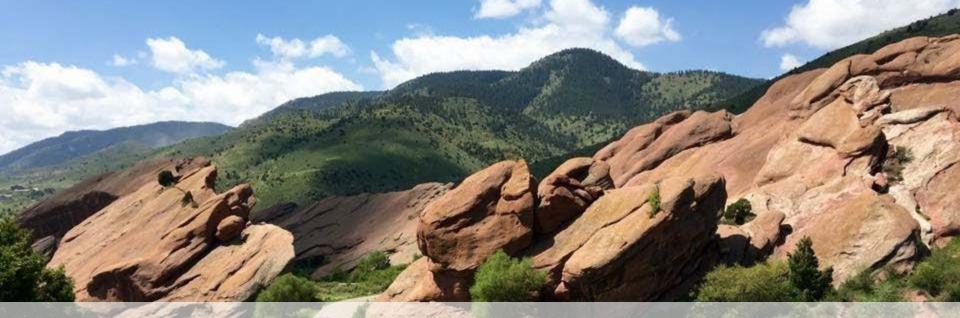
Ozone Planning Update



DRCOG - Board of Directors

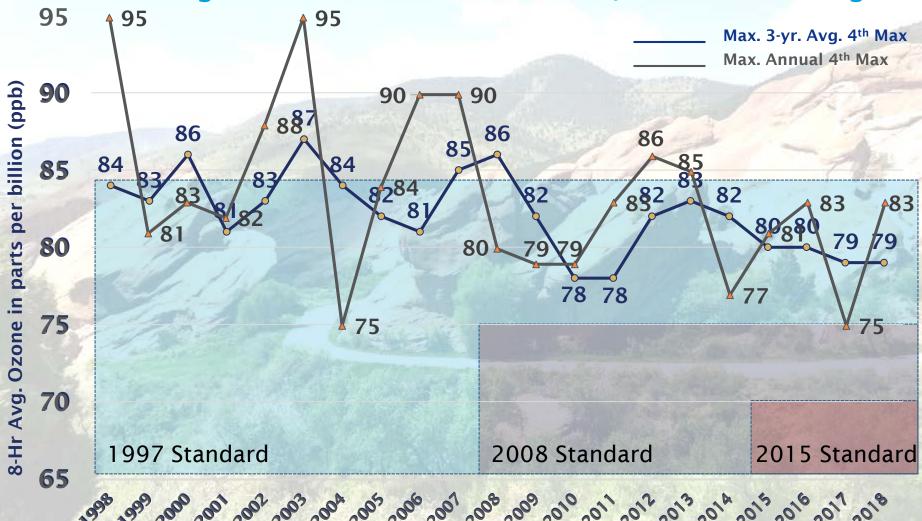
December 19, 2018

Amanda Brimmer, E.I.T. Technical Program Manager



8-Hour Ozone Trends and Federal Standards

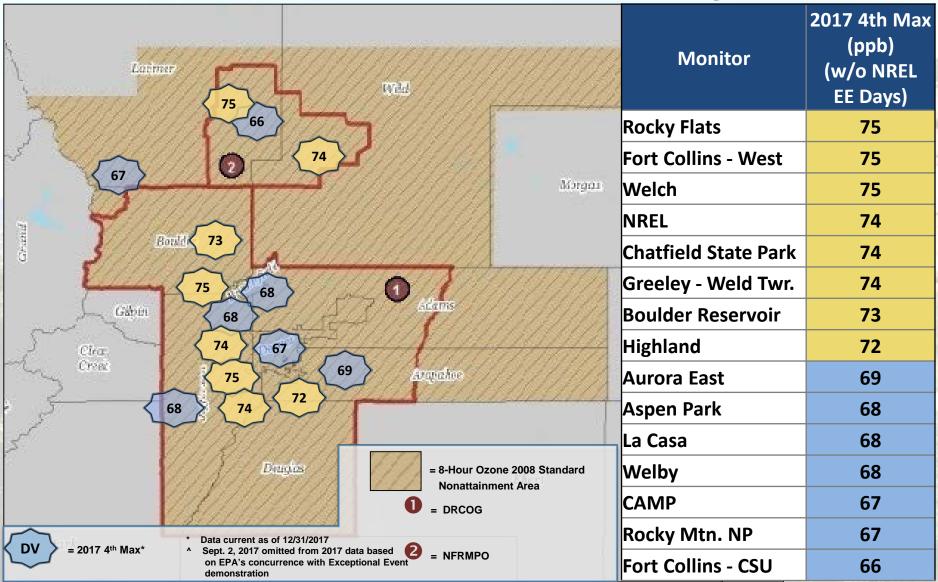
Ashineal Design Values in the Denver Metro/North Front Range



8-Hour Ozone Standard: Based on a three-year average of the annual forthhighest daily 8-hour maximum ozone concentration. Current as of 9/4/18.



2017 4th Maximum 8-Hour Average Value



2018 4th-Maximum 8-Hour Ozone Values

Lucimer Well	Monitor	2018 4th Max w/ flagged days (ppb)^	2018 4th Max w/o flagged days (ppb)
	Chatfield State Park	83	82
74 73	Rocky Flats	81	81
	Fort Collins - West	81	80
	NREL	80	80
Box 77	Boulder Reservoir	77	76
	Highland	77	74
Gibin 72	Rocky Mtn. Nat'l Park	74	74
	Greeley - Weld Tower	73	72
- Language Atonophic	Aurora East	72	72
71 02	Welch	72	71
\$ 1///\$//////	La Casa	72	71
Deuroias = 8-Hour Ozone	Fort Collins - CSU	72	71
Nonatt. Area = DRCOG	Aspen Park	71	71
= NFRMP()	САМР	71	70
Talige Exceeds 2000 Standard	Welby	69	68

Potential Paths for 2008 Ozone Standard (75 ppb) 2017 vs. 2018

End of: 2018 **Exceptional Event Demonstration** 2008 NAAQS Planning Clean Data → 1-Year Extension ? **Revocation of 2008 NAAQS** X ? **179B Demonstration Serious Area Reclassification**

Ozone Planning Timeline - 75 Standard



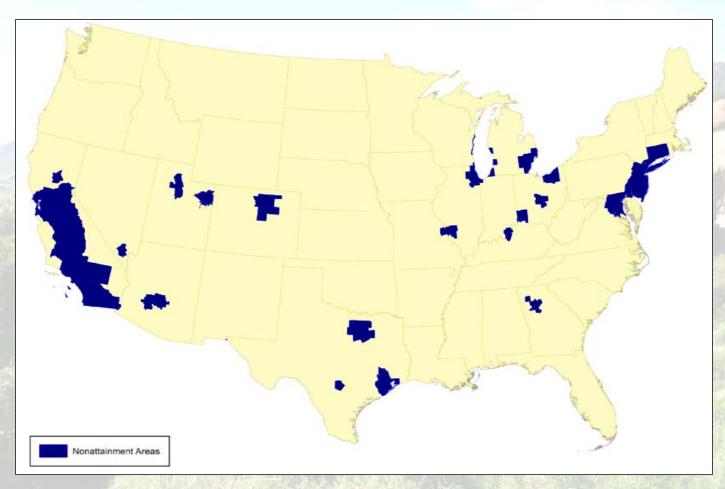
Strategy Evaluation and Implementation

* Assumes EPA approval of 1-year extension



** Assumes EPA sets SIP deadline in reclassification rule as January of final attainment year (i.e. Jan. 2020)

2015 Ozone NAAQS (70 ppb)



Effective Date: Aug. 3, 2018

52 Nonattainment Areas

41 Areas Classified as Marginal: Includes Denver Metro/North Front Range Area

All but 1 area with a higher classification are in California

Marginal Attainment Date: Aug. 2021 (2018-2020 data)



Ozone Planning Timeline - 70 Standard

3-Year Average (Serious)

3-Year Average (Marginal)

2018

2019

2020

3-Year Average (Moderate)

2021

2022

2023

Moderate Att. Year*

179B Demo

&/or

Serious Bump-Up Marginal Att. Year

Base Year El Due

Serious SIP Due**

Serious Att. Year Moderate Bump-Up

Moderate Att. Year

Moderate SIP Due

Strategy Evaluation and Implementation

* Assumes EPA approval of 1-year extension



** Assumes EPA sets SIP deadline in reclassification rule as January of final attainment year (i.e. Jan. 2020)

Next Steps - Ozone Planning

Modeling and Emissions Inventory Development

- Base and future year emissions inventory development for 2015 standard
- New base year modeling platform and future year modeling for 2015 standard
- Potential Serious Area SIP development including 2020 Attainment Demonstration modeling on 2011 platform
- "What if" photochemical modeling scenarios to evaluate strategies
- Analysis of impact of international emissions

Strategy Analyses

- Low Reid Vapor Pressure (RVP) gasoline fuels study
- Low Emission Vehicles (LEV)/Zero Emission Vehicles (ZEV) standards
- Commercial lawn and garden equipment
- Low-volatile organic compounds (VOC) architectural and industrial maintenance (AIM) coatings and consumer products
- Additional oil and gas and stationary source control options



Funding Needs

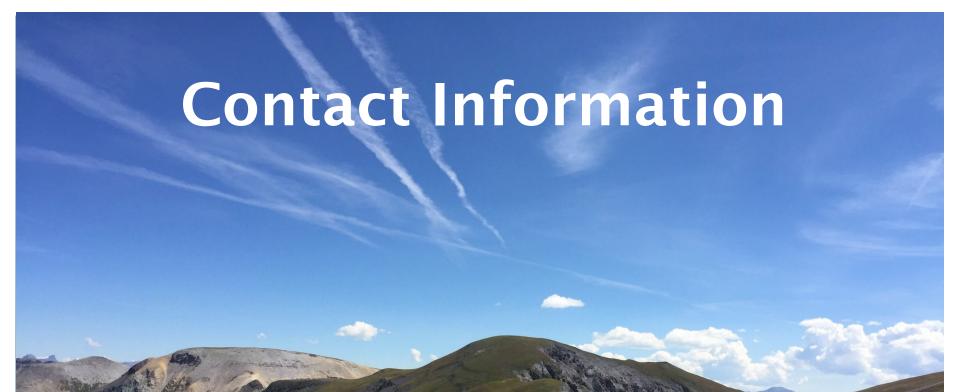
	DRCOG	DRCOG	NFRMPO	CDPHE	RAQC	
	(FY16-19)	(FY20-23)	(FY22)	(FY20-22)		TOTAL
Current Funding						
Available	\$263,000	\$0	\$0	\$25,000	\$19,000	\$307,000
Anticipated Funding	\$0	\$215,000	\$25,000	\$118,000	\$0	\$358,000
TOTALS	\$263,000	\$215,000	\$25,000	\$143,000	\$19,000	\$665,000

	DRCOG	DRCOG	NFRMPO	CDPHE	RAQC	
9 43	(FY16-19)	(FY20-23)	(FY22)	(FY20-22)		TOTAL
75 ppb Standard	\$28,000	\$53,000	\$0	\$75,000	\$19,000	\$175,000
70 ppb Standard	\$235,000	\$162,000	\$25,000	\$68,000	\$0	\$490,000
TOTALS	\$263,000	\$215,000	\$25,000	\$143,000	\$19,000	\$665,000

	DRCOG	DRCOG	NFRMPO	CDPHE	RAQC	
	(FY16-19)	(FY20-23)	(FY22)	(FY20-22)		TOTAL
75 ppb-by end of 2019	\$28,000	\$53,000	\$0	\$75,000	\$19,000	\$175,000
70 ppb-by end of 2019	\$235,000	\$72,000	\$0	\$0	\$0	\$307,000
Subtotal	\$263,000	\$125,000	\$0	\$75,000	\$19,000	\$482,000
70 ppb- in 2020+	\$0	\$90,000	\$25,000	\$68,000	\$0	\$183,000
TOTALS	\$263,000	\$215,000	\$25,000	\$143,000	\$19,000	\$665,000

Requesting \$125K advanced to 2019; FY20-23 funds reduced to \$475K.





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