

A scenic landscape photograph showing a rocky hillside in the foreground with green grasses. In the middle ground, a large, calm lake stretches across the frame. The background features rolling hills and mountains under a bright blue sky with scattered white and grey clouds. The overall mood is serene and natural.

# **Department of Environmental Quality**

**January 30, 2014**

# **Department of Environmental Quality: January 30, 2014**

## **Executive Director's Office**

**Presented by**

**Amanda Smith**  
**Executive Director, DEQ**



# Department of Environmental Quality: January 30, 2014

## Executive Director's Office

### **Mission**

Safeguard public health & quality of life by protecting & enhancing the environment.

### **Structure of Support**

- District Engineers
  - OSS: Centralized Finance Support
  - Communications
  - Success Process Improvement
  - Attorney General / ALJ
- 
-

# Department of Environmental Quality: January 30, 2014

## Executive Director's Office

### Why Do We have DEQ in Utah?

#### Value Added to Utah

- "Primacy" from EPA
  - State Control Over Implementation of Federal Environmental Laws (planning, strategy development, permitting and compliance)
  - Solutions Driven by Local Knowledge & Solutions
  - Focus on Working With Regulated Entities to Assure Compliance
- 
-

# **Department of Environmental Quality: January 30, 2014**

## **Executive Director's Office**

### **Other Service Providers**

#### **EPA**

- **Oversees State Program & Retains a Degree of Control Over Program**
  - **Can "Over-file" & Levy Violations**
  - **Local Health Departments**
  - **Statutory Partnership to Accomplish Mission**
  - **LHD Contracts that Delineate Work & Funding Support**
- 
-

# Department of Environmental Quality: January 30, 2014

**Executive Director's Office**

## **SUCCESS: Efficiency Improvement**

**DEQ history of improvement in process:**

- **Lean Six Process Improvement (7 Major Processes Reviewed)**
- **Example: Financial**
- **Example: Emergency Response**



# Department of Environmental Quality: January 30, 2014

## Executive Director's Office

### Environmental Incidents Database

Home Search Contact Admin

### Utah Environmental Incidents

Please make a selection from the menu at the top.



Utah Department of Environmental Quality - Division of Environmental Response and Remediation



Utah Department of Environmental Quality  
Division of Environmental Response and Remediation  
195 North 1950 West Salt Lake City, Utah 84116  
Bus. Hours: 801-536-4100  
Report Spills 24/7/365: 801-536-4123

Report Number 11694

#### ENVIRONMENTAL INCIDENT REPORT - DUCHESNE CO - INJECTION WATER RELEASE

Report Taken By: M Zucker  
Date / Time Reported: 1/27/2014 10:25

#### REPORTING PARTY DATES AND TIMES

Reporting Party: Tim Eaton Title:  
Company: Newfield Exploration & Production Co. Phone: (435) 646-3721  
Date & Time Discovered: 1/27/2014 0:0

#### RESPONSIBLE PARTY

Name: Newfield Exploration & Production Co Phone: (435) 823-1932  
Address: 10530 South County Road #33, Myton, UT, 84052

#### INCIDENT LOCATION

Incident Address:  
Nearest Town: MYTON County: DUCHESNE  
Highway: Mile Marker:  
UTM: (E) 583765 (N) 4437503

#### INCIDENT SUMMARY

Reporting party reports the release of 130 barrels of previously treated injection water to dry drainage. Well location is 13-28-8-17. Sec 28 T8S R17E (coordinates provided 40° 05' 01.10" N, 110° 01' 02.95" W). Drainage leads to wildlife stock pond (frozen at this time). Release did not reach the pond. PRP flushed with 600 barrels of fresh water (believed to be of sufficient quantity to carry downstream to pond). Will collect post treatment samples and submit to Tri County HD with cleanup report.

#### CHEMICAL(S) REPORTED

Other: (describe) Injection Water (previously treated) 130 Barrels

IMPACTED MEDIA	Media	Media Other	Land Use	Waterway Name	Near Water	Distance	NRC Rpt. #
	Surface Water	N/A	Mixed Use	N/A	In Surface Water	N/A	N/A

NOTIFICATIONS MADE	Agency	Contact	Phone	Date	Time	By	Active?
	DWQ	Dan Griffin	(801) 536-4387	1/27/2014	17:10	MZ	Active
	DEQ DE	Scott Hacking DE	(435) 569-3825	1/27/2014	17:20	MZ	
	BLM	Duty		1/27/2014	17:52	PRP	
	DOGM	Duty		1/27/2014	17:52	PRP	

ACTIONS TAKEN	Date	Agency	Action	Action Details
---------------	------	--------	--------	----------------

Incident notification reports are prepared by the DERR using information provided by the reporting party. The information is considered preliminary and is subject to revision. The reported incident and associated details may or may not be valid.

# Department of Environmental Quality: January 30, 2014

## Executive Director's Office

### **SUCCESS: Efficiency Improvement**

#### DEQ History of Improvement in Process:

- Lean Six Process Improvement (7 Major Processes Reviewed)
  - Example: Financial
  - Example: Emergency Response
  
  - DEQ Committee on SUCCESS
  - QT/OE General Throughput & Measures
  - Program Specific QT/OE Developed by Team
  - Example: Uintah Basin Air Quality Permitting & Compliance
- 
-

# **Department of Environmental Quality: January 30, 2014**

## **Executive Director's Office**

### **Opportunities & Challenges**

- **Unknown Federal Funds Reduction: Amount of Reduction & Programs Impacted**
  - **Growth & Change in Communication**
  - **Increase in Number & Complexity of Administrative Appeals**
  - **Opportunity to Partner with & Follow National & Other States' Issues**
- 
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# **Department of Environmental Quality: January 30, 2014**

## **Division of Water Quality**

**Presented by**

**Walt Baker**  
**Director, DWQ**

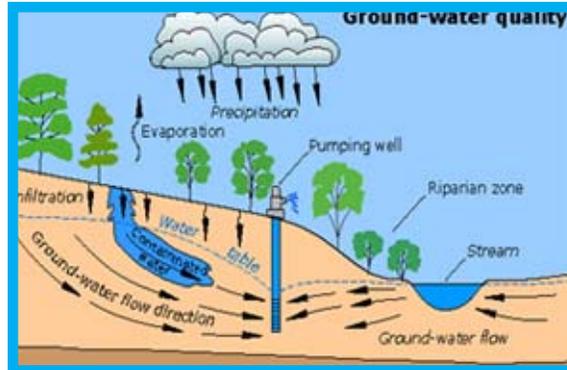


# Department of Environmental Quality: January 30, 2014

## Division of Water Quality

### Mission

**Protect Utah's Waters for Their Beneficial Uses**



# Department of Environmental Quality: January 30, 2014

## Division of Water Quality

### **Authorities**

- **Utah Water Quality Act (Title 19-5)**
- **Federal Clean Water Act**



# Department of Environmental Quality: January 30, 2014

## Division of Water Quality

### **Water Quality Standards: The Foundation of Protection**

#### **Antidegradation Policy: Requires Minimal or no Decreases in Water Quality**

- Category I [No Discharge Allowed]
- Category II [Discharge only at Background]
- Category III [Consider Assimilative Capacity]

#### **Beneficial Use: Classification of Levels of Protection**

- 1C Domestic Purposes

#### **Protected for Use as a Raw Water Source for Domestic Water Systems**

- 3A Cold Water Fishery

#### **Numeric Criteria: Numbers that Protect the Beneficial Uses**

- 50 ug/l Selenium-1C
- 4.6 ug/l Selenium Chronic-3A

#### **Narrative Criteria: Narrative that Protects the beneficial Uses**

- "Become Offensive"
  - "Undesirable Physiological Responses"
- 
-

# Department of Environmental Quality: January 30, 2014

## Division of Water Quality

### Permits



**Storm Water**



**Underground Disposal Systems**



**Central Davis  
SID Treatment Plant**



**KUCC Tailings Pond**



# Department of Environmental Quality: January 30, 2014

## Division of Water Quality

### Enforcement



**Willard Bay Diesel Spill**



**Red Butte Oil Spill**



**Fish Kills**



**Storm Water**



**Industrial Violations**

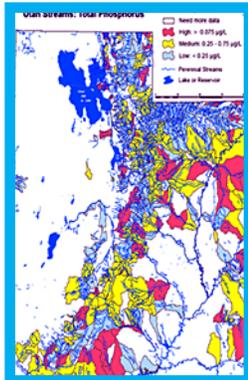
# Department of Environmental Quality: January 30, 2014

## Division of Water Quality

### Public Value:

**Fund Projects, Perform Studies, Train Operators & Assess Our Waters**

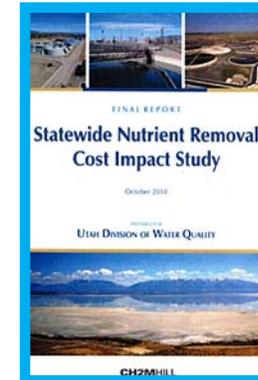
#### Assess



#### 1,529 Certified Operators



#### Studies



#### Biological Monitoring



#### \$25 million/year



#### Monitor



# Department of Environmental Quality: January 30, 2014

## Division of Water Quality

### Priorities/Challenges

- **Nutrient Pollution**
- **Storm Water Pollution**
- **Growth**
- **Non-point Source Pollution**
- **Permit Appeals**
- **Spills**



# Department of Environmental Quality: January 30, 2014

## Division of Water Quality

### Successes/Efficiencies

- **Nutrient Framework**
- **Utah/Site-specific Standards**
- **GSL Water Quality Strategy**
- **Spill Response**
- **On-site System Rules Revamp**
- **Watershed Councils**
- **Electronic Report Submissions**
- **On-line Storm Water Permitting**



# **Department of Environmental Quality: January 30, 2014**

**Division Drinking Water**

## **Division of Drinking Water**

**Presented by**

**Ken Bousfield, P.E.  
Director, DDW**



# Department of Environmental Quality: January 30, 2014

## Division Drinking Water

### **Mission**

Cooperatively work with drinking water professionals and the public to ensure a safe and reliable supply of drinking water

### **Public Value**

A drinking water system provides:

- **A Life Sustaining Commodity**
  - **Public Health by Enabling Personal Hygiene, Household Cleaning & Removal of Waste**
  - **Fire Protection**
  - **Industrial & Commercial Endeavors**
  - **Water for Landscaping & Gardens**
- 
-

# **Department of Environmental Quality: January 30, 2014**

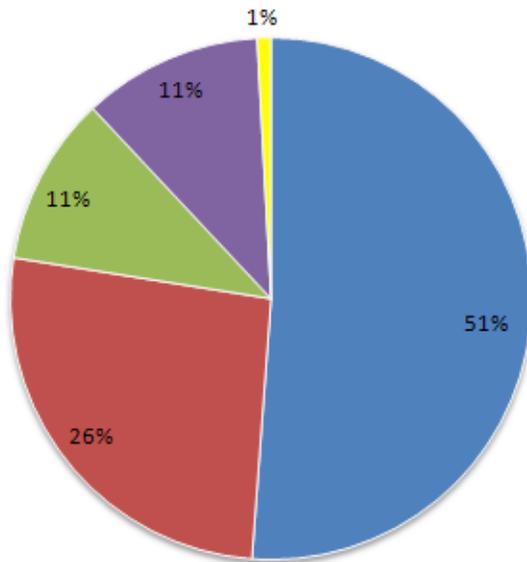
## **Division Drinking Water**

### **Division's Statutory Requirements**

- **Watershed Protection**
  - **Engineering Design Reviews**
  - **Water Quality, Monitoring & Enforcement**
  - **Operator Certification**
  - **Site Inspections**
  - **Cross Connection Control & Backflow Technician Certification**
  - **Emergency Response**
  - **State & Federal Financial Assistance**
  - **Technical Assistance**
  - **Rule Enforcement**
  - **Water System Viability Program**
- 
-

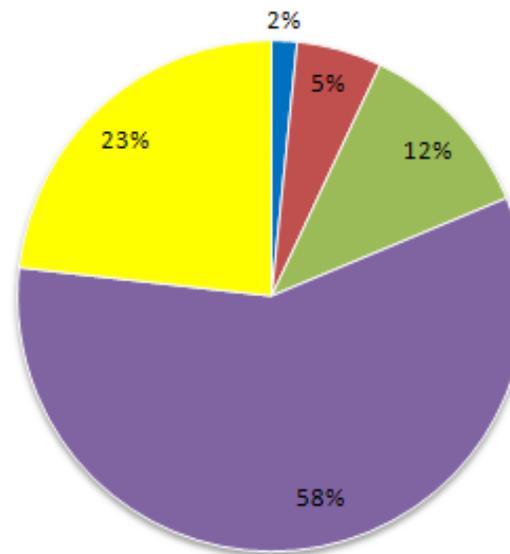
# Department of Environmental Quality: January 30, 2014

## Division Drinking Water



**Community Systems in Utah  
(by Population Served)**

- Very Small (<= 500) - 239
- Small (501-3,300) - 123
- Medium (3,301 - 10,000) - 49
- Large (10,001 - 100,000) - 52
- Very Large (> 100,000) - 4



**Population Served  
(by System Type)**

- Very Small (<=500) - 44,512
- Small (501 - 3,300) - 150,527
- Medium (3,301 - 10,000) - 326,964
- Large (10,001 - 100,000) - 1,619,637
- Very Large (> 100,000) - 647,506

# Department of Environmental Quality: January 30, 2014

Division Drinking Water

Jordan Valley Water Treatment Plant



# Department of Environmental Quality: January 30, 2014

Division Drinking Water

**Camp Steiner Boyscout Camp  
Water Tank**



# Department of Environmental Quality: January 30, 2014

## Division Drinking Water

### Measures

The Division Maintains a “Report Card” on Every Regulated Water System. This Measure Includes Numeric Scores for the:

- Physical Facility Capacities & Deficiencies as Noted During Inspections
- Monitoring Record & Quality Record
- Certification of Water System Operators



# **Department of Environmental Quality: January 30, 2014**

## **Division Drinking Water**

### **Challenges & Opportunities**

- **Adequately Serve the 1,020 Water Systems in the State**
  - **Retain Primacy**
    - **27 New EPA Rules Since 1986**
    - **Tools in the State's Tool Box**
  - **Success Framework**
  - **Sanitary Survey Kaizen**
- 
-

# Department of Environmental Quality: January 30, 2014



## Division of Solid and Hazardous Waste

Presented by

**Scott Anderson**  
Director, DSHW



# **Department of Environmental Quality: January 30, 2014**

## **Division of Solid and Hazardous Waste**

### **Mission**

**Protect Utah's Citizens & Their Environment Through Proper Management of Solid & Hazardous Waste**

- **Safe Waste Management**
- **Compliance Monitoring**
- **Cleanup of Contaminated Sites**
- **Promotion of Recycling & Reuse**
- **Technical Assistance**



# Department of Environmental Quality: January 30, 2014

## Division of Solid and Hazardous Waste

### Hazardous Waste Program

- 1700 Generators
- 24 Permitted Treatment, Storage & Disposal Facilities
- 50,000-60,000 Tons of Hazardous Waste
- 10,000 Tons of PCBs



# Department of Environmental Quality: January 30, 2014

## Division of Solid and Hazardous Waste

### Solid Waste Program

- 139 Landfills
- 18 Transfer Facilities
- 15 Recycling Operations
- 4.1 Million Tons of Solid Waste



# Department of Environmental Quality: January 30, 2014

## Division of Solid and Hazardous Waste

### Chemical Demilitarization Program

- Deseret Chemical Depot: 30,000 Tons of Chemical Agent Waste
- Decontamination & Demolition of Destruction Facility
- Cleanup of Contaminated Land



# Department of Environmental Quality: January 30, 2014

## Division of Solid and Hazardous Waste

### Corrective Action Program

- Cleanup/Remediation of Contaminated Legacy Sites
- Risk Assessment
- Return Land to Productive Use
- 25 Sites Currently Undergoing Corrective Action



# Department of Environmental Quality: January 30, 2014



# Department of Environmental Quality: January 30, 2014



# Department of Environmental Quality: January 30, 2014



# Department of Environmental Quality: January 30, 2014



# Department of Environmental Quality: January 30, 2014



# Department of Environmental Quality: January 30, 2014

## Division of Solid and Hazardous Waste

### Recycling and Community Outreach Program

- Recycling, Reuse, Reclamation
- 11.3 Million Gallons of Used Oil
- 2.1 Million Tires
- 124 Pounds of Mercury
- Electronic Waste



# Department of Environmental Quality: January 30, 2014

## Division of Solid and Hazardous Waste

### Public Value

- Protection of Public Health & the Environment
- Regulatory Certainty
- Utah Solutions for Utah Issues



# Department of Environmental Quality: January 30, 2014

## Division of Solid and Hazardous Waste

### Challenges

- Newly Regulated Wastes
- New Waste Management Technologies
- Maintain Pace of Cleanup of Contaminated Sites



**Department of Environmental Quality: January 30, 2014**

**Division of  
Radiation Control**

**Presented by**

**Rusty Lundberg**  
Director, DRC



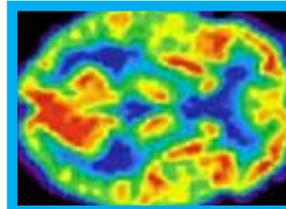
# Department of Environmental Quality: January 30, 2014

## Division of Radiation Control

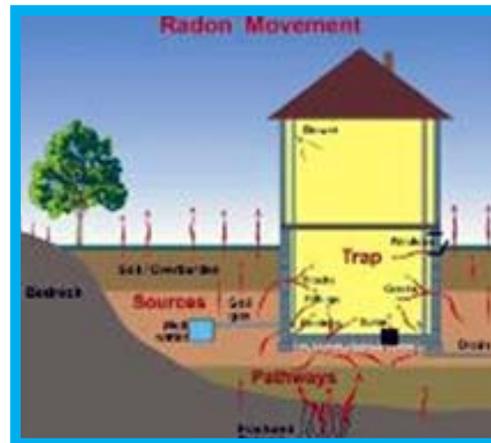
### Mission

Protect Utah Citizens & the Environment from Sources of Radiation that Pose a Significant Health and/or Environmental Risk or Hazard

#### Medical/Dental Diagnostic & Therapeutic



#### Indoor Radon



#### Radioactive Waste Management



# Department of Environmental Quality: January 30, 2014

## Division of Radiation Control

### **Radiation Control Programs**

- Radioactive Materials
- X-Ray
- Low-Level Radioactive Waste/Uranium Mill Tailings
- Indoor Radon



# **Department of Environmental Quality: January 30, 2014**

## **Division of Radiation Control**

### **Primary Radiation Control Services**

- **Licensing and Permitting**
- **Registration**
- **Inspection & Compliance Monitoring**
- **Radon Awareness & Exposure Mitigation**



# Department of Environmental Quality: January 30, 2014

## Division of Radiation Control

### Primary Agency Services

PRIMARY SERVICES		FACILITIES
Licensing / Permitting	Low-level radioactive waste management facilities	EnergySolutions – Clive Facility (Tooele County)
	Uranium mill operations – tailings management and disposal	EnergySolutions – Clive Facility (Tooele County) Energy Fuels, Inc. (San Juan County), Uranium One (Garfield County), Rio Algom (San Juan County)
	Generator Site Access Program Radioactive materials (industrial, medical, institutional, and commercial uses)	Approx. 140 (all out of state) 204 Specific Licenses for 189 licensees 59 Facilities with General Licenses
Registration	X-Ray equipment	2,669 facilities, including hospitals, dental, chiropractic, veterinary, industrial, etc.
Inspection / Compliance Monitoring	Low-level radioactive waste management facilities	EnergySolutions – Clive Facility
	Generator Site Access Program	Inspections at EnergySolutions and waste generators
	Uranium mill tailings operations	Energy Fuels, Inc., Uranium One, Rio Algom
	Radioactive materials (industrial, medical, institutional, and commercial uses)	General Licensees: 59 Other Licensees: 189
	X-Ray equipment	Approx. 8,500 X-ray tubes at 2,669 facilities. In FY 2013, there were 2,562 X-ray tubes inspected. Inspection frequencies range from 1 to 5 years.
Radon Awareness & Exposure Mitigation	Public education and outreach, radon survey tools, mitigation assistance regarding indoor radon mitigation	Residential, public, and commercial buildings

# Department of Environmental Quality: January 30, 2014

## Division of Radiation Control

### Additional Services

- Compliance assistance
- Increased transparency and availability of information

#### EnergySolutions



| DEQ Home | DRC Home | A-Z Index | Boards | Contacts | Laws & Rules | Online Services | Search DEQ |

DRC Home > EnergySolutions

### EnergySolutions

- [About Radiation](#)
- [Blended Waste](#)
- [Compliance History](#)
- [Current Activities | Activities History](#)
- [Depleted Uranium](#)
- [Depleted Uranium Performance Assessment](#)
- [Imported Radioactive Waste](#)
- [Licenses and Permits](#)
- [Licensing Amendments](#)
- [Public Participation Opportunities](#)
- [Questions](#)
- [Regulations](#)
- [Repository](#)
- [SempSafe](#)

EnergySolutions is a Utah-based company that operates a commercial treatment, storage and disposal facility five miles south of the Clive exit on Interstate 80 in Tooele County and approximately 80 miles west of Salt Lake City. The facility itself is about one square mile in size and is located in a remote desert area, approximately 20 miles from the nearest residence. The depth to groundwater averages about 30 feet.

EnergySolutions is licensed to handle several classifications of [radioactive material and waste](#):

- [Naturally Occurring and Accelerator Produced Material \(NORM\)](#)
- [Class A Low-level Radioactive Material \(LARW\)](#)
- [Uranium and Thorium By-product Material](#)
- [Radioactive Waste That is Also Determined to be Hazardous \(Mixed Waste\)](#)



**Board (RC)**  
**FAQs**  
**Laws & Rules**  
**Programs**  
**Public Participation**  
**Records Request**  
**Calendar**  
**EnergySolutions**  
**Forms**  
**Northwest Compact**  
**Radiation Issues**

#### Energy Fuels: White Mesa Mill



| DEQ Home | DRC Home | A-Z Index | Boards | Contacts | Laws & Rules | Online Services | Search DEQ |

DRC Home > Denison / White Mesa Mill

### Energy Fuels Resources (USA) Inc.: White Mesa Uranium Mill (formerly Denison Mines (USA))

[Activities](#) | [Projects](#) | [Questions](#) | [Radiation](#) | [Regulations](#) |



**Board (RC)**  
**FAQs**  
**Laws & Rules**  
**Programs**  
**Public Participation**  
**Records Request**  
**Calendar**  
**Forms**  
**Low Level Waste**  
**Radiation Issues**  
**About DRC**

Energy Fuels Resources (USA) Inc. operates the White Mesa Uranium Mill, located approximately six miles south of Blanding. Prior to Energy Fuels Inc., taking ownership of the Mill in August, 2012, it was operated by Denison Mines (USA) Corporation from December, 2006 to August 2012. Preceding Denison Mines, the facility was operated by International Uranium (USA) Corporation.

The Mill License was originally issued by the US Nuclear Regulatory Commission as a source material license under 10 CFR Part 40 on March 31, 1980. It was renewed by the NRC in 1987 and again in 1997. After the State of Utah became an Agreement State for uranium mills in August, 2004, the Mill License was reissued by the Executive Secretary as a State of Utah Radioactive Materials License on February 16, 2005.

The White Mesa Mill operates under the following DEQ permits:

- [Air Quality Approval Order DAQE-AN0112050018-11](#)
- [Groundwater Discharge Permit No. UGW370004 \(Current\)](#)
- [Radioactive Materials License No. UT1900479 \(Current\)](#)

**Current Activities**

The Utah Division of Radiation Control is reviewing the public comments received on the proposed renewal of Radioactive Materials License No. UT 1900479 for Denison Mines, White Mesa Uranium Mill facility. The [draft Safety Evaluation Report](#) and [draft revised License](#) are available online. All comments received will be

# Department of Environmental Quality: January 30, 2014

## Division of Radiation Control

### **Priorities: Low-Level Radioactive Waste: EnergySolutions**

- Radioactive Materials License & Ground Water Permit Renewals
- Revised Final Cover Design
- Evaluation of Performance Assessments
  - Depleted Uranium
  - Large-scale Waste Processing/Blending



**Aerial View  
EnergySolutions, Clive Facility**

# Department of Environmental Quality: January 30, 2014

## Division of Radiation Control

### Priorities: Uranium Mills

#### Energy Fuels, Inc.: White Mesa Mill (San Juan County)

- License & Permit Renewals
- Ground Water Remediation
- Alternate Feed Requests

#### Uranium One: Shootaring Canyon (Garfield County)

- Idle Since Early 1980s
- License (Standby Status)
- Potential Purchase by Black Range Minerals

#### Rio Algom (San Juan County)

- Supplemental Site Assessment
- Potential Revision to Existing Ground Water Limits

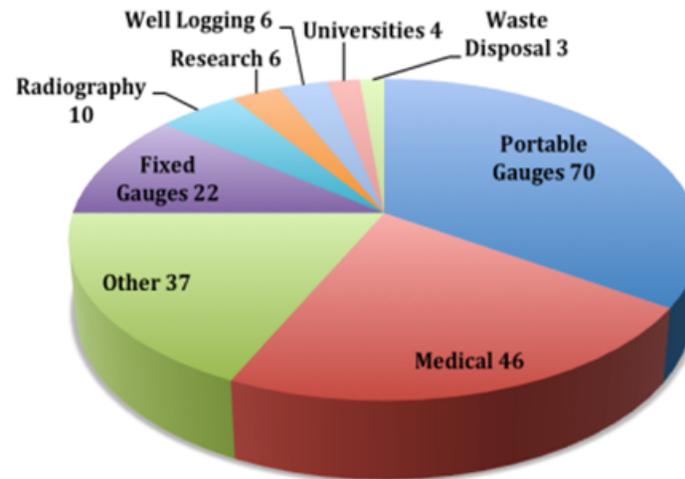


# Department of Environmental Quality: January 30, 2014

## Division of Radiation Control

### Priorities: Radioactive Materials

- Ensuring Safe Possession & Use of Licensed Material
- Timely Processing of Licensing Actions
- Meeting NRC Program Commitments & Performance Criteria
- Provide Compliance Assistance & Safety Recommendations



**Facilities with a Specific License: 204**

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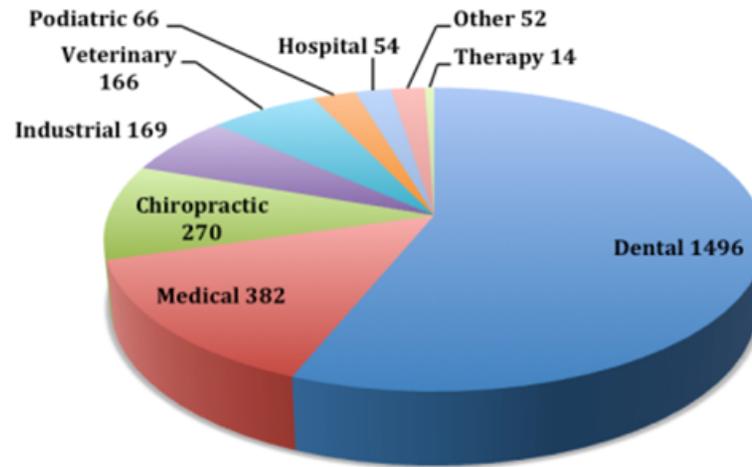
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# Department of Environmental Quality: January 30, 2014

## Division of Radiation Control

### Priorities: X-Ray Program

- Evaluate Performance of X-ray Units & Radiation Safety Practices
- Evaluate the Compliance Rate at Facilities with Units Capable of Producing High Patient Dose Rates
- Provide Compliance Assistance & Safety Recommendations



**Facilities with X-ray Units: 2,669**

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# Department of Environmental Quality: January 30, 2014

## Division of Radiation Control

### Process Improvement

#### EnergySolutions & Uranium Mills Compliance Monitoring

YEAR	Inspection Staff (FTE)	Inspections Completed	Cost/Inspection (% Change)
2011	9	95	(Baseline)
2012	6	97	-38%
2013	6	93	-30%

#### EnergySolutions Licensing/Permitting Actions

YEAR	LICENSING ACTIONS	% CHANGE	COST/ACTION (% Change)	OUTSOURCE COST/ACTION (% Change)
2011	9	(Baseline)	(Baseline)	(Baseline)
2012	11	22%	-13%	-68%
2013	14	27%	-12%	-91%

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**Department of Environmental Quality: January 30, 2014**

**Division of  
Environmental Response & Remediation**

Presented by

**Brent Everett**  
Director, DERR



# **Department of Environmental Quality: January 30, 2014**

## **Division of Environmental Response and Remediation**

### **Mission**

**Protect Public Health & Utah's Environment Through the Cleanup of Chemically Contaminated Sites, Ensuring Underground Storage Tanks are Used Properly, & Providing Chemical Usage & Emission Data to the Public & Local Response Agencies**

- **Underground Storage Tank Program (UST) (Delegated Program)**
  - **Superfund Program (Non-delegated Program)**
  - **Community Right-to-Know, Toxic Release Inventory**
  - **State Voluntary Cleanup Program**
  - **Brownfields Program**
  - **Mercury Response Monitoring**
  - **DERR Also Manages the Emergency Incident Notification Process for DEQ**
- 
-

# Department of Environmental Quality: January 30, 2014

## Division of Environmental Response and Remediation

### Overview

- Number of active Superfund Remedial Sites: 26
- Number of Sites needing assessment (pre-remedial): 105
- Number of Active Voluntary Cleanup Sites: 33
- Number of Emergency Incidents Reported Annually: 350
- Number of UST's in Utah: 3,740 Active Tanks
- Number of UST's on the PST Fund: 2,776 (74%)
- Number of releases reported in 2013: 67



# Department of Environmental Quality: January 30, 2014

## Division of Environmental Response and Remediation

### Public Value

**DERR Prevents & Minimizes Petroleum Releases from UST's Through Thorough Compliance Inspections & Timely Follow Up**

### Success Measure

**% Compliance Within 60 Days of Inspection**



# Department of Environmental Quality: January 30, 2014

## Division of Environmental Response and Remediation

### Public Value

**DERR Cleans Up Sites (Superfund, VCP, UST and LUST) to Protect Human Health & the Environment with an Eye on Property Reuse & Redevelopment**

### Success Measures

**Number of LUST Sites Closed, Superfund Program Milestones Met, VCP CoC's Issued, Targeted Brownfields Assessments & EWA's Completed**



**Former Iron-ton site, now Mountain Vista Business Center in Provo, Utah.**

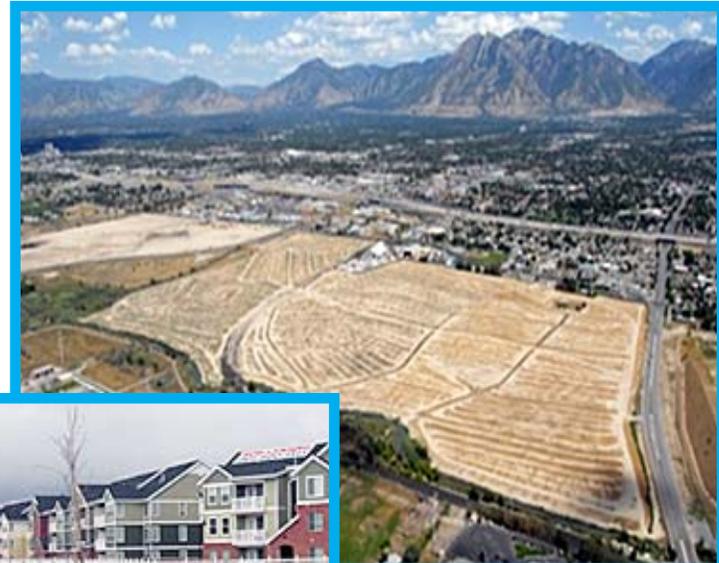
# Department of Environmental Quality: January 30, 2014

## Division of Environmental Response and Remediation

### Superfund Program

**Midvale Slag Superfund Site: Midvale City has Taken the Lead in Redeveloping Former Slag Piles into the Bingham Junction Mixed-use Development**

**Utah has 26 Active Superfund Sites in Various Degrees of Cleanup and/or Post Cleanup Monitoring. The Groundwater is Still Being Monitored Beneath the Midvale Slag site.**



**Townhomes Built as Part of the Bingham Junction Development**

# Department of Environmental Quality: January 30, 2014

## Division of Environmental Response and Remediation

### Voluntary Cleanup Program

**The Former Block 37a in Ogden, Utah, was a Successful VCP Partnership Resulting in a Beneficial Reuse of Contaminated Property**

**Internal Revenue Service Center Development Occupies the Former Block 37a in Ogden, Utah**

**The City of Ogden Reports 900 New Jobs Created & Millions in Private Development Leveraged Due to this Project**



# Department of Environmental Quality: January 30, 2014

## Division of Environmental Response and Remediation

### Voluntary Cleanup Program

**The Lion's Gate Development, Rising from the Former Simpson Steel Site, is an \$80M Transit Oriented Development Project resulting in More than 400 Apartments Built Near a UTA TRAX Station**

**DERR has Issued 41 Certificates of Completion for Cleanups Conducted Under the VCP, Such as the Former Simpson Steel Site**



# Department of Environmental Quality: January 30, 2014

## Division of Environmental Response and Remediation

### Brownfields Program

**A New Walmart Built on Wall Avenue in Ogden**

**The Redevelopment Spurred Additional Development Along the Same Corridor (20th & Wall Avenue Development)**

**An Enforceable Written Assurance Obtained Under the DERR Brownfields Program Resulted in the Successful Assessment, Cleanup & Redevelopment of a Whole City Block in Ogden**



# **Department of Environmental Quality: January 30, 2014**

## **Division of Air Quality**

**Presented by**

**Bryce Bird  
Director, DAQ**



# **Department of Environmental Quality: January 30, 2014**

**Division of Air Quality**

## **Mission**

**To Achieve & Maintain Levels of Air Auality Which Will Protect  
Human Health & Safety**



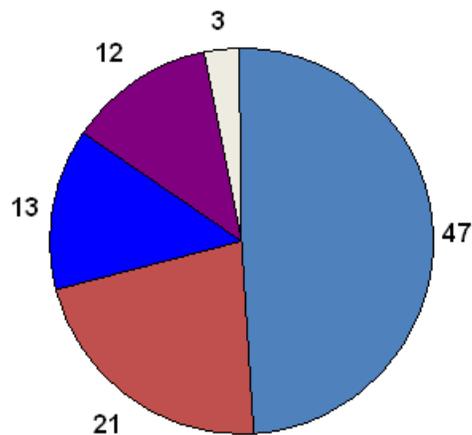
# Department of Environmental Quality: January 30, 2014

## Division of Air Quality

### Who We Are

#### Staff

- 17 Average Years of State Service
- 85% Science & Engineering Degrees



- Scientist
  - Engineer
  - Environmental Program Manager
  - Support
  - Planning Consultant
- 
-

# Department of Environmental Quality: January 30, 2014

## Division of Air Quality

### Public Value

#### Planning

- Rule & State Implementation Plans
- Emission Inventory
- Air Monitoring & Notification
- Computer Modeling Air Quality
- Mobile Sources & Transportation Analysis
- Review of EIS & Resource Management Plans

#### Permitting

- New Source Pre-Construction Permitting
- Major Source Operating Permits
- Tax Certification for Pollution Control Equipment

#### Compliance

- Small Business Assistance
  - Stack testing & Continuous Emission Monitoring
  - Compliance Inspections
  - Review of Reporting Requirements
  - Asbestos & Lead Based Paint
  - Industry Certification
  - Enforcement
- 
-

# Department of Environmental Quality: January 30, 2014

## Division of Air Quality

### Planning

- **Stakeholder Focused Development of Rules & State Air Quality Plans**
- **Technical Foundation for Quantifiable, Permanent & Enforceable Reductions**
- **Practical in Terms of Impacts to Communities & Industrial Controls that are reasonable to Install**

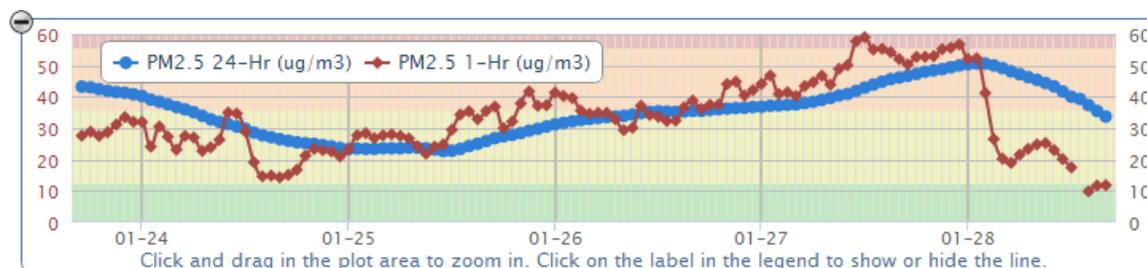


# Department of Environmental Quality: January 30, 2014

## Division of Air Quality

### Planning: Air Monitoring

- 22 Air Monitoring Stations with Real-time Telemetry for Metropolitan Areas
- Air Toxics, Mercury, & Trace Gas Analyzers & Post Sampling Filter Analysis
- Provide Current Conditions & Forecasting for the Public



# Department of Environmental Quality: January 30, 2014

## Division of Air Quality

### Planning: Uintah Basin

- The DAQ is Coordinating the *Uintah Basin 2014 Winter Ozone Study* (January–February 2014) When the Highest Likelihood of Temperature Inversions, Snow Cover & Elevated Ozone Levels are Expected
- General Approval Order to Improve Efficiency in Response to Growing Demand



# Department of Environmental Quality: January 30, 2014

## Division of Air Quality

### Clean Diesel & Fuels Grant and Loan Program

Since 2008, the Grant and Loan Program has Provided Financial Assistance to Businesses & Government Entities when Converting a Vehicle to Operate on Clean Fuels, Purchasing an OEM Clean Fuel Vehicle, or Retrofitting Diesel

- \$1.23 Million Awarded in Grants
- \$366,667 Awarded in Loans

In 2013, 20 State-operated Snow Plows that Service Salt Lake & Utah Counties were Retrofitted with Diesel Exhaust Controls. Short-haul, Diesel Truck Replaced with a 2014 Natural Gas Truck.



# Department of Environmental Quality: January 30, 2014

## Division of Air Quality

### Permitting

- **2010-11 Kaizen to Improve Efficiency & Access to Permitting Information**
- **New Pre-permit Guidelines, Forms & Information to Improve the Quality of Permit Applications**
- **Public Participation in the Permit Review Process with On-line Presentation of Permit Applications & Supporting Documents**
- **Require that the Best Available Control Technology is in Place as a Condition of Approval**

**In 2013, DAQ Reviewed & Issued 450 Permits for New or Modified Sources that were Valuated for Compliance with Applicable State & Federal Regulations Including New Source Performance Standards**



# Department of Environmental Quality: January 30, 2014

## Division of Air Quality

### Compliance

**2013: Performed More than 1,300 Inspections & Performance Audits Evaluating Compliance with Applicable State & Federal Regulations**

- Reviewed 957 Fugitive Dust Plans
- Responded to 583 Complaints
- Coordinated Open Burning with Local Fire Authorities through an On-line Permit Application



### Burn Permit Application

Select Your County or City

Open Burn Currently Not Available

Permits may be issued between March 1 and May 30 and between September 15 and November 15 in the counties of Washington, Kane, San Juan, Iron, Garfield, Beaver, Piute, Wayne, Grand and Emery.

Permits may be issued between March 30 and May 30 and between September 15 and October 30 in all other areas of the state.

[Start Burn Permit Application](#)

# Department of Environmental Quality: January 30, 2014

## Division of Air Quality

### Measures

**Utah Experiences Good Air Quality 95% of the Year**

**We Exceed Current Federal Health Standards, on Average, 5% of the time**



# Department of Environmental Quality: January 30, 2014

## Division of Air Quality

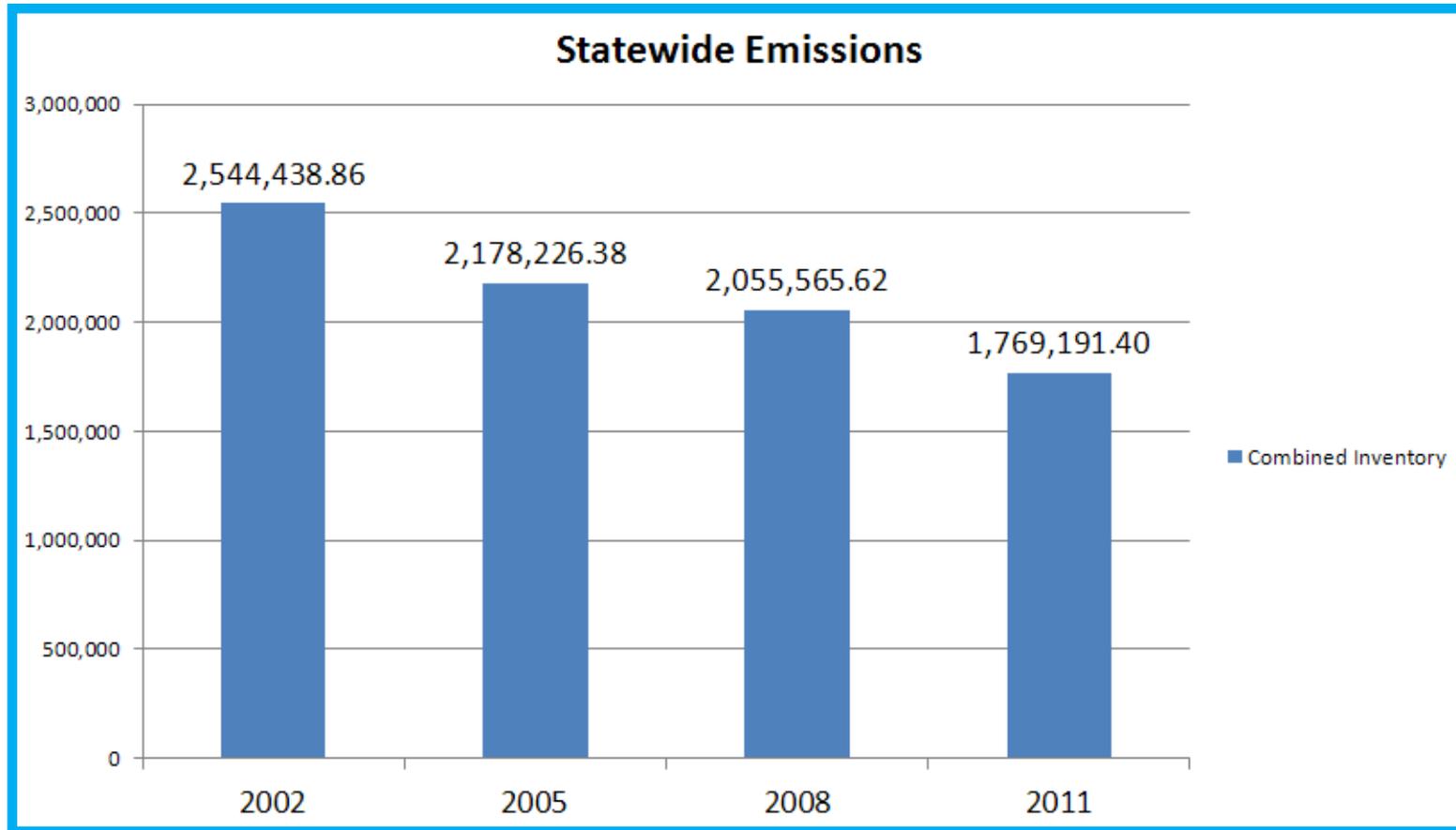
### Challenges

- **Attaining Federal Particulate Matter (PM<sub>2.5</sub>) Standards**
  - **Accommodating Growth in Saturated Air Sheds**
  - **Oil & Gas Development**
  - **Potential New Ozone Standard in 2015**
  - **New SO<sub>2</sub> Requirements (Monitoring & Modeling)**
  - **Increased Air Monitoring Due to Public Expectation for Information**
  - **Regional Haze Planning**
  - **Mercury**
  - **President's Climate Action Plan & Clean Air Act 111(d) Requirements for Existing Power Plants**
  - **Funding Uncertainty**
- 
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# Department of Environmental Quality: January 30, 2014

## Division of Air Quality

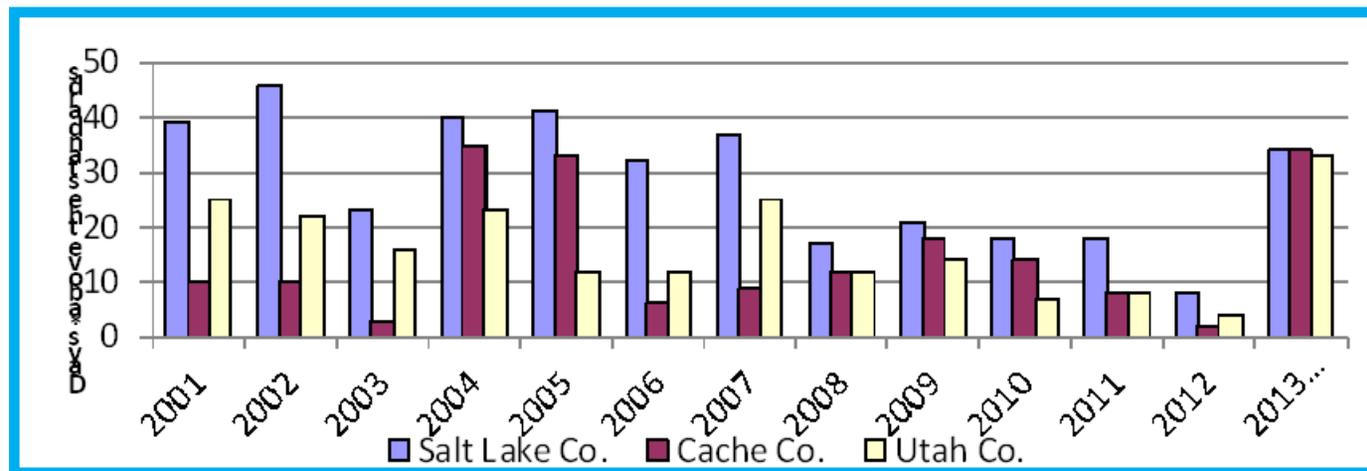
### Utah Summary of State Air Emissions Total Tons Emitted



# Department of Environmental Quality: January 30, 2014

## Division of Air Quality

### Number of Days That Are—& Those That Would Have Been— Above the Current Federal Standards Salt Lake, Cache and Utah County Areas



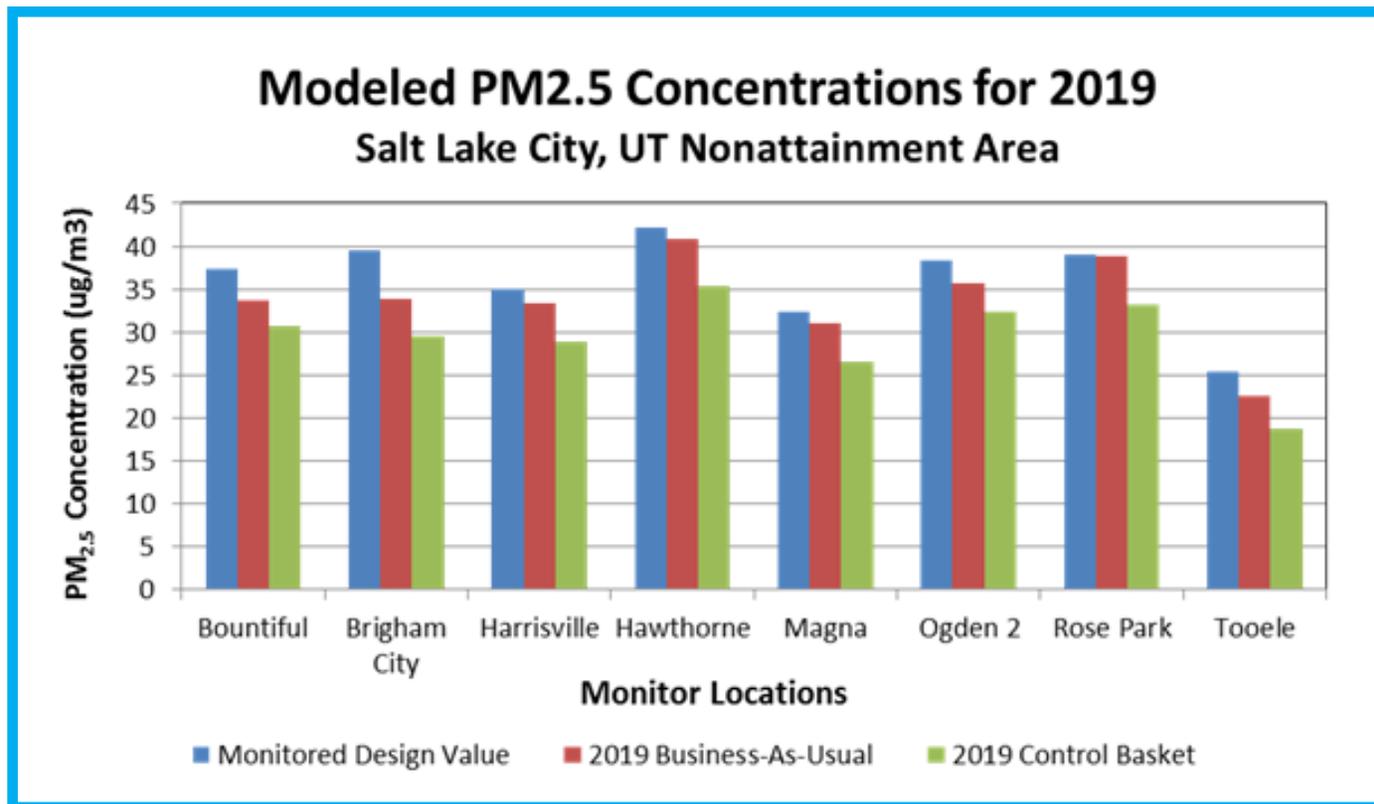
\* Days with monitored values above the level of the **current** National Ambient Air Quality Standards combined for PM2.5 and ozone (PM2.5 standard revised in 2006, ozone standard revised in 2008)

\*\* 2013 includes the values that have not completed Quality Assurance

# Department of Environmental Quality: January 30, 2014

## Division of Air Quality

### Modeled PM<sub>2.5</sub> Concentrations for 2019

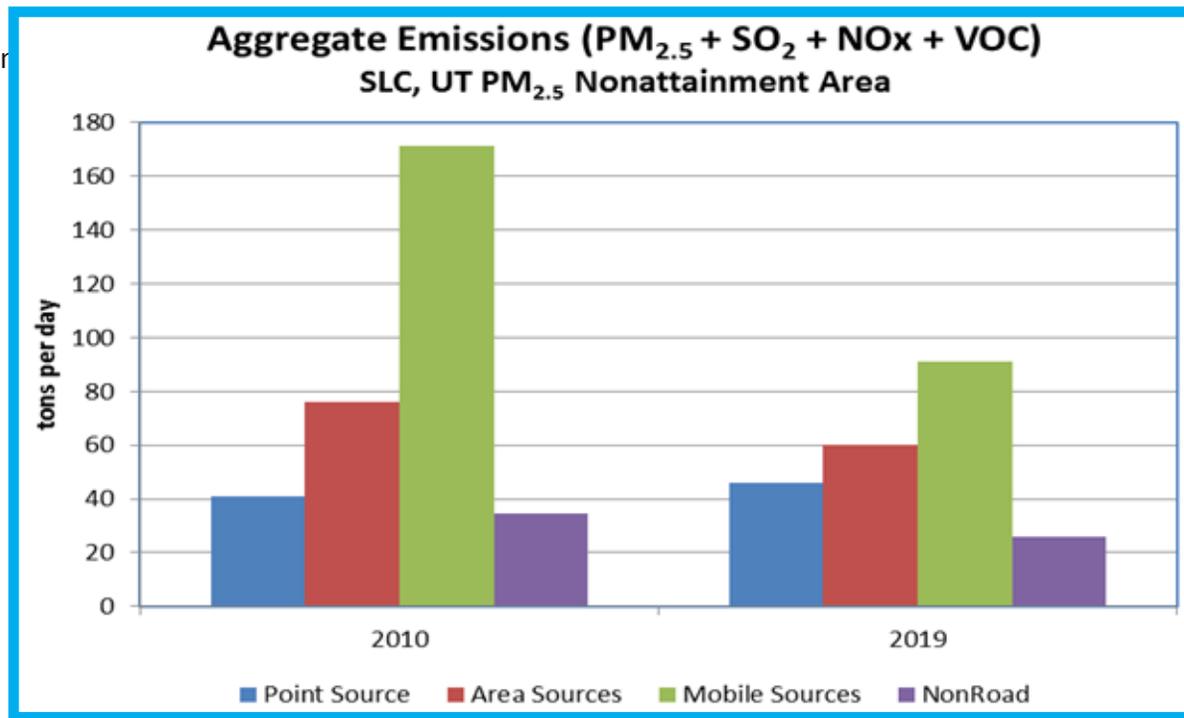


# Department of Environmental Quality: January 30, 2014

## Division of Air Quality

### Emission Reductions by Source Category SLC, UT PM<sub>2.5</sub> SIP Control Strategy

2019 daily emissions

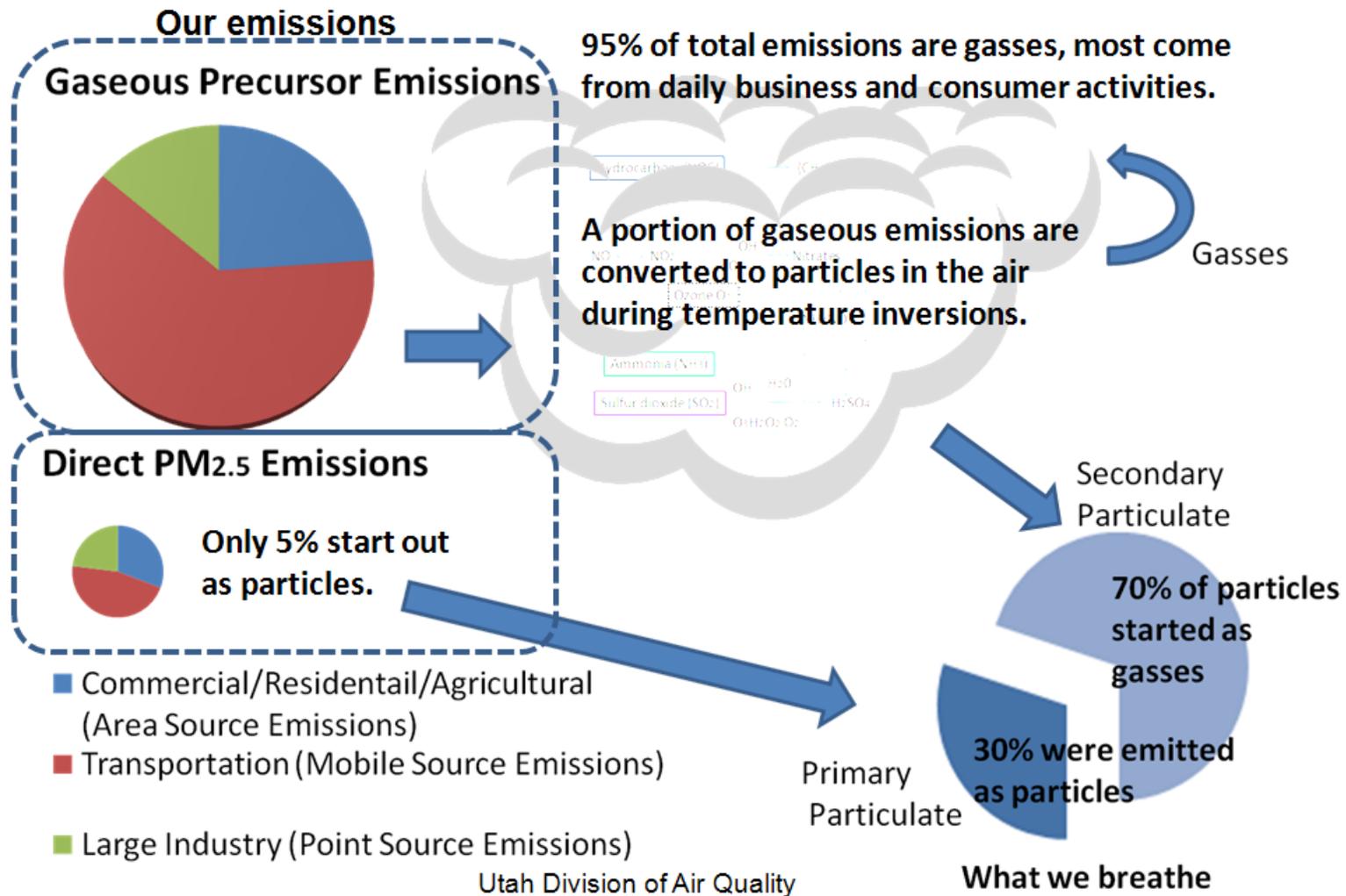


64.5 TPD reductions from SIP controls after factoring in growth. Represented by the open boxes. Mobile and non-road reductions are accounted for in the SIP but are considered federal measures.

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## Division of Air Quality

### Winter Particulate (PM2.5) Formation

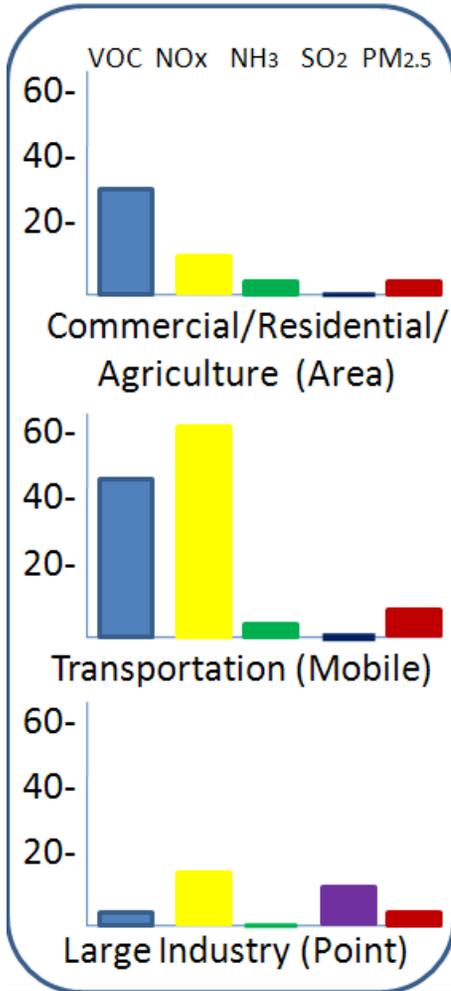


# Department of Environmental Quality: January 30, 2014

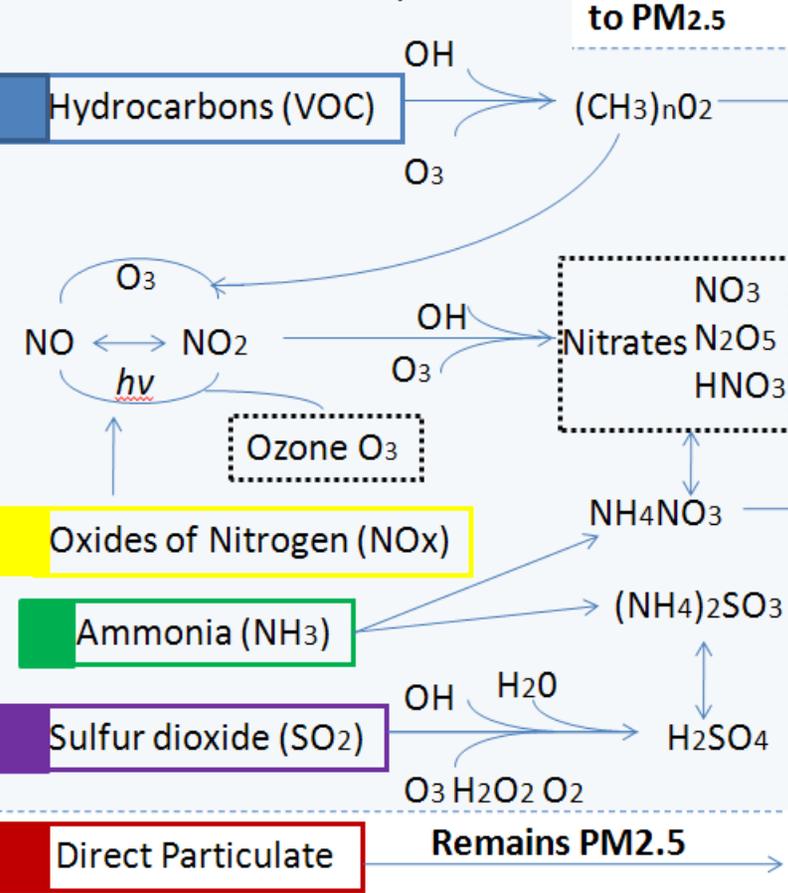
## Division of Air Quality

### Winter PM2.5 Formation Detail

Salt Lake County Emissions (tons/winter day) in 2008



#### Chemical Formation of Secondary Particulate in the Atmosphere



~4-20%  
Converts  
to PM<sub>2.5</sub>

What is measured  
during Inversions  
70% Secondary

- organic carbon
- ammonium nitrate
- ammonium sulfate

30% Primary  
elemental carbon  
organic carbon  
metals, salts,  
carbonates, etc.