

Energy and Environment Cabinet *Strategic Plan* 2016-2020



Beaumont Middle School sixth-grader Griffin Shively, 11, is the winner of the fifth-annual “Capture the Earth” photography contest, with a photograph of a tufted titmouse in March.



Noah Lyles, 13, an eighth-grader at Elkhorn Middle School in Frankfort, was recognized with an honorable mention of his photo of a forested trail covered in snow taken at Frankfort’s Cove Spring Park.



Olivia Ray, 13, an eighth-grader at Anchorage Public School, was also recognized with an honorable mention for her winter photograph capturing a barred owl perched in a tree, looking straight into the camera.

*The annual middle school winners of the
2015 “Capture the Earth” photography contest.*



**ENERGY AND ENVIRONMENT CABINET
OFFICE OF THE SECRETARY**

Steven L. Beshear
Governor

Leonard K. Peters
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MEMORANDUM

TO: Jane C. Driskell, State Budget Director
Office of State Budget Director

FROM: Leonard K. Peters, Secretary
Energy and Environment Cabinet

DATE: October 16, 2015

SUBJECT: 2016-2020 Strategic Plan

Attached is one complete copy of the Energy and Environment Cabinet's 2016-2020 Strategic Plan. This request has been prepared according to the instructions issued by the Legislative Research Commission and guidelines established by the Office of State Budget Director as illustrated in the 2016-2018 Branch Budget Request Manual and KRS 48.810.

EEC's mission is to "improve the quality of life for all Kentuckians by protecting our land, air, and water resources; utilizing our natural resources in an environmentally conscientious manner; and innovating and creating efficient, sustainable energy solutions and strategies that reduce greenhouse gas emissions and create a base for strong economic growth."

As per the 2016-2018 Biennial Budget Request instructions, an electronic version of the cabinet Strategic Plan will be forwarded to the Governmental Services Center within the Personnel Cabinet to be posted on their Strategic Plan website.

Please contact Melissa Highfield Smith in the General Administration and Program Support for Shared Services, Division of Budgets at 564-2282 extension 154 if there are any questions.

LKP/MHS/ks

Attachment



**ENERGY AND ENVIRONMENT CABINET
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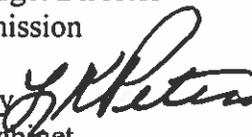
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TO: Jennifer Anglin, Acting Budget Director
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ENERGY AND ENVIRONMENT CABINET
STRATEGIC PLAN

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ENERGY AND ENVIRONMENT CABINET

Overview

The Energy and Environment Cabinet was created through an Executive reorganization in June 2008 by Governor Steve Beshear to more efficiently manage Kentucky's energy, natural resources, and environmental programs. The creation of the Energy and Environment Cabinet allows a more efficient and effective use of state resources in critical areas of environmental protection, mine safety, natural resources management, and energy policy development. Under the previous structure, the environmental and natural resources programs were part of a larger cabinet (the Environmental and Public Protection Cabinet) that contained many disparate programs with widely different missions.

The Energy and Environment Cabinet includes three departments: the Department for Environmental Protection; the Department for Natural Resources; and the Department for Energy Development and Independence. The Department for Energy Development, unlike the other two departments, did not exist under the EPPC structure. With the creation of the Department for Energy Development and Independence, the state's energy programs are elevated to cabinet level to help the state achieve its energy development and energy security goals.

The EEC Strategic Plan is organized by department and each section includes a departmental organization chart.

Mission

Improve the quality of life for all Kentuckians by protecting our land, air, and water resources; utilizing our natural resources in an environmentally conscientious manner; and innovating and creating efficient, sustainable energy solutions and strategies that reduce greenhouse gas emissions and create a base for strong economic growth.

Vision

To be recognized as a leader among the states for holistically addressing energy, natural resources and environmental challenges.

Core Values & Principles

- ***Integrity:*** We believe in adherence to the highest standards of professional conduct.
- ***Fairness:*** We implement and enforce the cabinet's regulations fairly across all regulated entities.
- ***Reliability and Timeliness:*** We are committed to responding to all citizens, regulated entities, elected officials, media, federal, state, and local government agencies, and others who depend on answers, permits, etc., in a timely manner.
- ***Courtesy:*** As primarily a regulatory agency, we take seriously the importance of being courteous in all of our discussions and correspondence with regulated entities.

- *Cooperation:* We do not act alone in carrying out the cabinet's mission, and our success depends greatly on mutually supportive interactions with our federal counterparts, other agencies in state government, and local governments.
- *Accountability:* We are fully accountable for our actions and decisions that have an impact on citizens and industries.

ALIGNMENT OF EEC STRATEGIC PLAN WITH THE GOVERNOR'S GOALS

Evident in the EEC strategic plan are efforts or planned efforts to create economic opportunities, create a healthier Kentucky, enhance educational excellence, ensure safe communities, and enhance responsible government. Our regulatory agencies implement and maintain a broad range of environmental standards designed to protect human health and our air, water, and land resources. A healthy environment is integral to a healthy economy and prospects for job creation. The cabinet works in cooperation with local entities to ensure safe communities by establishing programs to reduce the incidence and impact of wild land fires. Our programs also protect coal miners, loggers, agricultural workers and other in their jobs, jobs that often have a higher level risk than many other occupations.

How we develop and utilize our energy resources in the 21st Century will be significantly different from what we have done in the past. We must realize that energy prices are increasing and will likely continue to increase at rates faster than the general cost of living. In today's complex and highly industrialized society, reliable, affordable energy is a right for all Kentuckians and is key to growing Kentucky's economy. Creating and supporting energy-related jobs in Kentucky is a high priority within the EEC, and several strategic goals support the Governor's plan for overall 21st century job creation.

Toward that end, the cabinet has a number of initiatives that support Governor Steve Beshear's goals to link environmental, natural resources and energy programs in a holistic and cooperative manner. The Cabinet is committed to making sure its regulatory programs remain responsive to the changing requirements of related federal environmental programs while remaining consistent with state regulatory requirements.

DEPARTMENT FOR ENERGY DEVELOPMENT AND INDEPENDENCE

Overview

An overarching goal of the Department for Energy Development and Independence (DEDI) energy plan has been to identify and address those actions that can be implemented in sufficient time to help citizens and businesses prepare for the inevitable changes that will occur in the national and global energy landscape in the years ahead. The scientific community worldwide and global consortia are concerned that we must act immediately to reduce the impact of greenhouse gases. Environmental protection includes intelligent use of land as well as nonrenewable and renewable resources. The DEDI plan will help Kentucky ensure the viability of its economy while addressing the global issue of greenhouse gasses and, at the same time, allowing new vibrant industries that provide high-paying, quality jobs to flourish.

For Kentucky to be a national energy leader, we must fully integrate the development of our energy resources with our mission to protect the environment and strengthen our economy. Therefore, these principles address measures to utilize our fossil resources in a cleaner, more efficient manner, and in a way that will help us assure energy security. In fully utilizing our biomass, solar, wind, hydro and other renewable energy resources, we not only strengthen our energy and economic security – by diversifying our electricity and transportation fuels portfolios – but we also help the commonwealth reduce its carbon dioxide and other greenhouse gas emissions and other pollutants in a significant way. The plan, when fully implemented, will restructure our energy portfolio in such a way that we can use energy in its broadest sense as a tool for economic development, which Kentucky desperately needs.

With this action-oriented energy plan, DEDI will help Kentucky move forward with accomplishing the following by 2025:

- Provide new Kentucky jobs as a result of a diversified energy sector.
- Reduce Kentucky's independence on imported oil.
- Maintain and potentially grow Kentucky's position as a national net energy exporter.
- Reduce Kentucky's greenhouse gas emissions by at least 17 percent below 2005 levels, while ensuring Kentucky's economic viability.
- Optimize our renewable energy resources, utilizing wind, solar, hydropower, landfill gas, and biomass.

If we succeed, we shall have produced greater economic and energy security for all Kentuckians, while creating significant job growth and economic development in a wide diversity of agricultural, energy, high tech and service companies; a cleaner and healthier environment; a reduction in Kentucky's contribution to global warming; greater energy efficiencies and independence; and a more substantial corporate tax base to support higher quality healthcare, education and transportation for all of us throughout the Commonwealth of Kentucky.

Kentucky's Energy Initiatives

Improve the Energy Efficiency of Kentucky's Homes, Buildings, Industries, and Transportation Fleet

Kentucky has been a high user of energy largely because of our historically low electricity rates. We have had little incentive to conserve, and thus we are over-users. This must change. Kentucky can achieve its greatest and most cost-effective reduction in GHG emissions through energy efficiency in all sectors: residential, commercial, industrial and transportation. We can forestall construction of some additional generation facilities through energy efficiency. Therefore, our leading goal, and our utmost advantage in achieving the overall objectives of this plan, is greater energy efficiency.

Goal -- Energy efficiency will offset at least 18 percent of Kentucky's projected 2025 energy demand.

In Kentucky we are experiencing increases in costs for our electricity. It is likely that prices will continue to increase, and therefore consumers' energy bills will continue to rise. The choice we face is to take no action and see large bill increases with limited economic security, or to take prudent actions now and realize a better chance for smaller price increases as well as increased economic security. In the near term, energy efficiency and conservation represent the fastest, cleanest, most cost-effective, and most secure methods we have to reduce our demand for energy and to help us address issues surrounding global climate change.

Actions to Achieve the Goal

- The Department will encourage a voluntary Energy Efficiency Resource goal be set to support the energy efficiency portion of the REPS with a goal of reducing energy consumption by at least 16 percent below projected 2025 energy consumption. To achieve the goal, a combination of both utility-sponsored and non-utility-sponsored energy efficiency programs will need to be developed and implemented. Over the past seven years Kentucky has achieved an energy efficiency savings of more than one percent per year.
- The Department will work with other state government entities toward establishment of transportation energy efficiency programs designed to contribute another two percent reduction representing energy savings corresponding to approximately 500 million gallons of motor fuel annually.
- The Department will continue strong education, outreach and marketing programs that will support all energy efficiency activities throughout the state.
- The Department will continue to work with other state government entities to establish an energy efficiency program for state government that has aggressive internal energy savings targets. This program will be important as it establishes a leadership role for state government, and creates many new, well informed energy efficiency advocates for Kentucky.

Tactics

- Provide support and seek funding for the sustainability of the Energy in Education Collaborative, including partners and programs with National Energy Education Development (NEED) Project, Green and Healthy Schools (GHS) program, and the School Energy Managers Program (SEMP).
- Collaborate with the Energy Services Coalition (ESC) to educate local drinking water and wastewater utilities on the benefits of using energy services performance contracting (ESPC) to save energy, costs, and fund facility improvement projects. Promote ESPCs with local cities and counties.
- Provide support to a stakeholder process that seeks consensus on energy efficiency and demand response policies and programs with the goal of enhancing the energy productivity throughout Kentucky's economy. Implement the recommendations from the Stimulating Energy Efficiency in Kentucky initiative.
- Provide support to the Green Bank of Kentucky Loan Committee and continue to seek funding.
- Provide support for energy outreach and marketing to the University of Kentucky Cooperative Extension Service offices statewide, to promote energy efficiency in the Extension offices, homes, and commercial sector of those communities and for energy outreach and exhibit activities.
- Provide support for the Midwest Regional ENERGY STAR annual conference.
- Support administration of State Energy Program grant activities, and work on policy development and energy assurance issues.
- Provide support and seek funding for the Department for Housing, Buildings and Construction (KDHBC) to promote building energy codes and training that save money and help attain the Governor's Assurance of achieving 90% compliance with the 2009 International Energy Conservation Code.
- Provide support and seek funding for the Kentucky Housing Corporation to sustain the KY Home Performance program.
- Provide support and seek funding for the Governor's Office of Agricultural Policy to sustain the on-farm energy efficiency and renewable energy partnership.
- Support the State Heating Oil and Propane Price (SHOPP) program to survey winter heating fuel prices in Kentucky.
- Support and seek funding for partners seeking to stimulate the high efficiency, net-zero or Passive House standards.
- Provide support, pursue funding, and provide policy guidance that helps stimulate the electric vehicle and alternative fuel vehicle market in Kentucky.

- Provide support to the Kentucky Department of Education in their implementation KRS 157.455 to build and operate high performance school facilities in Kentucky.
- Support the continued development and expansion of the Commonwealth Energy Management Control System on a statewide basis.
- Provide representation and support to the Finance and Administration Cabinet's High Performance Building Committee.
- Evaluate the economic and technical potential for energy efficiency's role in meeting greenhouse gas limitations.
- Provide support and seek funding for Kentucky's industries and manufacturers to implement cost effective energy efficiency solutions.
- Support the development and implementation of the Energy Project Assessment District (EPAD) initiative.

Increase Kentucky's Use of Renewable Energy

Kentucky currently relies on renewable resources for four percent of its electricity generation but could expand its renewable electricity portfolio by relying on resources within the state. In 2010, the commonwealth had the 7th largest hydro power production east of the Mississippi, and has the potential to increase hydro capacity by over 50 percent. In fact, 261 megawatts of new hydro capacity is under development in Kentucky by American Municipal Power. Though most of this generation will be consumed outside of Kentucky it will increase Kentucky's renewable energy generation. One utility is utilizing landfill gas for electricity generation at six landfills across the state. Another company is working to secure a contract on the power produced from a wood to energy facility. Additionally, solar capacity in the state is expanding due primarily to programs offered by the Tennessee Valley Authority. Kentucky has approximately 10 megawatt of solar capacity in the state including a 2 megawatt solar array at Fort Knox. The Cabinet is partnering with Fort Campbell and Pennyrite Rural Electric Cooperative Corporation to install a 5 megawatt system on post. Kentucky could essentially tap nearly every renewable resource to produce electricity in an effort to meet its goal. The commonwealth should aggressively pursue its options for renewable generation in order to achieve greenhouse gas reductions and diversify our energy portfolio.

Goal--By 2025, Kentucky's renewable energy generation will triple to provide the equivalent of 1,000 megawatts of clean energy while continuing to produce safe, abundant, and affordable food, feed and fiber.

Kentucky should pursue those resources that are most cost effective to contribute to a clean and secure energy future. Energy from renewable resources benefits the environment while creating economic opportunities for businesses, industries and rural communities.

To achieve this goal, the commonwealth must aggressively invest in the development of its renewable energy resources.

Actions to Achieve the Goal

- The Department will support and promote efforts by state government to lead by example by encouraging new or substantially renovated public buildings to use renewable energy as a percentage of total energy consumption. This effort will build over time to reflect the state's renewable energy and energy efficiency goals. The High Performance Building Committee will also be encouraged to establish renewable energy targets for 2018, and 2025 for new or substantially renovated buildings.
- The Department will recommend to the Cabinet, policies and incentives necessary to achieve the state's renewable energy goal. The analysis will include implementation plans for the REPS for Kentucky's electric utilities.
- As Kentucky's forest resources can potentially contribute more than 50 percent of Kentucky's renewable energy potential, the Department will review existing Cabinet policies and regulations to encourage the responsible, sustainable use of woody biomass within the guidelines of environmental protection.

Tactics

- In conjunction with the High Performance Building Advisory Committee promote and establish renewable energy targets for 2018 and 2025 for new or substantially renovated state buildings. Amend regulations as needed to incorporate these standards.
- Develop best practices for state agencies selling renewable electricity credits.
- Track and report on renewable energy generation in Kentucky.
- Track and report on renewable energy manufacturing in Kentucky.
- Track and report on significant changes at the federal level that could impact Kentucky's renewable energy generation.
- Track and support on significant changes in markets for renewable electricity credits that can affect Kentucky-based renewable generation systems.
- Study and report on the economic and environmental impacts of a renewable energy portfolio in Kentucky.
- Support legislation that removes barriers for those pursuing renewable energy on a voluntary basis.
- Support awareness of renewable energy in Kentucky.
- Identify and provide outreach to electricity customers that could benefit from combined heat and power systems.

- Identify and resolve current regulatory and permitting barriers to generating renewable energy.
- Staff four (4) meetings per year of the CRERES board of directors and coordinate the Center for Renewable Energy Research and Environmental Stewardship (CRERES) annual report to be submitted to the legislature
- Encourage the responsible and sustainable use of woody biomass.
- Work with the forest industry and other stakeholders to identify opportunities to develop woody biomass and barriers that must be addressed.
- Support legislation that enables the use of power purchase agreements for clean energy.
- Continue to work with counties and municipalities to develop waste to energy projects.
- Identify funding and develop incentives that encourage the growth of renewable energy in Kentucky.
- Work with Kentucky's electric service providers to enhance the integration of distributed generation technologies into their portfolios.

Sustainably Grow Kentucky's Production of Biofuels

Kentucky currently uses only five to 10 percent of its potential biomass resources for the production of biofuels such as ethanol and biodiesel. Kentucky can significantly grow its agricultural and forestry resources in an environmentally and economically sustainable way to provide more biofuels for transportation, particularly as biofuel technologies expand in the next decade. We can thereby strengthen our energy security while growing and diversifying our agricultural and forestry economies, as well as reducing our GHG emissions. Through a concerted effort and collaboration with agricultural producers, researchers at universities, and policy makers, Kentucky can grow its biofuels industry to meet 20 percent of our current transportation fuel needs.

Goal--By 2025, Kentucky will derive from biofuels 12 percent of its motor fuels demand (775 million gallons per year, which represents approximately 20 percent of Kentucky's current transportation fuels demand), while continuing to produce safe, abundant, and affordable food, feed, and fiber.

As part of the ATFS, this initiative focuses on research and development (R&D) as well as deployment of commercial-scale facilities to address technical or infrastructure challenges, thereby enhancing the potential to grow the biofuels market. Kentucky shall focus on a statewide initiative to ensure that the needed infrastructure, human resources, research and development support, and policies are in place to enable meaningful and sustainable growth in biofuels.

Actions to Achieve the Goal

- The Department will promote Kentucky investment in non-food crops as a feedstock for biodiesel.

- The Department will aggressively seek federal support for and invest in ventures that promote a market for ethanol from non-traditional feedstocks in Kentucky; especially feedstocks that do not negatively affect food prices or availability.
- The Department will encourage that Kentucky establish an escalating renewable fuel standard (RFS) for the state vehicle fleet.
- The Department will draft and encourage that incentives be created to encourage production, distribution, and demand for biofuels in Kentucky in an environmentally sustainable manner.
- The Department will work with both the Cabinet for Economic Development and the Governor's Office of Agricultural Policy to recruit cellulosic biofuel producers to Kentucky.

Tactics

- Conduct logistics analysis and develop model of infrastructure requirements for a biomass industry.
- Develop legislative action that supports development of a biomass industry.
- Support recruiting efforts to integrate biomass-fueled power generation to Kentucky's energy portfolio.
- Initiate efforts to ensure a minimum of 50 million gallons per year of biofuels production capacity is added to Kentucky's transportation fuels portfolio each year from 2018 to 2025.
- Facilitate field days in partnership with Kentucky universities to showcase emerging technologies and to improve awareness of bioenergy production and utilization opportunities.
- Strengthen collaborations with state and federal agencies, private entities, and academia to enhance policies, technologies, and capital for a more robust biofuels industry.
- Evaluate and foster opportunities to incorporate higher biofuel blends into Kentucky's fuel supply.
- Identify and support biofuels research and development initiatives that lead to commercialization of biofuels in Kentucky.

Strengthen Kentucky's Fossil Energy Industry

Energy independence and economic security are major objectives of Kentucky's energy plan and for the United States. The high emissions of carbon dioxide into the environment are being addressed, as the United States moves toward federal regulation for coal-fired power generation. Kentucky can diversify ultimate coal utilization, producing cleaner and more efficient energy for state and domestic use.

Goal-- *Kentucky will research and develop its fossil energy resources to produce cost-effective alternative transportation fuels and synthetic natural gas (SNG) for delivery to the wholesale market by 2025.*

As utilities increase the use of natural gas for electricity generation, in order to comply with federal clean air regulations, both natural gas and electricity prices may increase. To hedge against these price increases we need to develop Kentucky's in-state natural gas production and produce synthetic natural gas derived from coal, both of which help us to achieve our overall objectives of economic security and energy independence.

Actions to Achieve the Goal

- The Department will encourage Kentucky to develop alternative fuel facilities that use fossil energy resources.
- The Department will encourage expansion of research at the University of Kentucky's Center for Applied Energy Research (CAER) to achieve optimal processes for converting coal to gas under various combinations of coals and operating conditions.
- The Department will recommend that research at CAER should be enhanced to include the life-cycle carbon reduction potential of gasifying biomass with coal in CTG processes.
- The Department will encourage that assessments of new natural gas resources in Kentucky be expanded and accelerated.
- The Department will seek to develop new markets for Kentucky fossil energy resources.

Tactics

- Promote the use of Kentucky sites previously identified as coal-to-liquids industry locations as having potential for development.
- Continue to market the incentives outlined in the Kentucky Energy Independence Act for the development of alternative fuel facilities.
- Work with Kentucky's Local Government Economic Development Fund-eligible counties to solicit and award grants for research and demonstration projects relating to clean coal and new coal technologies, including synthetic natural gas produced from coal and the development of alternative transportation fuels produced by processes that convert coal or biomass resources.
- Participate in the Coal Utilization Research Council (CURC) and the National Coal Council (NCC), and other avenues, continue to promote national incentives for coal-to-liquid research and demonstration projects.
- Develop programs and award grants for the purpose of public education of coal-related issues (KRS 132.020(5)).

- Continue to identify and encourage new markets for CNG vehicle conversion.
- Identify potential demonstration projects to increase natural gas demand and natural gas to liquid fuels proposals.
- Support legislation that advances conversion of heavy vehicle and off-road diesel engines to run on liquefied or compressed natural gas, and purchase of new on-road or off-road natural gas fueled vehicles.
- Support legislation that advances SNG from CTG in Kentucky.
- Encourage the use of locally produced natural gas for distributed electricity generation.
- Evaluate the potential to extend natural gas service to increase demand for Kentucky produced natural gas and to reduce greenhouse gas emissions.
- Encourage the development of CNG/LNG refueling stations across the Commonwealth.

Initiate Aggressive Carbon Capture /Utilization/Storage (CCUS) Projects for Coal-Generated Electricity in Kentucky

More than 90 percent of Kentucky's electricity is derived from coal-fired power, and we rank 11th in total carbon dioxide emissions. Carbon capture, utilization and storage (CCUS) is crucial to continued use of coal as an energy resource in Kentucky. Success of CCUS will determine our ability to meet our future energy needs. Currently, CCUS development emphasizes geologic sequestration. We need more technical options for cost-effective carbon management so that coal can be a cleaner energy resource. Of all the technologies addressed in this plan, CCUS has the greatest technological uncertainty, which is why this initiative emphasizes the need for research, demonstration, and deployment. Kentucky must initiate leveraged solutions to managing carbon dioxide emissions as it diversifies its product line.

Goal--*By 2025, Kentucky will have evaluated and deployed technologies for carbon management, with use in 50 percent of our coal-based energy applications.*

There are unique challenges to be faced in a carbon-constrained world, given Kentucky's reliance on coal-fired power generation. The threats associated with climate change will require Kentucky to make a concerted effort to control emissions of carbon dioxide, one of the greenhouse gases, while at the same time recognizing that coal will continue to be a vital component of our energy mix. We must find ways to reduce carbon dioxide emissions and meet our energy needs for the future.

Actions to Achieve the Goal

- The Department will continue to support the work of the Carbon Management Research Group (CMRG), a consortium of Kentucky's major power companies, the University of Kentucky's Center for Applied Energy Research (CAER), and EEC . The CMRG will carry out a ten-year

program of research to develop and demonstrate cost-effective and practical technologies for reducing and managing carbon dioxide emissions in existing coal-fired electric power plants.

- The Department will continue to investigate legal hurdles to successful CCUS and recommended legislative solutions to the General Assembly.
- The Department will work closely with university researchers and industry partners to undertake one large-scale carbon mitigation projects to capture carbon from flue gases, and then convert system by-products to marketable commodities.
- The Department will work with stakeholders throughout the Commonwealth on research and demonstration projects and initiatives to more efficiently remove and store carbon from existing power plants.

Tactics

- Support the Carbon Management Research Group, a public private partnership working on research to more efficiently remove carbon from existing power plants.
- Collaborate with the Kentucky Geological Survey to further characterize the geology of Kentucky and its suitability for geologic storage of captured carbon dioxide.
- Increase the Department's capabilities for modeling energy systems including price impacts of various energy and economic scenarios.
- Evaluate the economic and technical feasibility of all low carbon electricity generation options available to Kentucky in light of federal greenhouse gas legislation.
- Continue to support the UK Center for Applied Energy Research (CAER) to develop the hardware and identify algal strains for sequestration of carbon dioxide.
- Support grants and incentives that enable carbon capture and storage technologies research and development in Kentucky.
- Identify barriers and solutions transporting carbon dioxide (CO₂) by pipeline.

Examine the Use of Nuclear Power for Electricity Generation in Kentucky

With major increases in efficiency and conservation, aggressively utilizing alternative and biobased energy sources, and more effective use of cleaner coal technologies, we still will not be able to achieve the projected energy demands in 2025 along with meaningful GHG reductions. Thus, other sources of base-load electricity generation will be necessary. Many of our neighboring states are considering nuclear energy. Nuclear power production has no direct carbon dioxide emissions and is already a significant component of the global energy system. Current technologies for nuclear production are superior to the previous generation of plants, complementing an already safe industry in the United States. Improved reliability and efficiency have allowed the industry to maintain its 20 percent share of

the growing U.S. electricity market. While the issue of disposal of spent fuel has not been completely resolved, progress will continue to be made to arrive at a solution that addresses the nation's needs.

Goal-- *Nuclear power will be an important and growing component of the nation's energy mix, and Kentucky must decide whether nuclear power will become a significant part of meeting the state's energy needs by 2025.*

In a carbon constrained world, the interdependencies among energy, the environment and the economy will lead to broad sweeping economic transformations in the 21st century. To find solutions that address climate challenges, use our abundant natural resources to gain energy security, and provide the power needed to drive our economy will require pursuit of a diversified mix of energy options. In weighing the benefits and limitations of potential solutions we must be willing to fully assess and understand the societal, technical, and financial trade-offs involved. Nuclear power is one such option that deserves our full attention, as its technology and safety have significantly improved in the last three decades. It also is likely to become a national priority.

Actions to Achieve the Goal

- The Department will examine legal hurdles to successful inclusion of nuclear power in Kentucky's energy mix. Specifically, removal or revision of the legislative ban on new nuclear power plants must be addressed.
- The Department will investigate the need for a public engagement plan to gather and address stakeholder feedback and concerns and to provide education about nuclear power today.
- The Department will investigate the need for additional research to assess the desirability of co-locating nuclear power plants with advanced coal conversion plants to assess the effects on reducing carbon dioxide emissions, providing ready access to electricity and/or steam, and possibly using waste heat for the coal conversion process.
- The Department will investigate and catalogue incentives that reduce the risk of capitalizing and financing a new power plant that should be considered in developing these programs.

Tactics

- Facilitate a statewide discussion of the benefits and costs of developing a nuclear generation industry in Kentucky.
- Further develop and maintain databases of energy production and consumption that is important to Kentucky.
- Produce an annual Kentucky Energy Profile
- Update and maintain the state energy assurance (energy emergency) plan that includes protocols for addressing energy shortages and responses to natural or man-made energy emergencies.

- Continue to participate in the Eastern Interconnection States Planning Council to evaluate the needs for interstate transmission and generation.
- Develop an electricity portfolio model to better understand the impact of changes driven by environmental regulations, policies, or economic conditions on the Commonwealth's electricity portfolio and emissions signature.

Department and Division Functions

DEDI - Office of the Commissioner – Provides administrative, budget, contract, personnel, legislative, communication and technical support to the commissioner.

Division of Efficiency and Conservation – The Division's mission is to provide leadership to maximize the benefits of energy efficiency and conservation through awareness, technology development and partnerships. The Division has oversight in implementing energy efficiency and conservation initiatives.

Areas of Focus:

- Oversight for planning, development and implementation of energy efficiency and conservation initiatives for the residential, commercial, industrial and transportation sectors.
- Management of the State Energy Program.
- Oversight for the development of a voluntary Energy Efficiency Resources Standard (EERS).
- Oversight for the planning, development and implementation of an energy efficiency and renewable outreach and marketing program.
- Energy Efficiency Program for State Government assistance.
- Oversight for the voluntary Renewable and Efficiency Portfolio Standard (REPS).
- Oversight for the Energy Education Collaborative.
- Oversight for the development of energy assurance and energy emergency plans in coordination with KY Division of Emergency Management and KY Homeland Security.

Division of Renewable Energy – The Division's mission is to provide leadership to maximize the benefits of renewable energy through awareness, technology development and partnerships. The Division has oversight in implementing renewable energy initiatives.

Areas of Focus:

- Oversight for renewable energy – primarily distributed generation at a scale of 1 MW or less. Larger scale initiatives (>1 MW) will be managed by the Division of Energy Generation, Transmission and Distribution.
- Oversight for the development of a voluntary Renewable Portfolio Standard (RPS).
- Oversight for co-products resulting from renewable energy initiatives.
- Oversight for CRERES board

Division of Biofuels – The Division's mission is to provide leadership to grow Kentucky's biofuels industry through research, development and commercialization while continuing to produce safe, abundant and

affordable food, feed and fiber. The Division has oversight in implementing biofuels and biomass energy initiatives.

Areas of Focus:

- Oversight for biofuels development and commercialization.
- Oversight for co-products resulting from biofuels energy initiatives.
- Assist in the coordination of the ATFS with Division of Fossil Energy Development.
- Collaborate with Kentucky's agricultural industry to develop biofuels while continuing to produce safe, abundant and affordable food, feed and fiber.
- Oversight for transportation energy efficiency initiatives that includes advanced electric and hybrid vehicles.

Division of Carbon Management and Data Analysis – The Division's mission is to provide leadership to investigate, develop and promote technical solutions for carbon capture, storage, and reuse and to engage with state, regional and federal agencies in the development of state policy designed to manage greenhouse gas emissions in a carbon constrained environment. The Division has oversight for Department's data development and analysis.

Areas of Focus:

- Conduct economic and modeling analyses on energy and carbon management initiatives.
- Oversight for the development and commercialization of carbon capture and storage technologies (geological, terrestrial and biological) and options for beneficial reuse of carbon emissions.
- Oversight for policy development, coordination and execution of carbon management initiatives, including the working group investigating legal issues surrounding carbon sequestration.
- Energy data collection, analysis and energy model development.

Division of Energy Generation, Transmission and Distribution – The Division's mission is to provide leadership to analyze and develop policies that will ensure the generation, transmission and distribution of adequate, affordable and clean energy within the Commonwealth; to understand reliability and economic trade-offs for baseload electricity generation; to develop policies that ensure the adequate transmission of energy resources; to provide energy assurance and energy emergency management planning and to promote alternative and renewable sources for electricity generation. The Division has oversight to implement nuclear power initiatives.

Areas of Focus:

- Oversight for policy development and coordination of existing and emerging energy generation, transmission, distribution and storage infrastructure resources. (Electric power generation, transmission lines, pipelines and storage)
- Oversight for electricity generation at 1 MW or greater from renewable resources.
- Oversight for pipeline transmission of carbon dioxide with assistance from the Division of Carbon Management.

- Oversight for policy development, coordination and implementation of nuclear energy initiatives.

Division of Fossil Energy Development – The Division’s mission is to provide leadership to maximize the benefits of Kentucky’s energy resources in a clean and sustainable manner while creating a base for strong economic growth and fostering national energy independence and security. The Division has oversight to implement fossil energy initiatives.

Areas of Focus:

- Oversight for emerging commercial opportunities in the development of alternative transportation fuels. Managed feed stocks include coal, natural gas, waste, coal bed methane, tar sands and shale oil.
- Oversight for the Alternative Transportation Fuel Standard (ATFS) in coordination with the Division of Biofuels.
- Oversight for co-products resulting from fossil energy development initiatives.
- Oversight for expanding conventional and nonconventional natural gas development and infrastructure.
- Oversight for fossil energy research and development.

The Department for Energy Development and Independence Web site can be found at <http://www.energy.ky.gov>.

DEPARTMENT FOR ENVIRONMENTAL PROTECTION

The mission of the Department for Environmental Protection is to protect and enhance Kentucky's environment to improve the quality of life for all Kentuckians. The Department for Environmental Protection envisions a healthy and productive commonwealth with balanced stewardship of the land, air and water where future generations enjoy an environment as good as or better than the present.

Principles:

- **The department will make sound decisions that earn the public's trust.** The decisions made by the department will be prudent, defensible and consistent with the department's mission and in the best interest of the citizens of the commonwealth.
- **The department will focus on environmental results rather than programs or procedures.** The success of environmental programs will be measured in terms of achieving desirable environmental benefits, not in the number of staff or the size of budgets. We will evaluate programs and procedures in relation to their contribution to the mission.
- **The department will use good scientific information to aid in its decision making.** The foundation on which environmental protection programs are constructed is an understanding of the causes and effects resulting from actions that impact the environment. Scientific information is critical to the assessment and evaluation of existing environmental conditions and the determination of the effectiveness of our programs. We will employ generally accepted and applicable scientific methods and processes to accomplish our mission.
- **The department will consider the range of environmental benefits and consequences of proposed actions before making final decisions.** Good public policy encourages government agencies to promote actions that maximize benefits to society while minimizing adverse effects. While individual statutes, regulations, programs and organizational units may have a narrow focus, we will always consider the benefits and consequences of our actions to the environment as a whole.
- **The department will evaluate its performance using meaningful criteria.** We will require accountability from our managers, supervisors and staff in the continuing evaluation of program performance. We will gauge effectiveness based on actual program results.

Goal 1: Clean Air

Protect human health and the environment by achieving and maintaining acceptable air quality.

Implementing and maintaining programs to achieve federal and state ambient air quality standards in the Commonwealth of Kentucky is important to the health and wellness of all citizens across the state. The amount of air pollution released into the air by industry and transportation sources is quantified and controlled by administering a comprehensive program involving air quality monitoring, planning, construction and operation permitting and inspections.

During the 2015-2016 monitoring year, the Kentucky Division for Air Quality will operate 98 instruments, including 11 meteorological stations, located at 27 ambient air-monitoring sites in 24 Kentucky

counties. The Louisville Metropolitan Air Pollution Control District will operate an additional 32 instruments, including 5 meteorological stations, in Jefferson County. When combined with the air-monitoring site operated at Mammoth Cave National Park, Kentucky's total ambient air monitoring network will consist of 136 instruments, including 17 meteorological stations, located at 34 sites across 26 counties of the Commonwealth.

Air monitoring stations are selected using U.S. EPA guidance and are generally established near populous areas or pollutant sources. Station locations are reviewed annually to ensure adequate air quality monitoring coverage. Data from the network is used to demonstrate compliance with ambient air quality standards and identify pollution trends. This information is also used to provide pollutant levels for daily air quality index reporting and detect elevated pollutant levels for activation of emergency control procedures.

Creating effective partnerships with air pollution sources and the public enables the department to carry out its goal of protecting human health and the environment by achieving and maintaining acceptable air quality for all Kentuckians.

Objective 1 – Ensure programs adhere to federal and state statutory and regulatory requirements.

Tactic 1.1: Attain and maintain the National Ambient Air Quality Standards.

- Measure:** The number of counties currently attaining the 2016 PM_{2.5} standard.
- Baseline:** The number of counties originally designated nonattainment for the 2016 PM_{2.5} standard based upon the ambient monitoring data.
- Measure:** The number of counties currently attaining the 2016 ozone standard.
- Baseline:** The number of counties originally designated nonattainment for the 2008 ozone standard based upon the ambient monitoring data.
- Measure:** The number of counties currently attaining the 2016 SO₂ standard.
- Baseline:** The number of counties originally designated nonattainment for the 2010 SO₂ standard based upon the ambient monitoring data.
- Measure:** The number of counties currently attaining the 2016 NO₂ standard.
- Baseline:** The number of counties originally designated nonattainment for the 2010 NO₂ standard based upon the ambient monitoring data.
- Measure:** The number of counties currently in attainment of the 2008 lead standard.
- Baseline:** The number of counties originally designated as nonattainment for the 2008 lead standard based on ambient monitoring data.
- Measure:** The number of counties currently attaining the 2016 PM_{2.5} standard.
- Baseline:** The number of counties originally designated nonattainment for the 2012 PM_{2.5} standard based upon the ambient monitoring data.
- Measure:** Improved visibility at Class I areas, including Mammoth Cave National Park, by EPA specified levels at interim deadlines and work toward long-range 2064 background visibility goals.
- Baseline:** 2000-2004 visibility levels.

Action 1.1.1: Submit updated information relating to the 2010 SO₂ NAAQS due September 2015, which is in response to EPA's court-ordered designation deadline of July 2, 2016.

- Action 1.1.2:** Implement and enforce federal and state control strategies for areas of Kentucky that do not meet the 2008 8-hour ozone standard (0.075ppm).
- Action 1.1.3:** Implement and enforce federal and state control strategies for areas of Kentucky that do not meet the 1-hour 2010 SO₂ standard (75ppb).
- Action 1.1.4:** Implement and enforce federal and state control strategies for 1-hour 2010 NO₂ standard (100ppb).
- Action 1.1.5:** Implement and enforce the federal programs and requirements contained in the December 2007 Regional Haze SIP.
- Action 1.1.6:** Develop and finalize redesignation requests.
- Action 1.1.7:** Monitor EPA's actions of the submitted infrastructure SIP for the Pb, O₃, PM_{2.5}, NO₂ and SO₂ standards.
- Action 1.1.8:** Participate in regional modeling initiatives for ozone and visibility control strategies.
- Action 1.1.9:** Conduct education and outreach to those communities expected to be impacted by nonattainment designations.
- Action 1.1.10:** Administer SIP-approved programs implemented as part of historic control strategies.
- Action 1.1.11:** Develop required control strategy SIP as specified by the CAA and EPA guidance.

Tactic 1.2: Review and revise state air quality regulations and policies.

Measure: The number of regulatory packages developed, promulgated, and finalized in FY16.

Baseline: The number of FY15 packages developed, promulgated and finalized.

Action 1.2.1: Revise state regulations 401 KAR 51:010, 401 KAR 52:050, 401 KAR 52:070, 401 KAR 53:005, 401 KAR 53:010, 401 KAR 59:015, 401 KAR 59:174, 401 KAR 60:005, 401 KAR 63:002, and 401 KAR 63:060.

Action 1.2.2: Develop regulation packages that are inclusive of stakeholder input.

Tactic 1.3: Assess source emissions annually through the Emission Inventory System.

Measure: The number of sources assessed, estimated calendar year emissions, and the amount of emission fees collected during CY 2016.

Baseline: The number of sources assessed, estimated calendar year emissions, and the amount of emission fees collected during CY 2013.

Action 1.3.1: Determine the sources eligible for the emission survey by the first quarter of the calendar year.

Action 1.3.2: Assess source emissions by third quarter of the calendar year.

Action 1.3.3: Assess emission fees by the fourth quarter of the calendar year.

Action 1.3.4: Develop projection of emission fee based on source emission assessments and divisional needs.

Tactic 1.4: Ensure air quality programs are fiscally and administratively viable.

Measure: The division staffing levels as compared to cap, budgeted amounts, number of grant programs administered and completed, number of training programs delivered for division staff during FY16.

Baseline: Corresponding measures for FY15.

Action 1.4.1: Prepare the division budget for the fiscal year.

Action 1.4.2: Communicate and coordinate with DEP budget staff on the divisional budget requirements.

Action 1.4.3: Track expenditures and receipts to ensure programs are within designated budgetary amounts.

Action 1.4.4: Implement Cabinet and DEP operational, personnel and human resource policies and programs.

Action 1.4.5: Monitor staffing levels and ensure timely processing of personnel actions.

Action 1.4.6: Educate and provide outreach to division staff on Cabinet and DEP policies.

Action 1.4.7: Track grants programs and ensure grant programs are meeting expectations.

Tactic 1.5: Ensure programs are legally sound.

Measure: Number and outcome of air quality litigation cases in FY16.

Baseline: Litigation cases in FY 2015.

Action 1.5.1: Provide technical expert witness testimony at Office of Administrative Hearings and courts of jurisdiction.

Action 1.5.2: Track relevant state and federal air quality policy issues and litigation.

Action 1.5.3: Track on-going DAQ litigation.

Objective 2 – Ensure permits are protective of Kentucky’s air quality.

Tactic 2.1: Issue appropriate, lawful permits in a timely manner.

Measures: The total number of permit applications received; the total number of permits issued; the total number of permits pending; the total number of permits pending that exceed regulatory timeframes; the total number of other permit actions (i.e. registrations; off-permit changes; etc.) processed; the number of new permit staff; number of trainings programs provided for permit review staff.

Baseline: Average of the five previous state fiscal years.

Action 2.1.1: Issue permitting actions that are inclusive of all applicable federal and state requirements.

Action 2.1.2: Issue permitting actions within the designated regulatory timeframes.

Action 2.1.3: Utilize TEMPO to accurately track and report on permitting actions.

Action 2.1.4: Evaluate and implement streamlining opportunities to address procedural and institutional inefficiencies.

Action 2.1.5: Recruit qualified permitting staff.

Action 2.1.6: Provide training to increase knowledge and enhance retention of qualified staff.

Tactic 2.2: Conduct air quality modeling to assess source impacts on air quality.

Measures: The total number of air toxic assessments and Prevention of Significant Deterioration (PSD) modeling assessments in FY16.

Baseline: Modeling assessments in FY15.

Action 2.2.1: Assess air toxic impacts as it pertains to permit requirements.

Action 2.2.2: Assess emissions as they relate to NAAQS.

Objective 3 – Monitor Kentucky’s Air Quality.

Tactic 3.1: Operate a statewide ambient air-monitoring network.

Measures: The number of air monitors in the network based on population estimates; number of locations selected to represent population exposure; number of locations selected to represent background concentration levels; number of locations selected to represent regional transport of ambient air pollution; number of monitors and locations to represent source impacts; number of hours of continuous ambient air monitoring data collected; number of particulate matter; lead; and air toxics samples collected; concentrations of pollutants for which national ambient air quality standards have been established; and concentrations of pollutants for which health-based risk standards have been determined.

Baseline: 2009-2013 Kentucky Electronic Data Acquisition Systems data and 2009-2013 Kentucky Air Quality System (AQS) data.

Action 3.1.1: Develop and submit to EPA for approval the ambient air monitoring network plan by July 1, 2016.

Action 3.1.2: Operate monitor sites as approved in the ambient air monitoring network plan.

Action 3.1.3: Obtain ambient air pollutant concentrations for ozone, sulfur dioxide, and oxides of nitrogen on a continuous basis using automated analyzers in accordance with applicable regulatory requirements.

Action 3.1.4: Obtain ambient air pollutant concentrations for particulate matter 2.5 microns in diameter or smaller (PM_{2.5}) on a continuous basis using automated samplers in accordance with applicable regulatory requirements.

Action 3.1.5: Collect 24-hour samples for particulate matter (including PM_{2.5}, PM₁₀, and speciated PM_{2.5}), lead, and air toxics per the national EPA Monitoring Schedule.

Action 3.1.6: Minimize data loss by ensuring that failed equipment is repaired or replaced within 5 business days after notification of instrument malfunction.

Tactic 3.2: Ensure data accuracy and integrity of the ambient air-monitoring network.

Measures: The number of complete and current Quality Assurance Project Plans (QAPPs); number of complete and current standard operating procedures (SOPs); percentage of valid; quality-assured continuous ambient air monitoring data collected; percentage of valid; quality-assured particulate matter; lead; and air toxics samples collected; number of quality control checks performed on ambient air monitors; and number of ambient air monitoring performance evaluations conducted.

Baseline: EPA's 2009-2013 Kentucky Technical Systems Audit Results.

Action 3.2.1: Review 100% of division's air monitoring QAPPs on an annual basis.

Action 3.2.2: Review 100% of division's air monitoring SOPs on an annual basis.

Action 3.2.3: Develop SOPs for new methods within 6 months of start-up.

Action 3.2.4: Maintain 75% data recovery for each calendar quarter for all instruments within the ambient air-monitoring network.

Action 3.2.5: Conduct quality control precision checks on each automated analyzer that collects ozone at least once every two weeks, with results within $\pm 7\%$ difference.

Action 3.2.6: Conduct quality control precision checks on each automated analyzer that collects SO₂ and NO_x data at least once every two weeks, with results within $\pm 10\%$ difference.

Action 3.2.7: Conduct quality control precision checks on each instrument that collects particulate matter samples at least once per month, with results within $\pm 4\%$ difference.

Action 3.2.8: Review and submit the annual ambient air quality data certification for each NAAQS pollutant measured by May 1, 2016.

Tactic 3.3: Administer the source-sampling program.

Measures: The number of source sampling events observed; number of test protocol reviews completed; and number of test report technical reviews completed in CY16.

Baseline: Corresponding measures for CY 2015.

Action 3.3.1: Review source-sampling protocols for adherence to standard test methods.

Action 3.3.2: Observe source sampling events to assure compliance with test protocols and permit requirements.

Action 3.3.3: Review source sampling test reports for adherence to standard test methods.

Action 3.3.4: Track source-sampling activities in TEMPO.

Action 3.3.5: Provide technical assistance to staff on source sampling methods and activities.

Tactic 3.4: Assess statewide source emission impacts in Kentucky and across state boundaries.

Measures: The number of analyses conducted in CY16.

Baseline: Baseline will be determined by the analysis on a case-by-case basis.

Action 3.4.1: Conduct analysis and research of statewide source emissions, impacts, and trends in Kentucky.

Action 3.4.2: Conduct analysis and research of Kentucky emissions and impacts on interstate air pollution.

Action 3.4.3: Provide technical assistance on source emissions, impacts, and trends.

Objective 4 – Assure compliance and enforce air quality standards.

Tactic 4.1: Inspect sources of air pollution.

Measures: The number of major (Title V) and conditional major/Federally Enforceable State Origin Permit (FESOP) permits; the number of Title V source inspections conducted; number of conditional major/Federally Enforceable State Origin Permit (FESOP) inspections conducted; the number of annual compliance certifications for Title V major and conditional major (FESOP) sources received; the number of annual compliance certifications for Title V major and conditional major (FESOP) sources reviewed; and the compliance rate of stationary source inspections.

Baseline: FY 2010-2014 trends data.

Action 4.1.1: Complete full compliance evaluations (FCE) at all (100%) Title V major stationary sources on a biennial basis.

Action 4.1.2: Complete full compliance evaluations at all (100%) conditional major (FESOP) sources on a biennial basis.

Action 4.1.3: Complete review of 100% of annual compliance certifications for Title V major and conditional major (FESOP) sources annually.

Tactic 4.2: Conduct enforcement actions regarding violations of air quality regulations.

Measures: Number of High Priority Violations (HPV); number of days taken to initiate appropriate enforcement action on each High Priority Violation; and track the number of Letters of Warning (LOWs) and Notices of Violation (NOVs) issued on an annual basis.

Baseline: FY 2010-2014 trends data.

Action 4.2.1: Initiate appropriate enforcement action on 100% of high priority violations (HPV) within 60 days of discovery.

Action 4.2.2: Issue LOWs and NOVs in a timely manner.

Tactic 4.3: Respond to air quality complaints.

Measures: The number of non-asbestos complaints received; number of non-asbestos complaint investigations conducted; the number of complaints resolved by other means; number of open burning complaints received (401 KAR 63:005); number of fugitive emission complaints received (401 KAR 63:010); number of odor complaints received (401 KAR 53:010) and the number of violations for these three complaint types.

Baseline: FY 2010-2014 trends data.

Action 4.3.1: Complete complaint assessments and/or investigations for 100% of complaints received during fiscal year.

Tactic 4.4: Administer the asbestos program.

Measures: The number of Asbestos Certification and Accreditations processed in TEMPO; number of non-complaint asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP) inspections conducted; number of Asbestos Hazard Emergency Response Act (AHERA) inspections conducted; number of asbestos-related complaints received; number of asbestos-related complaint investigations conducted; number of asbestos NESHAP notifications received; and number of asbestos NESHAP notification investigations.

Baseline: FY 2010-2014 trends data.

Action 4.4.1: Review and issue certification and accreditations within the 30-day regulatory timeframe (RTF).

Action 4.4.2: Complete inspection of 75% of NESHAP-regulated asbestos activities within the current fiscal year for which the division has received a required notification.

Action 4.4.3: Complete inspection of 20% of selected AHERA local education agencies (i.e. school districts) for the current fiscal year.

Action 4.4.4: Complete asbestos complaint assessments and /or investigations for 100% of complaints received during fiscal year.

Action 4.4.3: Develop a QAPP for asbestos sampling.

Action 4.4.4: Develop a standard operating procedure on AHERA inspections.

Action 4.4.5: Develop standard operating procedures (SOP) for asbestos sampling.

Action 4.4.6: Develop Asbestos Certification and Accreditations in TEMPO.

Action 4.4.7: Establish required Kentucky Asbestos Orientation Course in an online format.

Action 4.4.8: Develop digitized Asbestos certification files.

Objective 5 – Participate in programs that improve Kentucky’s air quality.

Tactic 5.1: Participate in programs that reduce mobile and off road emissions.

Measures: The number of programs administered, partners, and any emission reduction results for FY16.

Baseline: Corresponding measures for FY15.

Action 5.1.1: Report annual data to the Kentucky Clean Fuels Coalition (KCFC) website for the DEP Green Fleets Program.

Action 5.1.2: Partner with the KCFC on initiatives such as promotion of electric vehicles, natural gas and other clean transportation fuels.

Tactic 5.2: Educate the public on Kentucky air quality issues.

Measures: The number of schools visited, students educated, outreach events conducted, and programs initiated and conducted in FY16.

Baseline: Corresponding measures for FY15

Action 5.2.1: Develop and conduct air quality educational programming for Kentucky's primary and secondary educational institutions.

Action 5.2.2: Partner with organizations on environmental education opportunities.

Action 5.2.3: Develop educational materials including articles for print, non-print, and social media that educate the public on air quality issues.

Action 5.2.4: Maintain and update the division's website.

Action 5.2.5: Coordinate and conduct public events and exhibitions that educate the public on air quality issues.

Action 5.2.6: Monitor and coordinate environmental education information as it pertains to the division programs and air quality education.

Tactic 5.3: Foster networking through regional and national partnership.

Measures: The number of DAQ staff participating in leadership roles or as committee members in FY16.

Baseline: Number of staff in leadership roles or serving as committee members in FY15.

Action 5.3.1: Participate in AAPCA, NACAA, ECOS, and SESARM on program and initiatives that affect the division.

Goal 2: Clean and Safe Water

To manage, protect, and enhance the quality and quantity of the Commonwealth's water resources for present and future generations through voluntary, regulatory, and educational programs.

Kentucky has an abundance of water resources that provide important sources for public water systems, recreation and tourism, and economic opportunities. Managing and protecting the state's waters, including lakes, streams and rivers, as well as the water beneath the ground's surface, is imperative to ensure safe water for human health, the subsistence of important ecosystems, and the prospect of economic development. The department is responsible for regulating and monitoring the quality of drinking water, surface water and groundwater resources, and wastewater treatment systems across the state of Kentucky.

Effective regulatory oversight of water quality via federal and state regulations along with appropriate water quality criteria controls the amount of pollutants that can be discharged to water sources. Continuous improvement of water quality in Kentucky is achieved through permitting, compliance and inspection, monitoring, and other water quality improvement programs. Inspections of permitted facilities, in conjunction with collection and analysis of data from rivers, streams, lakes and wetlands throughout the state, enable the department to closely monitor the safety of the public's drinking water and the state's water resources.

The department not only protects the public's safety by regulating water quality, but also assists the federal government in the effort to protect Kentuckians from dam failures and flooding. Permits for

construction, reconstruction, and repair of dams are issued by the department and regular inspections of dams are also conducted. The National Flood Insurance Program is administered by the department; the department also issues permits for construction on floodplains to prevent losses from flooding in Kentucky.

Through the support of regulatory, monitoring and water quality improvement programs, Kentucky's water resources are enhanced and protected for present and future generations.

Objective 1 - Protect, manage and restore water resources.

Tactic 1.1: Develop and Implement a strategy for completion of TMDLs and Alternative plans.

Measures: Number of impaired waters scheduled for TMDL development in SFY16.
Number of impaired waters bypassed for TMDL development in SFY16.
Number of permits that contain TMDL measures in SFY16.
Number of accepted watershed-based plans.
Number of implementation strategies completed.
GRTS load reductions for FFY.
Number of watershed plans accepted as TMDL alternative.

Baselines: Number of permits that contain TMDL measures in SFY15.
Number of impaired waters bypassed for TMDL development in SFY15.
Number of accepted watershed plans at beginning of fiscal year.

Action 1.1.1: Develop TMDLs or alternatives in accordance with Division's Prioritization Framework of the Long Term Vision under the Clean Water Act Section 303 (d) Program.

Action 1.1.2: Review accepted watershed-based plans in accordance with the Division's Prioritization Framework to determine if they are appropriate as alternatives to TMDLs and submit to EPA for review by June 2016.

Action 1.1.3: Develop a TMDL baseline and priority list for the development of TMDL's and TMDLs alternatives based on the long-term Division's Prioritization Framework by September 30, 2015.

Action 1.1.4: Develop an approach to TMDL alternatives in at least one watershed.

Action 1.1.5: Determine implementation strategies and outcomes that have been developed and put into practice for TMDLs or alternative plans by August 31, 2016.

Action 1.1.6: Recruit contractors by June 30, 2016 to apply for 319(h) funding to implement watershed plans.

Action 1.1.7: Develop monitoring strategies by August 31, 2016 for determining the outcomes of applied implementation strategies.

Action 1.1.8: Continue updates of the Water Health Portal and outreach to stakeholder groups by June 30, 2016.

Tactic 1.2: Implement a Nutrient Reduction Strategy.

Measure: Percentage of data collected and analyzed for the development of nutrient criteria in SFY14-16.

Baseline: The SFY14 inventory of existing nutrient criteria data.

Action 1.2.1: Continue collection and assessment of data for consideration of numeric criteria (nitrogen and phosphorus) for wadeable streams and reservoirs/lakes by June 2016.

Action 1.2.2: Update Kentucky Nutrient Reduction Strategy as identified in the NRS and appropriate.

Action 1.2.3: Implement and conduct public outreach regarding nutrients and water quality issues.

Action 1.2.4: Participate in the Mississippi River/Gulf of Mexico Hypoxia Task Force and work to implement the 2008 Gulf Hypoxia Action Plan.

Action 1.2.5: Participate in meetings of the Kentucky Agriculture Water Quality Authority.

Action 1.2.6: Work with Kentucky Agriculture Water Quality Authority in developing protocols for the Authority.

Action 1.2.7: Work with the Kentucky Agriculture Water Quality Authority on development of a strategic plan.

Tactic 1.3: Assess water qualities to develop, implement, maintain and enhance aquatic resources.

Measures: Water quality standards developed to protect, maintain and restore water resources.

Number of surface water resources monitored and assessed.

Acres of Wild Rivers corridors protected and enhanced.

Number of water quality information disseminated.

Baseline: Current water quality standards.

Surface waters assessed for support of the designated use for the previous SFY.
The acres and river-miles protected and maintained in the Wild River corridors during the previous SFY.

The number of reports, advisories, information requests created, revised or completed during the previous SFY.

Action 1.3.1: Complete triennial review for the development of water quality standards through the review of national recommended water quality criteria, stakeholder input, literature, and new emerging topics by February 1, 2016.

Action 1.3.2: Develop and promulgate water quality standards through the KRS 13A process and timeline.

Action 1.3.3: Collect surface water quality data from the current basin management unit, established monitoring sites, and special study locations to determine water quality conditions of the Commonwealth.

Action 1.3.4: Review and revise the statewide water quality monitoring strategy by December 31, 2015.

Action 1.3.5: Review and assess water quality monitoring data to determine designated use support for the waters of the Commonwealth by January 31, 2016.

- Action 1.3.6:** Coordinate with other agencies to enhance water quality monitoring of the surface waters of the Commonwealth by November 2015 for the 2016 monitoring season.
- Action 1.3.7:** Complete the 2016 integrated report by August 31, 2016.
- Action 1.3.8:** Provide water quality data and recommendations to agencies issuing aquatic use advisories.
- Action 1.3.9:** Provide the public with water quality, geospatial information, advisories and public notices, through the Division’s website, the Water Health Portal, reports, meetings and press releases.
- Action 1.3.10:** Respond to information requests and provide technical assistance.
- Action 1.3.11:** Develop management plans for the Wild River corridors by December 31, 2015.
- Action 1.3.12:** Expand and acquire Wild River corridor properties.
- Action 1.3.13:** Develop a plan for maintaining and enhancing Wild River corridor properties owned by the Cabinet.
- Action 1.3.14:** Update the Nutrient Criteria Development Plan by September 2015.

Objective 2 – Conduct effective water resources planning

Tactic 2.1: Revise and update the Kentucky’s Watershed Approach

- Measures:** Completion of the Watershed Framework.
Number of partners in Center of Excellence.
Promotion and increased usage of Recovery Potential tool.
- Baseline:** 1997 Watershed Framework.

- Action 2.1.1:** Complete a draft of the revised Watershed Framework by December 15, 2015.
- Action 2.1.2:** Implement, continue development of, and identify opportunities for new ‘Straight To (TMDL) Implementation Plans’.
- Action 2.1.3:** Complete Basin Status Reports by December 2015.
- Action 2.1.4:** Work to recalculate prioritized metrics used in Recovery Potential Tool based on state-specific inputs by December 31, 2015.
- Action 2.1.5:** Work with KWRRRI to promote the Kentucky Watershed Center of Excellence, involve, and recruit Watershed Framework partners.

Tactic 2.2: Promote the EPA’s Sustainable Infrastructure Initiative.

- Measures:** The number of dam safety inspections completed during the year.
The annual number of boil water advisories.
The number of sustainable infrastructure outreach activities completed.
The number of projects approved that incorporated “green” methods or practices such as regionalization, conservation, water and energy Expenditure of State-Owned Dam Repair (SODR) funds.
- Baseline:** The corresponding numbers from 2015.

- Action 2.2.1:** Develop a strategy for implementing Kentucky's Sustainable Infrastructure by January 15, 2016.
- Action 2.2.2:** Collaborate with key stakeholders from government, industry, and community groups to use their expertise in promoting sustainable water infrastructure.
- Action 2.2.3:** Conduct training and public outreach workshops around the state to explain the Sustainable Infrastructure Initiative to water and wastewater providers; discuss with utilities the available asset management tools; and provide them guidance on how to implement the sustainable infrastructure concepts by June 30, 2016.
- Action 2.2.4:** Revise the State Revolving Fund (SRF) project priority ranking systems to award more points to projects that implement sustainable concepts by January 15, 2016.
- Action 2.2.5:** Implement SODR program strategies and projects.
- Action 2.2.6:** Train local officials, floodplain coordinators, and emergency management personnel on how to read inundation maps, and assist them in developing and exercising Emergency Action Plans by June 2016.

Tactic 2.3: Plan for sustainable infrastructure.

- Measures:**
- The number of facility plans and asset inventories reviewed and approved.
 - The number of dam safety inspections completed during the year.
 - The number of environmental information documents reviewed and approved.
 - The number of projects approved that incorporated "green" methods or practices such as regionalization, wastewater reuse, as well as water and energy conservation.

Baseline: The corresponding numbers from 2015.

- Action 2.3.1:** Develop with stakeholders a strategic sustainability plan for small water and wastewater utilities by December 2016.
- Action 2.3.2:** Participate in the Area Development District Water Management Planning Council meetings to assist with planning future water infrastructure.
- Action 2.3.3:** Work with the Public Service Commission and potential receivers of failing systems to create more comprehensive options in the case of infrastructure abandonment by December 2015.
- Action 2.3.4:** Encourage water and wastewater systems to plan on watershed basis to protect water quality, reduce infrastructure construction costs throughout the planning, and design process by June 30, 2016.
- Action 2.3.5:** Continue investigation of innovative uses of the drinking water SRF set-asides that support the sustainable infrastructure initiative.
- Action 2.3.6:** Evaluate and provide recommendations regarding the relationships between floodplain permitting, floodplain compliance, and dam safety.
- Action 2.3.7:** Complete the dam safety inspections as scheduled to ensure dams are properly maintained.
- Action 2.3.8:** Implement the Dam Safety program Modernization Project by June 30, 2016.

Action 2.3.9: Evaluate the direction of the Capacity Development program and document findings in a revision to the Capacity Development Strategy for submittal to EPA by January 15, 2016.

Objective 3 - Meet federal and state program requirements.

Tactic 3.1: Meet Federal grant guidance requirements.

Measures: On-time submittal of all federal grant applications, work plans and reports.
Percentage of PPA work plan inspections conducted.
Submittal of required primacy packages.
Number of scheduled sanitary surveys completed within the month assigned.
Implementation of Drinking Water State Revolving Fund (DWSRF) set-asides work plans.
Number of special appropriation (SPAP) projects inspected.

Baselines: FFY15 and FFY16 federal commitments.
The number of scheduled sanitary surveys completed within the month assigned during FY15.
The number of SRF and SPAP inspections completed in 2015.

Action 3.1.1: Commence the Performance Partnership Agreement (PPA) with EPA by October 1, 2015.

Action 3.1.2: Submit work plans, grant applications, and all reports to grantors within deadline specified in the PPA.

Action 3.1.3: Develop the FFY17 106 PPA work plan commitments in coordination with EPA by July 2016.

Action 3.1.4: Submit the final FFY17 106 work plan inspection commitments by July 15, 2016.

Action 3.1.5: Meet federal work plans, primacy requirements and applicable National Program Measures within associated federal timeframes.

Action 3.1.6: Submit DWSRF set-asides work plans and Intended Use Plan to Kentucky Infrastructure Authority by April 2016.

Action 3.1.7: Conduct field inspections of projects that received SPAP grants in accordance with the federal grant work plans.

Action 3.1.8: Conduct field inspections of projects that received financial assistance from the state revolving fund.

Action 3.1.9: Develop a strategy to reduce PWS monitoring and reporting violations.

Action 3.1.10: Implement and evaluate a compliance rate improvement plan for inspection activities by June 30, 2016.

Action 3.1.11: Implement the revised Total Coliform Rule on January 1, 2016.

Action 3.1.12: Comply with Section 303(c) of the CWA for triennial review requirements.

Tactic 3.2: Meet state requirements and maintain progress toward achieving and maintaining zero permit backlogs.

- Measures:**
- The total number of permits pending July 2016.
 - The total numbers of permits pending that exceed regulatory timeframes (RTF) by July 2016.
 - The total numbers of “major” facilities with permit applications that exceed regulatory timeframes by July 2016.
 - The number of general permits that have expired and not been issued or that have not been addressed by July 2016.
 - The number of general permits Notices of Intent (NOIs) for which coverage has not been issued or that have not been addressed by July 2016.
 - The percentage of permit reviews completed within RTF during SFY16.
 - The percentage of permit reviews that exceed RTFs during SFY16.
 - Employee productivity rates for permitting, data entry and scanning during SFY16.
 - The percentage of construction plan approvals issued within the RTF for drinking water facilities.
 - The percentage of clean water construction permits issued within the RTF.
 - The percentage of dam safety construction permits issued within the RTF.
 - Number of coal Individual Permit (IP) and General Permit (GP) coverages issued without objection.
- Baselines:**
- The corresponding percentages from 2015.
 - The SFY15 DOW permit backlog.
 - SFY15 backlog percentages.
 - SFY15 employee productivity rates.
 - Number of coal IP and GP coverages issued without objection on July 1, 2015.

- Action 3.2.1:** Meet RTF on permit issuances and plan reviews.
- Action 3.2.2:** Resolve issues regarding the registration of oil and gas sites and data management.
- Action 3.2.3:** Issue remaining expired general permits by January 15, 2016.
- Action 3.2.4:** Provide outreach to the regulated community regarding implementation of general permits by March 15, 2016.
- Action 3.2.5:** Issue permits for all “major” facilities that exceed the RTF by June 30, 2016.
- Action 3.2.6:** Issue permits for all facilities that exceed the RTF by >1.5 years by June 2016.
- Action 3.2.7:** Process coal general permits by January 31, 2016. Resolve coal permits, which are the subject of EPA objections by October 30, 2015.
- Action 3.2.8:** Meet regulatory time frames pertaining to 401 Water Quality Certifications.
- Action 3.2.9:** Resolve TEMPO issues for WQCs by December 31, 2015.

Tactic 3.3: Implement and maintain laboratory certification programs.

- Measure:** The number of wastewater and drinking water laboratories certified in SFY16.
- Baseline:** The number of certified labs on July 1, 2015.

- Action 3.3.1:** Continue implementation of the wastewater lab certification program. Field only labs will begin implementation January 2016.
- Action 3.3.2:** Maintain certification for general wastewater labs.
- Action 3.3.3:** Maintain lab certification program for drinking water labs.

Objective 4 - Promote better management and communication of data.

Tactic 4.1: Implement an integrated data management system for water quality data.

Measures: Implementation of Kentucky Water Assessment Data for Environmental Monitoring (K-WADE).

Successful data exchange with EPA via K-WADE.

Baseline: Level of completion on July 1, 2015.

- Action 4.1.1:** Collaborate with the Division of Environmental Program Support (DEPS) to increase data type, flow, and efficiency to EPA using exchange.
- Action 4.1.2:** Collaborate with DEPS on a report and query tool for KWADE that is accessible division-wide by December 2015.
- Action 4.1.3:** Explore the integration of water quality data collected outside of the Water Quality Branch into KWADE by July 2016.

Tactic 4.2: Make necessary changes to TEMPO to allow for a new e-filing system.

Measures: Development and creation of new e-filing system for Nonpoint Source Program.

Baseline: Level of completion for SFY 2015.

- Action 4.2.1:** Collaborate with DEPS on development and creation of a new e-filing system for Nonpoint Source Program by June 2016.

Tactic 4.3: Promote better decision making through GIS and Data Analysis (GDA).

Measures: Number of GIS training events in SFY16.
 Number of data analysis projects completed in SFY16.
 Numbers of GDA help desk requests fulfilled in SFY16.
 Number of location corrections processed in SFY16.
 Number of National Hydrologic Database (NHD) and Geographic Names Information System corrections processed in SFY16.
 Watershed Boundary Dataset (WBD) stewardship achieved.

Baselines: Corresponding measures for SFY15.

- Action 4.3.1:** Conduct ten training events for DOW staff regarding GIS and ArcGIS 10 by June 30, 2016.
- Action 4.3.2:** Develop schedule to continue systematically analyzing data from current DOW databases.
- Action 4.3.3:** Improve the utility of TEMPO through data validation.

- Action 4.3.4:** Continue to serve as the steward of and maintain the Kentucky portion of the NHD.
- Action 4.3.5:** Pursue establishment of WBD stewardship program.
- Action 4.3.6:** Develop GIS tools (including mobile applications and desktop solutions) for inspectors, permit writers, others in the division, and the public that would be served by these tools by January 15, 2016.

Tactic 4.4: Manage the Safe Drinking Water Information System (SDWIS).

Measures: Implementation of eMOR.
Implementation of web-based data entry process.

Baseline: Level of completion for SFY 2015.

- Action 4.4.1:** Collaborate with DEPS to maintain SDWIS until SDWIS Prime implementation.
- Action 4.4.2:** Participate on SDWIS Prime workgroups.
- Action 4.4.3:** Develop an implementation plan for utilizing SDWIS Prime.
- Action 4.4.4:** Perform SWIS software update in order to receive data for the Revised Total Coliform Rule by June 30, 2016.

Tactic 4.5: Implement ICIS data flows and data entry via netDMR to improve permit compliance, tracking, and data analysis.

Measures: Implementation of permit and compliance data flows into ICIS.
Implementation of netDMR.

Baseline: Status of flowing data to ICIS and entering data into netDMR for SFY 2015.

- Action 4.5.1:** Implement eNOI system and flow permit data from TEMPO into ICIS for the coal mining industry by the effective date of coverage under KYGE4 and KYGW4.
- Action 4.5.2:** Transition DMR submittals from the DNR portal to NETDMR and ICIS for the coal mining industry by the effective date of coverage under KYGE4 and KYGW4.

Tactic 4.6: Improve the utility of TEMPO to provide more accurate facility information data.

Measure: Improved accuracy demonstrated by TEMPO audit report in SFY16

Baseline: TEMPO audit reports generated during SFY15.

- Action 4.6.1:** Collaborate with DEPS to update work activity logs, requirements library and profiles to be reflective of regulatory changes and current processes.
- Action 4.6.2:** Collaborate with DEPS to provide TEMPO training to new staff to ensure they are effectively using all features of TEMPO.
- Action 4.6.3:** Corrections of data will be made based on regular audit reports from TEMPO.
- Action 4.6.4:** Regular auditing of water/wastewater permit locations by staff. Develop better methods for synchronization between Water Resource Information System and TEMPO database.

Action 4.6.5: Implement TEMPO 360.

Tactic 4.7: Maintain and improve data quality.

Measures: Improved accuracy demonstrated by database audit reports.
Number of staff receiving quality assurance (QA) training in SFY16.
Number of division-approved SOPs for SFY16.
Number of Quality Assurance Project Plans (QAPPs) reviewed for DOW. Number of QAPPs reviewed from outside organization data.

Baseline: Audit reports and laboratory flags generated during SFY15
Number of division approved SOPs for SFY15.

Action 4.7.1: Conduct regular training for DOW staff regarding QA and the review process.

Action 4.7.2: Assure cross-database accuracy demonstrated by regular database audit reports.

Action 4.7.3: Integrate K-Wade and ADB so they flow quality data to new EPA ATTAINS by April 30, 2017.

Action 4.7.4: Work with DEPS to upgrade Dam Safety database to a more robust version that will ensure quality data is flowed into TEMPO by June 30, 2016.

Action 4.7.5: Paper Elimination Project: digitize paper records for long-term storage by May1, 2016.

Objective 5 – Track water-related litigation

Tactic 5.1: Direct and participate in any legal challenges to water quality and water resource issues; track and participate via comments, etc. in federal water policy issues.

Measures: Outcome of the litigation.

Baseline: All on-going litigation relating to water quality and water resources represented by Environmental Protection Office of General Counsel.

Action 5.1.1: Provide technical expert witness testimony at Office of Administrative Hearings and courts of jurisdiction.

Action 5.1.2: Track relevant state and federal water policy issues and litigation.

Action 5.1.3: Track on-going DOW litigation.

Goal 3: Waste Management and Land Resortation

Preserve and restore Kentucky's land through the development and implementation of fair, equitable and effective waste management programs.

As Kentucky's population grows, the number of homes, businesses and industries that provide jobs, services and goods for residents continues to increase. This population and economic growth results in increased use of chemicals and residential and industrial materials, which increases the waste stream associated with these activities. The Department for Environmental Protection safeguards and ensures protection of human health and the commonwealth's land, air, water and groundwater resources.

To accomplish this, the department administers an array of programs that work together to protect human health and the environment from the impacts related to increased waste in landfills and other waste facilities, ranging from hazardous chemical and petroleum contamination to illegal trash disposal. This strategy protects and benefits the Commonwealth in a number of ways. It protects the citizens of the Commonwealth as well as protects and restores Kentucky's natural resources through preventative monitoring programs and remediation. Programs also preserve existing green space through the restoration and reuse of old brownfield space for new commercial and industrial ventures. They develop properties with existing infrastructure, beautify communities, and raise the value of surrounding properties. The department regulates and educates the public on these issues concerning solid and hazardous waste management, site remediation at contaminated properties, redevelopment and reuse of impacted properties, operation and corrective action of underground storage tanks, and recycling waste products.

The management of solid and hazardous wastes are achieved through comprehensive permitting, registration, monitoring, reporting and training requirements. In addition, the department promotes solid and hazardous waste minimization, landfill inspections, conducts public hearings and provides evaluation of waste streams to ensure proper protection of our state's natural resources.

The health and environmental threats from leaking underground storage tanks are managed by a two-fold approach that monitors and prevents leaks and spills, and assesses and remediates contaminated sites. Prevention is achieved through a focus on compliance with state and federal operation and maintenance requirements. The department's management of state funds available for these activities supports the complementary focus on oversight of site assessment and cleanup.

The department uses state and federal funds to address environmental emergencies, state-lead assessments, cleanup and remediation of State-Lead and National Priority List sites that are contaminated and abandoned which pose a serious threat to human health and the environment, and redevelopment programs to support and encourage redevelopment of properties with real or perceived adverse environmental conditions. Department personnel work with regulated businesses, contractors, government agencies, and various stakeholders to characterize and remediate sites where contamination has been released into the environment. In addition, the department uses regional field offices to support the programs by performing inspections, and ensuring that facilities are compliant with regulatory requirements.

The department encourages public participation through various programs to protect our environment by recycling and reducing waste in order to minimize land disposal and to conserve energy and natural resources. These programs educate citizens and industry on environmentally friendly practices in the proper management of waste while emphasizing the significant environmental and economic benefits of reducing, reusing and recycling materials.

Objective 1 - Ensure programs adhere to federal and state statutory and regulatory requirements.

Tactic 1.1: Review and revise administrative regulations, and propose legislative amendments to comply with federal regulatory requirements.

Measure: Number of legislative proposals drafted in the current fiscal year.

Baseline: Corresponding measure for FY2015.

Measure: Number of regulatory packages developed, promulgated and finalized in the current fiscal year.

Baseline: Corresponding measure for FY2015.

Action 1.1.1: Develop regulation packages for division programs that comply with state statutory and federal requirements in a manner protective of human health and the environment that accurately reflect programmatic policy.

Action 1.1.2: Prepare draft legislative agenda to address any issues requiring legislative solutions and pursue enactment.

Action 1.1.3: Develop regulation packages that are inclusive of stakeholder concerns.

Tactic 1.2: Provide resources and oversight to the regulated community to achieve compliance with federal and state regulations.

Measures: Number of underground storage tank owners/operators that completed the Kentucky Tank Operator Online Learning System (KY TOOLS) training.
Percentage of underground storage tank owner/operators in compliance with the requirement to have Designated Compliance Managers.

Baseline: Corresponding measures for FY2015.

Measure: Number and percentage of solid waste sites submitting the Environmental Remediation Fee in accordance with KRS 224.43-500.

Baseline: Corresponding measure for FY2015.

Measures: The percentage of authorized hazardous waste facilities in compliance.
The percentage of registered underground storage tanks in compliance.

Baseline: Corresponding measures for FY2015.

Measure: Number of facility inspections completed by staff to ensure regulatory compliance.

Baseline: Corresponding measure for FY2015.

Action 1.2.1: Utilize KY TOOLS as the program for UST Operator Certification in accordance with the federal Energy Policy Act. KY TOOLS has implemented a site-specific approach to training and testing to support certification, which will significantly aid in increased overall compliance and leak prevention.

Action 1.2.2: Maintain and enhance TEMPO reporting to accurately track and report on measures.

Action 1.2.3: Inspect regulated sites at established intervals to facilitate and ensure compliance with agency requirements.

Action 1.2.4: Take enforcement action on regulated sites as necessary to facilitate and achieve compliance with agency requirements.

- Tactic 1.3:** Review and revise quality assurance documents annually and update as necessary.
- Measure:** Number of Standard Operating Procedures and guidance documents developed or revised in the current fiscal year.
- Baseline:** Corresponding measure for FY2015.
- Measure:** Number of Quality Assurance Project Plans developed or revised in the current fiscal year.
- Baseline:** Corresponding measure for FY2015.
- Action 1.3.1:** Develop and revise standard operating procedures that comply with state and federal requirements, and agency policy.
- Action 1.3.2:** Revise Quality Assurance Annual Report.
- Action 1.3.3:** Prepare the division annual report and update the Strategic Operational Plan.
- Action 1.3.4:** Develop and revise Quality Assurance Project Plans as necessary.

Tactic 1.4: Ensure waste management programs are fiscally and administratively viable.

- Measure:** The division staffing levels as compared to cap and budgeted amounts.
- Baseline:** Corresponding measure for FY2015.
- Measure:** Number of grant programs administered and completed.
- Baseline:** Corresponding measure for FY2015.
- Action 1.4.1:** Prepare the division budget for the state fiscal year.
- Action 1.4.2:** Communicate and coordinate with DEP budget staff on the needs of the division.
- Action 1.4.3:** Track expenditures and receipts to ensure programs are within designated budgetary amounts.
- Action 1.4.4:** Implement cabinet, DEP and the division's operational, personnel, and human resource policies and procedures.
- Action 1.4.5:** Monitor staffing levels and ensure timely processing of personnel actions.
- Action 1.4.6:** Educate division staff on cabinet, DEP, and division policies.
- Action 1.4.7:** Track grants programs and ensure grant programs are meeting expectations.
- Action 1.4.8:** Ensure accurate and timely data entry and reporting.

Objective 2 - Ensure permits are protective of human health and Kentucky's land resources.

Tactic 2.1: Issue appropriate, lawful permits in a timely manner.

- Measures:** Number of hazardous waste permit applications received.
 Number of hazardous waste permits pending review.
 Percentage of hazardous waste permit reviews completed within regulatory timeframes.
 Number of solid and special waste permit applications received.

Number of solid and special waste permits pending review.
Percentage of solid and special waste permit reviews completed within regulatory timeframes.

Baseline: Average of the five previous state fiscal years.

Measure: Number of training classes completed by DWM staff.

Baseline: Corresponding measure for FY2015.

Action 2.1.1: Issue permitting actions that are inclusive of all federal and state regulatory requirements.

Action 2.1.2: Issue permitting actions within the regulatory timeframes.

Action 2.1.3: Utilize TEMPO to accurately track and report on permitting actions.

Action 2.1.4: Evaluate and implement streamlining opportunities to address procedural and institutional inefficiencies.

Action 2.1.5: Allocate staff as necessary to assist in data entry and permit review.

Action 2.1.6: Recruit qualified staff.

Action 2.1.7: Provide training to increase knowledge and enhance retention of qualified staff.

Tactic 2.2: Reduce, eliminate, and maintain zero permits and permit activity backlogs.

Measures: Number of hazardous waste permits pending review outside regulatory timeframes.
Percentages of hazardous waste permit reviews completed outside regulatory timeframes.
Number of solid and special waste permits pending review outside regulatory timeframes.
Percentages of solid and special waste permit reviews completed outside regulatory timeframes.

Baseline: Corresponding measures for FY2015.

Action 2.2.1: Obtain a zero backlog on all remaining applications beyond regulatory time frames.

Action 2.2.2: Allocate staff as necessary to assist with data entry and permit review.

Objective 3 - Ensure remedial investigation, restoration, and management in place decisions are site specific, risk based, and environmental performance standards prone.

Tactic 3.1: Restore sites or manage contamination at sites with known or suspected releases to soil or groundwater.

Measures: The number of sites with known or suspected releases with potential human exposures where no further action is required or otherwise controlled because of implementing a management in place technique:
Number of underground storage tank cleanups conducted that resulted in a no further action being issued and number remaining.

- Number of hazardous waste program corrective actions completed and number remaining.
- Number of EPA indicators corrective action measures achieved.
- Number of historic landfills remediated and number remaining.
- Number of solid and special waste facilities in groundwater assessment.
- Number of illegal open dumps remediated under the Kentucky PRIDE Program and number remaining.
- Number of tire dumps remediated under the Waste Tire Trust Fund and number remaining.
- Number of PRP-Lead State Superfund sites characterized and number remediated.
- Number of State-Lead sites remediated utilizing the Hazardous Waste Management Fund.
- Number of sites with a release of petroleum or a petroleum product remediated from a source other than a petroleum storage tank and number awaiting review.
- Number of methamphetamine-contaminated properties reported and number decontaminated.
- Number of emergency or incident responses made and number of cases closed.

Baseline: Corresponding measures for FY2015.

- Action 3.1.1:** Identify resource and program constraints hindering achievement of our measures; pursue program changes and request funding as necessary in budget. At a minimum, work to maintain current level of funding in cleanup programs.
- Action 3.1.2:** Provide technical oversight and directives for projects to investigate, remediate, manage, or restore properties with contamination.
- Action 3.1.3:** Review analytical and reporting data for projects.
- Action 3.1.4:** Issue letters upon the completion of all corrective actions for facilities.
- Action 3.1.5:** Inventory the list of sites with known or suspected contamination.

Tactic 3.2: Plan, design and execute Final Closure Period activities at Maxey Flats while maintaining regulatory compliance.

Measures: Substantial completion of final cap construction by October 2016.
Complete Institutional Control Period Work Plan by April 2016.

Baseline: Entry into the Final Closure Period, November 2012.

- Action 3.2.1:** Complete construction of final cap.
- Action 3.2.2:** Review weekly and monthly reports from contractors to determine necessary activities for closure.
- Action 3.2.3:** Attend weekly and monthly meetings to discuss progress on final closure activities.
- Action 3.2.4:** Prepare Institutional Control Period Work Plan to ensure compliance and maintenance and monitoring activities beyond the final cap completion.

Action 3.2.5: Attend weekly and monthly meetings with regulatory agencies involved in the collaborative compilation of the Institutional Control Period Work Plan.

Objective 4 - Support and encourage economic redevelopment of property with real or perceived contamination.

Tactic 4.1: Provide oversight to the investigation, remediation, management, or redevelopment of properties with real or perceived contamination.

Measures: Number of cleanups conducted under state oversight via the Voluntary Environmental Remediation Program (see also DCA Brownfields measure).
Number of brownfield sites assessed under the Targeted Brownfield Assessment Program and number awaiting review.
Number of brownfield sites reviewed under KRS 224.01-415, number of eligibility letters issued, and number of concurrence letters issued.

Baseline: Corresponding measures for FY2015.

Action 4.1.1: Review project data and determine compliance with program requirements.

Action 4.1.2: Issue notices and letters for projects in accordance with regulatory guidelines.

Objective 5 - Minimize waste generation and disposal.

Tactic 5.1: Assure proper management and disposal of waste.

Measures: The compliance rates for authorized solid waste management facilities.
The amounts, by weight, of litter, open dump waste, and household hazardous waste collected by counties through the Kentucky Pride program.

Baseline: Corresponding measures for FY2015.

Action 5.1.1: Inspect regulated sites at established intervals to facilitate and ensure compliance with agency requirements.

Action 5.1.2: Increase communications between permitting central office staff and field operations staff.

Objective 6 - Encourage beneficial reuse and recycling.

Tactic 6.1: Encourage reduced waste generation and disposal by promoting beneficial reuse, recycling, waste minimization, and pollution prevention.

Measures: Tonnage of municipal solid waste recycled or reused, by type.
Tonnage of material recycled through the State Government Recycling Program.

Tonnage of solid or special waste used as Alternate Daily Cover (ADC).
 Percentage of solid or special waste used as Alternate Daily Cover (ADC).
 Number of waste tires used in tire-derived fuel projects, crumb rubber grants and other beneficial reuse purposes as a percentage of number of tires generated.
 Number of solid waste beneficial reuse determinations.
 Number of registered special waste beneficial reuse sites.
 Number of land farming and composting facilities.
 Number of recycling grants and total amount of funding administered.
Baseline: Corresponding measures for FY2015.

- Action 6.1.1:** Maintain and enhance TEMPO reporting or other databases to accurately track and report on measures.
- Action 6.1.2:** Provide education and outreach for recycling opportunities.
- Action 6.1.3:** Update recycling fact sheets, as information that is more current is available.
- Action 6.1.4:** Administer grant programs in accordance with regulatory requirements.
- Action 6.1.4:** Publish The Marketplace for Recycling Commodities newsletter.
- Action 6.1.5:** Identify resource and program constraints hindering achievement of measures; pursue program changes and request funding as necessary in budget.

Goal 4: Environmental Compliance

Ensure environmental compliance using a clear and consistent approach of enforcement.

Proper enforcement stops violators from releasing illegal pollution into the air, water and onto the ground. In situations where federal and state environmental laws have been violated, enforcement ensures responsible parties are held accountable for the contamination of the environment. Responsible parties are directed to clean up contaminated property or reimburse the department for the cleanup.

The Division of Enforcement serves both compliance and enforcement functions. Through its Compliance and Operations Branch, the Division’s compliance efforts focus on identifying violations, notifying the regulated entity of the violations and returning the regulated entity back to compliance through informal processes without the assessment of penalties. This is uniquely different from the responsibilities of the Civil Enforcement Branch, which focuses on addressing violations that have already been cited, following formal administrative processes to resolve the violations and routinely assessing civil penalties as a part of the resolution.

The enforcement process is conducted through referrals either from the Department’s program divisions or internally from the Compliance and Operations Branch. When regulated entities fail to return to compliance through the compliance process, the referring party prepares, organizes and summarizes case-specific documentation and refers the violation to the Division of Enforcement’s Civil Enforcement Branch for formal enforcement action.

The Division’s Compliance and Operations Branch also operates an extensive program performing compliance reviews of discharge monitoring reports (DMRs) submitted by wastewater facilities to

demonstrate compliance with permit effluent limits. Since its inception in 2004, the DMR compliance program has been critical in addressing numerous wastewater non-compliance issues in the Commonwealth. Between January 2004 and July 2015, the DMR review program has issued 3,958 Notices of Violations and Letters of Warning for non-compliance with wastewater permit requirements, and referred 777 cases for civil enforcement actions.

In 2007, the Division's Compliance and Operations Branch began performing compliance reviews of DMRs for surface coal mining facilities. Compliance reviews for the coal industry increased in late 2010. Since FY2011, the Compliance and Operations Branch has reviewed and estimated 198,501 coal DMRs for 2,406 surface coal-mining permits for 44 coal companies. This has resulted in 69 civil enforcement settlements with coal companies and the assessment of \$3,537,350.00 in civil penalties.

The Division of Enforcement is looking toward a number of important changes in FY2016. The Division is looking into the automation of DMR compliance reviews, which has been made possible with the implementation of the NetDMR system. The goal of DMR compliance automation is to develop the ability to address KPDES non-compliance comprehensively throughout the Commonwealth with improved timeliness. The Division continues efforts to comprehensively review wastewater compliance across the coal industry and initiate formal civil enforcement actions as appropriate.

Objective 1 - Facilitate the return of regulated entities to compliance with environmental statutes and regulations.

Tactic 1.1: Facilitate processes that result in the successful resolution of environmental enforcement cases.

Measure: The number of new cases received in the Division during the fiscal year.
Baseline: From July 2005 through June 2013, the Division received an average of 36 new cases per month and an average of 427 new cases per fiscal year.

Measure: The number of cases closed by the Division during the fiscal year.
Baseline: From July 2005 through June 2013, the Division closed an average of 35 cases per month and an average of 416 cases per fiscal year.

Measure: The total number of enforcement cases in the Division.
Baseline: From July 2005 through June 2013, the Division had an average of 994 open enforcement cases.

Measure: The number of cases open in the Division of Enforcement only for monitoring compliance with an Agreed Order or Secretary's Order.
Baseline: From July 2005 through June 2013, the Division had an average of 255 enforcement cases open for monitoring of an executed settlement document (Demand Letter, Agreed Order, and Secretary's Order).

Measure: The number of cases in the Division that are unassigned.
Baseline: From January 2008 through June 2013, the Division had an average of 12 unassigned enforcement cases. Data developed prior to January 2008 is incomplete.

Measure: The total amount of civil penalties collected and supplemental environmental projects imposed from enforcement cases during the fiscal year.

Baseline: From SFY05 through SFY13, the Division collected and average of \$2,032,680.69 in civil penalties per fiscal year.

Measure: The number of Agreed Orders signed by the responsible party in enforcement cases or cases otherwise resolved.

Baseline: From July 2005 through June 2013, the Division has received an average of 9 Agreed Orders signed by the responsible party per month and has received and average of 113 Agreed Orders signed by the responsible party per fiscal year.

Measure: The number of Demand Letters or Settlement Letters issued per fiscal year.

Baseline: The use of Demand Letters to resolve enforcement cases was reinstated in February 2008. From February 2008 through June 2013, the Division mailed an average of 6 Demand Letters to the responsible party per month and an estimated average of 73 Demand Letters to the responsible party per fiscal year.

Measure: The number of agreed orders and Administrative Orders signed by the Secretary in enforcement cases per year.

Baseline: From July 2005 through June 2013, an average of 10 Agreed Orders was executed per month and an average of 122 Agreed Orders was executed per year.

Action 1.1.1: Maintain and update protocols and the mechanisms necessary to implement timely and effective enforcement of environmental laws.

Action 1.1.2: Develop staff expertise in air, waste management and water programs to allow the Division to more effectively facilitate compliance with environmental laws.

Action 1.1.3: Work closely with program divisions to resolve enforcement cases in a timely and effective manner.

Action 1.1.4: Develop criteria and format for monthly reporting of Division activities and accomplishments to program divisions and Department and Cabinet management.

Action 1.1.5: Develop and implement criteria and mechanism for prioritizing enforcement cases to be referred to Cabinet attorneys for legal action.

Tactic 1.2: Resolve enforcement cases in a timely manner.

Measure: The length of time required to draft a case resolution proposal for approval once a case has been assigned to staff.

Baseline: The average time is 39 days to draft a case resolution proposal once a case has been assigned to staff.

Measure: The length of time required to hold a settlement conference after a case resolution proposal has been drafted.

Baseline: The average time is 101 days to hold a settlement conference after a case resolution proposal has been drafted.

Measure: The length of time required to reach an agreement in principle or refer a case to EPLD after a case resolution proposal has been drafted.

Baseline: The average time is 159 days to reach an agreement-in-principle after a case resolution proposal has been drafted, and an average of 289 days to refer a case to EPLD after a case resolution proposal has been drafted.

Measure: The length of time required to have the responsible party under an executed settlement document once a case has been assigned to staff.

Baseline: The average time is 324 days from case assignment to execution of a DEP agreed order, 205 days from case assignment to mailing of a demand letter, 697 days from case assignment to execution of an EPLD agreed order, 752 days from case assignment to execution of a Secretary's Order, and 921 days from case assignment to execution of a court decision. There is currently insufficient data to determine a baseline for length of time from case assignment to a consent decree.

Measure: The length of time required to draft an agreed order or demand letter once an agreement-in-principle has been reached.

Baseline: The average time is 30 days to draft an agreed order once an agreement-in-principle has been reached, and 19 day to draft a demand letter once an agreement-in-principle has been reached.

Measure: The length of time required to have the responsible party under an executed settlement document once a case has been assigned to staff.

Baseline: The average time is 324 days from case assignment to execution of a DEP agreed order, 205 days from case assignment to mailing of a demand letter, 697 days from case assignment to execution of an EPLD agreed order, 752 days from case assignment to execution of a Secretary's Order, and 921 days from case assignment to execution of a court decision. There is currently insufficient data to determine a baseline for length of time from case assignment to a consent decree.

Objective 2 – Provide assistance to Department programs by issuing and tracking compliance with letters of warning and notices of violation.

Tactic 2.1: Facilitate processes for the issuance and tracking of compliance with letters of warning and notices of violation.

Measure: The number of letters of warning and notices of violation issued by DENF per year.

Baseline: From July 2006 through June 2013, the Division issued an average of 3 Letters of Warning per month and an average of 31 Notices of Violation per month. From FY05 through FY13, the Division issued an average of 62 Letters of Warning per fiscal year and an average of 455 Notices of Violation per fiscal year.

- Action 2.1.1:** Monitor and report on a yearly basis the number of letters of warning and notices of violation issued by DENF.
- Action 2.1.2:** Work closely with program divisions to issue letters of warning and notices of violation in a timely and effective manner.

Goal 5: Compliance Assistance and Environmental Stewardship

Promote responsible environmental stewardship.

The Division of Compliance Assistance administers four programs: certification and licensing, environmental compliance assistance, environmental leadership (KY EXCEL), and brownfield redevelopment. The division's innovative approach to facilitating compliance and excellence is improving the environment for all Kentuckians. The division has five COR²E purposes:

Certification – *DCA provides training and testing services for environmental professionals certified for operators of wastewater, drinking water and solid waste facilities.* These well-trained and knowledgeable professionals are entrusted with protecting public health.

Outreach – *DCA is a technical resource for all individuals with environmental questions and needs.* Understanding and complying with a very diverse and extensive set of environmental requirements can be confusing. Even committed and experienced environmental professionals face times when they simply need help. DCA provides email and telephone assistance for anyone seeking help with an environmental concern.

Recognition and Redevelopment – *DCA strongly believes that the future of Kentucky's environment depends on the stewardship of its citizens.* Every day, people make both large and small decisions in their homes, workplaces and communities that can benefit or harm the environment. DCA is helping these individuals and regulated entities become more aware of the economic and environmental benefits that result from sustainable decisions and provide recognition through its programs. Additionally, Kentuckians benefit both economically and environmentally from redevelopment of underutilized properties.

Education - *DCA is providing Kentucky with the knowledge it needs to care for Kentucky's environment.* In a 2008 survey, respondents identified a lack of knowledge regarding environmental requirements as one of the greatest barriers to ensuring environmental compliance. The training opportunities provided by DCA equip front-line environmental professionals with the information they need to succeed in their environmental efforts.

DCA is uniquely positioned to partner with Kentucky's corporate and private citizens to proactively build environmental values and facilitate positive behaviors throughout Kentucky. DCA is accomplishing this through partnerships, training, mentoring and technical support.

Objective 1 - Certify qualified environmental professionals.

- Tactic 1.1:** Certify environmental professionals to maximize appropriate actions and effective operations at regulated locations.

Measure: The number of certification licenses issued annually.
Baseline: In FY09, the Division of Compliance Assistance issued the following certification licenses:

Wastewater Certifications - 180
Wastewater Certification Renewals - 1068
Drinking Water Certifications - 273
Drinking Water Certification Renewals - 273
Solid Waste Certifications - 138

- Action 1.1.1:** Process certification applications and administer examinations in an accurate and timely manner to ensure that individuals possess the minimum competencies necessary to properly perform their professional duties.
- Action 1.1.2:** Participate in recruitment efforts to encourage individuals to consider the operator profession.
- Action 1.1.3:** Provide administrative support for the Kentucky Board of Certification of Wastewater System Operators and the Kentucky Board of Certification of Water Treatment and Distribution System Operators.
- Action 1.1.4:** Increase the program's state and national involvement to stay informed of operator issues, ensure the program is prepared to respond to changing needs, and influence the state and national policy related to certified operators.

Objective 2 - Help entities comply with Kentucky's environmental requirements.

Tactic 2.1: Provide quality, one-on-one assistance services that help regulated entities comply with environmental obligations.

Measure: Changes in environmental knowledge and behavior resulting from one-on-one assistance activities.

Baseline: In FY08, the Division of Compliance Assistance responded to and received feedback from clients;

Client Assistance Requests - 867
Small Business Assistance Requests - 289
Client Response - 72% indicated a change in knowledge
83% indicated a behavior change

- Action 2.1.1:** Implement effective, proactive and reactive multi-media compliance assistance services with a special emphasis on small businesses and communities to enhance environmental performance.
- Action 2.1.2:** Serve as point of contact and advocate for the public and entities regulated by the Department to ensure that department programs are appropriately implemented.
- Action 2.1.3:** Communicate the availability of compliance assistance and the benefits of the program.

Tactic 2.2: Implement meaningful programming that provides individuals with the knowledge needed to increase environmental compliance and performance.

Measure: Percent satisfaction from training events and the number of individuals reached through training and resources developed.

Baseline: FY12 indicators for communication tools and training:

88.5% satisfaction from training evaluations

1833 – Number of individuals trained on compliance topics (OCP and ECAP trainings)

11 – Number of regulatory resources developed

8 – Number of regulatory trainings provided

Action 2.2.1: Work with agencies within DEP to produce and facilitate quality training that includes accurate and timely technical and regulatory information.

Action 2.2.2: Work with agencies within DEP to provide resources that clarify environmental requirements and offer technical solutions to common challenges.

Action 2.2.3: Establish communication tools that empower the regulated community to determine the environmental obligations that apply to their location and the resources that are available to make it easier for them to comply.

Action 2.2.4: Work with other state and federal agencies to develop comprehensive educational resources for the public.

Action 2.2.5: Develop and implement an outreach strategy to address communities impacted by environmental regulations.

Objective 3 – Facilitate Environmental Stewardship

Tactic 3.1: Encourage environmental stewardship by making the public more aware of the opportunities they can act on to make their communities stronger and healthier.

Measure: Number of entities assisted with stewardship projects and individuals trained.

Baseline: FY12 indicators are as follows:

10 – Number of entities assisted with stewardship projects

112 – Number of individuals trained on stewardship topics (Brownfield and KY EXCEL)

10,586 – Audience reached through DCA communication tools (Facebook, Exhibits, Presentations, and LAW)

Action 3.1.1: Provide quality, one-on-one assistance services that help individuals identify, plan, and implement environmental projects that are not required by Kentucky law.

Action 3.1.2: Offer quality environmental stewardship training to enable actions that improve Kentucky's environment and create healthier, stronger communities.

Action 3.1.3: Develop and compile stewardship resources in partnership with organizations, state and local agencies, nonprofit entities and other stakeholders.

Action 3.1.4: Establish communication tools that empower the regulated community to determine the stewardship resources that are available to increase their sustainability.

Tactic 3.2: Recognize and publicize voluntary actions that improve Kentucky's environment and promote environmental awareness.

Measure: The number of voluntary actions identified because of DCA programs.

Baseline: In FY10, the number of voluntary actions observed was as follows:

New KY EXCEL Voluntary Projects - 121

Environmental Stewardship Award Nominations - 44

Eco-Art Submissions - 13

Action 3.2.1: Implement KY EXCEL, an environmental leadership program that recognizes entities for their voluntary commitments to improve Kentucky's environment.

Action 3.2.2: Administer the Department's environmental stewardship award program.

Action 3.2.3: Hold an annual eco-art contest for high school students.

Action 3.2.4: Communicate the successes of Kentucky's environmental stewards.

Tactic 3.3: Increase visibility of the Brownfield Redevelopment Program by providing technical and fiscal assistance opportunities.

Measure: The amount of Brownfield communication tools developed and Targeted Brownfield Assessments conducted.

Baseline: In FY13, the DCA's Brownfield program conducted the following outreach and assessment activities

22 - Communication tools developed

8 - Number of applicants assisted with grant applications

5 - Number of Targeted Brownfield Assessments (Phase I assessments, Phase I updates, Phase II assessments)

Measure: Amount of funds issued through the Cleaner Commonwealth Fund.

Baseline: In FY13, the DCA's Brownfield program managed the following funding support activities

5 - Number of grant and loan applications received

\$98,000 - Amount of CCF grants obligated

\$0 - Amount of CCF loans issued

Action 3.3.1: Serve as a resource that encourages environmentally sustainable communities and facilitates the cleanup and beneficial reuse of Brownfield properties.

- Action 3.3.2:** Establish communication tools that raise awareness and empower communities to initiate a Brownfield redevelopment projects.
- Action 3.3.3:** Provide Targeted Brownfield Assessments with the goal of redevelopment.
- Action 3.3.4:** Develop procedures and tracking mechanisms for CCF grant and loan.
- Action 3.3.5:** Promotion of federal funding opportunities and assisting eligible entities in grant preparation.

Goal 6: Environmental Program Support

Improve quality, efficiency and effectiveness of environmental programs and activities through innovative strategies, tools and approaches.

The Department for Environmental Protection involves a range of activities that collectively provide support to ensure decisions made by the department are practical and consistent with the department's mission. These activities provide a foundation to achieve desired environmental benefits in the best interest of Kentucky's citizens.

Assessing the environmental status of Kentucky's air, land and water is important to determine potential threats, evaluate risks and identify solutions to protect the environment and safeguard human health. The department maintains a centralized laboratory that performs analytical sample testing of air, water and soil to determine the nature and extent of pollutants within the Commonwealth. The department also maintains a 24-hour emergency environmental response line for accidental spills and releases of toxic and hazardous material that threaten the environment. The Environmental Response Team (ERT) responds immediately to environmental emergencies and provides efficient, coordinated and effective action to minimize damage to Kentucky's environment.

Administrative support of information technology enables the department to efficiently manage data in a timely manner. Addressing the technological needs of our environmental management systems is an essential aspect of providing web-based electronic services to the public. Advancement of the department's technology and streamlining environmental response programs will provide the best possible service to Kentucky's local governments and communities.

Improvement in organizational and employee development, quality assurance and workplace safety are important areas to facilitate the accomplishment of the agency's mission and goals. Empowering employees with the tools, knowledge and skills to contribute effectively and efficiently enables employees to achieve long-term sustainable results to protect and enhance Kentucky's environment.

COMMISSIONER'S OFFICE (CO)

Objective 1 – Continue to support and coordinate ongoing department-level programmatic activities.

- Tactic 1.1:** Identify recommendations that will assist in providing the service and responsiveness required for carrying out the day-to-day activities in the Commissioner's Office.

Measure: Provide recommendations to the Commissioner on an ongoing basis.

Baseline: SFY10 department-level activities.

Action 1.1.1: Coordinate e-clearinghouse and NEPA document reviews.

Action 1.1.2: Coordinate U.S. Army Corps of Engineers Public Notice Reviews.

Action 1.1.3: Coordinate review of Pollution Control Tax Exemption Certificates.

Action 1.1.4: In collaboration with DEPS, coordinate special projects including, Governor's Conference on the Environment, KECC, March of Dimes, and other department-wide activities.

Objective 2 – Develop an effective strategic planning process.

Tactic 2.1: Develop a Department for Environmental Protection strategic plan for SFY16.

Measure: DEP strategic plan development is coordinated by the Commissioner's Office staff and completed at the beginning of the state fiscal year.

Baseline: Strategic plans are finalized in advance of deadlines.

Action 2.1.1: SFY15 Strategic Plans for the Commissioner's Office and each of the six department divisions are finalized by July 31, 2014.

Action 2.1.2: Ensure the Department's goals and objectives are compatible with the SFY15 Department budget.

Action 2.1.3: Align the Department's strategic plan with Cabinet's strategic plan.

Action 2.1.4: Publish the mid-year status update to the Strategic Plan in December.

Action 2.1.5: Each division shall publish an annual report by September 15, 2014 including results of the Strategic Plan measures and actions for the previous state fiscal year.

Tactic 2.2: Assist staff in understanding their role in the DEP strategic plans by ensuring that employees are clear about the objectives, goals and directions of the agency.

Tactic 2.3: Provide input into USEPA's strategic planning processes at both the national and regional levels.

Objective 3 – Develop and implement annual participation in the National Environmental Performance Partnership System (NEPPS).

Tactic 3.1: Develop Performance Partnership Grant (PPG) for SFY16.

Measure: DEP shall submit the annual Performance Partnership Grant by August 1 of each calendar year.

Baseline: Performance Partnership Grant finalized in advance of deadline.

Action 3.1.1: Continually work with EPA's NEPPS contact to ensure DEP is in compliance with programmatic requirements.

Action 3.1.2: Work with EPA's NEPPS contact to develop PPG award amounts for each federal fiscal year.

- Action 3.1.3:** Work with DEP divisions to develop PPG application data and budgets.
- Action 3.1.4:** Develop PPG budget breakdown for each division and submit to GAPS.
- Action 3.1.5:** Monitor changes at the federal level that could affect the amount of funding available to DEP (example: recissions.)

Tactic 3.2: Develop Performance Partnership Agreement (PPA) for SFY16.

Measure: DEP shall submit the annual Performance Partnership Agreement (PPA) by August 1 of each calendar year.

Baseline: Performance Partnership Agreement finalized in advance of deadline.

- Action 3.2.1:** Review and comment on National Program Guidance to ensure Kentucky's voice in the development of biannual EPA environmental priorities and implementation strategies.
- Action 3.2.2:** Negotiate annual DEP priorities and commitments list (P&C list) with EPA senior management in advance of PPA submittal.
- Action 3.2.3:** Work with EPAs NEPPS contact to develop P&C list negotiation schedule.
- Action 3.2.4:** Work with DEP divisions to develop annual PPA P&C list.

DIVISION OF ENVIRONMENTAL PROGRAM SUPPORT (DEPS)

Objective 1 – Recruit and retain qualified employees for positions at DEP.

Tactic 1.1: Continue ongoing efforts to identify resources that will assist in the hiring and retaining of qualified employees.

Measure: The number of new employees hired and retained on a yearly basis in critical positions.

Baseline: SFY15 hiring for critical positions.

- Action 1.1.1:** Work to develop recommendations to present to the Personnel Cabinet to increase employee retention and recruitment (may include promotion in place options and changes to class specifications).
- Action 1.1.2:** Ensure that all divisions within the Department for Environmental Protection have adequate funding budgeted to support the DEP Scholarship Program provided through the University of Kentucky.
- Action 1.1.3:** Ensure the department has the required number of internal certified trainers to meet annual training requirements to teach CPR/FA/BBP to departmental employees.
- Action 1.1.4:** Pursue the option to conduct internal training for HAZWOPER certification for required departmental employees.

Objective 2 – Provide technical, personnel and administrative support for DEP IT-Based Systems (TEMPO/SDWIS/K-WADE).

Tactic 2.1: Produce monthly TEMPO Reports for DEP Commissioner's Office that are timely and accurate.

Measure: Monthly submission of reports to the Commissioner's Office.

Baseline: Monthly Reports submitted.

Action 2.1.1 Train appropriate Division staff to produce and format reports.

Action 2.1.2 Designate and train appropriate Division staff for back up.

Action 2.1.3 Hire additional contractors to assist in performing the architecting and programming functions as outlined in existing DEP grants.

Tactic 2.2: Provide TEMPO/ SDWIS/K-WADE Database Support.

Measure: Successful completion of tasks on IT Project List in FY16.

Baseline: July 2015 IT Updated Project List.

Action 2.2.1: Completion of requested reporting modules.

Action 2.2.2: Provide timely TEMPO Help Desk Support.

Action 2.2.3: Create web-based enhancements for TEMPO, including online permit applications and license/certification renewals in accordance with allocated SFY15 budget.

Action 2.2.4: Adhere to Federal Database Guidelines and modifications for the Safe Drinking Water Information System (SDWIS).

Tactic 2.3: Meet goals of USEPA grant-based projects on time and on budget.

Measure: Successful completion of funded projects in FY16.

Baseline: Submission and acceptance of semi-annual and annual reports to and by USEPA.

Action 2.3.1: Complete "CROMERR" Exchange Network grant project as noted in project plan.

Action 2.3.2: Complete "TEMPO Modernization" Exchange Network grant project as noted in the project plan.

Objective 3 – Continue to Support and Coordinate Ongoing Programmatic Activities.

Tactic 3.1: Identify recommendations that will assist in providing the service and responsiveness required for carrying out the day-to-day activities in the DEPS.

Measure: Activities performed and coordinated in SFY16.

Baseline: SFY15 activities performed by staff in the DEPS. (IT activities are identified in Objective 2 above.)

Action 3.1.1: Coordinate the activities of the Environmental Response Team (ERT) to effectively respond to environmental incidents.

- Action 3.1.2:** Develop and maintain all Standard Operating Procedures and Standard Operating Guidelines of the Environmental Response Team (ERT) that include (ERT Operations and Procedures Plan, On-Scene Coordinators Field Guide, Drinking Water Emergency Plan, and Response Coordinators Guidelines, BGAD Re-entry & Recovery Plan, Emergency Transition Plan).
- Action 3.1.3:** Coordinate training for the Environmental Response Team (ERT) On-Scene Coordinators (Hazwoper, QCS Training, Air Monitoring, Oil Spill Containment Training, Flood Control Training, and Hazardous Materials Training).
- Action 3.1.4:** Coordinate all DEP facilities issues including maintenance, department services (phone, janitorial, trash, security, internal/external mail delivery, postage for field offices, uniforms, safety shoes, vehicle motor pool and inventory), and office relocations.
- Action 3.1.5:** Coordinate DEP budgetary activities including submission of annual and biennial operating budgets, contractor furlough savings, and fiscal year closeout.
- Action 3.1.6:** Identify subject matter experts to serve as a point of contact and assistance for all departmental procurement needs. Maintain a database to track payment status for DEPS purchases and/or utility costs.
- Action 3.1.6:** Cross train all ASB employees to have a base knowledge in all support aspects.
- Action 3.1.7:** Review and develop Memoranda of Agreement (MOAs) and Personal Service Contracts (PSCs) including those for medical monitoring, and OSHA training for all applicable DEP employees.
- Action 3.1.8:** Coordinate personnel activities including the DEP scholarship program, EEO/ADA and Title VI activities.
- Action 3.1.9:** Work with cabinet staff as required ensuring that all IT software licenses are kept current and/or retained under the realm of COT.
- Action 3.1.10:** Provide technical advice concerning appropriate laboratory analytical methods and techniques.
- Action 3.1.11:** Oversee and maintain the DEP Motor Pool.
- Action 3.1.12:** Coordinate scheduling and oversee all safety training for DEP employees to include fire drills, tornado drills, earthquake drills, and active shooter training in FY16.
- Action 3.1.13:** Develop and implement a department wide tracking system for personnel action submittals.
- Action 3.1.14:** Coordinate grant activities for the Environmental Response Team (ERT) to receive grant money for equipment and training through Homeland Security, Emergency Management, and EPA.
- Action 3.1.15:** Coordinate the transition of data and curriculum from Pathlore to the Kentucky Electronic Learning Management System (KELMS) for the department.
- Action 3.1.16:** Facilitate departmental activities related to the upcoming move to a new facility in CY2016. DEPS staff will play an instrumental role in the facilitation of departmental activities related to the upcoming move to a new facility in CY2016. A DEP Move Planning Committee composed of representatives of every division in the department has been established to work with the Commissioner's Office to facilitate the development of actions and protocols needed to complete the move.

Objective 4 – Implement the Budget, Administrative, Facilities, and Procurement Coordination.

Tactic 1.1: Begin administrative improvement and redundancy 16APR2015-16MAY2015 with no loss in current production.

Measure: Deficiency rate of PARs, Accurate budget submissions and projections, CAP maintenance/increases.

Baseline: Accurate logistic, budget, and human resource processing with < 3% deficiency rate across all disciplines. No loss in department operations.

Action 1.1.1 Work with GAPS to ensure we have implemented an adequate PAR QA/QC process that is applied at the division and department level prior to submittal.

Action 1.1.2 Train budget staff to provide budget information in a timely and accurate manner.

Action 1.1.3 Continued HR/Budget education for all ASB staff.

Action 1.1.4 Develop informative and educational budget/grant/HR meetings.

Action 1.1.5 Maximize participation in training personnel and budget training.

Action 1.1.6 Establish additional training for department specific needs.

Objective 5 – Provide accurate and defensible chemical analytical services to the program divisions of the Department for Environmental Protection.

Tactic 5.1: Analyze environmental samples collected by the Water and Waste Management divisions for chemical constituents.

Measure: The number of environmental samples analyzed each year.

Baseline: In calendar year 2014, there were 4819 samples analyzed by the Environmental Services laboratory.

Action 5.1.1: Provide testing services for samples in accordance with the allocated SFY15 budget.

Action 5.1.2: Maintain an average turn-around-time of less than 28 days for samples submitted beyond July 1, 2016. In CY15, the average turn-around-time for all samples was 22.78 days.

Measure: The number of individual tests performed by the Environmental Services laboratory.

Baseline: In calendar year 2014, there were 51,557 individual tests performed by the Environmental Services laboratory.

Action 5.1.3: Provide individual testing services in accordance with the allocated SFY16 budget.

Measure: The number of individual chemical parameters reported by the Environmental Services laboratory.
Baseline: In 2013, there were 236,741 individual chemical parameters reported by the Environmental Services laboratory.

Action 5.1.4: Provide chemical parameter reporting to meet department needs.

Measure: The number samples reported by the Environmental Services laboratory outside the 30 day from delivery.
Baseline: In 2014, there were 225 individual sample reports reported by the Environmental Services laboratory outside the 30-day mark. This represented 5.26% of the total samples for the year.

Action 5.1.5: Provide reports to clients within 30 days of delivery. The division goal is less than 5.0%.

Tactic 5.2: Maintain accreditation by USEPA and the National Environmental Laboratory Accreditation Program (NELAP).

Measure: Accreditation status of the Environmental Services laboratory.
Baseline: Currently, the laboratory is certified as the State Principal Laboratory for Drinking Water by USEPA. In July 2007, the New Hampshire Department of Environmental Services granted the laboratory NELAP accreditation. Continuing accreditation status is dependent on successful ongoing participation in the NELAP program.

Action 5.2.1: Participate in a minimum of 2 Proficiency Testing (PT) studies approximately 6 months apart.

Action 5.2.2: Pass 2 out of the last 3 consecutive studies to maintain accreditation for various analytical methods.

Action 5.2.3: Secure funding through budget planning and contract writing that will pay for the on-site auditing fees biannually so that accreditation can be maintained.

Action 5.2.4: Review Environmental Services Laboratory analytical and administrative SOPs and Laboratory Operations and Quality Assurance Manual (LOQAM) annually and update as necessary. Maintain all SOPs with 23-point criteria.

Tactic 5.3: Upgrade the analytical instrument base of the Environmental Services laboratory.

Measure: The analytical capacity and dollar value of new and replacement instrumentation.
Baseline: The Environmental Services lab maintains a major analytical instrument inventory with a baseline dollar value in excess of \$2 million.

Action 5.3.1: Secure additional funding that will allow replacement of old or outdated equipment and instruments.

Action 5.3.2: Secure additional funding that will allow purchase of equipment that utilizes new technologies to meet the department's changing program needs.

Objective 6 – Provide adequate training to DEP employees.

Tactic 6.1: The goal of the Department for Environmental Protection (DEP) is to provide the best, cost-effective services to the citizens of the Commonwealth. This goal is to be achieved by maintaining a qualified and healthy workforce.

Measure: The number of formalized training events sponsored by DEP in FY16.

Baseline: The baseline will be the number of training events sponsored by DEP in SFY15.

Action 6.1.1: Coordinate the scheduling with U.S. EPA of the Basic Inspector Training Course to ensure that the content is appropriate and current.

Action 6.1.2: Offer the DEP New Employee Orientation program on a monthly basis to all new DEP employees and maintain the manual (and PowerPoint presentation) to ensure that the content is appropriate and current.

Action 6.1.3: Coordinate scheduling and provide oversight of all Safety Training for DEP employees. Ensure certification and/or completion of all training is identified by individual and entered in the KELMS database.

Action 6.1.4: Coordinate scheduling mandatory Supervisor's Training program (includes training on employee relations, enforcement of state/cabinet/department-level policies, etc.)

Action 6.1.5: Assist the Divisions in identification of specialized training needs and provide approval and support for the training.

Action 6.1.6: Coordinate DEP employee participation in the Humana Vitality Program, and KECC activities.

Action 6.1.7: Partner with agencies and organizations outside DEP to provide environmental awareness training (including but not limited to Earth Day, Governor's Conference on the Environment, and Kentucky Recycling Interest Group).

Objective 7 – Manage public records in a manner that is cost-effective and provides timely, accurate access to paper files and electronic documents for DEP staff and the public.

Tactic 7.1: Respond to all Open Records requests within three business days

Measure: Reports generated from TEMPO Reports Tool based on completed dates.

Baseline: Individual dates the requests are submitted.

Action 7.1.1: Complete Standard Operating Procedure that ensures all Open Records staff performs operations similarly.

Action 7.1.2: Enforce a standard process that requires immediate entry of open records requests and receipt dates into TEMPO.

Action 7.1.3: Continue running TEMPO reports that show the response times for open records requests.

Tactic 7.2: Eliminate paper files residing in the file room

Measure: Weekly estimated measurements of linear feet of files and monthly count of linear feet.

Baseline: Linear feet of paper files at the end of FY15

Action 7.2.1: Train file room staff on the DEP Records Retention Schedule

Action 7.2.2: Assign staff to perform historic scanning and/or records destruction selected files

Action 7.2.3: Complete the appropriate paperwork to stay compliant with KDLA's records destruction policies

Action 7.2.4: File room supervisors will gather weekly numbers of linear feet destroyed. They or their designated staff will conduct monthly measurements to ascertain the current linear feet of files stored in the file room. This will also include files that are in offices waiting to be scanned.

Action 7.2.5: Supervisors will record and report progress to DEP Management.

Tactic 7.3: Accurately scan all documents received in the file room within one business day of arrival in the file room.

Measure: Number of pages scanned, number of documents scanned, and number of errors reported.

Baseline: Goal should be 99.9% scanned within one business day with less than 1% error rate.

Action 7.3.1: Run monthly reports to measure the number of pages scanned and number of documents scanned by individual staff.

Action 7.3.2: Create mechanism to record and report errors.

Action 7.3.3: Supervisors will record and report progress to DEP.

Objective 8 – Develop, enhance, and support DEP-specific IT applications

Tactic 8.1: Manage Projects on IT project list

Measure: Completing FY16 milestones on IT project list

Baseline: FY15 Project list

Action 8.1.1: Facilitate regular meetings with DEP management to prioritize project list

Action 8.1.2: Submit bi-weekly IT project dashboard to Division Director

Action 8.1.3: Complete all financially obligated projects prior to deadline

Action 8.1.4: Conduct bi-weekly project status meetings

Action 7.1.5: Provide appropriate communication with project team

Tactic 8.2: Provide TEMPO/ SDWIS/K-WADE Database Support.

Measure: Successful completion of tasks on IT Project List in FY16

Baseline: July 2015 IT Updated Project List

Action 8.2.1: Completion of requested reporting modules.

Action 8.2.2: Provide timely TEMPO Help Desk Support.

Tactic 8.2.3: Adhere to Federal Database Guidelines and modifications for the Safe Drinking Water Information System (SDWIS)
(No Measure/Baseline or Actions)

Tactic 8.3: Meet goals of USEPA grant-based projects on time and on budget.

Measure: Successful completion of funded projects.

Baseline: Submission and acceptance of semi-annual and annual reports to and by USEPA.

Action 8.3.1: Complete "CROMERR" Exchange Network grant project as noted in project plan.

Action 8.3.2: Complete "ATTAINS" Exchange Network grant project as noted in the project plan.

Tactic 8.4: Provide business analysis for proposed IT solutions

Measure: Results of project post-mortem.

Baseline: Initial project request/requirements/scope documentation.

Action 8.4.1: Analyze current business processes and identify opportunities to improve them, leading to initiation of projects

Action 8.4.2: Identify and manage requirements for IT projects

Action 8.4.3: Collaborate with development team and project team(s) to ensure that the results of the project satisfy the needs identified in the requirements

Action 8.4.4: Facilitate a project post-mortem meeting with project stakeholders

Tactic 8.5: Provide IT application training

Measure: Number of staff trained in new and existing applications and number of videos created for new applications during FY16.

Baseline: Number of new and current staff who require training.

Action 8.5.1: Create training videos for new applications.

Action 8.5.2: Provide training for new DEP-specific applications.

Action 8.5.3: Provide training on existing DEP-specific applications for new employees and employees who need refresher training.

Tactic 8.6: Provide intra-agency and inter-agency IT related coordination.

Measure: IT Satisfaction Survey.

Baseline: Results of the previous year's IT Satisfaction Survey.

Action 8.6.1: Initiate assistance with 2 business days of receipt of request.

Action 8.6.2: Coordinate with intra- and inter- agency IT operations staff and users to solve technical problems, which impede or delay the processing of data.

Action 8.6.3: Evaluate and determine automation needs.

Action 8.6.4: Relay information regarding user needs.

Action 8.6.5: Follow-up to ensure user needs met in timely fashion.

Action 8.6.6: Establish and maintain effective working relationships.

DEPARTMENT FOR NATURAL RESOURCES

DNR GOAL 1. Ensure natural resources development activities such as agriculture, oil and gas drilling, logging and mining are done in an environmentally responsible manner.

Any activity that disturbs the land surface has the potential to allow increased runoff of sediment-laden water into nearby streams. Many of the regulations enforced by the Department for Natural Resources are designed to stabilize the land surface during natural resources development and keep sediment and contaminants from leaving and causing an off-site impact to Kentucky's waterways. Kentucky's natural resources regulations also require mining and drilling operators to take measures that protect groundwater resources. Kentucky's Abandoned Mine Lands (AML) program, which is funded by federal fees on coal production, designs and constructs projects to remediate damage caused to land and water by surface and underground mining operations that took place before the protections of the Surface Mining Control and Reclamation Act of 1977 took effect.

DNR takes its responsibility to protect Kentucky's surface and groundwater very seriously. Recent revisions to the Cumulative Hydrologic Impact Analysis (CHIA) process have improved the capability of DNR to identify watersheds where coal mining may significantly impact ground water and surface water resources. Trend stations located in the HUC 12 watersheds of the coalfields are now monitored quarterly by DNR. The data is used to determine water quality trends in the coalfields for use in the Division of Mine Permits.

Finally, particularly in this time of reduced resources, it's important to recognize the contribution of citizens to the enforcement efforts of the Department. DNR personnel aren't always present on agricultural, logging, mining and drilling operations, thus, the assistance of local citizens in alerting various DNR agencies to potential problems while they are correctable is invaluable.

Objective 1 – Ensure that requirements of the Surface Mining Control and Reclamation Act of 1977 (SMCRA) and the Clean Water Act (CWA), as it applies to mining operations, are met for all Kentucky mining operations.

Tactic 1.1: Complete a thorough review of surface mine permit applications within regulatory timeframes. Hire and train technical reviewers and engineers to accomplish this tactic.

Performance measure: Percent of mine permitting decisions (issued/denied) made within regulatory timeframes.

Tactic 1.2: Continue monitoring of Long Term Treatment (LTT) protocols.

Performance measure: Track LTT actions and amount of LTT bond obtained.

Tactic 1.3: Comply with regulatory requirements for inspection frequency of coal mine permits, while also remaining responsive to Citizen's Requests for Inspection.

Performance measure: Percent of inspectable units that are inspected in accordance with federal and state frequency requirements; percent of timely responses to citizens' requests within state guidelines, while keeping backlog of unresolved citizens'

request to a minimum. Goal is to file an initial response to citizens' requests within 5 working days.

Tactic 1.4: Maintain sufficient inspector positions in the Division of Mine Reclamation and Enforcement to ensure completion of Tactic 1.3, with a goal of maintaining an acceptable number of inspectable units per inspector.

Tactic 1.5: Perform regular updates of watershed GIS datasets (mining history, water quality data, geo-referenced permit boundaries) for use in the CHIA of proposed mining operations.

Tactic 1.6: DMRE Inspectors assist trend station monitoring. Obtain sufficient funding to continue trend station monitoring in the future.

Performance measure: Number of watersheds in which new CHIA protocol can be implemented; number of DMR documents entered into SMIS; number of trend stations monitored by DMRE inspectors.

Objective 2 – Encourage citizen participation in coal mine permitting and enforcement processes.

Tactic 2.1: Make citizens aware of their right to request a permit conference prior to permit issuance and to request inspections of surface mining sites after the permit is issued; provide outreach material for citizens who file Citizen's Request for Inspections (DMP, DMRE).

Tactic 2.2: Maintain dialogue with citizens groups and continue to meet with them on areas of concern they may have with DNR regulatory programs.

Objective 3 – Ensure that commercial timber harvests employ measures to protect water quality.

Tactic 3.1: Loggers and operators are required to use appropriate best management practices (BMPs) to protect water quality and to have a master logger on site and in charge of the harvest. The Division of Forestry inspects for compliance.

Performance measure: Number of commercial timber harvesting operations inspected; number of harvest sites in compliance; number of operators designated a bad actor.

Tactic 3.2: Promote remediation of impacted logging sites and reduction of bad logging practices by allowing loggers deemed as bad actors to be removed from the bad actor list upon remediation of sites, payment of all assessed civil penalties, and demonstrated compliance. Make bad actors aware of the conditions under which they can have their bad-actor designation removed.

Performance measure: Percentage of impacted sites and acreage remediated; number of bad actors removed from bad actor list.

Tactic 3.3: Promote the reduction of bad logging practices by working with bad actors as they are conducting logging operations to ensure BMP implementation.

Performance measure: Number of notifications of intent to harvest received by bad actors who have not paid their fines or remediated their sites.

Tactic 3.4: Keep bad actors with multiple sites not corrected or fines settled from logging in the Commonwealth.

Performance measure: Beginning January 1, 2016 the number of emergency orders issued to three time or more repeat bad actors.

Objective 4 – Reduce residual impacts from pre-SMCRA mining by using the grant funds from 2006 SMCRA Amendments to design and construct AML reclamation projects, AMD projects, and water supply projects.

Tactic 4.1: Expend available grant monies to fund AML reclamation projects to address highest priority projects with funds available.

Performance measure: Number of sites and acres reclaimed. Number of people removed from the risk associated with AML hazards.

Tactic 4.2: Improve water quality in the coalfields by using AMD set aside funds for AMD abatement in affected streams.

Performance measure: Length of streams with improved quality.

Tactic 4.3: Increase the number of citizens receiving potable drinking water in the coalfields by funding water supply extensions into areas where abandoned mining has affected the groundwater.

Performance measure: Number of citizens receiving potable water as a direct result of AML projects.

Objective 5 - Evaluate the current Division of Oil and Gas regulatory program to ensure it is adequate to prevent waste, is protective of the mineral owners whose properties are adjacent to active operations, and is stringent enough to protect the environment, while encouraging responsible development and compliant production of crude oil and natural gas resources.

Tactic 5.1: Division of Oil and Gas continues to pursue primacy from USEPA UIC-Class II injection wells for the underground sources of drinking water in the commonwealth. Class II injection wells are primarily installed for enhanced oil recovery and to a lesser extent the disposal of brine (salty) water.

Performance measure: Continue to work with USEPA representatives to achieve primacy of the Class II program by the end of fiscal year 2017.

Tactic 5.2: DOG increases staffing by 5 positions to provide regulatory enforcement and oversight of Class II-UIC program and to meet current permit review and inspection workloads.

Performance measure: Number of permits issued and inspections completed.

Tactic 5.3: DOG solicits input from DMRE and produces guidance material, complete with case studies and examples, to educate oil and gas drillers and operators as to the adverse environmental impacts caused by oil and gas drilling activities on surface disturbance permits.

Performance measure: Guidance material available on the DOG website.

Objective 6 – The Kentucky Reclamation Guaranty Fund, as administered by the Office of Reclamation Guaranty Fund, was established by the 2013 General Assembly (House Bill 66) to provide additional revenue to reclaim coal mine permits in the event of bond forfeiture. In addition, the fund will continue to subsidize bonds for permits belonging to members of the former Kentucky Bond Pool.

Tactic 6.1: Maintain the current system for reporting and collecting tonnage and dormant/non-production fees to maintain the solvency of the KRGF.

Performance Measure: Collect tonnage and dormant/non-production fees on a quarterly basis.

Tactic 6.2: Continue to provide bond subsidies to the former Kentucky Bond Pool.

Performance Measure: Tabulate the number of bonds and bond amounts issued to permits belonging to members of the former Kentucky Bond Pool.

Tactic 6.3: Provide additional money to the Division of Abandoned Mine Lands (DAML) to cover the cost of reclamation of forfeited mine sites that do not have adequate permit specific bond to complete reclamation.

Performance Measure: Tabulate the amount of additional money transferred to (DAML) for the reclamation of forfeited permits in order to maintain the solvency of the Fund.

DNR GOAL 2. Support statewide efforts to develop alternate energy sources and carbon sequestration opportunities.

Nearly 50% of the future demands for biomass in Kentucky is expected to come from forest resources, but Kentucky's forests are not ready to supply such a demand for woody biomass. The Commonwealth has more than 467,000 private forest landowners, many of whom will require assistance from the Division of Forestry to develop forest management plans that will enable production of woody biomass efficiently and sustainably. Similarly, landowners who choose to grow switchgrass for energy generation will need the assistance and expertise of Division of Conservation and its 121 Conservation Districts to

assist with the development of agriculture water quality plans and procurement of funding for best management practices.

Objective 1 –Enhance Kentucky’s forest resources to improve their contributions to the environment and economy through management and reforestation activities.

Performance measure: Maintain a positive growth-to-removal ratio, while utilizing available forest resources for environmental, economic, and social benefits for all Kentuckians.

Tactic 1.1: Promote logging, biomass removal, and forest management practices that enhance the value and provide for the sustainability of Kentucky’s forest resources and protect the waters of the Commonwealth.

Performance measure: Increase the quality of Kentucky’s forests based on distribution of tree grades as indicated in Kentucky’s Forest Inventory and Analysis data.

Tactic 1.2: Provide technical and financial assistance to the forest products industry and private forest landowners, who provide sustainable renewable resources for energy production from woody biomass; obtain funding for additional division staff to provide this assistance.

Tactic 1.3: With the assistance of the Economic Development Cabinet, promote the value and opportunities of Kentucky’s forest resources to interested industries, within and outside of Kentucky.

Performance measure: Maintain a positive growth-to-removal ratio while utilizing available forest resources for environmental, economic, and social benefits for all Kentuckians.

Tactic 1.4: Cooperate with the Department for Energy Development and Independence to develop a sustainable strategy for including woody biomass in the state’s renewable energy needs.

Tactic 1.5: Maintain the Division of Forestry Tree Nursery capacity to produce and distribute 2 to 3 million tree seedlings annually for reforestation and mine reclamation.

Tactic 1.6: Promote Kentucky's 20/20 Vision for Reforestation to plant 20 million seedlings in 20 years starting in 2014.

Performance measure: Number of seedlings planted annually for this project.

Tactic 1.7: In coordination with The American Chestnut Foundation and its Kentucky Chapter, identify and propagate blight resistant American chestnut seedlings for planting on surface mine reclamation sites.

Performance measure: Number of blight resistant American chestnut seedlings planted on surface mine reclamation sites annually.

Objective 2 – Promote reforestation (according to the Forestry Reclamation Approach) and wildlife habitat enhancement as the preferred choice for post-mining land uses to provide for enhanced wildlife habitat, recreational opportunities, high-value hardwoods for timber production, improved hydrologic conditions, and sequestration of carbon as a means to control greenhouse gas accumulation.

Tactic 2.1: Encourage permit applicants during initial permit walks on potential surface mine sites to establish forestland as the approved post mining land plan using the Forestry Reclamation Approach; permit applicants should be encouraged to seek the favorable approval of the landowner for this use.

Performance Measure: Acres and percentage of reclamation plans that include ARRI reforestation as post-mining land use.

Tactic 2.2: Encourage the Forestry Reclamation Approach on Abandoned Mine Land (AML) Projects and seek the favorable approval of the landowner for this use.

Performance Measure: Acres of ARRI reforestation included on AML projects.

Tactic 2.3: Facilitate the approval and installation of carbon sequestration demonstration projects based on the Forest Reclamation Approach.

Objective 3 – Support the use of Agriculture Water Quality Act plans and practices in the development and production of biofeedstocks for energy production.

Tactic 3.1: The Division of Conservation serves as a resource for producers to develop and implement individual water quality plans, conservation plans, compliance plans, nutrient management plans, forest management plans and other measures on their farms which comply with the Agriculture Water Quality Act, without creating a financial hardship or a decrease in productivity.

Performance measure: Increase by 5% the annual number of acres that has some applied conservation practices from the FY 2009 baseline of 438,059.

Tactic 3.2: Evaluate the effectiveness of BMPs, and in conjunction with the Division of Water, develop regional or priority protection areas in regions with documented water quality problems.

Objective 4 - Increase the adoption of agricultural best management practices for proper conservation and wise use of Kentucky's soil, water and other natural resources.

Tactic 4.1: Support the efforts of the 121 local conservation districts to effectively deliver technical assistance and funding to support conservation practices in all Kentucky counties, with emphasis on those counties where NRCS and the Farm Service Agency no longer maintain offices.

Tactic 4.2: Develop and implement a web-based application process for the Kentucky Soil Erosion and Water Quality Cost Share Program that will provide cost share assistance to landowners that can be used for the installation and maintenance of agricultural best management practices.

Performance measure: Number of applicants for KY Soil Erosion and Water Quality Cost Share Program funds who apply online and the number of web-based applications received. Number of environmental grants provided to conservation districts.

Tactic 4.3: Educate conservation districts, farmers, landowners and contractors as to the availability of the low-interest loans that can be used purchase heavy or specialized conservation equipment for the installation of conservation or best management practices.

Performance measure: Number and amount of new equipment loans made annually.

Tactic 4.4: Support and assist conservation districts in implementing additional local, state and federal programs such as, the Tobacco Settlement Agreement, Phase I Model Programs, and the Landowner Incentive Program, among others, that help farmers and landowners address resource concerns,.

Performance measure: Amount of assistance funding obtained by landowners through these programs.

Tactic 4.5: Support the Forestry Best Management Practices Board, which also serves as the Silviculture Committee of the Agriculture Water Quality Authority, to review and revise silviculture best management practices.

Performance measure: Amount of assistance funding obtained by landowners through these programs.

DNR GOAL 3. Ensure the natural resources of Kentucky are protected, managed and enhanced to provide maximum benefits to the people and economy of Kentucky.

The Division of Forestry, the Division of Conservation and the Kentucky Heritage Land Conservation Fund are the three agencies in DNR charged with engaging Kentucky's public and private landowners in activities that protect, manage and enhance land, water and wildlife resources. Kentucky's 11.9 million acres of forestland and 85,300 farms provide multiple benefits to the economy and environment of Kentucky. Forests provide direct economic benefit through the harvest of wood and forest products. Over \$9 billion in revenue is contributed to the State's economy annually from the primary and secondary wood industries; agricultural income is \$5.9 billion per year. Forests improve water quality and aquatic habitat, enhance aesthetic appeal (tourism), provide wildlife habitat, increase recreational activities, and help control greenhouse gas emissions by sequestering carbon. The continued value of Kentucky's renewable forest resource depends on sustainable management practices and protection from threats to forest health. Sustainable management includes human activities such as competent forest stewardship, responsible logging practices, and proper reforestation. The threats to forest health

come from human activities such as unplanned development (deforestation) and human-caused wildfires (primarily arson), and from environmental threats such as insect pests (gypsy moths, hemlock woolly adelgid, emerald ash borer) and diseases (sudden oak death, dogwood anthracnose).

Objective 1 – Establish programs and partnerships to reduce the incidence and impact of wildland fires in Kentucky

Tactic 1.1: Address the leading cause of wildfires by expanding efforts to find and prosecute wildland arson suspects.

Tactic 1.2 Establish media and public awareness efforts to reduce wildland arson.

Tactic 1.3: Promote the Firewise Program through the Division of Forestry to make communities at the wildland interface more resistant to fire damage and reduce the financial and resource burden of fire on individuals and local fire departments through preparation and planning.

Performance measure: Number of Firewise communities in Kentucky.

Objective 2 – Protect Kentucky’s forest resources from environmental threats such as fires, pests and diseases.

Tactic 2.1: Obtain funding to replace and upgrade firefighting equipment to allow efficient firefighting. Program budget increases to acquire needed equipment in line with replacement schedule.

Tactic 2.2: Monitor and respond to threats to the health of Kentucky’s forests.

Tactic 2.3: Increase public awareness of threats to Kentucky’s forest health such as gypsy moths, hemlock woolly adelgid and emerald ash borer through educational outreach programs and web-based information.

Objective 3 – Protect prime farmland for agricultural production.

Tactic 3.1: Offer opportunities for farmers and landowners to protect prime farmland for agriculture production through the Agricultural District Program, the Purchase of Agricultural Conservation Easement (PACE), program, the Purchase of Development Rights (PDRs) program or other related farmland protection programs.

Performance measure: On a yearly basis the increase in the number of acres protected by farmland protection programs.

Objective 4 – Promote the establishment of new wetland areas as a part of natural resources development activities under the guidance of the Wetlands Working Group.

- Tactic 4.1:** Increase wetland development by identifying departmental programs that can develop wetlands projects and allocate the necessary resources.
- Tactic 4.2:** Support the development of the Center for Wetlands and Stream Restoration sponsored by the U.S. Forest Service.

Objective 5 – Promote stewardship of Kentucky’s natural resources.

- Tactic 5.1:** Increase landowner participation in forest stewardship activities of publicly owned and privately owned forestlands
- Tactic 5.2:** Obtain annual funding of \$500,000 for the Kentucky Forest Conservation Act’s Stewardship Incentives Fund which can be used as cost-share for forest landowners when implementing silvicultural practices.
- Tactic 5.3:** Division of Conservation promotes improved public awareness of DNR’s role in the stewardship of Kentucky’s natural resources and environment through educational and public outreach efforts, such as Earth Day, the Jim Claypool Art and Conservation Writing Contest, Envirothon, district newsletters, tree give-away programs, and the Division’s Web site.

Performance measures: Number of teams participating in the Envirothon. Number of students participating in the Jim Claypool Art and Conservation Writing contest.

Objective 6 – Kentucky Heritage Land Conservation Fund (KHLCF) will continue to promote the conservation and management of ecologically significant lands throughout the Commonwealth.

- Tactic 6.1:** Award funding for the purchase and preservation of selected natural areas which will protect rare and endangered species and migratory birds, save threatened areas of natural importance; and provide natural areas for public use, outdoor recreation, and education.

- Tactic 6.2:** Encourage partnerships of state and local agencies in the protection of natural lands.

Performance measure: On a yearly basis, increase in acreage protected by KHLCF conservation easements or deed restrictions.

- Tactic 6.3:** Enhance the land stewardship of KHLCF funded properties by conducting stewardship workshops for partners which have purchased natural lands with KHLCF funding.

- Tactic 6.4:** Engage in a broad-range of public education and communications activities designed to build support for the KHLCF program.

DNR GOAL 4. Ensure coal mining, logging, firefighting and agricultural activities are performed in a safe manner.

DNR's responsibility extends beyond production and protection of natural resources to the safety of the employees performing those tasks. Coal miners, loggers, firefighters and agricultural workers are at greater risk of death or injury than many workers, and lack of training or poor work habits of some employees may put others (including private citizens) at risk as well. DNR agencies work to reduce the risk to natural resources workers and to other citizens during natural resources activities.

The Division of Mine Safety provides training for miners, certifies miners, inspects surface and underground mines for compliance with health and safety regulations, corrects unsafe acts, investigates accidents, responds to mine emergencies, and requires drug testing of miners and sanctions individuals and companies for violating mine safety regulations.

DNR regulates coal and non-coal blasters and blasting operations via the Explosives and Blasting Branch of the Division of Mine Reclamation and Enforcement (DMRE). Of great concern to the regulatory agencies are any operations that are blasting near occupied dwellings or other improvements. With such operations, there is always the possibility of a flyrock event occurring, during which rock and debris are thrown from the mine or construction site causing damage to roads, private property, or in rare cases injury or death to people. DMRE continuously explores practices and penalties that reduce the number of flyrock incidents.

Objective 1 – Prevent Flyrock Incidents Related to Coal and Non-Coal Mining (DMRE)

Tactic 1.1: Identify mine sites at high risk for flyrock events; investigate the actual blasting site and evaluate the geology of the area, including the steepness of slopes and prior to the commencement of blasting operations, review the plans for the drilling operations, loading processes and operational timelines.

Performance measure: While there were 2 flyrock events at coal sites and 3 flyrock events at non-coal sites in Kentucky in fiscal year 2015, the goal continues to be having zero flyrock events.

Tactic 1.2: Provide the on-site blasting operation personnel with information about any problematic conditions that are identified and educate them as to measures that have prevented blasting problems previously in similar conditions; encourage blasting personnel to develop a flyrock prevention plan.

Performance measure: Increase the number of pre-blasting briefings of on-site personnel on all blasting operations. Participate in all meetings entailing the implementation of a Blasting Remediation Plan.

Tactic 1.3: Continue to develop in coordination with OSM, coal industry associations, and other agencies, training courses and procedures addressing the specific needs of licensed blasters relative to the unique areas for their blasting operations.

Tactic 1.4: Continue to implement the DNR's Approved Training Plan and incorporate into blaster training courses suggested training topics.

Tactic 1.5: Continue to require training classes be evaluated by students taking the course or participating in a required training test.

Tactic 1.6: Explosives and Blasting Branch (EBB) continues its coordination with the University of Kentucky, Department of Mining Engineering. The University has completed a study on flyrock. The flyrock study reviewed and analyzed data from many different perspectives and looked for trends to identify common and contributing causes of flyrock incidents. The Division must review the completed study and implement recommendations as appropriate in an effort to reduce the occurrence of flyrock events.

Objective 2 – DNR Divisions will provide training to increase workplace safety and reduce worker accidents and injuries.

Tactic 2.1: Division of Conservation provides workplace safety and training to division staff and conservation district employees.

Tactic 2.2: Division of Forestry provides employee firefighter training with increased emphasis on safety.

Tactic 2.3: Division of Forestry provides a safety briefing prior to each deployment for wildfire suppression.

Tactic 2.4: Division of Mine Safety (DMS) provides training and certification to miners. Mine Safety Specialists perform safety analysis during mining operations to identify and correct unsafe acts by miners working in underground and surface mines.

Performance measure: Number of unsafe acts observed and corrected.

Tactic 2.5: Explosives and Blasting Branch conducts safety training session for all blasters.

Objective 3 - Reduce Serious Mine Accidents and Fatalities. (DMS)

Tactic 3.1: Complete all required annual underground mine, surface mine and electrical inspections according to Kentucky requirements. Conduct as many analysis observations as possible. Conduct safety meetings at the mine sites on a regular basis concerning issues that are causing fatalities and serious injuries to Kentucky's miners.

Tactic 3.2: Continue to identify safety hazards and unsafe behaviors that numerically are the highest contributors to accidents, injuries and fatalities in Kentucky coal mines.

Performance Measure: Ascertain whether the current ten-year average of reportable mine accidents and fatalities is declining to levels less than the previous 10-year average.

Tactic 3.3: Develop targeted safety training for mine foremen and miners helping them avoid unsafe conditions and behaviors.

Tactic 3.4: Propose regulatory or statutory changes as necessary to address emerging mine safety issues.

Tactic 3.5: Continue to support the Mine Mapping Initiative allowing citizens, drillers and miners to identify the extent of previous mining in all parts of Kentucky's coal fields, thereby avoiding hazards created by proximity of the previous mining.

Performance measure: Annual increase in number of mine maps made available to the public through the Mine Mapping site.

Tactic 3.6: Meet with officials responsible for miner safety in adjacent states to explore the possibility of reciprocity for miner certification and suspension or revocation of certifications due to safety violations.

Tactic 3.7: Provide professional accident investigation for all mine accidents that timely and accurately determines the cause(s) of the accident and use this information to prevent future occurrences.

Objective 4 – Upon request of any Kentucky underground coal mine licensee, provide MSHA-mandated mine rescue team coverage that complies with the increased training and contest participation requirements of the federal MINER Act.

Tactic 4.1: Maintain DMS staff by hiring, equipping and training MSHA mandated mine rescue teams in order to provide adequate coverage for all Kentucky underground mines.

Performance measure: All licensed Kentucky mines are provided MSHA signature mine rescue team coverage by DMS.

Tactic 4.2: Use scheduled DMS staff to meet state regulatory inspection requirements and MSHA mine rescue team requirements.

Objective 5 – Assist Water Conservancy Districts to address the continuing issue of Conservancy District dams that need maintenance, breach analysis, or emergency action plans.

Tactic 5.1: In coordination with the Natural Resources Conservation Service (NRCS) identify funds to provide upgrades to Water Conservancy District dams classified as high priority.

Tactic 5.2: Promote using funds from the Division of Conservation's Equipment and Infrastructure Loan program as a state match for available federal funds that can be used for this Objective.

Tactic 5.3: Provide outreach and education to Water Conservancy Districts and to Soil and Water Conservation Districts regarding their responsibilities and liabilities associated with the dams within their control.

Performance measure: Number of Water Conservancy dams compliant with Kentucky Dam Safety regulations.

DNR GOAL 5. DNR regulatory programs must remain responsive to the changing requirements of related Federal environmental programs, while remaining consistent with state regulatory requirements.

The current federal administration has initiated an enhanced coordination among state and federal agencies with respect to the implementation of Clean Water Act requirements pertaining to coal mining operations. With USEPA currently increasing its role in the review of CWA Section 404 and 402 (KPDES) permits, state agencies must identify and implement procedures that will allow a more effective coordination among all affected agencies during the permitting process of surface mines.

The Division of Oil and Gas is making changes to Class II primacy package as directed by technical staff from USEPA and will continue to work with USEPA representatives on its application to obtain primacy from the USEPA. The Division is re-evaluating the oil and gas regulatory program to ensure that it is sufficient to address the increased use of horizontal and directional drilling technology. The Division is also in the process of evaluating the feasibility of a performance bond for oil and gas storage facilities.

Objective 1 - Improve the efficiency of regulatory processes and programs through elimination of regulatory overlaps, duplication, inefficiencies and inconsistencies between DNR and other state or federal agencies.

Tactic 1.1: Improve coordination and increase the efficiency between DNR, DEP and relevant federal agencies, such as US Army Corps of Engineers, U.S. EPA and Office of Surface Mining Reclamation and Enforcement, in regulating coal mining activities.

Tactic 1.2: Continue to meet and participate in Office of Surface Mining quarterly inter-agency meetings.

Performance Measure: DNR participates each quarter in scheduled OSM interagency meetings.

Tactic 1.3: Continue the internal review begun in the previous FY of all departmental regulations and repeal duplicative or outdated regulations.

Tactic 1.4: DOG will continue to work with Department for Environmental Protection, Division of Water and Division of Waste Management, to ensure that the most efficient regulatory processes are employed as discussions continue with the Oil and Gas Workgroup.

Objective 2 - Evaluate current Oil and Gas regulatory programs and requirements to determine if changes are needed to address changing conditions or responsibilities.

Tactic 2.1: Division of Oil and Gas finishes review of the current reclamation requirements for oil and gas production and storage facilities and implements a program to address deficiencies. Establish a funding mechanism for the Abandoned Storage Tank Reclamation Program.

Tactic 2.2: Assess the need for updating and revising Oil and Gas regulations governing confidentiality of stratigraphic testing and comprehensive water management.

Objective 3 – Maintain and improve communications with other state and federal agencies.

Tactic 3.1: DMRE coordinates with blasting personnel within OSM and other agencies as to blasting issues, blasting assistance, joint inspections and blasting summits in order to raise the standards of practice for blasting in Kentucky.

Tactic 3.2: The DMP and DMRE continue to communicate and coordinate with the DEP Divisions of Water and Enforcement through the Coal Water Quality Task Force concerning water quality permitting and enforcement issues related to coal mining.

Performance Measure: Coal Water Quality Task Force meets quarterly to exchange information and resolve water quality concerns. Develop and implement computer system upgrades to improve the efficiency of transferring KPDES permitting and water monitoring data to online sites. Continue to foster effective collaboration with DEP's Divisions of Water and Enforcement as to water related issues such as Performance Audit Inspections, responses to Notices of Intent (to sue), and enforcement of DMR reporting.

Tactic 3.3: Communicate with industry and environmental groups on a regular basis to promote mutually agreeable resolution to regulatory issues.

DNR GOAL 6. DNR's human, physical, and fiscal resources are efficiently and effectively managed to maintain a high level of service to the citizens of Kentucky in all DNR program areas.

Recent funding reductions have taken a heavy toll on the level of experience and number of staff positions and the resources available to do the work of DNR divisions. DNR has identified and implemented efficiency measures in all of its divisions to reduce the resources needed to maintain programs, without reducing the level of service to the citizens of Kentucky. Effective training of all DNR's personnel is an essential part of ensuring consistency of regulatory enforcement and raising the competency of the regulatory program staff.

Objective 1 – Ensure the competency, consistency and efficiency of new and existing DNR program staff and citizen volunteers through training.

Tactic 1.1: DMRE provides in-house annual new inspector training for all inspection staff and centers its training of its personnel, and occasionally DMP personnel, on the

requirements that are determined to be of importance, emphasis, or need by management staff.

Tactic 1.2: DMRE offers training for regional administrative staff through GSC programs. DMRE will provide training for the office coordinator's in Frankfort on a regular basis. DMRE offers field training to Frankfort Administrative Staff and Assessment and Records Section Staff to give them a better understanding of the on ground circumstances leading to the inspector's decision that a violation should be written.

Tactic 1.3: Staffs from DMP, DMRE and AML take full advantage of OSM course offerings to increase their technical expertise.

Tactic 1.4: DMP provides one on one training with new employees and monthly reviewer training for all permit reviewers.

Tactic 1.5: DMP encourages continuing education of supervisory personnel by including GSA classes in performance management and leadership training.

Tactic 1.6: DMP provides an on-line library of guidance documents and training modules on technical topics to ensure that permits are issued in compliance with SMCRA requirements and performance standards.

Tactic 1.7: DMP provides training to permit reviewers on RAMs 159, 160, and 161 regarding right of entry and co-tenancy issues.

Tactic 1.8: Conduct technical, program and leadership training as appropriate for conservation employees, conservation district supervisors, watershed conservancy district supervisors and other citizens of the Commonwealth.

Tactic 1.9: Provide ongoing training to all Explosives and Blasting Branch (EBB) Inspectors to enable them to remain current with any changes occurring in the blasting profession. An online library of policy statements, guidance documents, and reference was created which continues to be further developed and updated for use by the Explosives and Blasting Branch staff.

Tactic 1.10: EBB conducts field training on blasting methods and issues for DMRE field staff. EBB inspectors accompany DMRE inspectors when possible on complete inspections and give one-on-one training regarding specific blasting concerns for the permit. EBB inspectors also assist DMRE inspectors regarding blasting complaints. EBB continues to implement this process and strives to make the Surface Mine Inspector/Blasting Inspector relationship a seamless one.

Objective 2 – Where feasible, use electronic methods of communication with the DNR regulated community and the public to save the time and expense of mailing.

- Tactic 2.1:** Require the use of fully automated (paperless) bond release requests from the regulated community to be uploaded to the regional office FTP sites.
- Tactic 2.2:** Upgrade the workflow processes for the Assessments and Bond Release Section to use Staffware to track forfeiture cases and POV cases.
- Tactic 2.3:** Convert the current annual pond certification forms from Word to Access format; Develop electronic checklist to accompany annual underground mine map electronic submittal.
- Tactic 2.4:** Develop and implement electronic permitting for the Non-coal Branch.
- Tactic 2.5:** Develop, implement and install an on-line data DOG management system for electronic permitting and reporting to reduce staff handling time and improve accessibility to permitting and reporting information.

Objective 3 – Pursue the feasibility of fee and assessment increases to provide additional funding to departmental programs.

- Tactic 3.1:** Complete a thorough review of departmental fee structures and, where feasible, institute regulatory changes to increase revenue streams in all divisions.

Objective 4 – Ensure accountability of DNR offices and programs.

- Tactic 4.1:** Commissioner's Office staff will perform reviews as budget and staff allow of every DNR office for compliance with Cabinet and Departmental policies related to fixed assets, vehicle reports, cash receipts, timekeeping, cell phone usage and other topics deemed necessary by the Commissioner.
- Tactic 4.2:** Division of Conservation will assure completion of conservation and watershed district audits as required by state law and successfully address all identified corrective measures.

Objective 5 –Division of Technical and Administrative Support (DTAS) supports the information technology needs of DNR to allow DNR's programs and offices to gain efficiencies through the use of electronic communications, wireless inspection, digital data collection and storage, electronic workflow, computer modeling, GIS applications and electronic reporting.

- Tactic 5.1:** Provide improved technology planning and coordination of all Department technology staff in light of the ongoing Infrastructure Consolidation by the Commonwealth Office of Technology.

Tactic 5.2: Ensure that DNR agencies' desktop support and data integrity remains stable once the COT consolidation is complete.

Tactic 5.3: Cross train DNR technology staff to support applications for all agencies to avoid interruption of service should a primary support person be unavailable.

Tactic 5.4: Continue to improve the Surface Mining Information System for use by the DNR, the regulated community, and the public; develop and implement electronic filing of surface water and ground water data; enter all DMR data that is on paper into SMIS; establish a coordinated protocol with DEP for anticipated entry of DMR data into NetDMR.

Tactic 5.5: Maintain and enhance Permit Review Information System Manager (PRISM), which is a comprehensive suite of data retrieval and analysis tools encapsulated in a single applications suite that can be attached to any ArcMap project.

Performance measure: The degree to which the PRISM increases accuracy and saves time relative to earlier workflows programs.

Tactic 5.6: Identify hardware, software or network needs allowing better electronic communication between the Division of Conservation's main office, conservation district offices, state and federal agencies, field staff and the general public.

Tactic 5.7: Continue implementation of the Mine Safety and Mapping Capital IT Project (MIST) and the Electronic Client Application for Inspections and Analysis, which allows for automatic upload of this data to MIST. Full implementation and transition of the existing Mine Mapping Information System to the latest GIS platform will also be accomplished. Esoteric code will be converted to language that is consistent with developing technology. This entire project provides DNR with the ability to upgrade all systems fairly easily without future rewrites.

Tactic 5.8: Ensure that DOF can leverage funding to obtain needed licenses and technology tools available through the EEC OIS.

Tactic 5.9: Provide an improved method of GIS coordination, programming, and implementation throughout DNR.

Tactic 5.10: Develop a new system to replace the common system to tract blaster's licenses.

Objective 6 – Provide administrative support and guidance to the Department. (DTAS)

Tactic 6.1: Improve the efficiency of personnel action process. Fill all personnel vacancies rapidly to maintain budgeted staffing numbers.

Tactic 6.2: Increase the amount of federal funds received through grant writing to support Department objectives when available.

Tactic 6.3: Properly support central office vehicle needs through tracking and maintenance.

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www.dep.ky.gov/deps

Environmental Services Branch

100 Sower Boulevard
Suite 104
Frankfort, KY 40601
Phone: 502-564-6120
Fax: 502-564-8930
www.dep.ky.gov/deps

Division of Waste Management

200 Fair Oaks Lane
Frankfort, KY 40601
Phone: 502-564-6716
Fax: 502-564-4049
www.waste.ky.gov

Division of Water

200 Fair Oaks Lane
Frankfort, KY 40601
Phone: 502-564-3410
Fax: 502-564-0111
www.water.ky.gov

Department for Natural Resources

DNR Office of the Commissioner

#2 Hudson Hollow
Frankfort, Ky. 40601
Tel. (502)564-6940 Fax. (502)564-5698
www.dnr.ky.gov

Division of Abandoned Mine Lands

2521 Lawrenceburg Rd.
Frankfort, Ky. 40601
Tel. (502) 574-2141 Fax. (502) 564-6544

Division of Forestry

627 Comanche Trail
Frankfort, Ky. 40601
Tel. (502) 564-4496 Fax. (502) 564-6553

Division of Mine Safety

1025 Capital Center Drive
Frankfort, Ky. 40601
Tel. (502)573-0140 Fax.(502)573-0152

Office of the Reclamation Guaranty Fund

#2 Hudson Hollow
Frankfort, Ky. 40601
Tel. (502)564-6940 Fax. (502)564-5698

Division of Mine Reclamation & Enforcement

#2 Hudson Hollow
Frankfort, Ky. 40601
Tel. (502)564-2340 Fax. (502)564-5848

Division of Mine Permits

#2 Hudson Hollow
Frankfort, Ky. 40601
Tel. (502)564-2320 Fax. (502) 564-6764

Division of Technical & Administrative Support

#2 Hudson Hollow
Frankfort, Ky. 40601
Tel. (502)564-6940 Fax. (502)564-5698

Division of Conservation

375 Versailles Road
Frankfort, Ky. 40601
Tel. (502)573-3080 Fax. (502)573-1692

Division of Oil & Gas

1025 Capital Center Drive
Frankfort, Ky. 40601
Tel. (502)573-0147 Fax. (502)573-1099

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