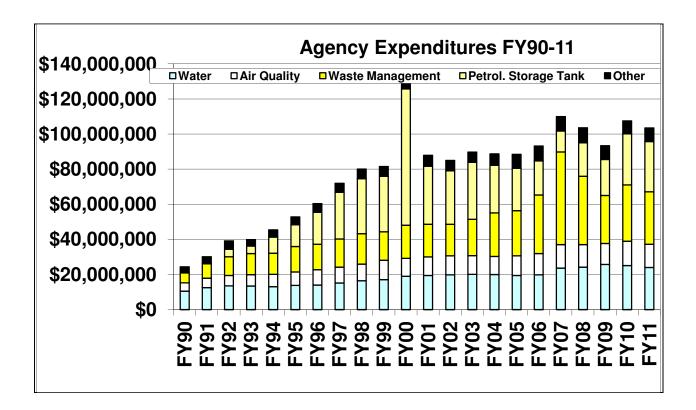
#### Recruitment/Career Fairs

No Division chose to participate in the fall 2010 or spring 2011 career fairs due to budgetary restraints. Divisions have indicated an interest in participating in the upcoming fall 2011 career fair.

## **Financial Management**

#### FY11 Budget

Prior to the beginning of FY2011, the divisions completed their FY11 operating budgets and submitted them to the Cabinet's General Administration and Program Support (GAPS) budget office. In September, department budget staff began work on the 2012-2014 biennial budget requests. The Cabinet's biennial budget request will be submitted to OSBD the beginning of November 2011.



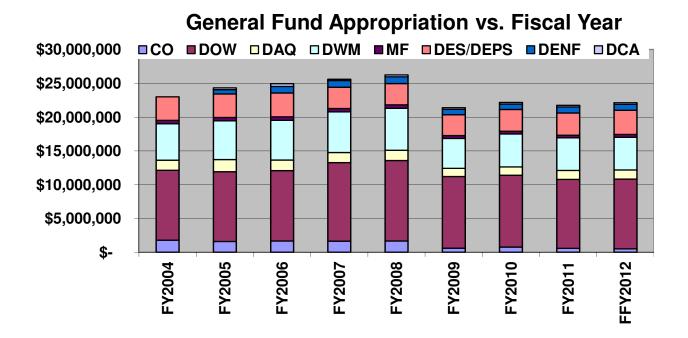
Expenditures by Unit	FY11
Commissioner's Office	\$528,214
Water	\$24,094,384
Air Quality	\$13,209,942
Waste Management	\$29,880,847
Env Services/Env Program Support	\$4,368,791
Maxey Flats	\$379,203
PSTEAF	\$28,244,430
Enforcement	\$1,356,777
Compliance Assistance	\$1,466,990
Total Expenditures	\$103,529,578

Below are the actual expenditures for DEP in FY11 by division or program area.

#### FY11 Budget and Managing Budget Reductions

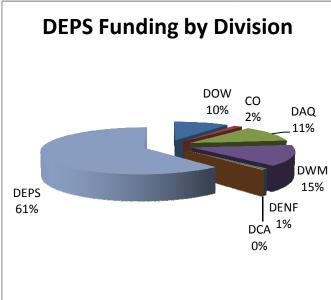
#### General Funds:

Since January 2008, state agencies have implemented eight rounds of general fund budget cuts resulting in budget reductions ranging from 20% to 25%. In FY09, the DEP general fund budget was reduced by approximately \$4.9M, an approximately 20% general fund reduction from FY08 to FY09. In FY11, DEP's general fund budget was \$21,744,700.



In an effort to offset a portion of the general fund reductions, DEP has been working for the past few years in an effort to increase authorization fees for a number of agency programs that historically either had no fee at all or had not been revised in many years (in some cases greater than 20 years). The agency has been successful in most of these efforts including increasing KPDES and solid waste permit fees.





Divisio	Divisional Support			
DOW	\$	465,482.00		
со	\$	68,516.76		
DAQ	\$	529,875.00		
DWM	\$	675,490.00		
DENF	\$	23,476.00		
DCA	\$	20,295.00		
DEPS	\$	2,837,465.24		
Total	\$	4,620,600.00		

## **Information Management**

#### <u>TEMPO</u>

Seventy-five percent of the TEMPO help desk requests are resolved within 24 hours. The TEMPO linked "ePermitting" forms engine has been re-written and expanded in order to allow for multiple document types and to support additional departmental programs needs. Additional online forms to include coal are currently being made available to the regulated community.

#### **CROMERR**

DEP's formal Cross-Media Electronic Reporting Regulation (CROMERR) application was sent to the USEPA on 1/11/10. At present, the NetDMR portion of the application has been approved and filed on the Federal Register. The CROMERR compliant portal portion of the application has been reviewed and negotiations are in progress concerning certain portions of the system.

#### **USEPA STAG Grants**

USEPA awarded money to DEP for the following two 2008 State and Tribal Assistance Grants (STAG). Work on these two grant projects will take place in FY10 through FY12.

- PCS to ICIS-NPDES Migration The grant funds (\$171,600 federal, \$110,500 state) are being used for software enhancements and contractual labor to migrate existing data in PCS to ICIS, verify the accuracy of the migration, and enter required data not currently in PCS. Management reports have been developed based on the new ICIS data and migration tools have been developed to extract data from TEMPO to ICIS to reduce manual data entry. This project is nearing completion in 9/2011.
- Better Use Project/Tablet Personal Computers Compliance Monitoring The grant funds (\$108,000 federal, \$61,500 state) are being used to demonstrate better use of technology in compliance monitoring activities with the use of portable, personal-computing technologies for the performance of pre-inspection, on-site inspection, and post-inspection activities. This project is also nearing completion in 9/2011.

#### NEIEN Grants

The USEPA National Environmental Information Exchange Network (NEIEN) is an Internetbased approach for exchanging environmental data between USEPA and states. The NEIEN enables participants to control and manage their own data while making it available to partners via requests over a secure Internet connection. DEP has been applying for NEIEN grants in order to maintain and improve the TEMPO enterprise system. TEMPO was originally funded by EMPOWER funds. After EMPOWER funds were depleted, the department began applying for the NEIEN grants in order to support the program. Grant funds are limited and the entire department is now sharing the costs of maintaining TEMPO. A listing of past and current NEIEN grants is provided below.

- 2002 NEIEN One Stop Grant DEP completed this project in 2006 using the grant funds (\$500,000 federal). One of the many outcomes of this project included "eSearch" which allows the regulated community to search agency data via the web. DEP also implemented "eNotification", a module of ePortal, for the collection of routine incident notification data from regulated facilities.
- 2002 NEIEN Challenge Grant DEP used the grant funds (\$150,000 federal) to develop the corrective action interface under the TEMPO/RCRA Info Interface and completed additional work to customize the Mississippi interface for Kentucky.
- 2004 NEIEN Readiness Grant DEP implemented NODE 1.1 using these grant funds (\$71,577 federal). This included installing the Node on the hardware purchased under the grant, conducting testing, and implementation.
- 2005 Kentucky Exchange Network Implementation Grant (AFS & NEI) The funds (\$230,000 federal, \$50,000 state) were used to address the XML mapping changes brought about by the department's state-specific implementation of TEMPO, provide the department the ability to develop data flows to support exchange of AFS data with USEPA and trading partners via CDX, and allow the department to complete NEI changes. A minor modification was made to the original grant proposal to allow for the submittal of AFS data to USEPA using the Universal Interface (UI). DEP is routinely submitting data to USEPA via the UI in production environment now.
- 2006 Kentucky Exchange Network Grant for the Web Based Emissions Survey The funds (\$200,000 federal, \$50,000 state) were used to allow the department to develop a system to improve timeliness, efficiency, and reduce costs associated with the Division for Air Quality annual emissions survey process. The grant provided the department the ability to develop data flows to enhance Kentucky's participation of NEI data with USEPA and trading partners via CDX. This work was for the benefit of the Division for Air Quality.
- 2006 Kentucky Exchange Network Grant for the FRS Data Flow The funds (\$78,000 federal) were used to make necessary changes to the previously developed Mississippi Department of Environmental Quality FRS node and to implement a DEP FRS node. This work was for the benefit of the entire department.
- 2009 NEIEN Grant for Node 2.0 These funds (\$77,114) were used to upgrade the DEP software Node from version 1.0 to version 2.0. The node is used to supply data to USEPA and other data trading partners.

2009 NEIEN grant for CROMERR compliance – These funds (\$198,034) are being used to upgrade KYDEP's ePortal in order to comply with the USEPA's Cross-Media Electronic Reporting Regulation (CROMERR).

2009 NEIEN grant for NetDMR implementation – These funds (\$75,000) are being used to implement the USEPA's NetDMR application system at KYDEP in order to allow for automated reporting of Discharge Monitoring Reports.

#### Additional Projects

The following projects were completed during FY11.

- 1. Web Survey
- 2. ePortal Administration Upgrades
- 3. SDWIS 2 Upgrade / patches
- 4. NEI Schema Emissions to CERS
- 5. Receive TCH from Schools via ePortal
- 6. ePay allow Payment By Check
- 7. ePermitting/eForms version 3
- 8. DCA Forms for eForms/ePermitting
- 9. eSearch Permit/Pending Permit Documents via the Web
- 10. WDS Server Implementation

#### **Buildings and Facilities Management**

#### 200 Fair Oaks Building Telephone Change

In August 2011, DEP began integrating the two telephone systems in the 200 and 300 Fair Oaks buildings so staff can call each other direct and bypass the switchboards. This resulted in a cost-savings measure in that we were able to cancel several trunk lines for each switchboard at a cost of \$30 per line. The project is ongoing.

#### Bowling Green Regional Office New Office

Work has begun on the new Bowling Green Regional Office. This office is expected to be complete by spring to early summer of 2012.



n for Bowling Green's

## **Environmental Services Branch – Activities and Accomplishments**

The Environmental Services Branch provides laboratory-testing services essential for the identification and characterization of environmental pollutants in the Commonwealth. These services are required by KRS 224.10-100(7) "Secure necessary scientific, technical, administrative, and operations services including laboratory services by contract or otherwise"; and (16) "monitor the environment to afford more effective and efficient control practices to identify changes and conditions in ecological systems and to warn of emergency conditions". Additionally, 40 CFR 123.26 - Requirements for Compliance Evaluation Programs states that "State programs shall have inspection and surveillance procedures to determine, independent of information supplied by regulated persons, compliance or non-compliance with applicable program requirements."

The Environmental Services Branch (previously Division of Environmental Services) underwent reorganization in FY07 that resulted in the risk assessment responsibilities being redistributed to the Divisions of Air Quality and Waste Management. Soon after this change the Division was downsized managerially into a branch and placed into the current Division of Environmental Program Support. This resulted in the lab focusing on the single mission of providing laboratory services to the Department for Environmental Protection as the department's consolidated environmental chemistry laboratory. The branch has accomplished much since FY07 and expects to continue its reputation for high achievement. The Environmental Services Branch attained national accreditation under the National Environmental Laboratory Accreditation Program (NELAP) in 2007. It became the second state laboratory in the United States Environmental Protection Agency Region IV, an eight-state region, to achieve this accreditation. The ESB lab has had two on-site NELAC laboratory audits since and has passed all of the requirements this prestigious accreditation requires.

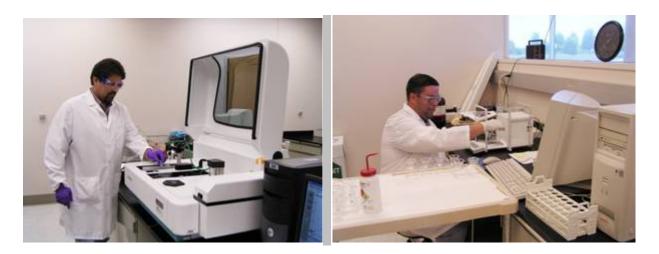
Concurrent with this achievement, the Environmental Services Branch (ESB) has maintained a high level of analytical services to the Department. The testing activities of the branch support all of the programs managed by the Divisions of Water, Air Quality and Waste Management. The ESB increased its productivity between 2003 and 2007 and the numbers of samples tested and the number of tests performed increased during that time by an average of 12.7%. The addition of more productive equipment and the dedication of analytical and support staff allowed this increase in productivity. Replacing equipment with newer, more efficient instruments over the past 4 years has been critical to maintaining productivity without additional staff. Since 2009 the laboratory has been able to acquire funding through other divisions for the purchase of much needed instrumentation. Examples include: Dionex IC (May 2009), TOC Analyzer (June 2009), Leeman Hg AA (June 2010), Man-tech Titrator (Nov 2010), ICP-AES (June 2010), Horizon SPE (June 2011), GC-FID (July 2011)

The Environmental Services Branch (ESB) continues to provide testing services for all the divisions in accordance with the allocated budget monies. In CY2009, the number of samples analyzed was 5894 and the average turn-around time was 25.3 days. In CY2010 the number of samples analyzed (6076) increased while the average turn-around time decreased to 24.3 days. During this time period the increased efficiency can be attributed to improvements that the laboratory made in areas of sample receiving, preparation, review, validation and sample reporting. Access database programs have been introduced to the daily work systems and their implementation has had a direct effect on the laboratory's capability.

From July 1, 2010 to June 30, 2011 (FY11), the laboratory had accepted 5824 samples. This number is around 4.5% less than the total number of samples received the same period last year (FY10). This decrease in the number of samples can be attributed to the limited funding in the programs the laboratory supports and changes in their areas of emphasis. The Division of Air Quality sample requests have also slowed considerably in the past year due to the labs inability to meet the Rural Trends NATTS requirements for reporting. NATTS requires reporting below MDL for Metals, Carbonyls and VOCs. The ESB lab is unable to provide reports to this level at this time. Reporting to the MDL is as low as the lab can currently go. The ESB lab is currently running samples related to the Department of Natural Resources and the CHIA project and is taking in extra work from the mining related PAI audits in eastern Kentucky.

ESB continues to participate in the number of proficiency tests that are needed to maintain accreditation under USEPA and NELAP programs. In calendar year 2010, ESB submitted 1477 analytes and received a passing grade of 93.7%.

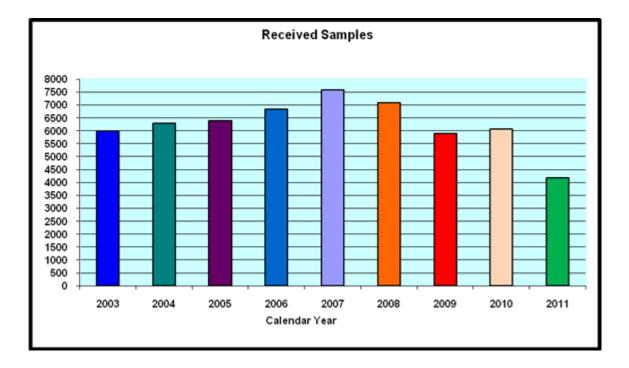
Overall, the FY11 budget for the Environmental Services Branch supported the current activities in the branch. State General Fund budget reductions in FY09 and FY10 resulted in personnel budget reductions and limited funds for instrument purchases and upgrades. Software upgrades on a couple of our major instruments have been possible but only through the help of other divisions within the department. Instrument service agreements were paid in FY10 and FY11 by other divisions within the department. The FY11 baseline budget included 25 full-time positions, six full-time positions less than in FY09. The majority of the laboratory positions charge their time to project codes associated with general, restricted and federal funds. All other positions are funded 100% with general fund dollars.



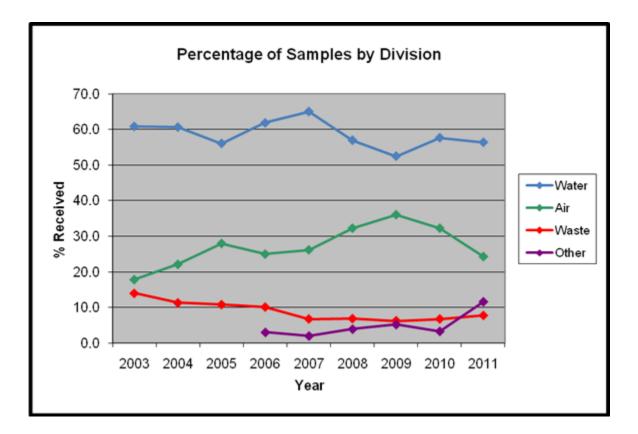
Todd Adams loads a discrete analyzer with Sulfate samples and Greg Abner weighs out soil samples.



Amy Stosberg preps Pesticide/PCB water samples and Joseph Carpenter titrates water samples.



Environmental Services Branch – Samples Received from 1/01/03 to 9/7/11



## **Environmental Response Branch – Activities and Accomplishments**

The Energy and Environment Cabinet (EEC) is mandated to protect human health and to provide for efficient, coordinated and effective action to minimize damage to air, land and waters of the Commonwealth from toxic or hazardous releases of pollutants and contaminates. To achieve this goal, the Department for Environmental Protection formed the Environmental Response Team (ERT) in 1980.

The language in KRS 224.01-400 mandates the Cabinet to have a 24 hour environmental response line and designates the Cabinet as the lead agency for emergency spill responses. In addition KRS 224.46-580 mandates the Cabinet to respond effectively and timely to emergencies created by releases per KRS 224.01-400.

ERT is a departmental function composed of staff with various environmental discipline backgrounds from DOW, DAQ, DWM and DEPS with the majority of the staff from the regional offices. The Environmental Response Branch is composed of four full time staff, 30 part-time responders (365 days per year 24 hours a day) and 3 alternates. ERT is operationally based in the Division of Environmental Program Support in Frankfort. ERT was moved from the Division of Water to the Commissioner's Office in the July 2004 reorganization (Executive Order 2004-731) and then was moved to the Division of Environmental Program Support in the June 2008 reorganization (Executive Order 2008-531).

ERT responsibilities include:

- Maintain a 24 hour emergency report/notification phone line for spills and releases
- Coordinate and transfer non-emergency and post emergency incidents to appropriate DEP staff
- Serve as On-Scene Coordinator to releases of toxic and hazardous substances, pollutants and contaminants that threaten the environment
- Coordinate with local and state agencies, US EPA, other federal agencies and adjacent state's agencies related to environmental releases
- Provide staffing and coordination of EEC efforts for KY Emergency Operations Center (EOC) during activation of EOC due to natural disasters such as flooding and tornadoes.
- Assist in training and planning activities of other local and state agencies

#### EEC/DEP ENVIRONMENTAL RESPONSE TEAM KY EMERGENCY OPERATIONS PLAN RESPONSIBILITIES ERT SUPPORT ROLES FOR KY EOC

During an emergency event in Kentucky, the KY Emergency Operations Plan (coordinated by the KY Division of Emergency Management) is activated which places requirements on the EEC/DEP and the Environmental Response Team to work within a framework with other state, local and federal agencies to coordinate efforts to mitigate the emergency.

Beyond the routine response activities by ERT, the KY EOP places specific duties on the EEC to provide the following:

- Provide on-scene coordinator
- Provide staffing to State Emergency Operations Center
- Provide technical assistance and initial evaluation of pollution hazards
- Assist in early assessment of extent of hazard by dispatching staff to spill/release site when required
- Approve and direct on-site operations plan for cleanup, treatment or containment and mitigation of environmental damage
- Assure proper disposal of resulting waste materials
- Establish environmental sampling, testing and analysis programs to measure environmental effects
- Determine environmentally safe concentrations for water quality and ensure safe public drinking water supplies effected by releases
- Coordinate with US Environmental Protection Agency, Federal Region IV Regional Response Team, US Army Corps of Engineers, US Coast Guard and other federal agencies

KRS 224.01-400 mandates coordination by requiring "consultation with other federal, state, and local agencies, and private organizations." It must occur at all stages and in all elements of emergency response activities. This coordination is managed by use of the Incident Command System (ICS) as set forth in the KY Emergency Operations Plan and the OSHA safety standards.

The Incident Command System is a standardized system of incident management based upon a chain of command and common terminology for all responding agencies. ICS incorporates the concept of a unified command system, which are employed at large incidents where multiple agencies have jurisdictional concerns.

ERT has daily coordination/communication activity with the KYDEM's Emergency Operations Center duty officers who receive the initial calls on the ERT 24 hour phone after normal work hours. The duty officers receive and log the calls and forward the information to the ERT coordinator on call at that time. The duty officers also perform the same services for several other state agencies including the State Fire Marshal, Dept. of Agriculture and Dept. for Health Services (Radiation Branch). They are also in communication with several other agencies such as KSP, DOT, Fish and Wildlife, KVE, KY National Guard, and the regional and local DEM emergency managers.

## COORDINATION/COMMUNICATION

The present notification/communication structure is as follows:

- ERT receives and evaluates incidents
- ERT makes decision on response and severity of incident
- ERT notifies appropriate Branch Managers and Director of appropriate Division if situation warrants
- ERT notifies Commissioner and EEC Secretary if necessary

Some emergency situations due to unknown or unresponsive responsible parties may require the Cabinet to act to control/cleanup releases. The past procedure for these situations has been:

- ERT determines that an emergency situation exists requiring immediate response to prevent/limit environmental damage due to the situation
- ERT determines that a responsible party is either unknown or unresponsive
- ERT notifies the Commissioner and asks for approval to authorize and acquire necessary contractors to deal with the emergency
- Commissioner gives verbal approval to ERT to proceed under spending guidelines
- Commissioner notifies EEC Secretary and gains upward approvals for emergency declaration
- ERT processes documentation for contractor and emergency declaration

Presently there are three cost recovery procedures.

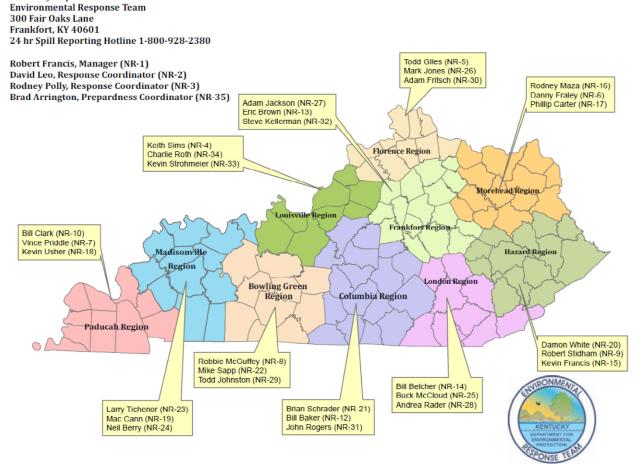
- For non-enforcement actions expenditures are calculated and a letter is sent to the responsible party requesting payment. Failure to pay results in formal enforcement action.
- Cost recovery associated with formal enforcement action is included in an overall settlement calculation.
- If the preceding two procedures fail to recover ERT costs, reimbursement from the Federal OPA fund is sought.

## **Environmental Response Center and Enhanced Communications**

The Environmental Response Branch operates an Environmental Response Center (ERC) that is located at 300 Fair Oaks Lane in Frankfort. The EOC will be used to coordinate Department emergency activities that result from a release at the Bluegrass Army Depot or any other large scale emergency activity.

## **ERT Coverage Areas and Responders**

The Environmental Response Team is composed of employees from the Department for Environmental Protection selected from interested applicants based on areas of expertise, and work area to assure statewide coverage and specialized training and experience. ERT members assume the additional responsibilities of ERT responder in addition to their regular work duties. ERT responders are assigned to eight geographic coverage areas with 3 responders in each region being on call in a three-week rotation (one per week) plus an alternate to fill in as needed. Kentucky Department for Environmental Protection



#### ERT CENTRAL OFFICE STAFF

ROBERT FRANCIS, MANAGER DAVID LEO, COORDINATOR RODNEY POLLY, COORDINATOR BRAD ARRINGTON, PREPARDNESS COORDINATOR

#### ERT RESPONDERS BY AREA

Madisonville:	NEIL BERRY (DWM-MADISONVILLE) LARRY TICHENOR (DWM-MADISONVILLE) MAC CANN (DAQ-OWENSBORO)
Bowling Green	ROBBIE MCGUFFEY (DWM-BOWLING GREEN) TODD JOHNSTON (DWM-BOWLING GREEN) MIKE SAPP (DWM-BOWLING GREEN)
<u>Columbia</u>	JOHN ROGERS (DWM-COLUMBIA) BILL BAKER (DOW-BOWLING GREEN) BRIAN SCHRADER (DWM-COLUMBIA)
Frankfort:	ERIC BROWN (DWM-FRANKFORT) ADAM JACKSON (DOW-FRANKFORT) STEVE KELLERMAN - (DWM-FRANKFORT)
<u>Hazard:</u>	DAMON WHITE (DOW-HAZARD) KEVIN FRANCIS (DWM – HAZARD) ROBERT STIDHAM (DWM – HAZARD) KELLY FUGATE (DOW-HAZARD) - ALTERNATE
Florence:	TODD GILES (DOW-FLORENCE) MARK JONES (DOW-FLORENCE) ADAM FRITCH (DWM-FLORENCE)
Louisville:	KEITH SIMS (DWM-LOUISIVLLE) CHARLIE ROTH (DOW-LOUISVILLE) KEVIN STROHMEIER (DWM-LOUISVILLE)
Morehead:	RODNEY MAZE (DWM-MOREHEAD) PHILIP CARTER (DWM-MOREHEAD) ASHLEY MARKWELL (DAQ-ASHLAND) JAMES BLEVINS (DOW-MOREHEAD) – ALTERNATE
London:	JAMES MCCLOUD (DOW-LONDON) BILL BELCHER (DWM-LONDON) ANDREA RADER (DWM-HAZARD)

Paducah:

#### KEVIN USHER (DAQ-PADUCAH) BILL CLARK (DAQ-PADUCAH) VINCE PRIDDLE (DOW-PADUCAH) MARGIE WILLIAMS (DWM-PADUCAH) - ALTERNATE

#### Blue Grass Army Depot:

#### AMY MCCRACKEN (DWM - FRANKFORT)

#### ENVIRONMENTAL INCIDENT NOTIFICATIONS

Year	Incidents	Incidents / day	<b>Emergency Responses</b>
2011 (Jan-June)	9427	51.6	337
2010 (July-Dec)	6519	35.7	220
2010 (Jan-June)	7152	39.1	272
2009 (July-Dec)	6698	36.7	240
2009 (Jan-June)	6058	33.2	253
2008	11753	32.2	475
2007	9719	26.62	460
2006	8254	22.61	663
2005	5720	15.67	327
2004	3650	10	242
2003	3130	8.57	132
2002	3265	8.94	96
2001	3029	8.30	152
2000	3066	8.41	201
1999	3654	10.01	221
1998	4327	11.44	219
1997	4102	11.24	199
1996	3976	10.86	255

1995	3749	10.24	218
1994	3499	9.59	227
1993	3071	8.74	118
1992	2478	6.77	144

All incidents and notifications received thru the ERT section are evaluated and responded to according to the established DEP business rules as follows:

- **Emergency** on site response within 2 hours of notification
- High Priority DEP staff will make site visit for follow-up within 2 working days of notification
- **Routine-** DEP staff will make site visit or contact notifier within 5 working days of notification

Several major incidents with severe or potentially catastrophic impacts to human health or the environment occurred in the last eleven fiscal years. A summary of events follows.

DATE	INCIDENT	COUNTY	IMPACTS
7-11-11	Norfolk Southern Railway	Lincoln	Surface Water
4-25-11	Statewide Flooding		Drinking Water, Wastewater,
			Solid Waste
2-12-11	Childers Oil Co Inc Bulk Plant	Letcher	Drinking Water, Surface
			Water
2-4-11	Hitachi Automotive Systems	Madison	Surface Water
7-17-10	Flooding in Eastern KY		Drinking Water, Wastewater,
			Hazardous Materials
6-1-10	CSX Train Derailment	Webster	Surface Water
5-1-10	Flooding in 66 counties that resulted		Drinking Water, Wastewater
	in drinking water and wastewater		
	issues for approximately 300,000		
	residents. ERT coordinated DEP's		
	response with drinking water,		
	wastewater, and debris disposal issues.		
2-1-10	Nuplex Resins Release	Jefferson	Air, Wastewater
12-09-09-	Hazard-Buckhorn Water Shortage	Perry	Drinking Water
1-22-10	Emergency		
12-19-09	Snow Storm-State of Emergency,		Drinking Water, Wastewater
	power outages in Eastern KY		
8-12-09	Richard Lacefield Whey Spill	Grayson	Surface Water
7-2-09	Emerson Power Transmission release	Mason	Surface Water
11-30-08	Aisin Automotive – Above ground	Laurel	Water, Soil
	storage tank lost 1,000 gallons of dye		
	lubrication was released into Laurel		
	River		

11-1-08	Childers Oil – Released unknown amount of petroleum waste from an unpermitted site that contaminated the Whitesburg Water Plant.	Letcher	Drinking Water, Water, Soil
5-25-08	Whayne Supply – Above ground storage tank lost 1,200 gallons of hydraulic oil to Town Branch.	Fayette	Water, Soil
4-23-08	Little Oil Company – Tanker Truck wreck that resulted in a release of 4,500 gallons of gasoline	Jefferson	Soil
4-8-08	Highwall Mining – Release of 2,000 gallons of diesel fuel into the Levisa Fork.	Pike	Soil, Water
3-18-08	Metalworking Lubricants Company - tanker truck accident that released 7,000 of oil onto I-65.	Hart	Soil
2-27-08	Pine Branch Coal – Release of 3,000 gallons of diesel fuel from an above ground storage tank due to driver error.	Perry	Soil
2-11-08	Marathon Oil – Pipeline leak that resulted in the release of 8,400 gallons of crude oil	Clark	Water, Soil
10-29-07	Agri Chem - Attempted theft resulted in the release of anhydrous ammonia from a 12,000 gallon tank. The release resulted in local evacuations.	Christian	Air, Soil
1-16-07	CSX - Train derailment that resulted in fire and release of cyclohexane, butadiene, residual Chlorine, maleic anhydride, and methyl Ethyl Ketone	Bullitt	Air, Soil, Water
1-15-07	CSX - Collision of train with another train caused release of butyl acetate and diesel fuel	Estill	Air, Soil, Water
10-19-06	Canadian Railroad - Rail car released Hydrochloric Acid to the air causing an evacuation in the community.	Fulton Co.	Air, Soil
8-27-06	Comair Plane Crash- Commercial plane crash that released an unknown amount of Jet Fuel	Fayette	Soil
1-26-06	Magnolia Marine - Barge sank in the Ohio River releasing 14,000 gallons of diesel, 4,000 gallons of heating oil, 500,000 gallons of liquid asphalt.	Jefferson	Surface Water
1-03-06	Cooksey Brothers Landfill - Landfill fire that was releasing toxic smoke into the air causing evacuations in the community.	Boyd	Air

12-06-05	Canal Barge Co Tugboat sank in the Tennessee River threatened to release 40,000 gallons of diesel fuel.	Marshall	Surface Water
11-23-05	BP Pipelines - 14,000 gallons of Xylene released from a pipeline hit by a farmer	Todd	Surface Water, Soil, Air
1-26-05	Mid-Valley Oil- Pipeline release of 268,000 gallons of crude oil into the Kentucky River	Owen	Soil, Surface Water, Drinking Water intakes in Louisville.
6-18-04	AK Steel- Unknown amount of fuel leaked from underground piping, which entered into the WWTP sewer lines.	Boyd	Soil, WWTP impacted
5-10-04	Catlettsburg Refining LLC- 12,000 gallons of crude oil ejected into the air and re-settled onto the ground & the Big Sandy River from a failed flare	Boyd	Soil, Surface Water
3-19-04	Trans-Kentucky Transportation- 6000 gallons of diesel released	Mason	Soil, Surface Water
1-29-04	Norfolk Southern Railway- 3250 gallons of diesel release	Scott	Groundwater, Drinking Water Intakes, Soil
8-14-03	Xylene Tanker Wreck	Pike	Big Sandy River degradation - downstream water intakes effected
8-4-03	Jim Beam bourbon warehouse fire- 800,000 gallons of bourbon released	Nelson	Stream degradation - Fishkill in Salt River
5-20-03	Pesticide tanker truck wreck- Diazinon	Jefferson	Groundwater, surface water, soils contamination
2-2-03	CTA Acoustics Factory fire	Laurel	Air contamination - surface water runoff to stream
8-26-02	CSX RR derailment- ammonium nitrate release	Laurel	Stream degradation - water intake impacted
1-29-02	Westlake Monomers-air release of chlorine and vinyl chloride	Marshall	Air release resulting in local evacuations and plume movement
11-8-01	Waxler Barge incident- gasoline barge release	Jefferson	Gasoline barge on Ohio River rupture in lock on Ohio River
10-11-00	Martin Co. Coal Co. coal slurry release	Martin	Slurry release from slurry impoundment - 90 miles of stream effected - 350,000 public water customers effected
5-10-00	Fire at Wild Turkey/ Boulevard Distilleries	Anderson	Bourbon warehouse fire - release to KY River – Major fish kill on 60 miles of river - 83,600 public water customers effected
4-25-00	Norfolk Southern RR railcar fire	Boyle	RR car fire – hazardous

			chemicals (toxic and explosive) - 50% of Danville evacuated- air release
1-27-00	Marathon/Ashland crude oil pipeline rupture	Clark	Release of 600,000 gallons of crude oil – threatened water supply of 515,300 customers downstream
11-8-99	Marathon/ Ashland –Catlettsburg Refinery tank explosion	Boyd	Process tank explosion - release of intermediate product to stream and Big Sandy River
10-2-99	KY Utilities diesel fuel spill	Mercer	300,000 gallons of diesel threatened 116,00 water customers downstream
8-8-99	Illinois RR derailment	McCracken	Derailment of 6 RR cars containing vinyl chloride - threatened catastrophic air release
8-8-99	Barge collision-gasoline barge and cumene barge	Henderson	Collision of Waxler gasoline barge and MAP cumene barge-100,000 gallons of product released to Ohio River