

**KDHE Division of Environment
Overview
for
House Committee on Energy & Environment**

January 17, 2013

John Mitchell, Director
Division of Environment

Our Mission: To protect and improve the health and environment of all Kansans



The Division of Environment Mission ...

- ◆ Implement environmental programs to achieve regulatory compliance and ensures that these programs are protective of public health and the environment
- ◆ Develop environmental policy responsive to the needs of Kansas citizens and the regulated community
- ◆ Provide Kansas citizens with accurate assessments of the environmental conditions of the state

The Division of Environment is Responsible...

- ◆ Conducting regulatory programs for:
 - Public water supplies
 - Industrial discharges
 - Wastewater treatment systems
 - Solid waste landfills
 - Hazardous waste management
 - Petroleum storage tanks
 - Air emissions
- ◆ Ensuring compliance with federal and state environmental laws

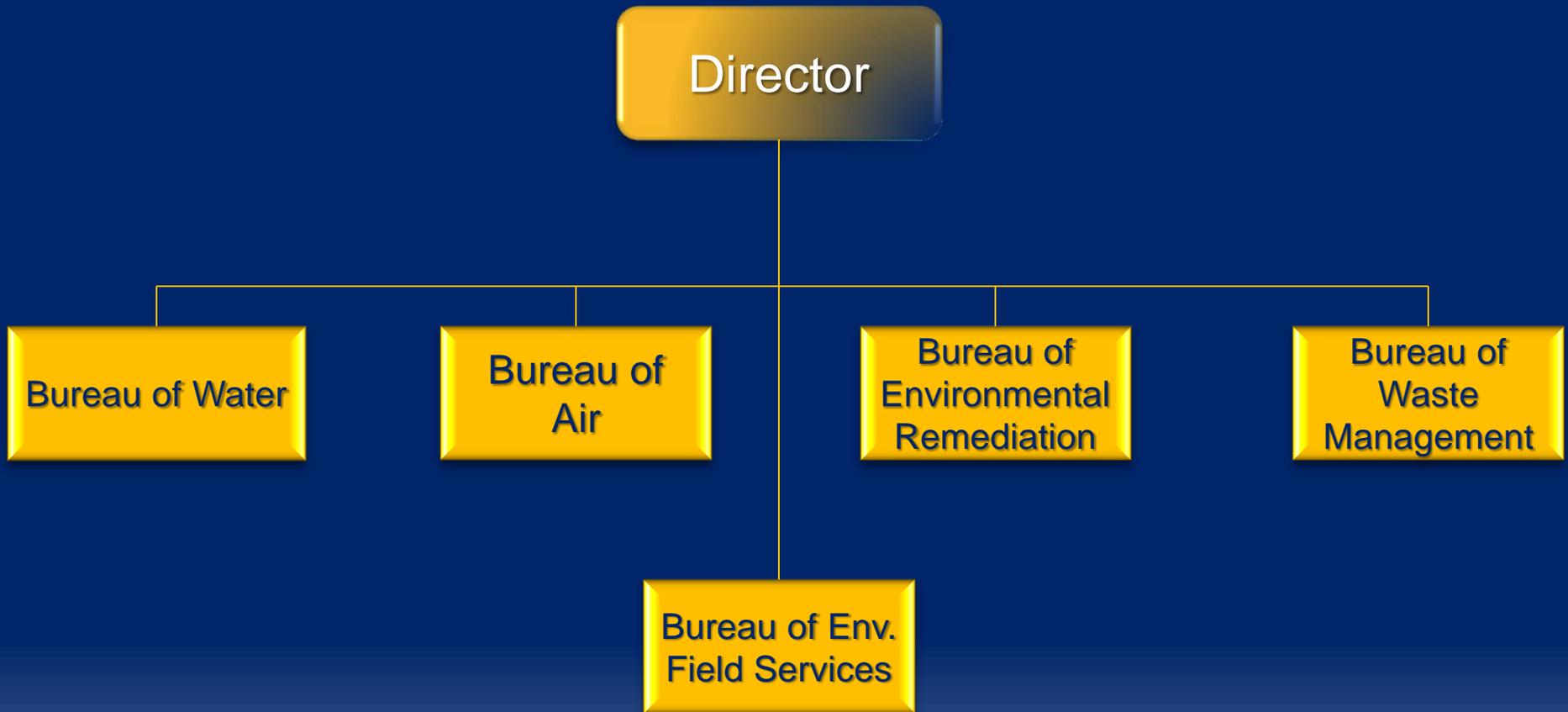
The Division of Environment is Responsible...

- ◆ Administering programs to remediate contamination and evaluating environmental conditions across the state
- ◆ Providing laboratory data in support of public health and certifying the quality of Kansas laboratories
- ◆ Providing scientific analysis to help diagnose and prevent diseases
- ◆ Providing laboratory test results to help guard public drinking water, ambient air, and surface/groundwater quality

The Division of Environment

- ◆ Regulate:
- ◆ Municipal water and wastewater systems
- ◆ Industrial entities producing wastewater discharges
- ◆ County, city, and private landfill operations
- ◆ The waste streams of businesses producing industrial solvents and other chemicals
- ◆ Service stations and other businesses with buried and above ground tanks for petroleum storage
- ◆ Public health laboratories
- ◆ Environmental laboratories

Division of Environment - 2013



Our Federal/State Role

- ◆ Major components of our air, waste, and water programs are based on both federal and state statutes
- ◆ Our public drinking water, wastewater, hazardous waste management, and clean air programs are delegated to KDHE to be run in lieu of an EPA program
- ◆ People of Kansas prefer to work with KDHE instead of federal regulators

Possible 2013 Legislative Initiatives

- ◆ Air – Redirection of Air Permit Fees to Air Quality Fee Fund
- ◆ Water - Extending Permit Fees to Support Operational Costs for Clean Water Act Programs
- ◆ Confined Animal Feeding Permitting Changes
- ◆ KHEL - Kansas Health and Environment Labs Operating Fund
- ◆ KHEL Third Party Billing

2013 Legislative Initiatives

- ◆ KHEL Environmental Lab Improvement Program changes
- ◆ KHEL Funding Changes for the Breath Alcohol Program
- ◆ Remediation - Underground Tank Storage Statutory Changes

Bureau of Waste Management Overview for House Committee on Energy & Environment

January 17, 2013

Bill Bider, Director
Bureau of Waste Management

Our Mission: To protect and improve the health and environment of all Kansans



The Bureau of Waste Management

- ◆ Administers regulatory programs

- ◆ Provides technical and financial assistance

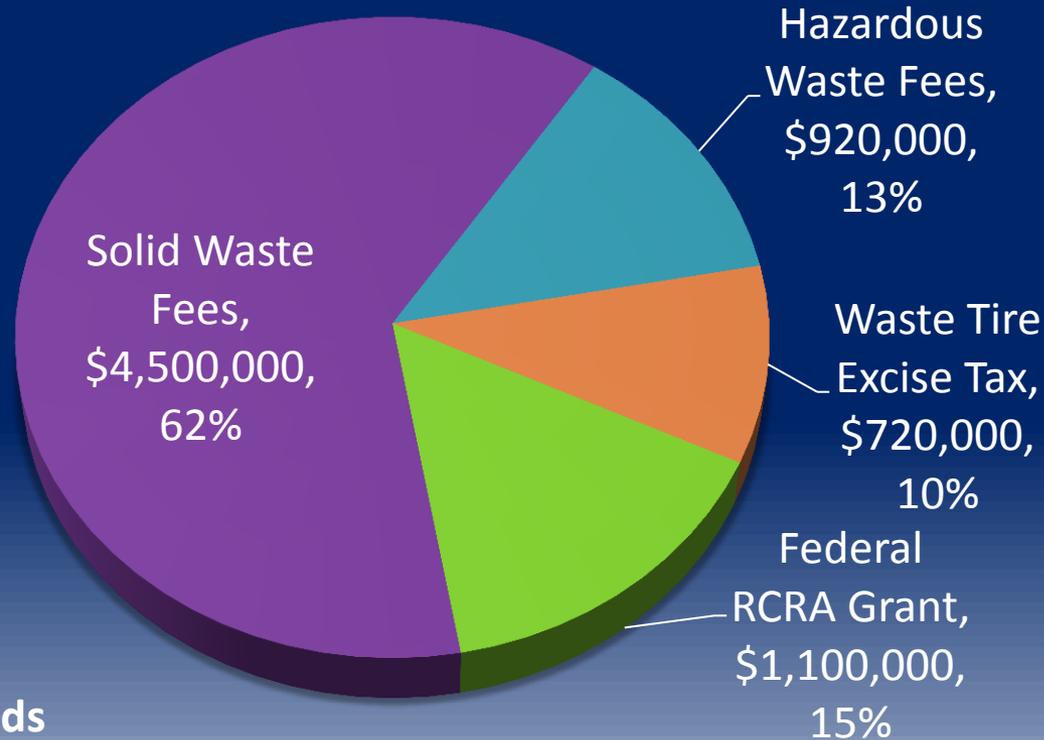


Related to the Generation,
Transportation, Storage, Treatment, and
Disposal of all Solid Waste and
Hazardous Waste

Bureau of Waste Management

54 positions
Mostly Engineers, Scientists, Geologists

Total Waste Program Funding – FY 2013



No State General Funds

Solid Waste Facility Permitting & Compliance

- ◆ MSW Small Arid Landfills (33)
- ◆ MSW Sub Title D Landfills (18)
- ◆ Industrial Landfills (38)
- ◆ C&D Landfills (97)
- ◆ Composting Facilities (167)
- ◆ Incinerators (1)
- ◆ Landfarms (2)
- ◆ Transfer Stations (66)
- ◆ Household Haz'd Waste (85)



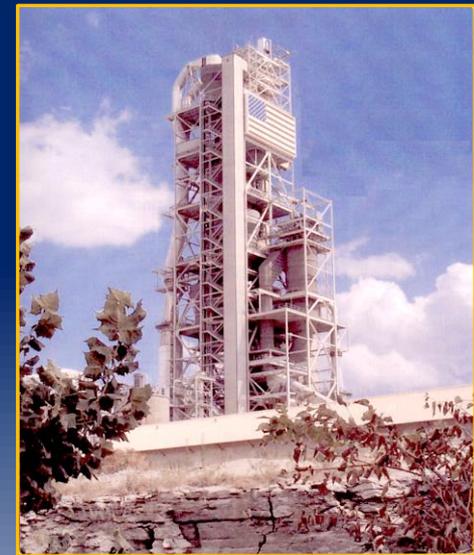
Inspected one or more times per year

Hazardous Waste Facility Permitting & Compliance

55 Treatment, Storage, or Disposal Facilities

- ◆ Commercial Treatment
- ◆ Military Bases
- ◆ Groundwater Monitoring
- ◆ Corrective Action/Clean-Up

Inspected one or more times per year



Hazardous Waste Generator Compliance

183 Large Quantity Generators
1600 Small Quantity Generators
Many thousands “small” generators



Compliance Issues

- ◆ Storage
- ◆ Labeling
- ◆ Shipping
- ◆ Recordkeeping
- ◆ Disposal
- ◆ Recycling
- ◆ Emergency Preparedness
- ◆ Training



Randomly inspected – about 350 per year

Waste Reduction/Diversion

Kansas Recycling Rate ~31% in 2011

Issues

- ◆ Public Education
- ◆ Technical Training
- ◆ “Kansas Don’t Spoil It”
- ◆ Waste Sweeps (School lab chemicals, pesticides, dioxins, mercury)
- ◆ Medication Take-Back Program
- ◆ Green Schools Program



Illegal Dump Clean-Up/City Dump Repairs/ Orphan Wastes

- ◆ Cooperative state/county efforts
- ◆ Hundreds of illegal dumps cleaned
- ◆ Abandoned wastes disposed
- ◆ 900 old city dumps monitored
- ◆ Financial assistance to local governments



Special Waste Management

- ◆ Landfill disposal authorizations
- ◆ Waste oil
- ◆ Fluorescent lamps
- ◆ Waste tires
- ◆ Wood waste
- ◆ Dead animals
- ◆ Sludges
- ◆ Electronic waste
- ◆ Oil & gas drilling waste



Grants

FY 2012 Awards

Waste Tire
Product \$376,021

Green Schools 68,702

Total \$444,723



\$15 million over past decade

Major Issues in 2013

- ◆ Disposal of oil & gas drilling waste
- ◆ Obtain federal authorization for RCRA corrective action
- ◆ Expand medication take-back program
- ◆ Liquids additions to landfills
- ◆ Illegal dumping
- ◆ Waste consumer electronics
- ◆ Rural challenges/small landfills
- ◆ Dead animal emergencies
- ◆ C&D landfill gas regulations

Bureau of Water Overview for House Committee on Energy & Environment

January 17, 2013

Mike Tate, P.E.
Kansas Department of Health and Environment

Our Mission: To protect and improve the health and environment of all Kansans



Overview

- ◆ Who we are and what we do
- ◆ Fiscal picture
- ◆ Federal outlook

Who We Are

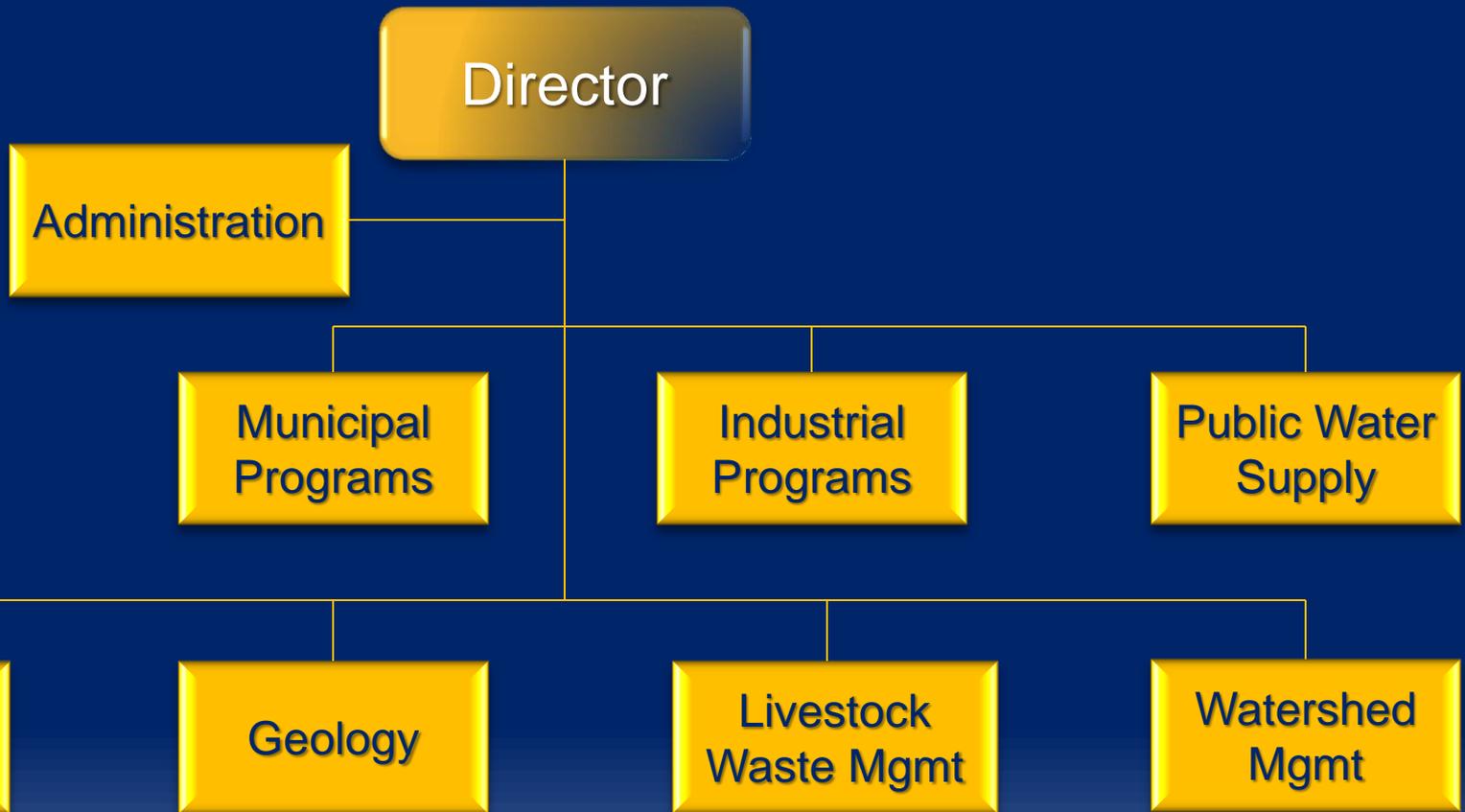
Our Mission: To protect and improve the health and environment of all Kansans



Bureau of Water Programs

- ◆ Administer two major federal laws in lieu of EPA
 - Clean Water Act (CWA)
 - Wastewater permitting/compliance
 - Livestock waste permitting
 - Surface water quality standards/monitoring
 - Nonpoint source management
 - Total Maximum Daily Load (TMDL)
 - State Revolving Fund loan program (CWSRF)
 - Safe Drinking Water Act (SDWA)
 - Public Drinking Water Supply (PWS) permitting/compliance
 - State Revolving Fund loan program (DWSRF)
 - Underground Injection Control (UIC) permitting/compliance
- ◆ Receive state-matched grants from EPA to administer

Bureau of Water - 2013



Administration

- ◆ Permit review/Public notification
- ◆ WW compliance/enforcement
- ◆ WW data management
- ◆ Water/WW operator certification
- ◆ EPA coordination




Kansas Register
 Kris W. Kobach, Secretary of State

Vol. 31, No. 48 November 20, 2012 Page 1417-1482

In this issue . . .	Page
Legislative interim committee schedule	1418
Department of Administration—Office of Facilities and Property Management Notice of requested engineering services	1419
Department of Administration—Procurement and Contracts Notice to bidders for state purchases	1419
Emporia State University Request for qualifications for professional engineering services	1419
Kansas Board of Regents Universities Notice to bidders	1420
Kansas 911 Coordinating Council Notice of meeting	1420
State Employees Health Care Commission Notice of meeting	1420
Kansas Department of Transportation Notice of industry workshop	1421
Notice to contractors	1421
Kansas Department of Credit Unions Notice of application for change in field of membership	1421
Pooled Money Investment Board Notice of investment sales	1421
Notice of Bond Sale	1423
U.S.D. #1, Edwards County (Kearley-Offield)	1423
North Central Regional Planning Commission Notice to bidders	1424
Department of Health and Environment Request for proposals for health information exchange grant funding	1424
Request for bids for lead hazard reduction	1424
Notice concerning water pollution control permits/applications	1427
Requests for comments on proposed acid rain permits	1426
Kansas State University Foundation Request for qualifications for construction services	1427
Permanent Administrative Regulations Department of Revenue—Division of Alcoholic Beverage Control	1427
Board of Indigent Defense Services	1427
Temporary Administrative Regulations Kansas Lottery	1428
Index to administrative regulations	1448



Municipal Programs Section

- ◆ Municipal wastewater permits
- ◆ Clean Water State Revolving Fund (CWSRF)
- ◆ Municipal stormwater permits
 - MS4



Watershed Planning, Monitoring, and Assessment Section

- ◆ Monitor surface water quality
- ◆ Develop WQS
- ◆ Assess surface water for impairment
- ◆ Develop TMDLs



Livestock Waste Management Section

- ◆ Permit *Federal* CAFOs
- ◆ Permit *State* CAFOs
- ◆ Permit sale barns/truck washes



Geology Section

- ◆ UIC permitting and compliance
- ◆ Natural gas/petroleum storage in old salt caverns
- ◆ Water well driller licensing
- ◆ KCC coordination
- ◆ Odds and ends



Industrial Programs Section

- ◆ Permit industrial wastewater discharges
- ◆ Permit construction stormwater
- ◆ Manage pretreatment program



Public Water Supply Section

- ◆ Public drinking water permits, compliance, and enforcement
- ◆ Drinking Water State Revolving Fund (DWSRF)



Watershed Management Section

- ◆ Nonpoint Source Management
- ◆ Watershed Restoration and Protection Strategies (WRAPS)
- ◆ Local Environmental Protection Program (LEPP)

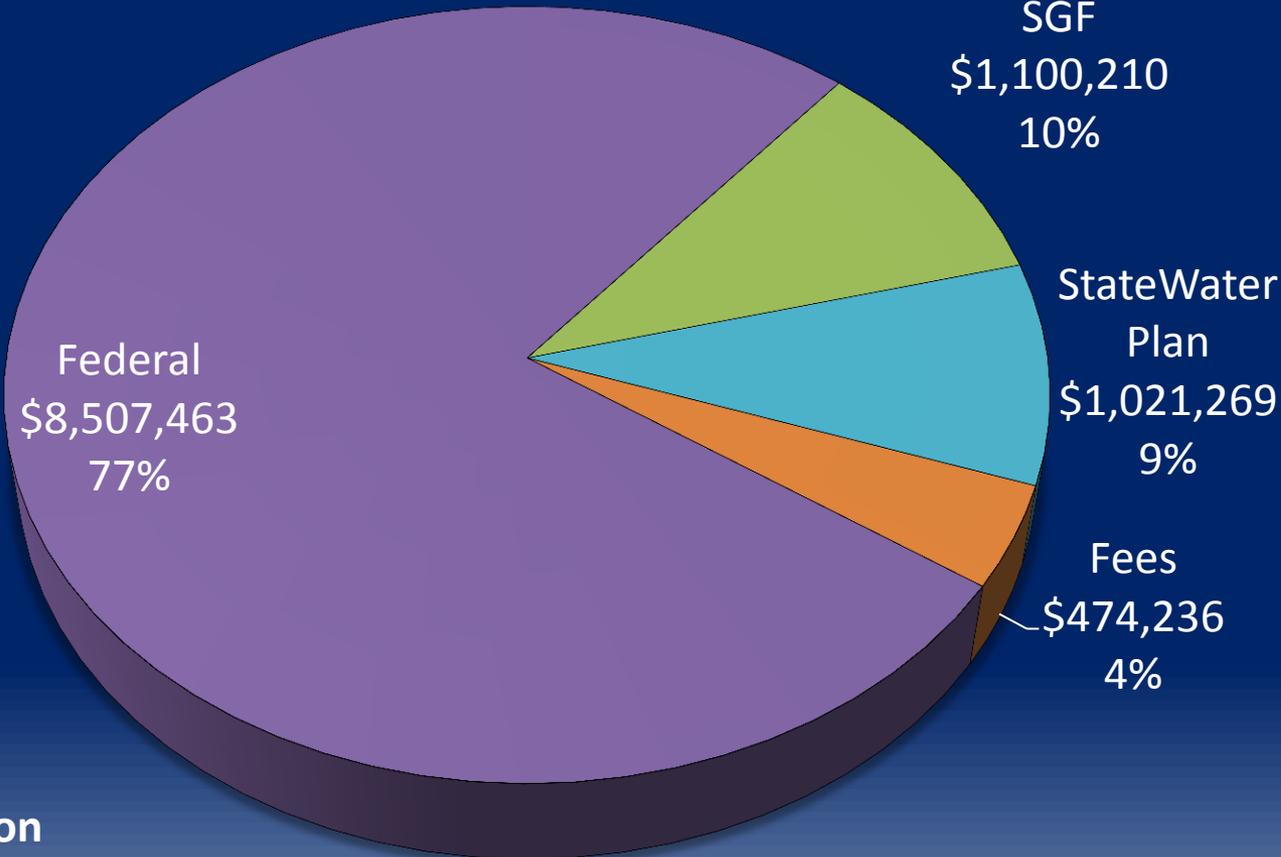


Funding

Our Mission: To protect and improve the health and environment of all Kansans



BOW Funding Sources



Total ~ \$11 million

- Includes ~\$2.4 M in aid to local governments from SWP and Federal funds



Federal Outlook

Our Mission: To protect and improve the health and environment of all Kansans



Federal Outlook

- ◆ Budgets have been proposed by President and House Appropriations Committee
 - Very different
 - President
 - Significant cuts in SRFs/moderate increase in state programs
 - House
 - Large cuts in wastewater SRF/state programs
 - Minimal cuts in drinking water SRF/state programs

Federal Outlook

Program	Δ - FY12 and Proposed FY13	
	President	House
State WW Programs	+12%	-15%
State DW Programs	+4%	0%
Clean Water SRF	-20%	-53%
Drinking Water SRF	-7%	-10%

Do We Keep Administering the Programs ?

- ◆ Declining state and federal funding puts us at risk
 - Maintaining state match
 - Sufficient staff to administer programs
- ◆ In the past, regulated community has supported having KDHE as a buffer between EPA and federal regulation
 - We believe that is still the case

Other Key Issues

- ◆ Waters of the US issue
- ◆ Pathogen criteria
- ◆ Ammonia criteria
- ◆ Nutrient Reduction Framework
- ◆ SEK poultry litter issue
- ◆ Drought impact on public water suppliers

Bureau of Air Overview for House Committee on Energy & Environment

January 17, 2013

Rick Brunetti
Kansas Department of Health and Environment

Bureau of Air - 2013



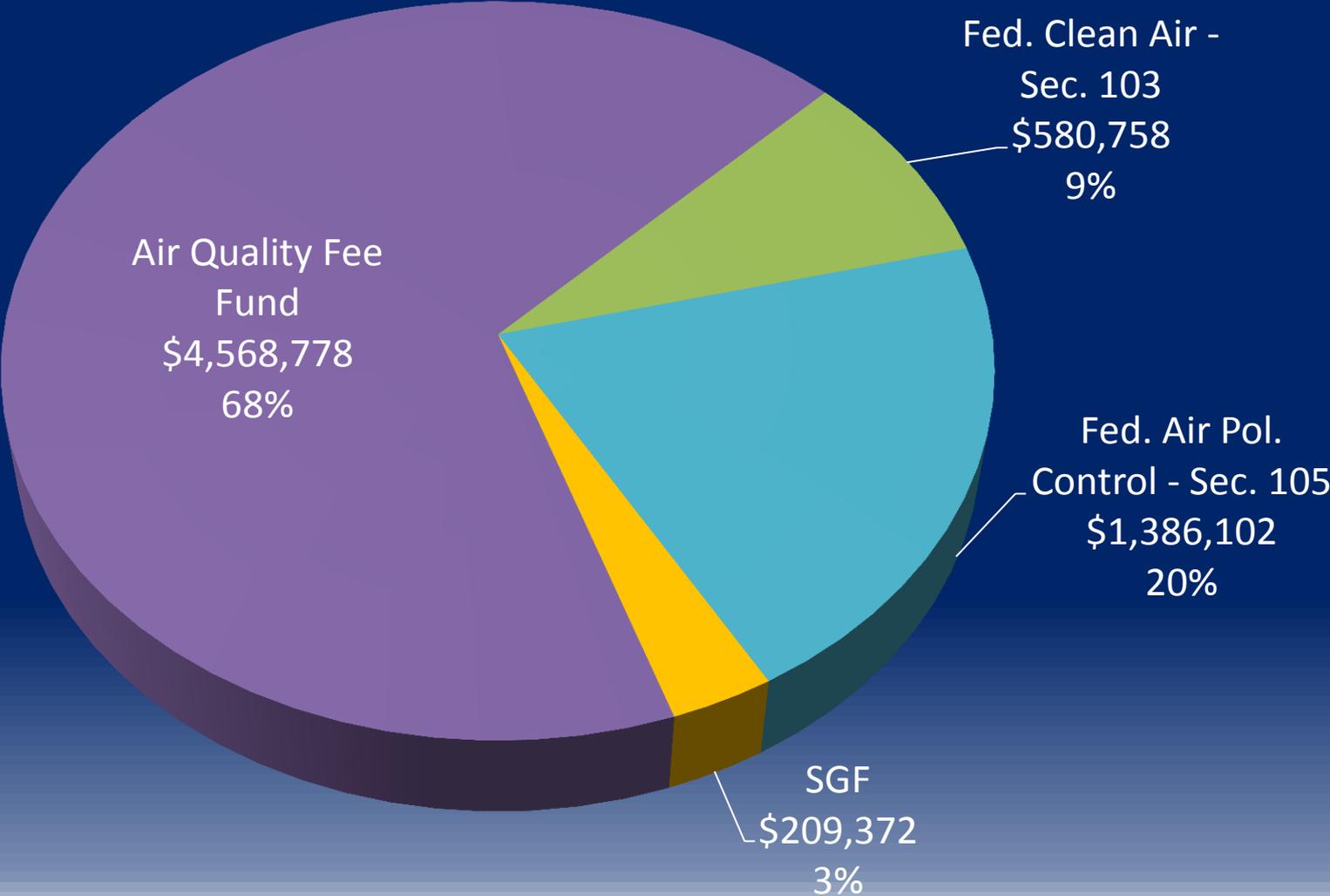
What we do

- ◆ Construction permits
- ◆ Operating permits
- ◆ Inspections
- ◆ Compliance and enforcement activities
- ◆ Planning and regulation development
- ◆ Ambient air monitoring
- ◆ Emission inventory development
- ◆ Outreach and education
- ◆ Kansas clean diesel grant program

How our programs are funded

- ◆ Federal Grants
 - Section 105 of Clean Air Act
 - Section 103 of Clean Air Act
- ◆ State General Fund
- ◆ Air Quality Fee Fund (AQFF)
 - Annual Emissions Fees
 - Penalties and Fines
- ◆ DERA Funds
 - Mainly pass-through money

BOA Funding Sources



Who we regulate

- ◆ Point Sources
- ◆ Non-Point Sources
- ◆ Mobile Sources

Point Sources

- ◆ Large individual sources with permits
 - Refineries
 - Chemical plants
 - Electric generating utilities (EGU)
 - Cement kilns
 - Natural gas compressor stations
 - Landfills
- ◆ Submit annual emission inventory forms
- ◆ Emissions data tends to be most accurate



Non-Point Sources

- ◆ Smaller than a point source
- ◆ Often grouped by sector
 - Dry cleaners
 - CAFOs
 - Household related emissions
 - Solvent cleaning
- ◆ Data is calculated using surrogate information
- ◆ Data not as accurate as point sources



Mobile Sources



- ◆ On-road: Cars, trucks, buses, etc.
 - Fuels: Gasoline, diesel, propane, LNG
- ◆ Non-road: Rail, aircraft, marine vessels, agriculture, construction, etc.
- ◆ Evaporative and tailpipe emissions
- ◆ EPA Computer Models generate data
 - Based on assumptions regarding make up of fleet and Vehicle Miles Traveled (VMT)
 - MOVES model
- ◆ Data quality varies with source category

Current Air Quality Issues

- ◆ National Ambient Air Quality Standards (NAAQS)
- ◆ Cross-State Air Pollution Rule (CSAPR)
- ◆ 1-hour SO₂ standard
- ◆ Kansas City and Wichita ozone status
- ◆ Flint Hills exceptional events request for ozone
- ◆ Mercury and air toxics rule (MATS)
- ◆ GHG regulation update
- ◆ Oil and gas NSPS and MACT

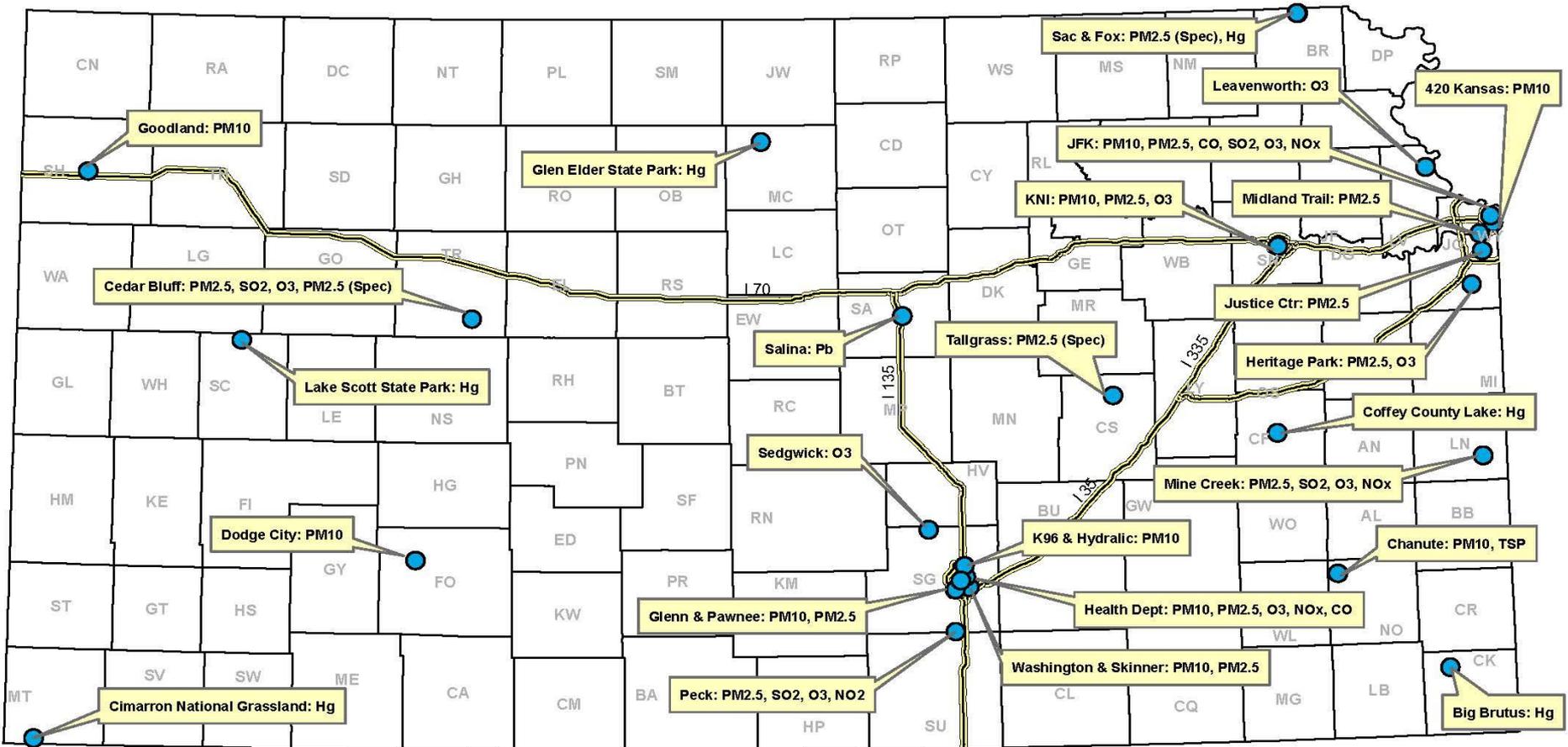
National Ambient Air Quality Standards

- ◆ Clean Air Act (CAA) requires EPA to:
 - Set National Ambient Air Quality Standards for six air pollutants
 - Standards based on health effects
 - EPA required by CAA to review standards every 5 years
- ◆ Pollutants that have NAAQS established
 - Ozone
 - Particulate matter (PM)
 - Nitrogen Oxides (NO_x)
 - Sulfur Dioxide (SO₂)
 - Lead
 - Carbon Monoxide (CO)

Air Terms

- ◆ NSPS – New Source Performance Standards
 - For criteria pollutants; applies to new units in one sector
- ◆ MACT – Maximum Achievable Control Technology
 - For Hazardous Air Pollutants; technology driven
 - Affect existing and new units in one sector
- ◆ RACT – Reasonably Available Control Technology
 - Affect new and existing units in one sector in nonattainment areas
- ◆ SIP – State Implementation Plan
 - Plans to ensure that NAAQS are met...may include regulations or agreements
 - Approved and adopted by EPA

2013 Kansas Air Monitoring Sites



Monitor Racks and Equipment



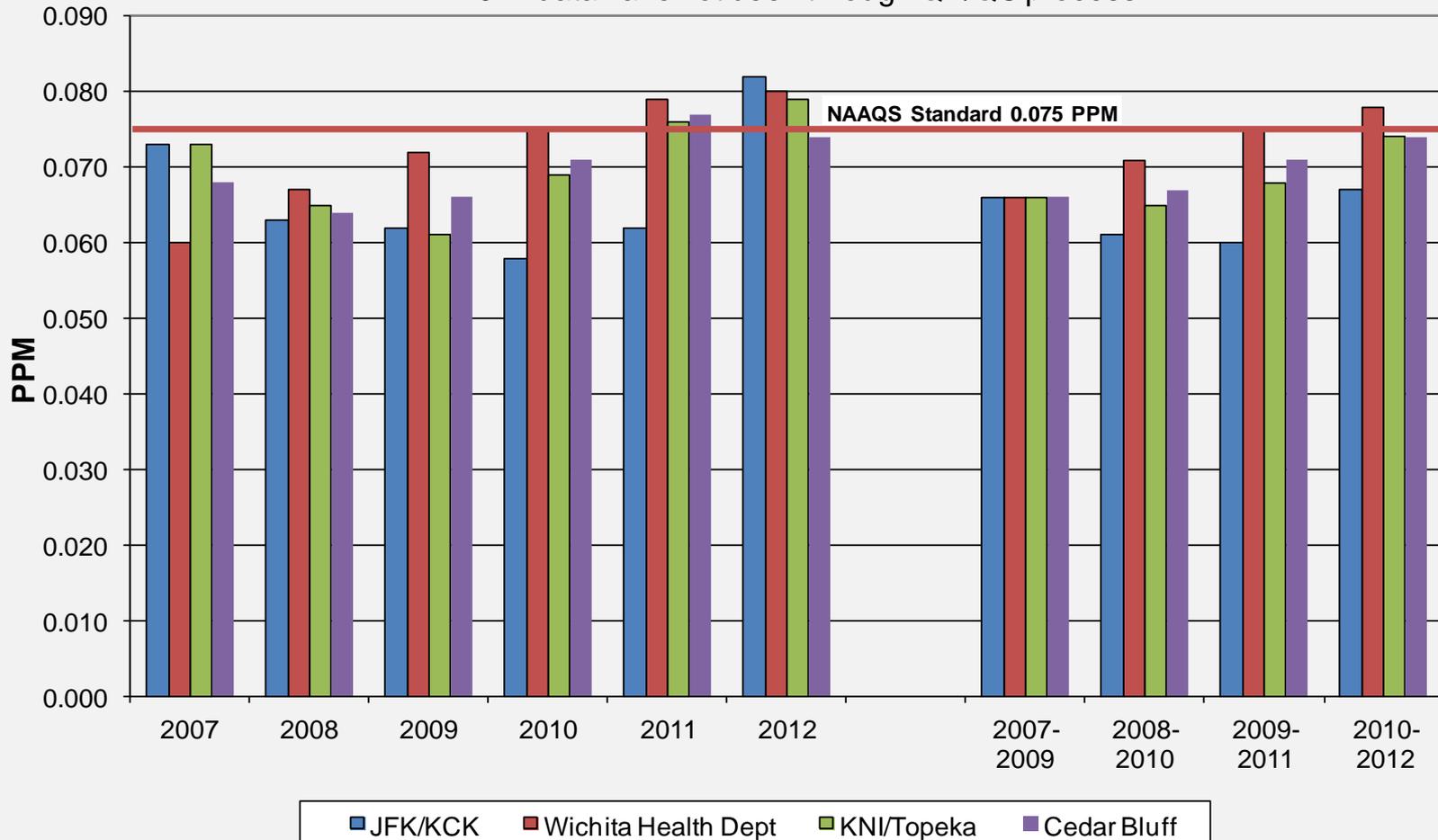
Ozone NAAQS

- ◆ EPA lowered standard to 75 ppb in 2008.
- ◆ KC and Wichita met the 75 ppb standard based on older data.
- ◆ January 2010 – EPA proposed standard of 60 to 70 ppb.
- ◆ President Obama directed EPA to stop reconsideration on Sept 2, 2011.
- ◆ Next statutory review of standard due in 2013.
- ◆ KC and Wichita do not meet the 75 ppb standard now.
- ◆ EPA has said they will not re-designate until after review.
- ◆ Waiting for new standard and designation.
- ◆ KDHE working with KC and Wichita on voluntary steps to reduce ozone.

Why are we concerned?

Annual 8 Hour Ozone 4th Highs

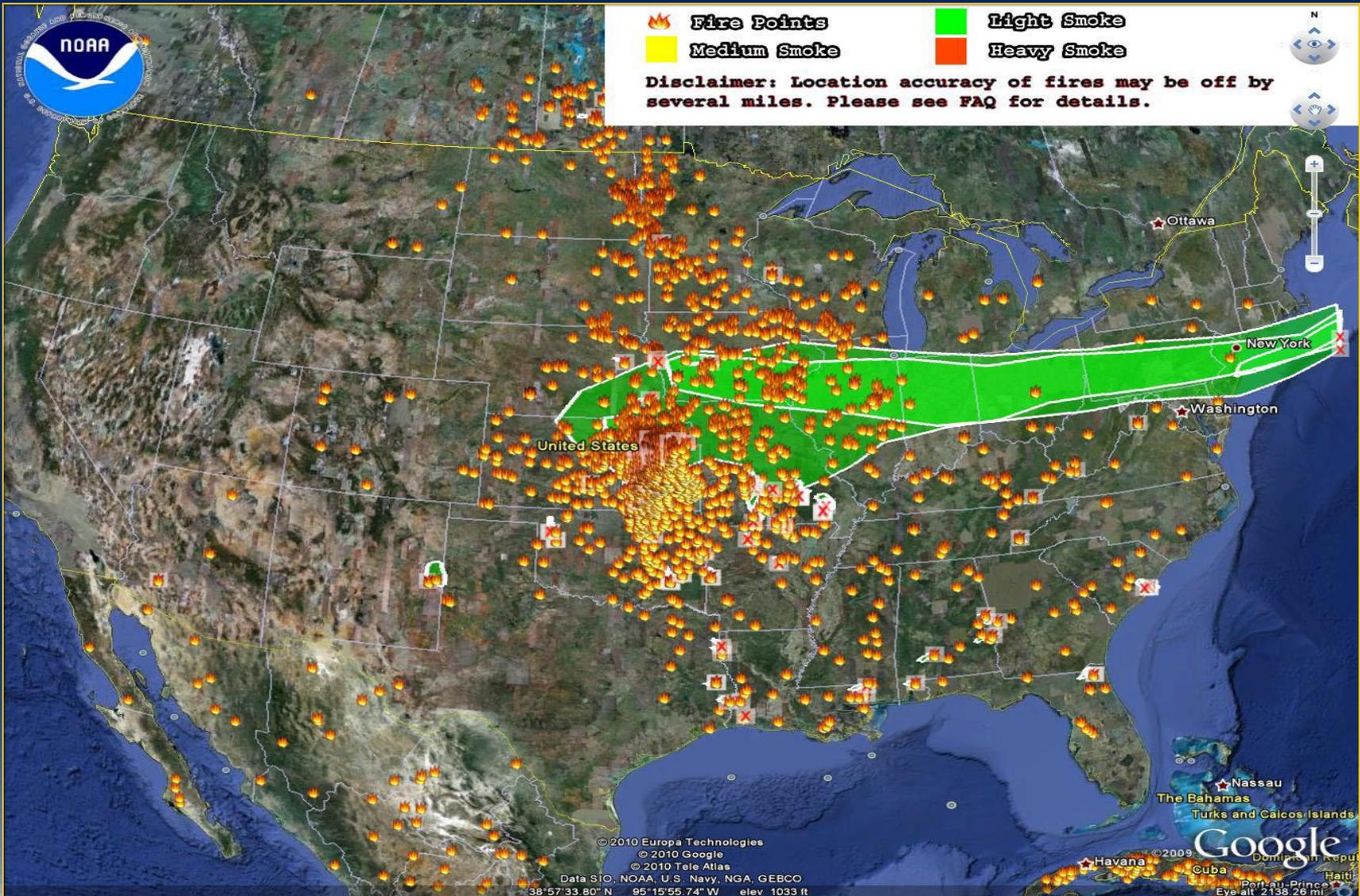
All 2012 data have not been through QA/QC process



What if the standards are not met?

- ◆ State Implementation Plan (SIP) preparation
 - New rules to reduce NO_x and VOCs emissions
 - Must be approved by EPA
 - Federally enforceable
- ◆ Transportation plan conformity with SIP
- ◆ Curtails economic development
- ◆ Potential loss of federal highway funds if transportation plan does not conform with air quality plan
- ◆ Increased costs to consumers
- ◆ Citizens breathing polluted air

April 11, 2010 Fire and Smoke Plumes

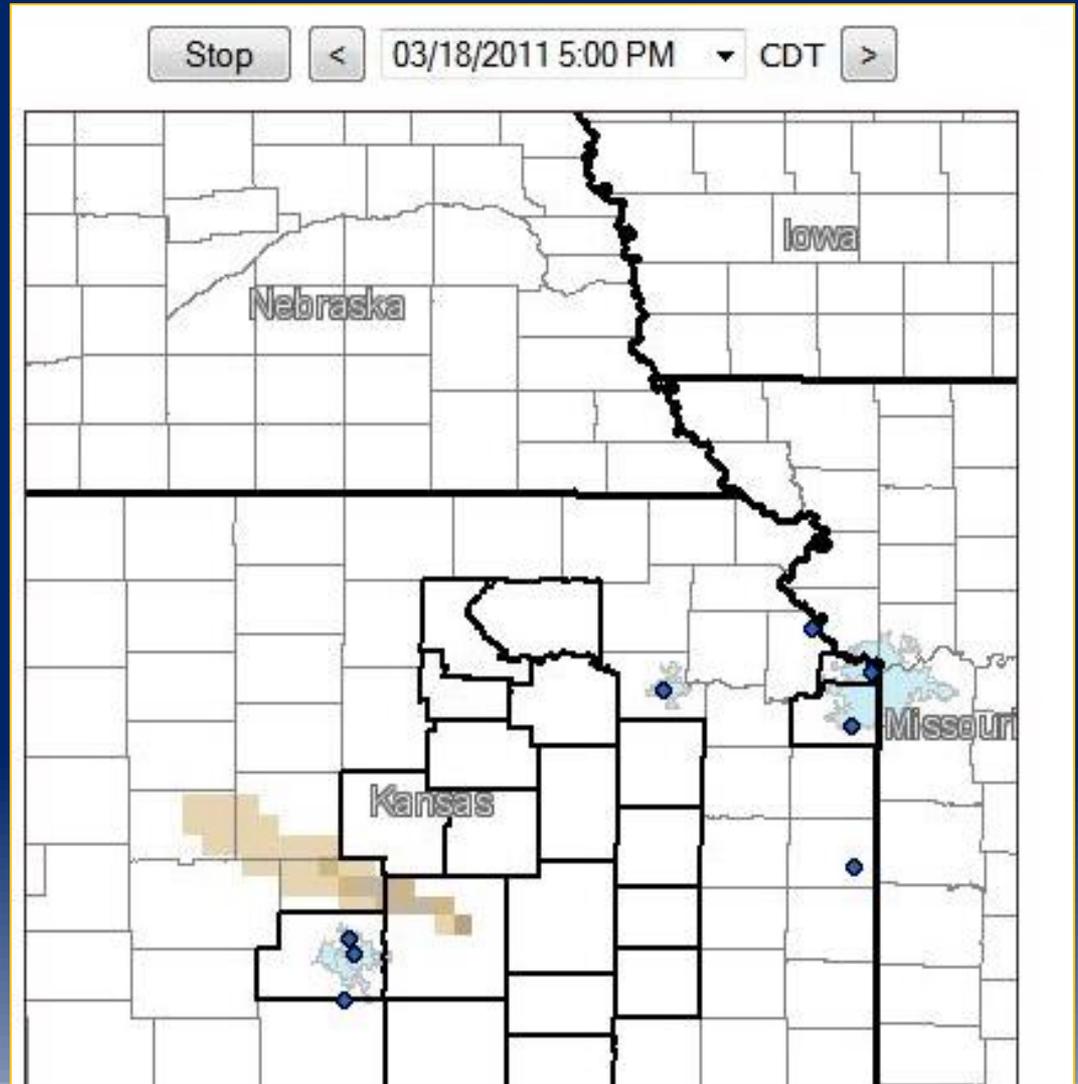


Flint Hills Smoke Management Plan

- ◆ Burning in Flint Hills caused ozone exceedences in 2003, 2009, 2010 & 2011.
- ◆ KDHE and ag representatives have worked towards solutions since 2003.
- ◆ Commitment to develop Smoke Management Plan in 2010.
- ◆ Plan adopted by KDHE in December 2010.
- ◆ Flint Hills burning in April of 2011 caused exceedences at Wichita, KC and Mine Creek monitors.
- ◆ No exceedences in 2012.

KsFire.org – Your Fire Map

- ◆ Shows plume movement and concentration
- ◆ Users enter:
 - County
 - Fire size
 - Fuel load



Exceptional Events Request

- ◆ April 2011 – Flint Hills burning in caused exceedences at Wichita, Kansas City and Mine Creek monitors
- ◆ Monitors impacted for 4 days
- ◆ KDHE developed request to flag the data in 2012
- ◆ Submitted request to EPA in November 2012
- ◆ Received letter granting approval in December 2012
- ◆ April 2011 days will not count in determining compliance with ozone air quality standard

Key points

- ◆ KDHE recognizes the need to burn the tall grass prairie to maintain the ecosystem
- ◆ Smoke causing exceedences in cities can have serious economic impacts
- ◆ Plan development allowed city and ag reps to walk a mile in each other's shoes/boots
- ◆ We are committed to working with the ag community to strike a balance
- ◆ Implementation of the plan will be a long-term process
- ◆ Plan was a collaborative effort among many groups

PM_{2.5} NAAQS

- ◆ EPA proposed revisions to PM_{2.5} NAAQS on June 14, 2012.
 - strengthen the annual primary PM_{2.5} standard.
 - establish a separate secondary PM_{2.5} standard to “protect visibility in urban areas”.
- ◆ KDHE commented encouraging EPA to not proceed with a visibility standard.
- ◆ EPA issued final rule on December 14, 2012.
 - Lowered primary annual PM_{2.5} standard to 12 µg/m³.
 - Retained the 24-hour fine particle standard of 35 µg/m³.
 - Retained existing secondary – no new visibility standard.
- ◆ All Kansas Monitors meet standards.
- ◆ KDHE must prepare and submit to EPA an Infrastructure SIP which must address Interstate Transport.

SO₂ NAAQS

- ◆ EPA set new 1-hour standard of 75 ppb in June 2010.
 - Introduced use of modeling for determining attainment areas.
- ◆ Kansas submitted designation recommendation in June 2011
 - All Kansas counties designated unclassifiable.
- ◆ EPA announced new stakeholder process in response to massive pushback over use of modeling for designations.
- ◆ Currently waiting on EPA's final decision on use of modeling.
 - KDHE will work with affected industry and determine which sources need additional controls.
 - Develop agreements or regulations.
 - Develop and submit State Implementation Plan to EPA.
- ◆ 2017 – Compliance year.

Lead Standard

- ◆ EPA revised the lead NAAQS on October 15, 2008.
- ◆ Standard was lowered from 1.5 to 0.15 $\mu\text{g}/\text{m}^3$.
- ◆ KDHE set up monitor in February 2010.
- ◆ June 2011 – Kansas lead designation recommendation announced
- ◆ December 2011 – Designations effective
- ◆ January-December 2012 – Dispersion modeling & evaluating control options for State Implementation Plan (SIP) development
- ◆ KDHE SIP is due to EPA in June 2013.
- ◆ December 2016 – Compliance deadline

Cross-State Air Pollution Rule Update

- ◆ Final Rule signed on July 6, 2011.
- ◆ Affected power plant emissions that contribute to ozone and/or fine particle pollution in downwind states.
- ◆ Covers NO_x and SO_2 .
- ◆ Modified cap and trade program.
- ◆ KDHE worked with affected utilities to develop cost data, time problems and other issues.
- ◆ Kansas, other states and utilities petitioned for reconsideration.
- ◆ Stay of Rule granted December 2011 pending judicial review.
- ◆ CSAPR vacated and remanded to EPA by DC Appeals Court panel.
- ◆ EPA requested hearing of appeal by full court.

New Natural Gas Standards

- ◆ Final EPA rule in August 2012, applies to:
 - Hydraulically fractured gas wells, compressors, controllers, tanks, process equipment, sweetening units.
- ◆ Requirements based on equipment, may include:
 - Notification
 - Green completions
 - Maintenance requirements
 - Control equipment – flares
 - Performance testing
 - Reporting
 - Recordkeeping

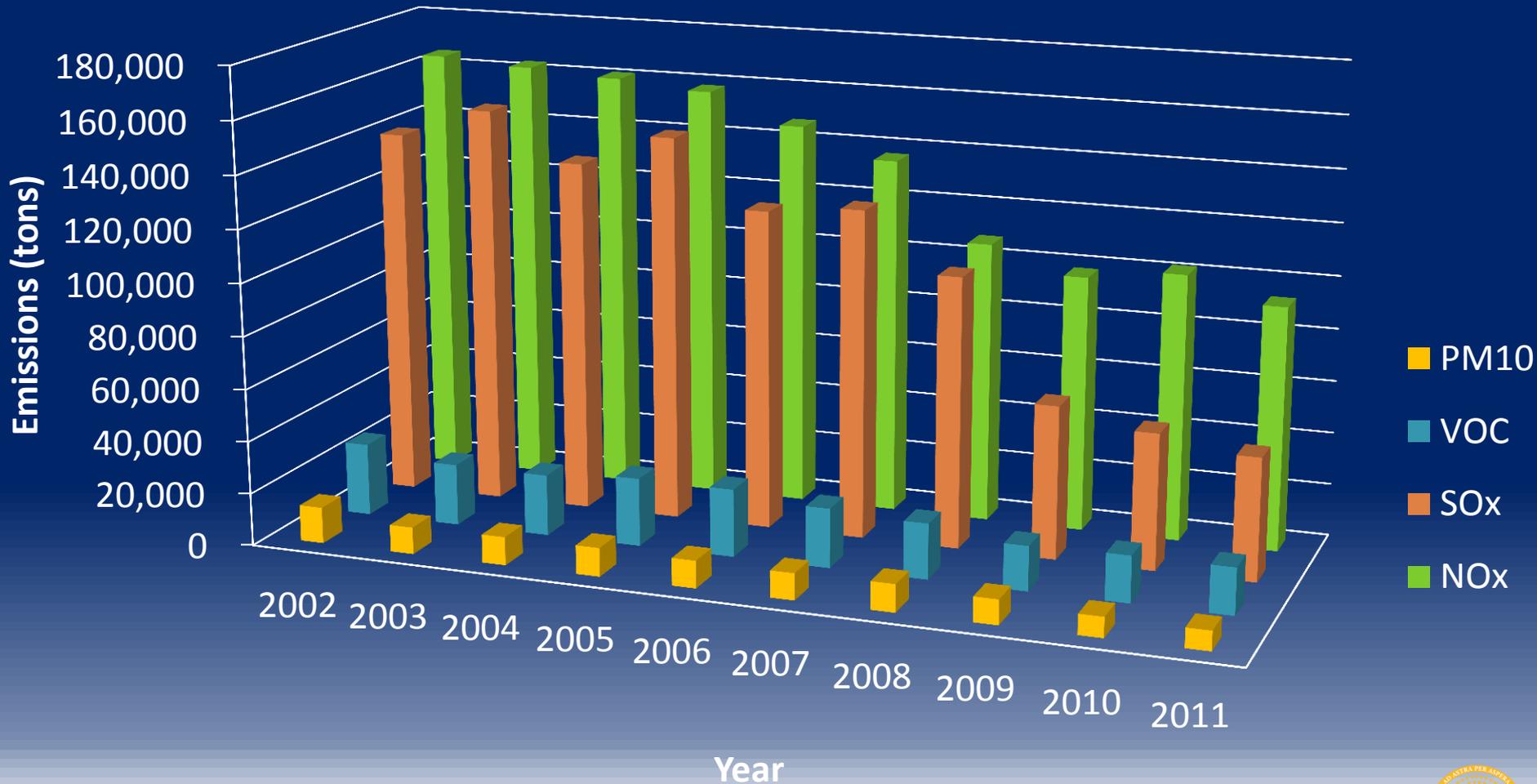
Mercury and Air Toxics Standards

- ◆ December 21, 2011 – EPA sets limits for mercury, acid gases and other toxics from new and existing coal and oil-fired EGUs.
- ◆ EPA also revised NSPS to limit PM, SO₂ and NO_x for:
 - Fossil fuel fired Electric Utility; and
 - Industrial, commercial, institutional boilers.
- ◆ Sources get 3 years to comply, State may grant 1 additional year
 - Potential for 1 more year if needed for reliability at critical units.
 - KDHE has received 3 requests, granted 3 extensions.
- ◆ Kansas has 16 coal-fired units subject to rule.
- ◆ EPA reconsideration happened in November 2012
 - Proposed changes for periods of startup and shutdown.

Proposed GHG NSPS for New EGUs

- ◆ On March 27, 2012, EPA proposed CO₂ standard for new fossil-fuel fired power plants.
- ◆ An output-based emission standard of 1,000 pounds of CO₂ per megawatt-hour (lb CO₂ /MWh gross).
- ◆ Applies to **new units**:
 - Fossil fuel-fired boilers, IGCC and Gas combined cycle units.
- ◆ Combined cycle natural gas power plants could meet the standard without add-on controls. (Simple cycle units are exempt)
- ◆ New coal or petcoke power plants would need carbon capture and storage technology (CCS).
 - The proposal includes alternative 30-year compliance period to allow these new plants to incorporate CCS later.

Some good news.....KS Point Source Emission Trends



KDHE Comments on EPA Regulations

- ◆ Factual errors
 - Emission inventory with CAIR, CATR and CSAPR
- ◆ Procedural issues
 - FIP issues with GHG tailoring rule and CSAPR
 - Allocation shortages with CSAPR
- ◆ Technical or Policy disagreements
 - Secondary visibility portion of the proposed PM 2.5 standard
 - Unfunded mandates
 - Time for compliance with standards (CSAPR)
- ◆ Contact regulated community for input
- ◆ *We pick our spots where we can effect change*