



# 2013 Rulemaking Stakeholder Meeting

January 28, 2013

Colorado Department of Public Health and Environment  
Air Pollution Control Division



Colorado Department  
of Public Health  
and Environment



# 2013 Rulemaking Effort Goals

- Identify and implement strategies that **improve the effectiveness and efficiency** of Colorado's air quality program
- Address the growth in oil and gas development through the **adoption of reasonable emission reduction strategies**
- Find ways to **reduce permitting burdens** for both the Division and the regulated community without impacting environmental benefits from the permitting program
- Lay the groundwork for ongoing efforts to **reduce oil and gas emissions** while minimizing burdens that don't provide environmental value



# Stakeholder Process Goals

- Role out concepts, draft language, and associated rulemaking documents, in phases, for stakeholder review and input
  - *All concepts, language and documents are expected to evolve through the stakeholder process*
  - Wrap up Regulation Numbers 3 and 6 by April 2013
  - Wrap up Regulation Number 7 and Common Provisions by June 2013

NOTE: Stakeholders will have multiple opportunities to comment during the stakeholder process and later, during the rulemaking process.



# Timeline and Schedule

- Stakeholder Meetings

- Thursday, February 28, 2013 8:30 am-11:30 am
- Thursday, March 28, 2013 8:30 am-11:30 am
- Thursday, April 25, 2013 8:30 am-11:30 am
- Wednesday, May 22, 2013 1:30 pm-4:30 pm

*Note: All meetings in Sabin/Cleere Rooms, CDPHE Campus*

- Rulemaking Process Goal

- August 2013 Request for Hearing
- November 2013 Hearing



# Areas of Discussion (2013 Rulemaking Revisions)

- NSPS OOOO adoption
  - Regulation Number 6, Part A
- Revisions to Colorado's reporting and permitting requirements
  - Regulation Number 3
- Oil and Gas emission reduction strategies
  - Regulation Number 7 and Common Provisions



# Topics for this Meeting

- Overview of permitting growth and emission inventories in Colorado
- NSPS OOOO adoption proposal
- Potential permitting/reporting changes



# Overview of Permitting Growth and Emission Inventories in Colorado



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# Colorado Emissions and Permitting

- Statewide Air Quality
  - NAAQS for Criteria Pollutants
  - Ozone Data
  - Ozone Planning Activities
- Emission Inventory
  - 2008 Statewide and Denver Metro Area/North Front Range
  - DMA/NFR NO<sub>x</sub> and VOC Emissions
- Oil & Gas
  - Oil Production
  - Number of Gas Wells
- Permitting Workload





# Colorado Air Quality for NAAQS Pollutants

**Ozone** (2008: 8-hr 0.075 ppm)

- Denver Metro/North Front Range: Non Attainment
- Remainder of state attainment or unclassifiable

**PM<sub>2.5</sub>** (2006: Annual 15  $\mu\text{g}/\text{m}^3$  & 24-hour 35  $\mu\text{g}/\text{m}^3$ )

- All areas in attainment or unclassifiable

**PM<sub>10</sub>** (2006: 24-hour 150  $\mu\text{g}/\text{m}^3$ )

- All areas in attainment/maintenance or unclassifiable

**NO<sub>2</sub>** (2010: 1-hour 100 ppb)

- All areas in attainment or unclassifiable

**SO<sub>2</sub>** (2010: 1-hour 75 ppb)

- All areas in attainment or unclassifiable

**CO** (2011: 8-hour 9 ppm & 1-hour 35 ppm)

- All areas in attainment/maintenance or unclassifiable

**Pb** (2008: Rolling 3 month average of 0.15  $\mu\text{g}/\text{m}^3$ )

- All areas in attainment or unclassifiable



3-Year Average 4<sup>th</sup> Maximum Ozone Values

Site Name	AQS #	2010 4 <sup>th</sup> Maximum 8-Hour Average Value (ppm)	2011 4 <sup>th</sup> Maximum 8-Hour Average Value (ppm)	2012 (thru 9/30) 4 <sup>th</sup> Maximum 8-Hour Average Value (ppm)	2010 - 2012 3-Year Average 4 <sup>th</sup> Maximum Value (ppm)	2012 Highest Allowable 4 <sup>th</sup> Maximum 8-Hour Average Value (ppm)	2013 Highest Allowable 4 <sup>th</sup> Maximum 8-Hour Average Value (ppm)
Welby	08-001-3001	0.063	0.075	0.077	0.071	0.089	0.075
Highland	08-005-0002	0.075	0.078	0.080	0.077	0.074	0.069
Aurora East	08-005-0006	0.070	0.077	0.074	0.073	0.080	0.076
S. Boulder Creek	08-013-0011	0.072	0.076	0.076	0.074	0.079	0.075
CAMP	08-031-0002	---	---	0.067	---	---	---
Carriage	08-031-0014	0.069	0.075	0.077	0.073	0.083	0.075
Denver Animal Shelter	08-031-0025	0.064	0.070	0.073	0.069	0.093	0.084
Chatfield State Park	08-035-0004	0.079	0.082	0.086	0.082	0.066	0.059
Colo. Spg. - USAF Academy	08-041-0013	0.068	0.074	0.075	0.072	0.085	0.078
Manitou Springs	08-041-0016	0.072	0.075	0.075	0.074	0.080	0.077
Rifle - Health	08-045-0012	0.066	0.066	0.068	0.066	0.095	0.093
Welch	08-059-0005	0.072	0.077	0.077	0.075	0.078	0.073
Rocky Flats North	08-059-0006	0.076	0.081	0.084	0.080	0.070	0.062
NREL	08-059-0011	0.074	0.083	0.081	0.079	0.070	0.063
Aspen Park	08-059-0013	0.073	0.072	0.077	0.074	0.082	0.078
NPS - Rocky Mtn. Nat'l Park	08-069-0007	0.077	0.077	0.081	0.078	0.073	0.069
Fort Collins - West	08-069-0011	0.075	0.080	0.080	0.078	0.072	0.067
Rist Canyon	08-069-0012	0.071	0.073	0.071	0.071	0.083	0.083
Fort Collins - CSU	08-069-1004	0.066	0.068	0.074	0.069	0.093	0.085
Palisade - Water	08-077-0020	0.068	0.066	0.072	0.068	0.093	0.089
Lay Peak	08-081-0002	---	---	0.066	---	---	---
Cortez	08-083-0006	0.064	0.071	0.069	0.068	0.092	0.087
Greeley - Weld Tower	08-123-0009	0.073	0.077	0.080	0.076	0.077	0.070

**NOTE:** An area is considered to be in attainment of the National Ambient Air Quality Standard when the 3-year average of the annual 4<sup>th</sup> highest daily maximum 8-hour ozone concentration at a site is less than or equal to 0.075 ppm.

NOTE: Values above the level of the 3-year average 4<sup>th</sup> maximum 8-hour standard are highlighted in red.

Colorado Department of Public Health and Environment, Air Pollution Control Division, Technical Services Program



# Ozone Planning Activities

- Ozone modeling work is underway to determine likelihood of attaining 75 ppb standard by 2015
- Emission inventory work used to determine potential sources for further review
  - 2008 Baseline Inventory Completed
  - 2018 Emission Inventory Work
    - In final stages of development
- Sensitivity runs to be done this Spring



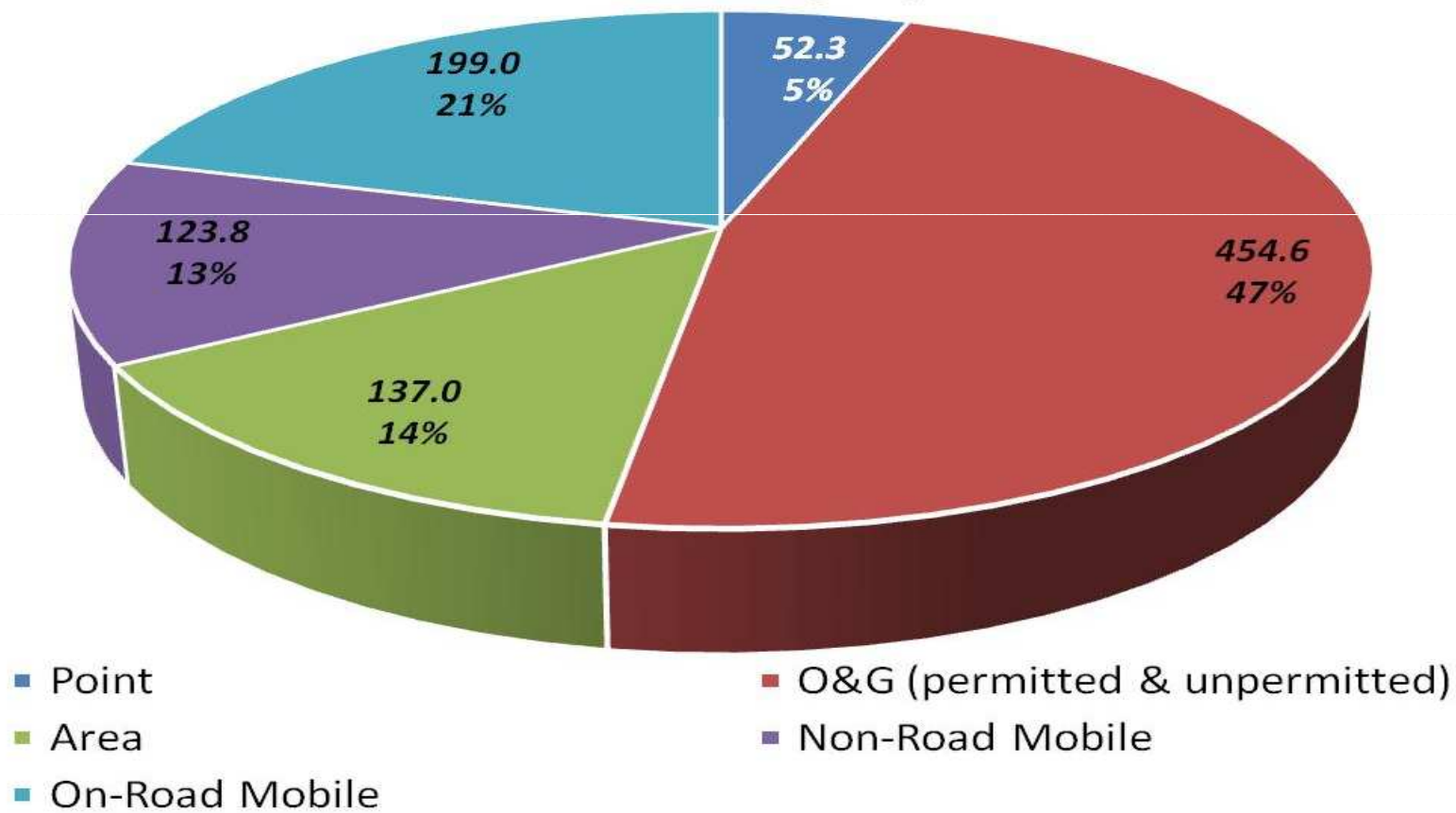
# 2008 Baseline Emissions

## Significant Ozone Precursors

Source Category	NOx Emissions [tons/day]		VOC Emissions [tons/day]	
	Statewide	9-County Ozone NAA	Statewide	9-County Ozone NAA
Point	<b>238</b> (27%)	<b>77</b> (23%)	<b>52</b> (5%)	<b>30</b> (6%)
Oil & Gas	<b>164</b> (19%)	<b>47</b> (14%)	<b>455</b> (47%)	<b>240</b> (48%)
Area	<b>21</b> (2%)	<b>19</b> (6%)	<b>137</b> (14%)	<b>63</b> (13%)
Non-Road Mobile	<b>177</b> (20%)	<b>69</b> (20%)	<b>124</b> (13%)	<b>66</b> (13%)
On-Road Mobile	<b>278</b> (32%)	<b>127</b> (37%)	<b>199</b> (21%)	<b>99</b> (20%)
<b>Totals:</b>	<b>878</b>	<b>339</b>	<b>967</b>	<b>499</b>

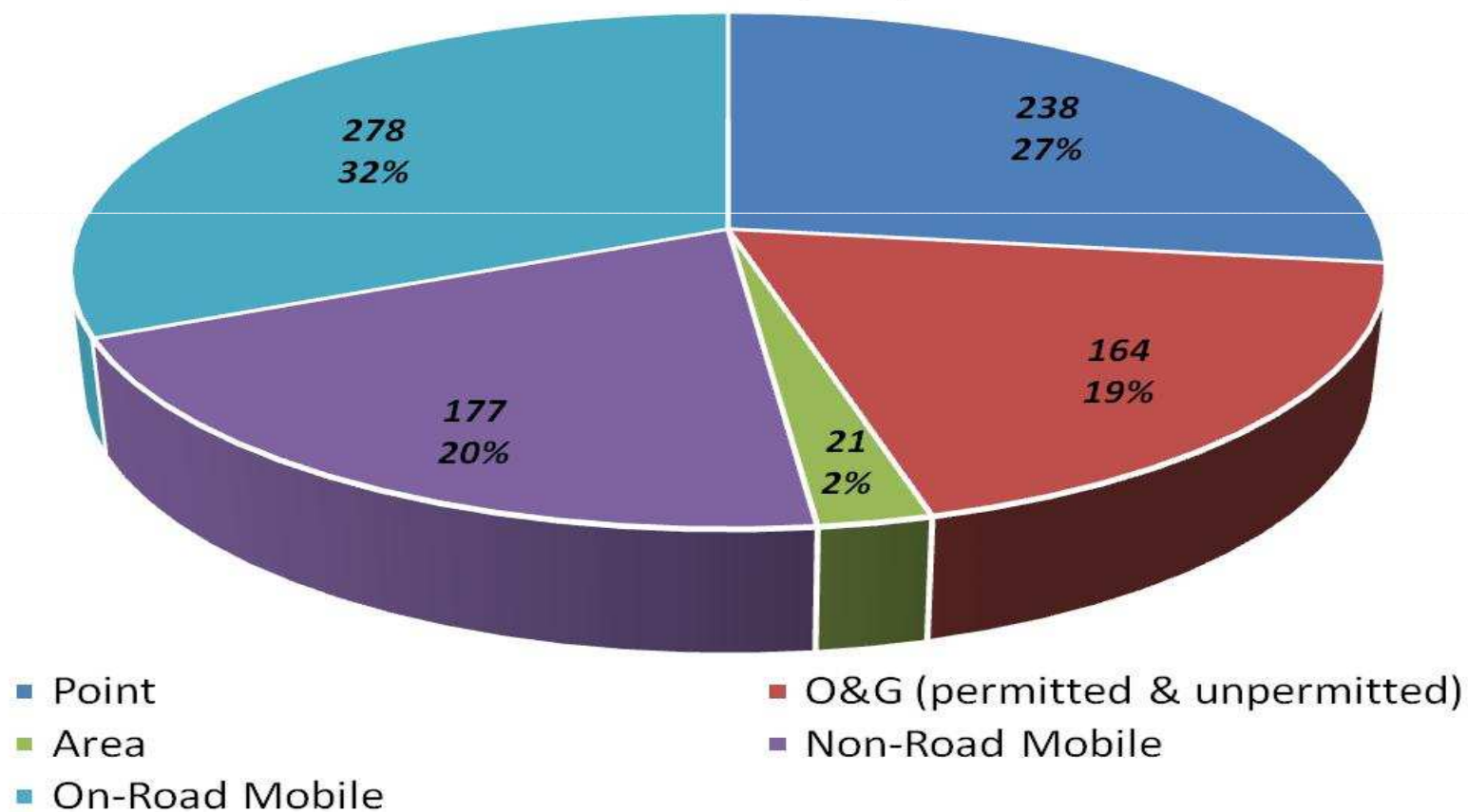


### Colorado (Statewide) 2008 Base - Anthropogenic VOC Emissions 967 tons/day





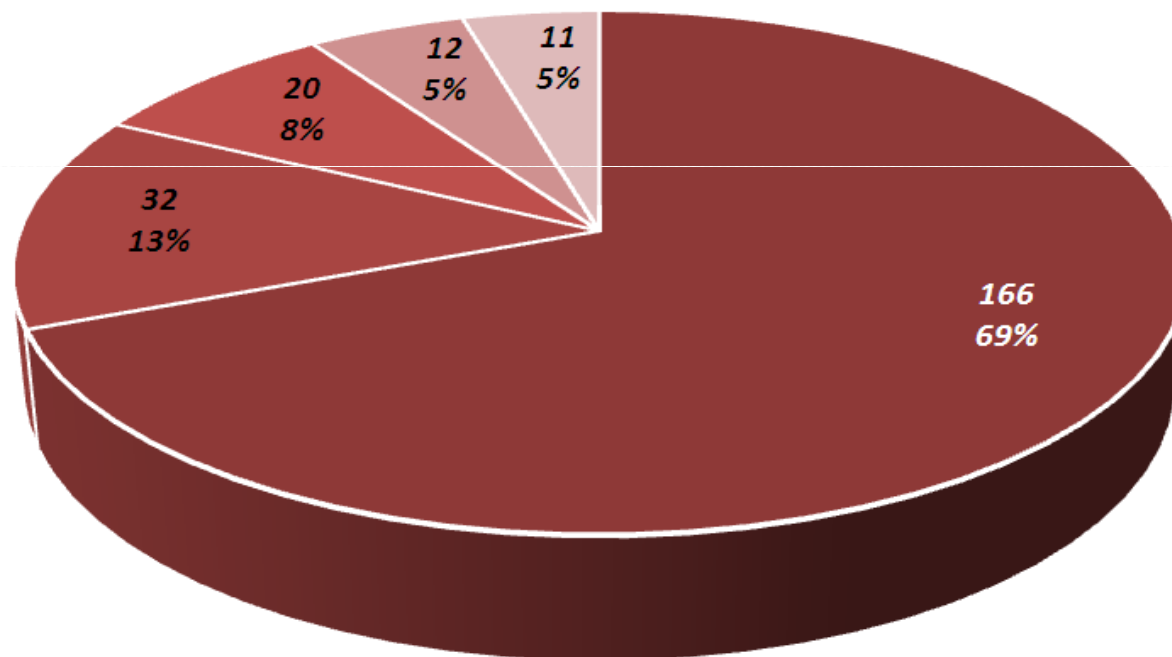
## Colorado (Statewide) 2008 Base - Anthropogenic NO<sub>x</sub> Emissions 878 tons/day





# Condensate Tanks are the Largest O&G Source of VOC

**DMA/NFR Ozone Non-Attainment Area  
2008 Base - VOC Emissions - O & G Sources  
240 tons/day**

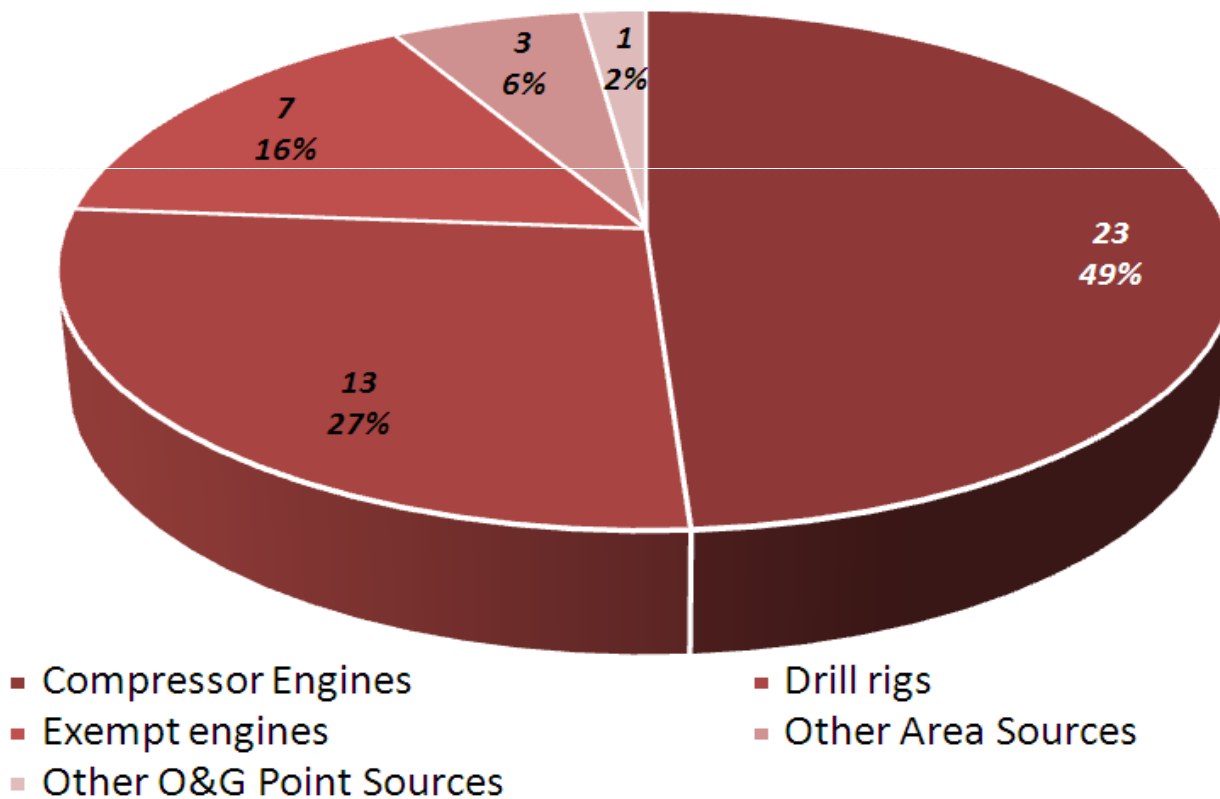


- Condensate Tanks
- Pneumatic Devices & Pumps (Area)
- Unpermitted Fugitives (Area)
- Other O&G Point
- Other Area



# Compressor Engines and Drill Rigs are the Largest O&G Sources of NOx

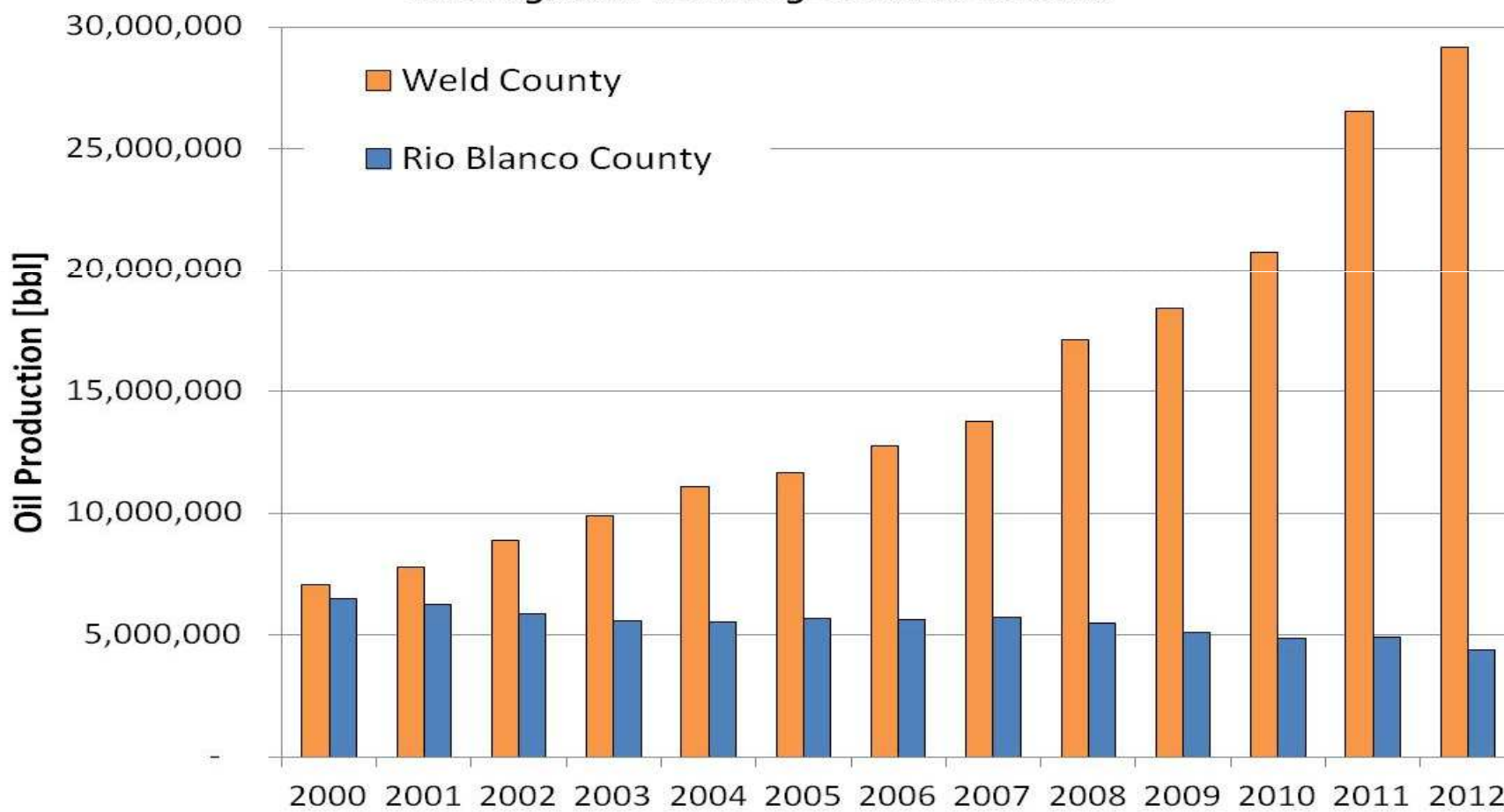
**DMA/NFR Ozone Non-Attainment Area  
2008 Base -NOx Emissions -O&G Sources  
47 tons/day**





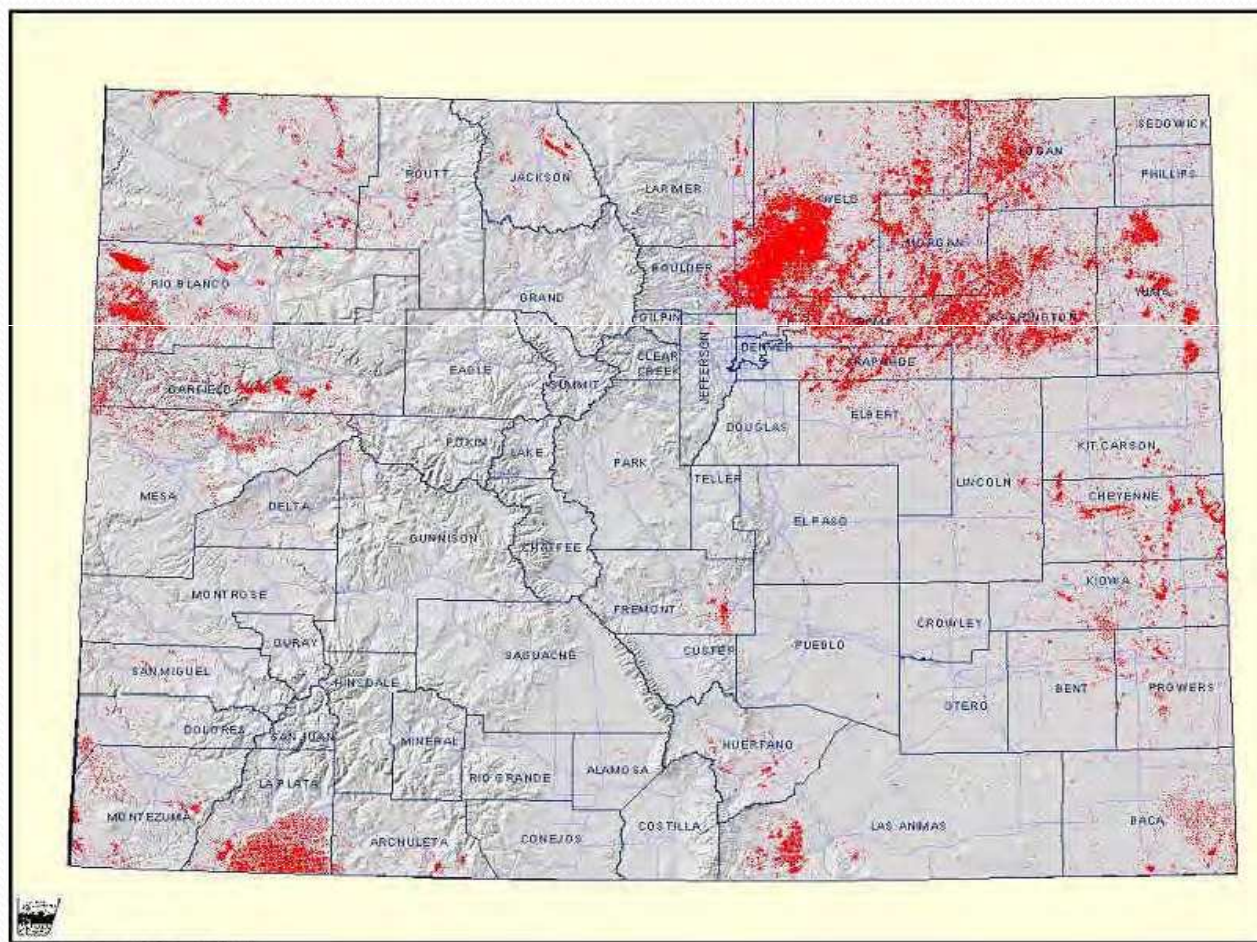


## Annual Oil Production *Two Highest Producing Counties in State*



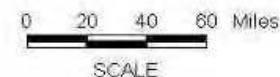


# Colorado has about 50,000 active wells



**LEGEND:**

- Oil / Gas Well
- Highway

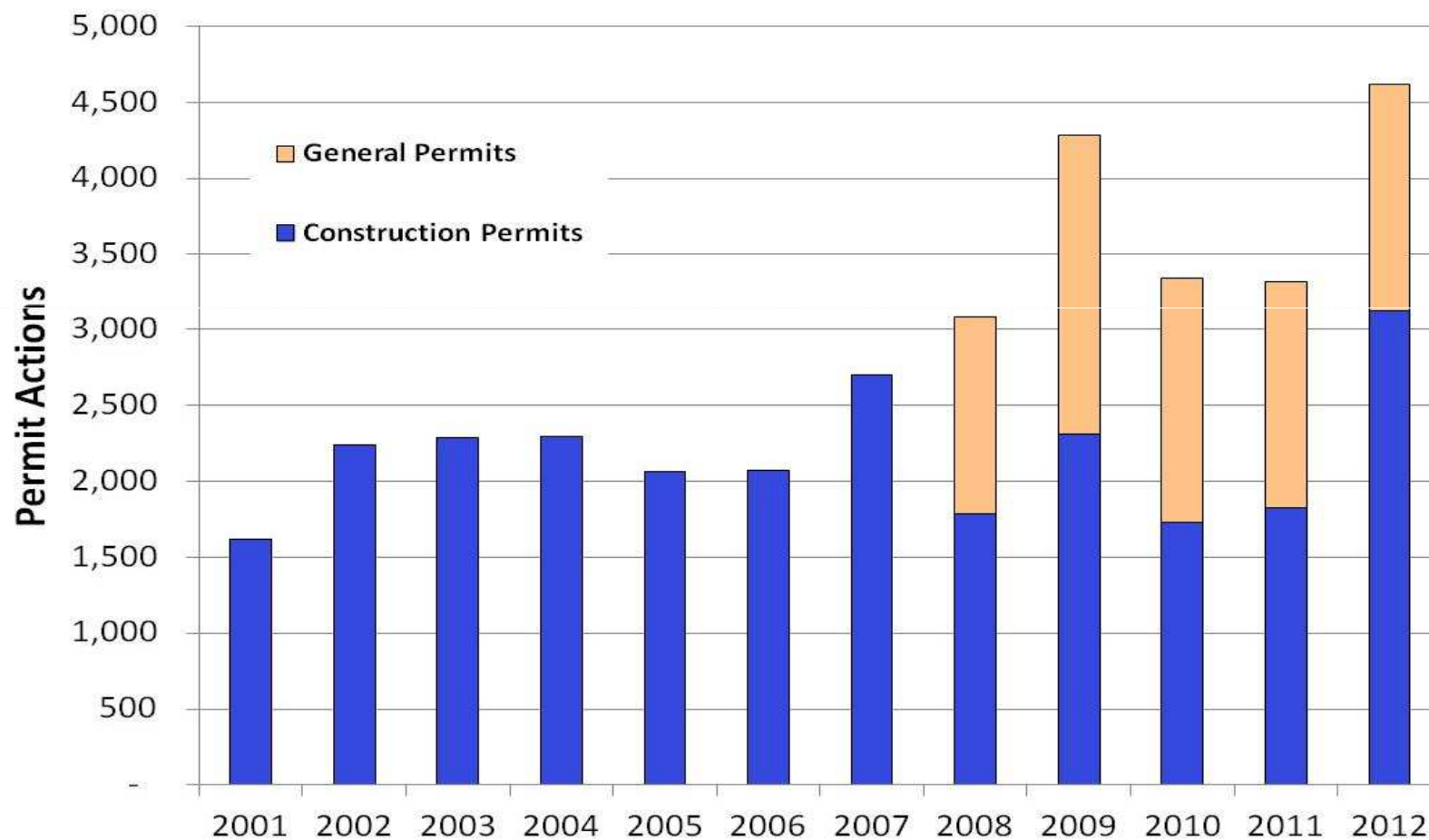


**OIL AND GAS WELLS  
IN COLORADO**

Prepared by: JIM KIRBY, © 2002 C. K. Kautzsch, 2, 1998  
Data from: COURTESY OF HECOS

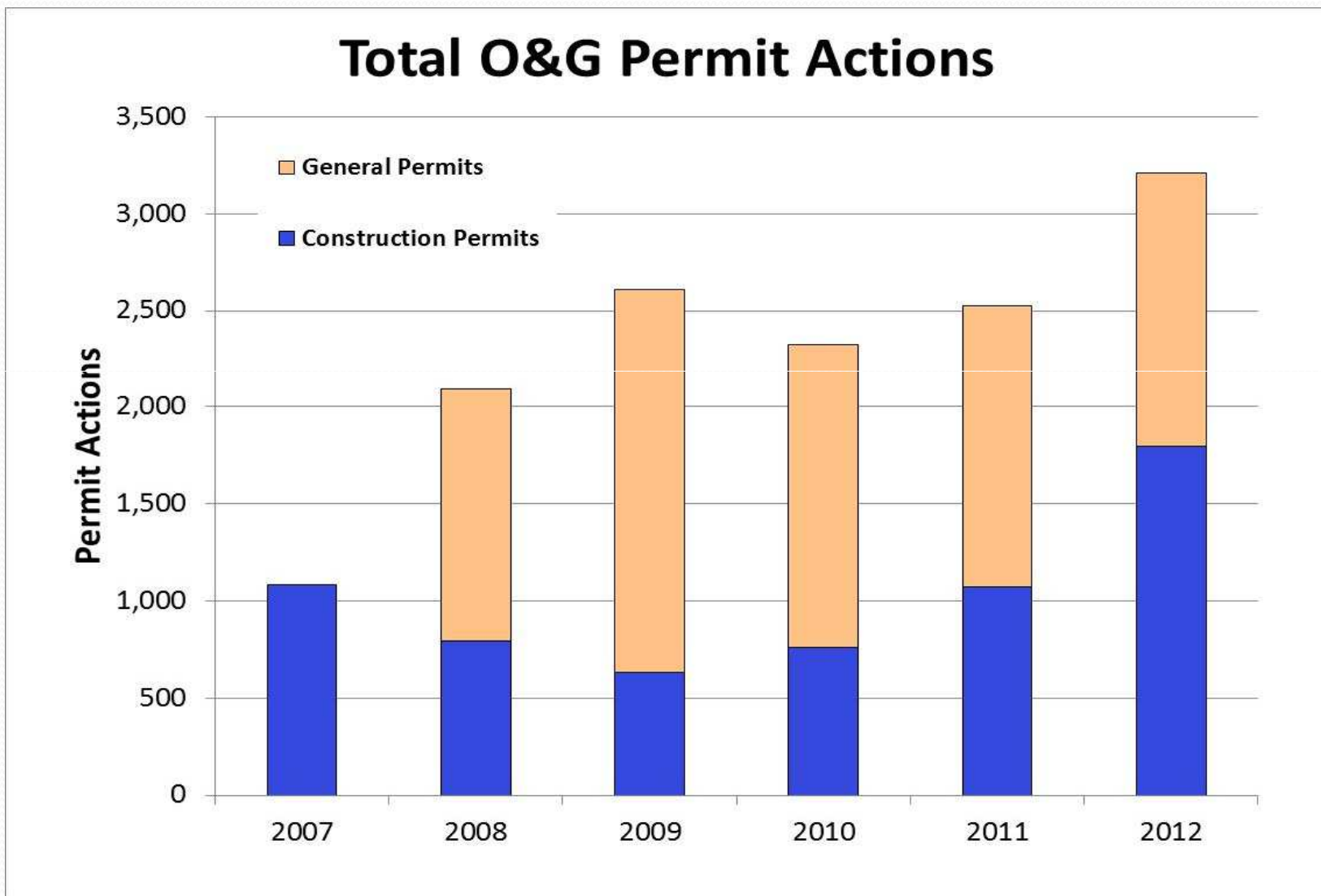


## APCD Total Permit Actions





## Total O&G Permit Actions





# Proposed Revisions: Part 1

NSPS OOOO

(Regulation Number 6, Part A)

Permitting and APEN Requirements

(Regulation Number 3)



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## Reg. 6 – NSPS 0000

- Partial adoption October 18, 2012
  - Impact to permitting and reporting
- Adopt well completion and other provisions in full
- EPA announced reconsiderations
- Direction from the AQCC
- Simplify and streamline implementation



## Reg. 3 – Catchalls

- Remove requirements for sources subject to a NSPS, NESHAP, or MACT adopted by the AQCC to file an APEN and/or obtain a construction permit, regardless of emissions
  - Part A, II.D.1.
  - Part B, II.A.5., II.D.
- Simplify and streamline reporting and permitting
- Maintain stringency of applicable NSPS, NESHAP, and MACT



## Reg. 3 – Reporting Thresholds

- Increase Air Pollution Emission Notice (APEN) thresholds
  - Part A, II.B.3.a. and b., II.D.1.a. and b.
    - Criteria pollutants: 2 tpy
- Revise Appendix A method for determining non-criteria reportable pollutant de minimis levels
  - 1000 lbs/yr
- Simplify and streamline reporting and permitting
  - Impact on permitting and reporting
  - No increase in emissions





## Reg. 3 – Permitting Thresholds

- Potential increase to construction permit thresholds
  - Part B, II.D.2 through 5.
    - Criteria pollutants: [25] tpy
    - Lead: 200 lbs/yr
- Simplify and streamline reporting and permitting
  - Impact on permitting and reporting
  - No increase in emissions



# Reg. 3 – Crude Oil Permitting

- Remove the crude oil storage tank permit exemptions
  - Part B, II.D.1.n.
  - Part C, II.E.3. ddd.
- Simplify and streamline



# Next Steps

Next Meeting:  
Thursday, February 28, 2013  
8:30 am – 11:30 am  
Sabin Cleere Rooms  
CDPHE Campus, Building A



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# Next Steps

- Presentation and potential language revisions posted to APCD website.
  - <http://www.colorado.gov/cdphe/apcd>
    - ★ Hot Topics » 2013 Rulemaking
- Comments on the language presented today due February 15, 2013 to Leah Martland
- Next Stakeholder Meeting on February 28, 2013 at 8:30 am, Sabin Cleere room. Registration will be included with the meeting notice.



# February Meeting Highlights

- Recap the January Meeting
- Discuss comments received on NSPS OOOO adoption and permitting/reporting revisions
  - Regulation Number 6 and Regulation Number 3.
- Present potential revisions to statewide oil and gas control requirements
  - Regulation Number 7 and the Common Provisions.



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# Comments

Submit comments on potential revisions to Regulation  
Number 6 and Regulation Number 3  
by **February 15, 2013**,  
to Leah Martland at [leah.martland@state.co.us](mailto:leah.martland@state.co.us)

*Language and additional information can be found on*  
<http://www.colorado.gov/cdphe/apcd>  
★ Hot Topics » 2013 Rulemaking Effort