

# 2017 Summer Ozone Season

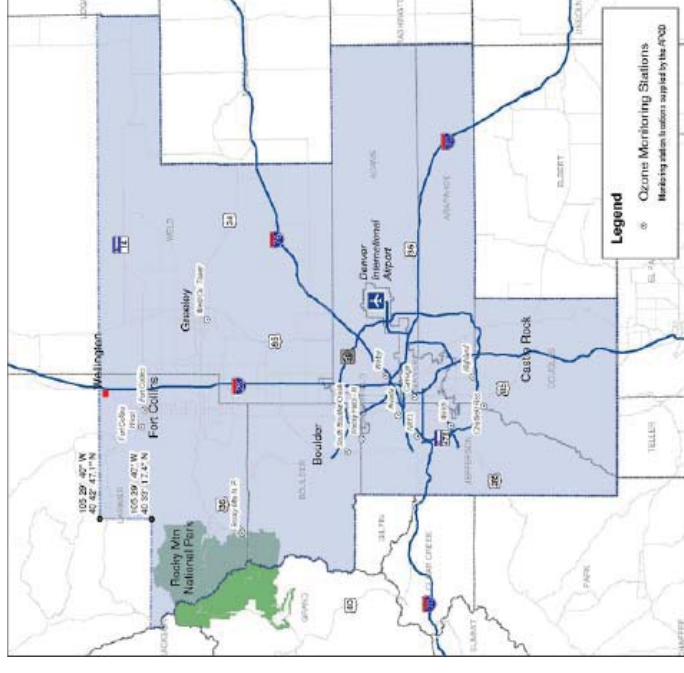
Briefing to the  
North Front Range MPO Planning Council  
October 5, 2017



**COLORADO**  
**Air Pollution Control Division**  
Department of Public Health & Environment

# Ozone Nonattainment Area

- ▶ Exceeds federal health standards
- ▶ Air quality is improving
  - 2017 “clean data” year
  - More deadlines coming
- ▶ CDPHE and partners are working to reduce ozone



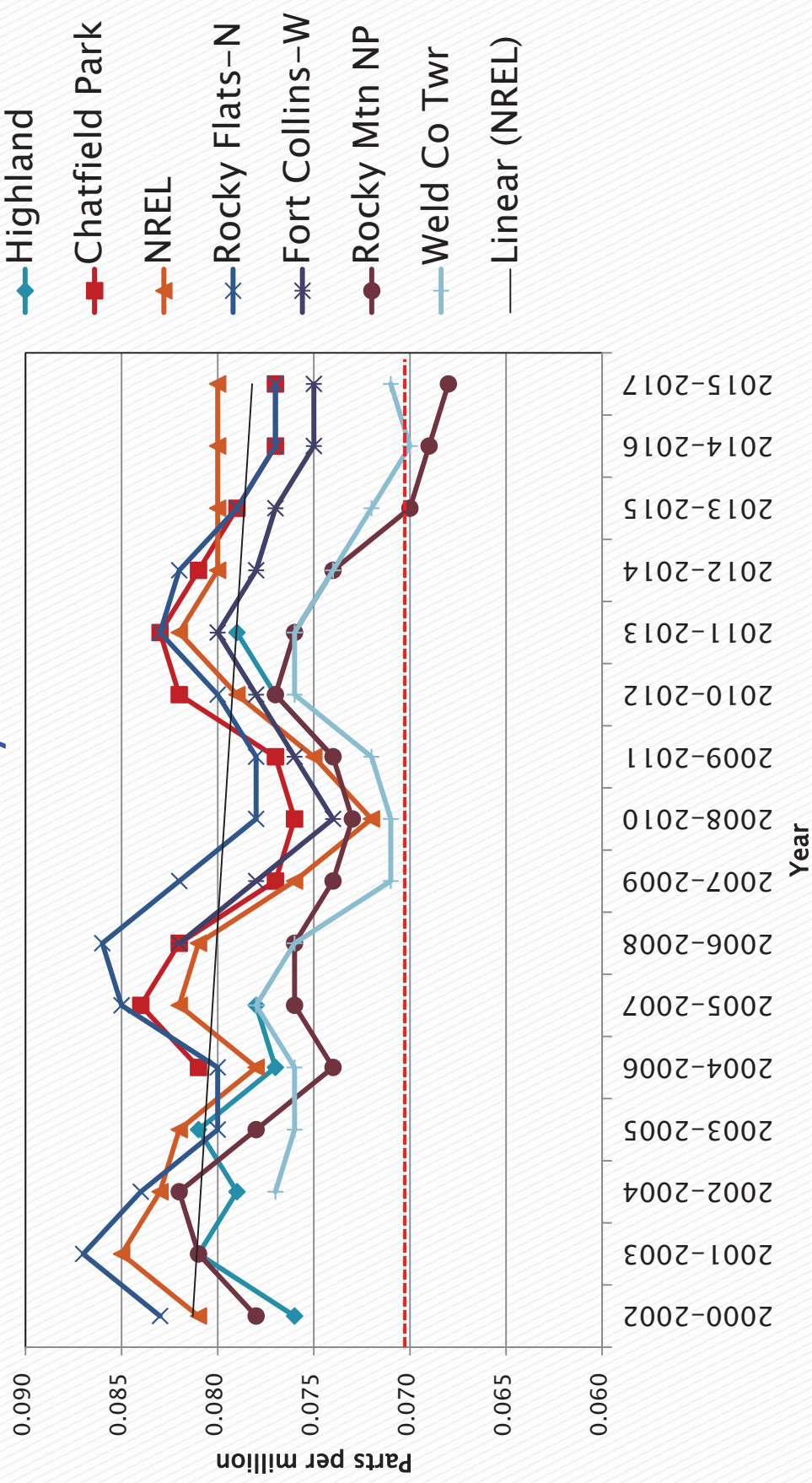
# National Ambient Air Quality Standards (NAAQS)

- ▶ 2008 standard
  - 75 ppb, based on 4<sup>th</sup> max day at each monitor
  - SIPs submitted to EPA
  - 2017 is a benchmark year
- ▶ 2015 standard
  - 70 ppb
  - Designate nonattainment area 2017–2018
  - Attainment deadline 2020–2021

# Ozone Trend Gradually Improving

## Three-year Average of 4th Max

DMNFR Key Sites



2017 thru 9/30

# 2017 Days Above 75 ppb

Monitor	Days > 75 ppb With/Without Exceptional Events	4th Max With/Without Exceptional Events
NREL	5 / 2 days	76 / 75 ppb
Fort Collins West	3 / 2 days	75 / 75 ppb
Rocky Flats North	3 / 2 days	75 / 75 ppb
All others	≤ 2 days	≤ 75 ppb

\*CDPHE will ask EPA to exclude two days at NREL

# Significance of 2017

## Progress

- ▶ “Clean data” year...
- ▶ Additional year to attain 75 ppb
- ▶ Ozone fell due to:
  - Lower emissions
  - Weather
- ▶ More emission reductions coming

## Work to Do

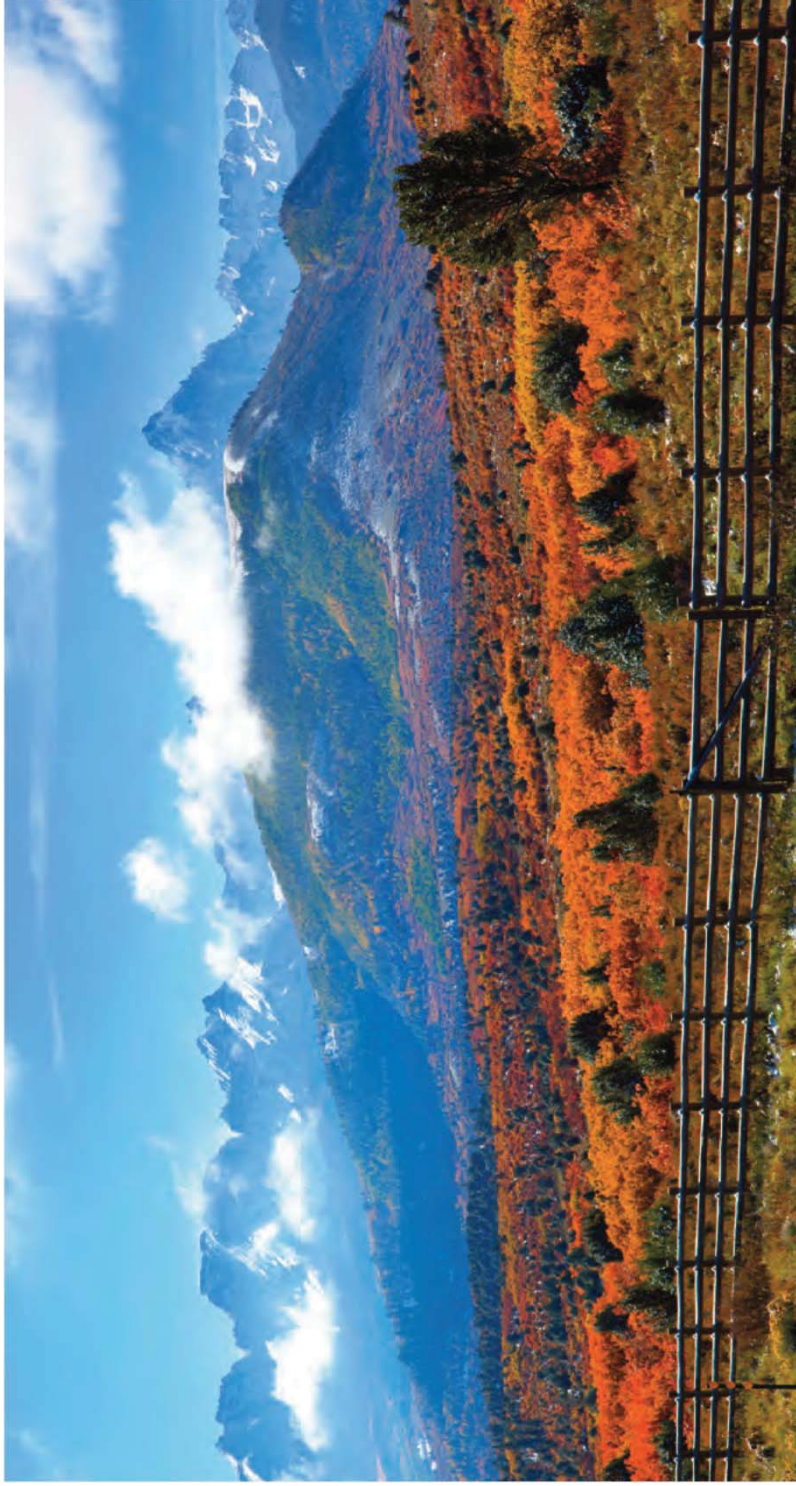
- ▶ .... barely
- ▶ Need clean data years in 2018 and 2019, or may face “serious” reclassification
- ▶ Must attain 70 ppb standard next

# Next Steps

- ▶ Proposed oil & gas rules
  - More IR camera inspections
  - Cut VOCs about 6,000 tpy
- ▶ Electric vehicle plan, VW, federal car standards
- ▶ Adopt major source RACT
- ▶ Paint/consumer products
- ▶ Fuels study
- ▶ Voluntary measures



# Questions?





\*\*\* DRAFT DATA \*\*\*

2017 8-Hour Ozone (Updated through September 30, 2017)

AQS Number	Site Name	1st Max 8-Hour (ppb)	Date 1st Max 8-Hour	2nd Max 8-Hour (ppb)	Date 2nd Max 8-Hour	3rd Max 8-Hour (ppb)	Date 3rd Max 8-Hour	4th Max 8-Hour (ppb)	Date 4th Max 8-Hour	5th Max 8-Hour (ppb)	Date 5th Max 8-Hour
08-001-3001	Welby	71	07/24	68	07/06	68	07/22	68	08/22	67	07/01
08-005-0002	Highland	76	07/06	76	07/07	73	07/22	72	07/08	71	07/20
08-005-0006	Aurora East	76	07/06	74	07/10	69	07/03	69	07/24	68	07/07
08-013-0014	Boulder Reservoir	78	08/04	74	07/14	74	07/23	73	07/05	73	07/27
08-019-0006	Mines Peak (non-regulatory)	82	04/22	80	04/23	71	06/04	70	07/24	70	09/04
08-031-0002	CAMP	69	09/04	68	07/22	67	07/01	67	09/02	66	07/05
08-031-0026	La Casa	69	07/22	69	09/02	69	09/04	68	07/27	66	07/23
08-035-0004	Chatfield State Park	78	07/07	76	07/05	75	07/20	74	07/06	74	07/08
08-041-0013	Colo. Spgs. - USAF Academy	73	04/09	70	09/04	69	06/29	69	07/05	69	07/21
08-041-0016	Manitou Springs	74	04/09	71	07/05	70	06/29	70	07/09	68	06/13
08-045-0012	Rifle - Health	64	04/22	61	06/03	60	06/12	59	05/13	58	04/10
08-059-0005	Welch	76	07/05	76	07/24	75	07/27	75	09/02	75	09/04
08-059-0006	Rocky Flats - N	78	09/04	77	07/23	76	07/24	75	07/01	75	07/05
08-059-0011	NREL	81	07/27	78	07/24	77	08/18	76	09/02	76	09/04
08-059-0013	Aspen Park	72	09/04	69	07/16	68	04/07	68	07/24	66	06/04
08-069-0011	Fort Collins - West	78	07/05	76	06/08	76	08/30	75	07/14	75	07/20
08-069-1004	Fort Collins - CSU	70	07/05	66	06/08	66	07/14	66	07/23	65	06/04
08-077-0020	Palisade - Water	68	06/03	67	04/22	66	06/12	64	06/30	64	07/01
08-081-0003	Elk Springs	65	09/07	64	07/23	64	09/04	63	06/03	61	01/30
08-083-0006	Cortez	62	04/22	62	07/01	61	05/14	61	05/15	60	05/12
08-085-0005	Paradox	63	06/03	63	06/12	62	04/27	61	06/24	60	05/31
08-123-0009	Greeley - Weld Tower	76	07/20	75	07/23	74	07/05	74	08/30	72	07/02
08-051-9991	EPA - Gothic CASTNET	82	04/22	66	05/23	66	06/24	65	04/23	65	04/27
08-067-1004	USFS - Shamrock (thru 6/30)	73	04/22	71	04/21	70	05/23	66	04/09	66	06/03
08-067-7001	SUIT - Ignacio	74	05/23	73	04/22	71	06/03	69	05/28	69	05/29
08-067-7003	SUIT - Bondad	72	05/23	72	06/03	71	04/22	69	04/21	69	05/29
08-069-0007	NPS - Rocky Mtn. NP	74	09/06	70	04/23	68	09/04	67	04/22	67	07/01
08-083-0101	NPS - Mesa Verde NP	72	04/22	67	06/24	66	04/20	66	04/23	66	06/03
08-093-0002	USFS/BLM - Fairplay	n/a									
08-103-0005	BLM - Meeker	63	06/03	61	04/22	60	05/13	59	04/13	58	09/06
08-103-0006	BLM - Rangely	69	06/03	66	01/30	64	07/23	64	08/16	63	06/04

**NOTE:** Values above the level of the 70 ppb 8-hour standard are highlighted in yellow, above the 75 ppb standard in orange. **NOTE:** Data influenced by natural event values, if any, are included.

The 8-hour ozone standard is written such that attainment is met if the 3-year average of the 4<sup>th</sup> max. value from each of the 3 years is less than or equal to 70 ppb. This table provides information on the 4th max. values for 2015 and 2016, the current 4<sup>th</sup> max. value for 2017, the current 3-year average, and the max. possible level for 2017 in order to remain in attainment of the ozone standard. Based on the current values, projected max. possible levels for 2018 are also included.

AQS #	Site Name	2015 4 <sup>th</sup> Maximum 8-Hour Average Value (ppb)	2016 4 <sup>th</sup> Maximum 8-Hour Average Value (ppb)	2017 (thru 9/30) 4 <sup>th</sup> Maximum 8-Hour Average Value (ppb)	2015 - 2017 3-Year Average 4 <sup>th</sup> Maximum Value (ppb)	2017 Highest Allowable 4th Maximum 8-Hour Average Value (ppb)	2018 Highest Allowable 4th Maximum 8-Hour Average Value (ppb)
08-001-3001	Welby	69	66	68	67	77	78
08-005-0002	Highland	---	72	72	---	---	68
08-005-0006	Aurora East	68	66	69	67	78	77
08-013-0014	Boulder Reservoir	---	---	73	---	---	---
08-019-0006	Mines Peak (non-regulatory)	69	65	70	68	78	77
08-031-0002	CAMP	67	70	67	68	75	75
08-031-0026	La Casa	71	69	68	69	72	75
08-035-0004	Chatfield State Park	81	78	74	77	53	60
08-041-0013	Colo. Spgs. - USAF Academy	67	69	69	68	76	74
08-041-0016	Manitou Springs	65	66	70	67	81	76
08-045-0012	Rifle - Health	68	60	59	62	84	93
08-059-0005	Welch	75	75	75	75	62	62
08-059-0006	Rocky Flats - N	77	79	75	77	56	58
08-059-0011	NREL	81	83	76	80	48	53
08-059-0013	Aspen Park	70	73	68	70	69	71
08-069-0011	Fort Collins - West	75	76	75	75	61	61
08-069-1004	Fort Collins - CSU	69	70	66	68	73	76
08-077-0020	Palisade - Water	65	63	64	64	84	85
08-081-0003	Elk Springs	---	59	63	---	---	90
08-083-0006	Cortez	61	64	61	62	87	87
08-085-0005	Paradox	---	62	61	---	---	89
08-123-0009	Greeley - Weld Tower	73	67	74	71	72	71
08-051-9991	EPA - Gothic CASTNET	68	62	65	65	82	85
08-067-1004	USFS - Shamrock (thru 6/30)	68	65	66	66	79	81
08-067-7001	SUIT - Ignacio	68	71	69	69	73	72
08-067-7003	SUIT - Bondad	66	72	69	69	74	71
08-069-0007	NPS - Rocky Mtn. NP	69	69	67	68	74	76
08-083-0101	NPS - Mesa Verde NP	66	66	66	66	80	80
08-093-0002	USFS/BLM - Fairplay	67	65	n/a	---	80	n/a
08-103-0005	BLM - Meeker	64	59	59	60	89	94
08-103-0006	BLM - Rangely	66	61	64	63	85	87

**NOTE:** Values above the 3-year average 4<sup>th</sup> maximum 8-hour standard of 70 ppb are highlighted in red, above the 75 ppb standard in orange. **NOTE:** Data includes values that may be influenced by natural events.

## *October 5, 2017 Director's Report Addendum*

### 2017 CDOT Summit

- Planning Council and partners currently signed up for the October 23 CDOT Transportation Summit are: Julie Cozad, Sean Conway, Gerry Horak, Rob Casseday, Tom Donnelly, Barbara Koelzer, Kim Redd
- There are 2 seats remaining that will be filled with NFRMPO staff if Planning Council members do not fill the table

### Fix N I-25

- *The N I-25 Coalition meeting scheduled for October 4 at Southwest Weld from 6:30 - 8:00pm was cancelled*
- At the September 1 N I-25 Funding Subcommittee there was consensus to apply to INFRA for Segment 6 and not Segment 5
- The NFRMPO is still waiting for traffic analysis and confirmation of whether Segment 6 alone will compete
- The next N I-25 Funding Subcommittee meeting is scheduled for October 6 from *11:30 to 1:00 pm* at Perkins at Crossroads

### VanGo™

- *Petersen delivered the two remaining VanGo vans*
- The VanGo™ program is maintaining 90 percent occupancy with 6 vans having 7 registered riders, and 10 percent of vans with waiting lists
- *VanGo has nearly completed the Toyota door recall fixes*
- *All Dodge recalls have been completed*
- FTA accepted the VanGo National Transit Database (NTD) reporting on July 18. This reporting provides the capital funding to purchase vans
- The safety meeting was held on September 13 with 63 participants attending (a 10% increase compared to last year)
- CDOT made presentation on Park and Rides, Cone Zone Awareness, and I-25 Project updates
- The VanGo Coordinator met with the Vice President for Human Resources of Golden Aluminum to discuss starting up to two company paid vanpools between Greeley and Fort Lupton possibly growing to 100 employees

### NFRMPO Model Update

- The Request for Proposals for an update to the NFRMPO travel model was released on August 1
- *The NFRMPO received two proposals on September 26*
- *The Model selection committee met October 4 and negotiations with the preferred consultant team will begin on October 6*
- The Consultant team is expected to start in January 2018

### Land Use and Water Training

- The NFRMPO planning staff and Dawn Anderson from Evans, Kim Frick from Loveland, and Tom Parko from Weld attended a free two and a half day training (September 11-13) as a team learning to integrate land use and water resource planning sponsored by DOLA, the Sonoran Institute, Gates Foundation, Lincoln Land Institute and Keystone Policy Center
- *Two NFRMPO staff will meet with the Fort Collins team on October 16*
- *The NFRMPO team will meet on October 26 to formulate a plan*

## Front Range Rail

- Becky Karasko is the staff member for the NFRMPO on the FRR Commission
- *The Front Range Rail/SW Chief Commission met on September 8 with the next meeting planned for October 5*
- David Krutsinger, CDOT DTR will make a presentation on the Commission at the October Planning Council meeting

## Mobility Committees

- The Larimer County Senior Transportation Coalition will meet on October 5, the Larimer Mobility Committee will meet October 19 from 1:30 -3:00 pm at the NFRMPO office and Weld Mobility Committee will meet October 24 from 1:30-3:00 at the Greeley Chamber of Commerce and the next meeting will occur on October 24
- At the same time, the NFRMPO staff will have information on Air Quality and VanGo™
- The NFRMPO has communicated with 1,625 residents and visitors at Fort Collins Earth Day, Johnstown BBQ Day, Berthoud Day, FC Open Streets, Bike to Work Day, Eaton Day, LaSalle Days, Beef N Bean Day, Johnstown Senior Center, Severance Days, Corn Road Festival, Windsor Harvest Festival and Evans Heritage Day

<b>Completed Outreach</b>		
Fort Collins Senior Advisory Board	Fort Collins	3/8/2017
Commission on Disabilities	Greeley	4/4/2017
Senior Advisory Board	Loveland	4/5/2017
Senior Transportation Coalition	Fort Collins	4/6/2017
Disabilities Advisory Commission	Loveland	4/10/2017
Arc of Weld County Com. Trans. Team	Greeley	4/12/2017
Commission on Disabilities	Fort Collins	4/13/2017
Transportation Advisory Board	Fort Collins	4/19/2017
Citizens Transportation Advisory Board	Greeley	4/24/2017
Fort Collins Earth Day	Fort Collins	4/22/2017
Johnstown BBQ Day	Johnstown	6/3/2017
Berthoud Day	Berthoud	6/3/2017
Fort Collins Open Streets	Fort Collins	6/4/2017
Bike to work Day	Fort Collins, Loveland & Greeley	6/28/ 2017
Eaton Days	Eaton	7/8/2017
LaSalle Days	LaSalle	7/15/2017
Beef N Bean Day	Milliken	8/12/2017
Johnstown Senior Center	Johnstown	8/16/2017
Severance Days	Severance	8/19/2017
Corn Roast Festival	Loveland	8/25-26/2017
Windsor Harvest Festival	Windsor	9/3-4/2017
Evans Heritage Day	Evans	9/16/2017

<b>Planned Outreach</b>		
Taste of Timnath	Timnath	10/7/2017

### FHWA Certification

- *FHWA will provide the schedule for the NFRMPO Certification review at the October 11 CDOT/NFRMPO/FHWA/FTA Coordination meeting*

### VW Proposed Partial Consent Decree

- Please send any comments on the Colorado Implementation Plan for the VW settlement to [cdphe.commentsapcd@state.co.us](mailto:cdphe.commentsapcd@state.co.us).
- The deadline for comments is October 13, 2017
- For more information, <https://www.colorado.gov/pacific/cdphe/VW>
- *An updated letter with comments was sent out on October 5*
- *The Update includes supporting Transfort's electrification of the CSU routes*

### TAZ updates

- The NFRMPO met with Fort Collins on Monday September 18
- They will meeting with Estes Park and RMNP, Loveland, Mead, Wellington and Larimer County in October
- *The NFRMPO staff will also meet with the transit leadership from Estes Park and RMNP*

### NoCo Bike and Ped Collaborative

- The group discussed projects to use Non-motorized funds being returned to the NFRMPO at their September 13 meeting
- They plan to make a recommendation to TAC at their October 11 meeting

### Staff

- Christina will be offering two staff trainings in October
- *"How to have influence" on October 9*
- *"Get Stuff Done" on October 10*

### Travel Time collectors

- The MPO requested proposals to provide travel time collectors to cover the Regionally Significant Corridors as required by FHWA
- The responders were un able to meet the September 25 deadline for delivery
- *The preferred supplier has agreed to extend pricing until March 31, 2018*
- *The project will need to be amended into the FY 2018 UPWP*

### Bike/Pedestrian Counters

- The NFRMPO purchased three additional bicycle and pedestrian counters - two permanent and one additional mobile for use in the region which arrived on September 25
- The Town of Windsor is currently using the non-motorized counters
- Weld County and Ella Romero 4-8 Campus are interested in pedestrian counts along E 20<sup>th</sup> and Cherry Streets. There is no pedestrian infrastructure along either street currently
- For more information on reserving the counters, contact Ryan Dusil at 970-224-6191 or by email [rdusil@nfrmpo.org](mailto:rdusil@nfrmpo.org)

### Council/Board Presentations

- *Please let me know if you would like me to make a presentation on MPO efforts underway to your board or council*

## Planning Council

- Please let Renae know if you do not need a mailed packet to reduce paper

## NFRMPO Documents available electronically or as printed copies

- To assist with public outreach, staff has designed and printed the following documents:
  - NFRMPO and VanGo™ Brochures
  - 2016 Annual Report
  - Updated 2040 RTP Brochure
  - Mobility Postcards
  - NFRMPO Public Involvement
  - Brochure
  - Mobility Rider's Guide
  - Spanish Mobility Rider's Guide
  - Quarterly Newsletter
  - VanGo Dashboard

NFRMPO Tasks	2017						2018										
	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Freight Northern Colorado Plan			Obtain Freight data from CDOT Consultant			Finalize Draft Document	TAC Review	P C Discussion TAC Recommendations	Planning Council Approval								
UPWP		FHWA & FTA approval of UPWP CDOT approval of CPG contract	New UPWP takes effect		Complete FY2017 Year End Report & 2017 Annual Report	Initiate FY 2019 Budget Development	Midyear Review Initiate Task updates	FY2019 Tasks to TAC	Budget to Finance CommitteeTAC recommendations Tasks approval Scope to CDPHE	Planning Council approval of FY2019 UPWP & FY2019 Budget	FY2019 UPWP and CPG & STP Scopes of Work to CDOT	CDOT submittal of UPWP to FHWA	FHWA & FTA approval of UPWP CDOT approval of CPG contract				
Traffic Analysis Zone (TAZ) updates			Initiate AQ TAZs meetings outside MPO boundary														
2045 Regionally Significant Corridors				Evaluate and update Regionally Significant Corridors				TAC review	TAC Discussion	PC Discuss TAC rec	PC approval						
2045 Socio-Economic Forecast			Continue UrbanSim testing and refine forecasting process working w DOLA	Initiate the NFRMPO area Population, Employment forecasts	Initiate the AQ area 2045 Population, Employment forecasts	Obtain Community input on forecasts											
Coordinated Public Transit/Human Services Transportation Plan		Larimer and Weld Mobility Committees (LCMC & WCMC) review draft Plan	PC Plan Discussion LCMC/WCMC Review Plan review/Recommend to Planning Council	Presentation to TAC	Planning Council Approval of Plan												
2045 Regional Transit Element (RTE)			Initiate Data Collection	Plan Steering Committee meets			Plan Steering Committee		Draft Document	Plan Steering Committee	Refine Document	TAC Review	PC Discussion TAC recommends	PC Approval			
2045 Model Development		Draft RFP	Model Improvements Presentation to TAC	Consultant Selection	Consultant under Contract												
Public Outreach	Beef N Bean Day, Severance Days, Loveland Corn Roast Festival	Windsor Harvest Festival, Evans Heritage Day	Taste of Timnath		Identify Public Outreach opportunities for 2018												Public Outreach Visioning for RTE and RTP



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[www.VanGoVanpools.org](http://www.VanGoVanpools.org)

#### *MPO Planning Council*

*Mayor Kevin Ross- Chair  
Town of Eaton  
Commissioner Tom Donnelly- Vice Chair  
Larimer County  
Jennifer Baker  
Town of Berthoud  
Mayor John Morris  
City of Evans  
Mayor Pro-Tem Gerry Horak- Past Chair  
City of Fort Collins, Transfort  
Town of Garden City  
Robb Casseday  
City of Greeley  
Troy Mellon  
Town of Johnstown  
Paula Cochran  
Town of LaSalle  
Joan Shaffer  
City of Loveland  
Mayor Pro-Tem Linda Measner  
Town of Milliken  
Mayor Don Brookshire  
Town of Severance  
Aaron Pearson  
Town of Timnath  
Commissioner Sean Conway  
Weld County  
Mayor Kristie Melendez  
Town of Windsor*

*Chris Colclasure  
CDPHE- Air Pollution Control Division  
Kathy Gilliland  
Transportation Commission*

#### *MPO Staff*

*Terri Blackmore  
Executive Director  
Becky Karasko  
Regional Transportation Planning  
Director  
Renae Steffen  
Administrative Director  
Crystal Hedberg  
Finance and Operations Manager*

October 5, 2017

Chris Colclasure  
Colorado Department of Public Health and Environment (CDPHE)  
Air Pollution Control Division  
4300 Cherry Creek S Drive  
Denver, CO 80246

Re: Volkswagen Settlement Proposed Mitigation Plan

Dear Mr. Colclasure:

The North Front Range Transportation and Air Quality Planning Council (NFRT&AQPC) is supportive of the Colorado Department of Public Health and Environment's (CDPHE) efforts to bring the North Front Range and Denver Metro Area into compliance with the national Ozone standards.

The NFRT&AQPC would also like to thank CDPHE's proactive preparation of the Proposed Mitigation Plan. As noted at the Public Hearing held on September 18, your efforts have put the State of Colorado in a position to use the Settlement funding as soon as it becomes available.

As noted in the Settlement, the funding is to be used to reduce Nitrogen Oxides (NOx) in areas most impacted by the noncompliant VW vehicles and to reduce pollution in the areas where Environmental Justice (EJ) populations are concentrated. Many of the comments made at the Public Hearing were from EJ populations requesting relief from public bus pollution.

The NFRT&AQPC supports spending the Settlement funds on projects that will benefit the area where the majority of the polluting vehicles were located - along the Front Range. Additionally, the NFRT&AQPC supports concentrating the fueling infrastructure along the corridors identified as Alternative Fuel Corridors by the Colorado Department of Transportation (CDOT) and local communities in 2016.

The transit agencies within the North Front Range all have buses within their fleets which are operating beyond their useful life. The NFRT&AQPC supports using 18 percent of the Settlement funds for transit. The NFRT&AQPC recommends CDOT take public comment on their process for allocating these transit funds. The NFRT&AQPC strongly recommends CDPHE track where projects awarded funding are located and to reallocate Settlement funds if the majority of the funds are not spent in Front Range communities.



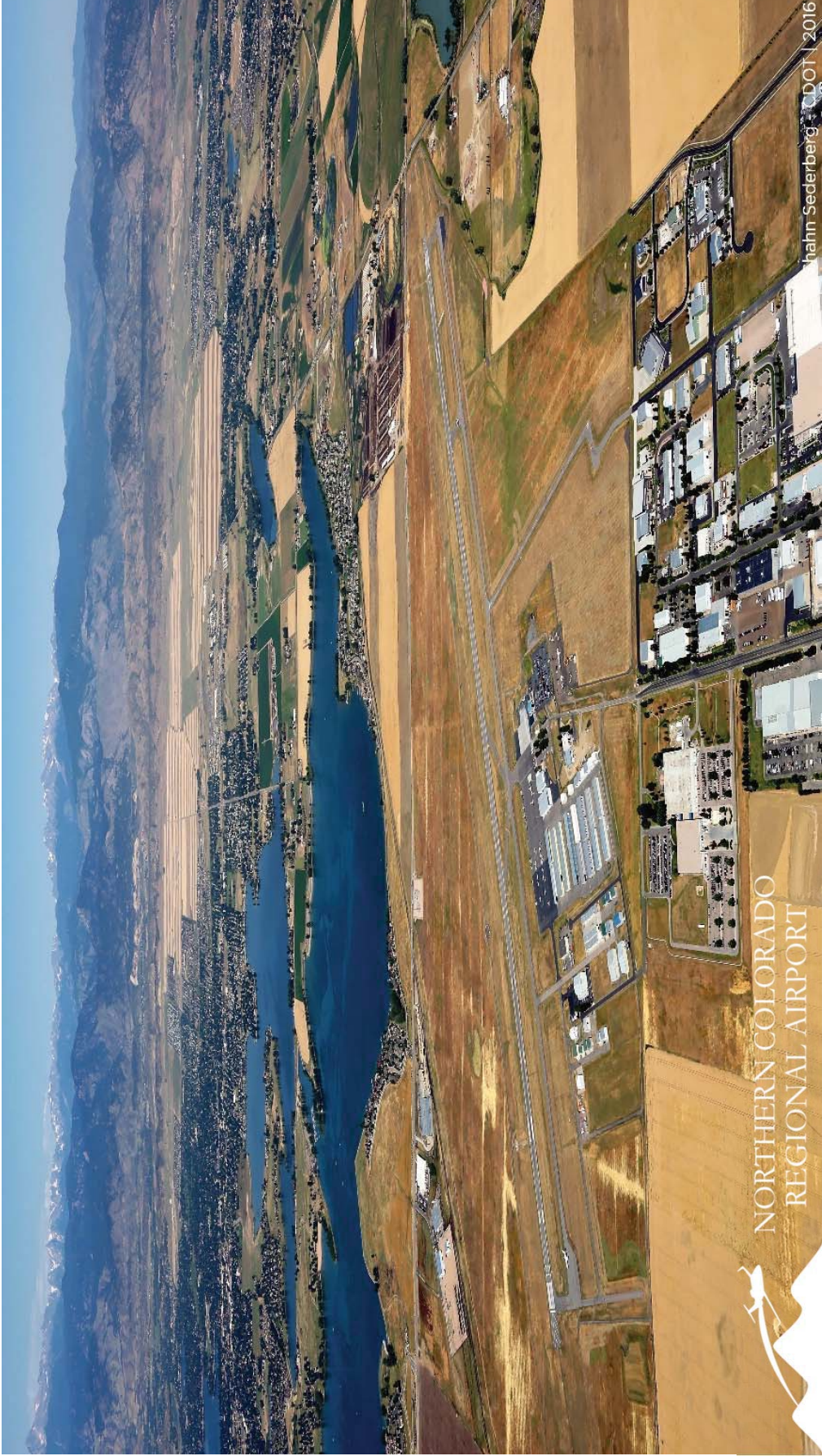
The NFRT&AQPC supports electrification of transit vehicles in the Ozone Nonattainment Area to support efforts to meet the national Ozone Standards. Transfort, the City of Fort Collins transit provider, has submitted an application to the Federal Transit Administration (FTA) for electrification of the HORN route on the Colorado State University (CSU) campus, in partnership with CSU. Although, it was not awarded by FTA, Transfort is very interested in moving this project forward given the age (16 years) and pollution contribution by the current vehicles.

Lastly, given the fact that the Denver Metro and North Front Range are not in compliance with the national Ozone Standards for 2008 or 2015, the NFRT&AQPC recommends CDPHE and CDOT expedite the expenditure of the VW Settlement funds in the State.

Thank you for your consideration.

---

Kevin Ross, NFRT&AQPC Chair  
and Mayor of the Town of Eaton



NORTHERN COLORADO  
REGIONAL AIRPORT





— C O L O R A D O —  
**Remote Tower**  
— P R O J E C T —



Increasing Capacity and Reducing Risk Through Innovation

NFRMPO Meeting

October 5, 2017

# Airport Background

- Airport was constructed in 1963 through a federal grant program
- Ownership & support is a 50/50 split between Fort Collins & Loveland
- 1 of 12 commercially certified airports in Colorado
- Serves as a regional gateway for commerce and is part of the regional transportation system
- Is now the busiest airport in the state without an air traffic control tower, according to CDOT

# Problem: Capacity

- Area population growth results in higher demand for all modes of transportation
  - Downtown Fort Collins Airport 2007 closure – 126 aircraft displaced
  - Greeley Airport is the only other public airport in Northern Colorado
- Aircraft diversity and traffic volume elevate the need for ATC at FNL
  - Aircraft range from small single pilot aircraft to 200 passenger airliners
  - Traffic volume is approximately 85,000 – 95,000 takeoffs & landings annually
- Activity growth coupled with a lack of local Air Traffic Control (ATC) increases operational risk
  - Similar to a vehicle intersection requiring a stoplight
  - A solution is needed to avoid creating a less than desirable risk for aircraft operators

# Solution: Air Traffic Control

- Traditional tower
  - \$8 million estimated construction cost with O&M averaging \$200K annually
  - Higher elevation and longer runway lengths increase cost associated with installing and operating a tower
- Towers in the past were funded through congressional earmarks
  - Congressional earmarks were eliminated in 2011
  - Front Range Airport East of Denver installed a tower in 2005 at a cost of \$7.2 million (building & equipment)



# Remote Air Traffic Control Tower = Innovation

- CDOT Division of Aeronautics has been innovative and is a leader in the nation on seeking and implementing enhancements to the Colorado aviation system
  - Mountain Automated Weather Observation Systems
  - Implementation to a radar supplementing tracking system for mountain airports
  - Remote Air Traffic Control Tower (rTower)
- The rTower concept replaces a tall and costly structure with technology that can be optimized for airport layouts
  - Lowers cost for capital infrastructure, operations, and maintenance
  - Enhanced safety
- European Countries and Leesburg Airport in VA is testing similar systems using video only based technology
- Northern Colorado was selected to be part of the first FAA Remote Tower Project with the goal of being the first certified system to incorporate video and radar

# Remote Air Traffic Control Tower Partners



**SEARIDGE**

TECHNOLOGIES



**NORTHERN COLORADO  
REGIONAL AIRPORT**



# Concept of Operation

- In order to certify the Remote Tower System, it must satisfy all of the criteria that a traditional tower provides
- It is expected that the rTower will include enhanced capabilities that can easily be modified to allow for inclusion of more than just the basic technological need.
  - Multiple location video feeds for enhanced surface condition monitoring
  - Forward Looking Infra Red (FLIR) - Future
  - Automatic Dependent Surveillance – Broadcast (ADS-B) – Future
- This system will be installed onsite at the Airport for sake of simplicity during certification.
  - Future rTower controller facilities can be located offsite.

# Locations of Camera Mast Installations



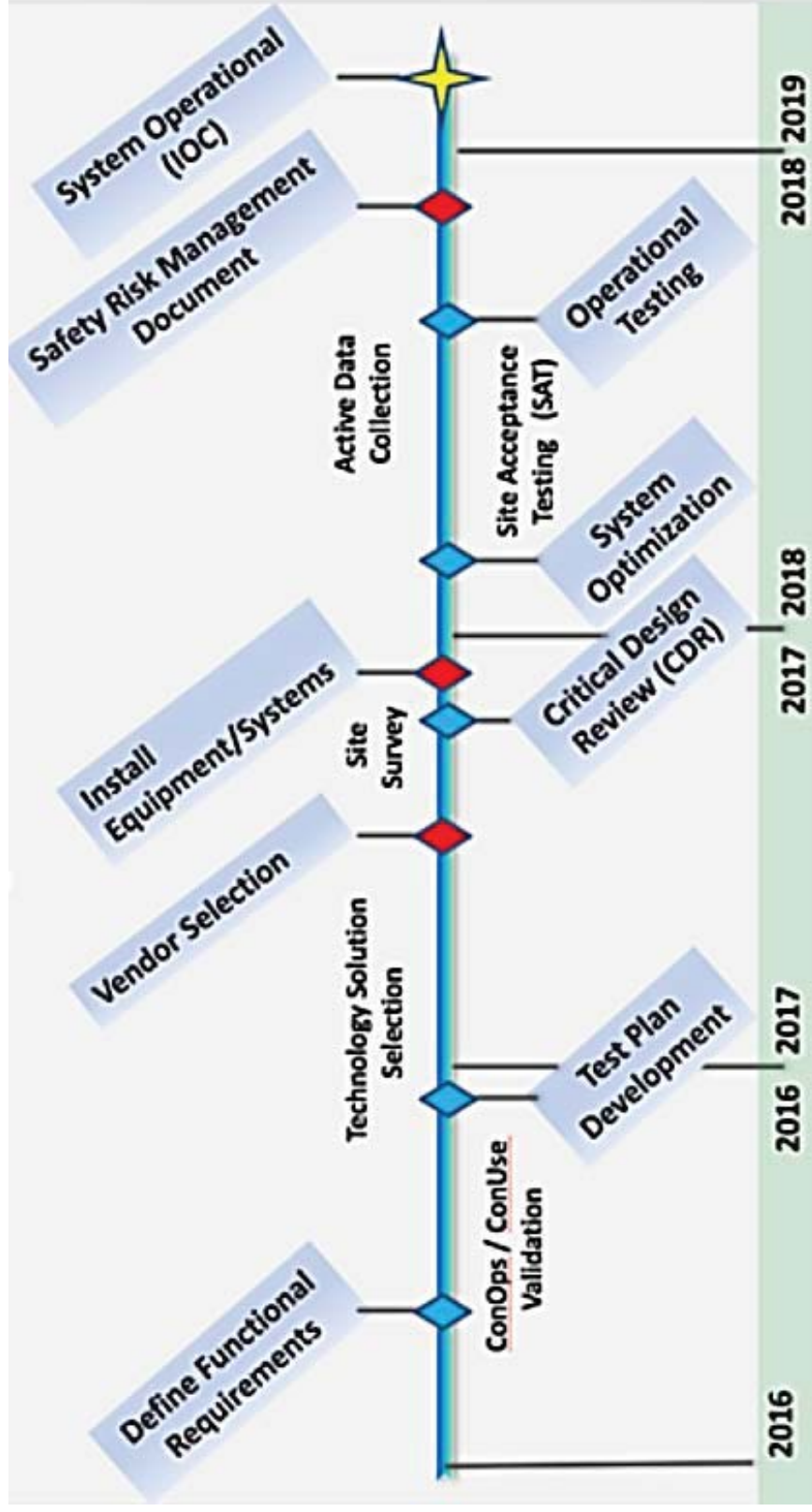
# Controller Interface



# Concept Video



# Project Timeline



# Q & A





## **Colorado Road Usage Charge Pilot NFR MPO Council Meeting**

*October 5, 2017*



### **Agenda**

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- **Why is an alternative funding mechanism needed?**
- **What is a Road Usage Charge (RUC)?**
- **The Colorado Road Usage Charge Pilot**

# Why is an alternative funding mechanism needed?

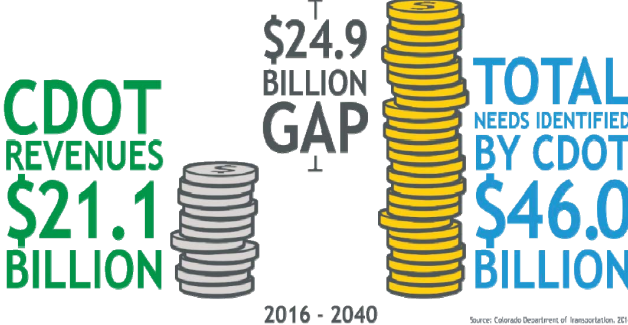
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## Funding Shortfall

Estimated a gap of \$1 billion annually over the next 25 years

### OVERALL SYSTEM FUNDING GAP OVER THE NEXT 25 YEARS



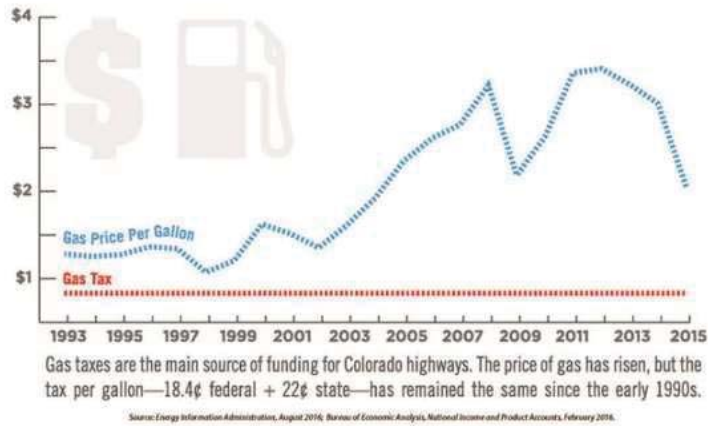




## Unsustainable Gas Tax Model

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- Lack of gas tax increase
- Gas tax not indexed to inflation



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## What's the Problem

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Increased Vehicle Fuel Efficiency



Declining purchasing power



Increasing Population

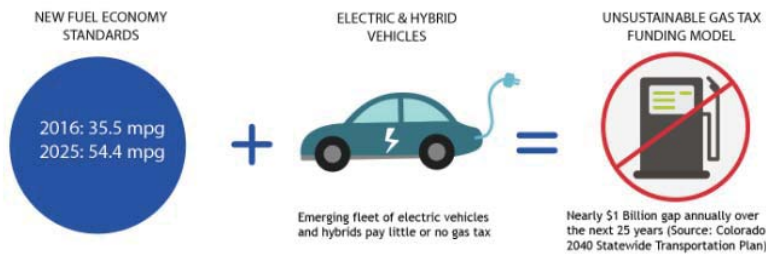
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## Increased Vehicle Fuel Efficiency

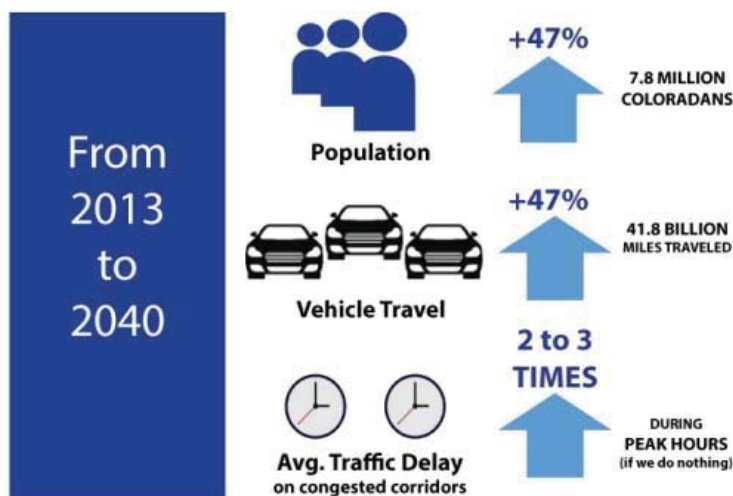
- **Increased Vehicle Fuel Efficiency Standards**
  - New vehicles in 2016 have an average fuel economy of 35.5 mpg
  - 2025 that standard increases to 54.4 mpg
- **Emerging fleet of alternative fuel vehicles**



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## Increasing VMT Population



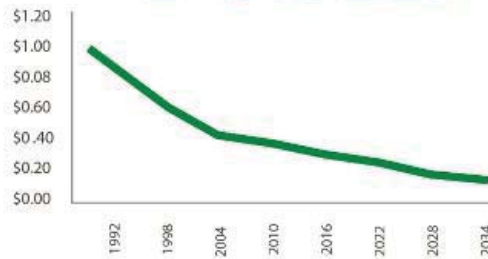
Source: Colorado Department of Transportation and the Colorado Department of Local Affairs, December 2016

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## Declining Purchasing Power

# PURCHASING POWER



*In 1992 one tax dollar collected would purchase one dollar of construction work. By 2034, that same dollar will likely purchase less than 20 cents of goods and labor.*

Source: Colorado Department of Transportation, 2014



## Declining Purchasing Power

	Cost in 1991	Cost in 2016
Cost of a New Home	\$125,841	\$366,900
Cost of a New Car (average Size)	\$9,989	\$34,846
Cost of a Color Television	\$660	\$1,997
Cost of a Pound of Bacon	\$1.95	\$4.99
Cost of a Gallon of Milk	\$2.80	\$3.43
Colorado Gas Tax (per gallon)	\$.022	\$.022

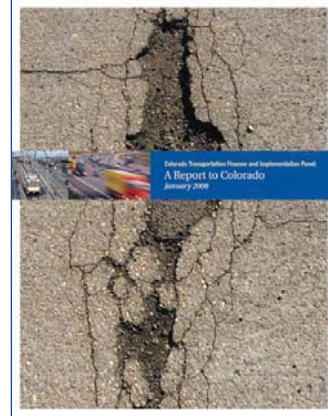
**\$1 in 2016 is worth approximately 56.5 percent less than it was in 1991**



## Funding Mechanisms to Close the Funding Gap

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- **Colorado Transportation Finance and Implementation Panel (2008)**
- **39 Options Considered – 5 Final**
  - Highway and Bridge User Fee
  - Vehicle Rental Fee
  - Motor Fuel Tax Increase/Indexed
  - Sales and Use Tax Increase
  - Severance Tax increase
- **Vehicle Miles Traveled (VMT) Fee**
  - Otherwise known as Road Usage Charging (RUC)
  - Pilot VMT Program supported by Panel



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What is a Road Usage Charge?



# What is a Road Usage Charge (RUC)?

- **A user charge based on miles traveled**

- Cents per mile driven as opposed to the current excise tax on fuel consumed (cents per gallon)
- Treats roads like utilities (pay for what you use)
- Replaces the fuel tax

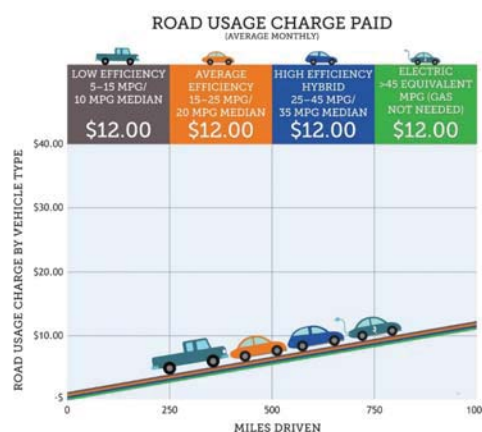
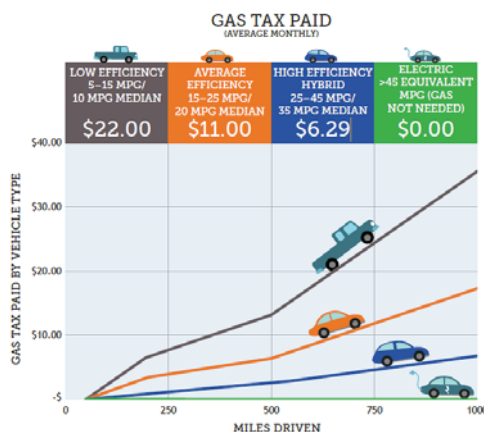
- **Also called:**

- Road Usage Fee (RUF)
- Mileage Based User Fee (MBUF)
- Vehicle Miles Traveled (VMT Fee)



# How will RUC Address the Problem?

**All vehicles pay an equal amount for the same miles traveled**





## Common Misconceptions about RUC

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- **RUC is another tax charged by the government**
  - Merely changes the mechanism
  - Restores equity that all users pay, instead of only gasoline or diesel vehicles
- **Driver privacy is sacrificed**
  - User has a choice of multiple methods for mileage measurement
    - From basic mileage counting to advanced GPS devices to no technology
  - Regardless of the option selected, privacy can be protected

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## The Colorado Road Usage Charge Pilot Program (RUCPP)



# Colorado Road Usage Charge Pilot

## • Pilot Program Purpose

- Create a sandbox environment in which legislators, CDOT administrators, policy-makers, can experience elements of an operational RUC
- Identify and evaluate potential issues related to implementation of a full system
- Test the feasibility and acceptability of various mileage reporting methods/technologies for Colorado
- Solicit feedback from pilot participants for future system design



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# Mileage Reporting Options

## • Odometer Reading

- Participants who select this option will report their vehicle's odometer reading via the account management website or mobile app.



## • Non-GPS-Enabled Mileage Reporting Device

- Participants who select this option will receive a device to plug into their vehicle's OBD-II port. This method uses a non-GPS device which counts distance traveled and gasoline consumed, but does not assess location.



## • GPS-Enabled Mileage Reporting Device

- Participants who select this option will receive a device to plug into their vehicle's OBD-II port. This method uses location-based data to calculate total miles driven with differentiation between in-state and out-of-state roads.

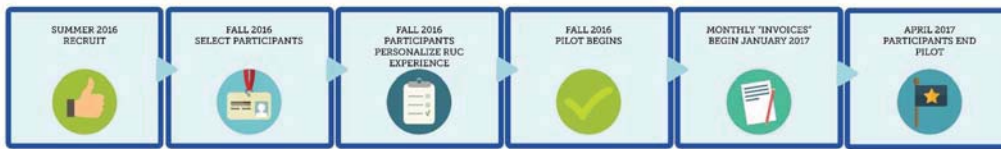


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## Colorado Road Usage Charge Pilot

- 4-Month Statewide Pilot (December 2016 – April 2017)
- 100-participants consisting of transportation leaders, officials, media, and general public
- Geographic (Urban/Rural) and Vehicular (MPG) stratification
- Payments and associated revenues were simulated



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## Participant Activities during Pilot

- **Enroll in the Pilot**
  - Choose Mileage Reporting Option
  - Create account/register vehicle with Account Manager
- **Install Mileage Reporting Device (if applicable)**
- **Drive/Report Mileage**
- **Receive/Review invoices**
- **Submit “mock” payments (simulated for pilot)**
- **Complete surveys**
- **Closeout account/return**

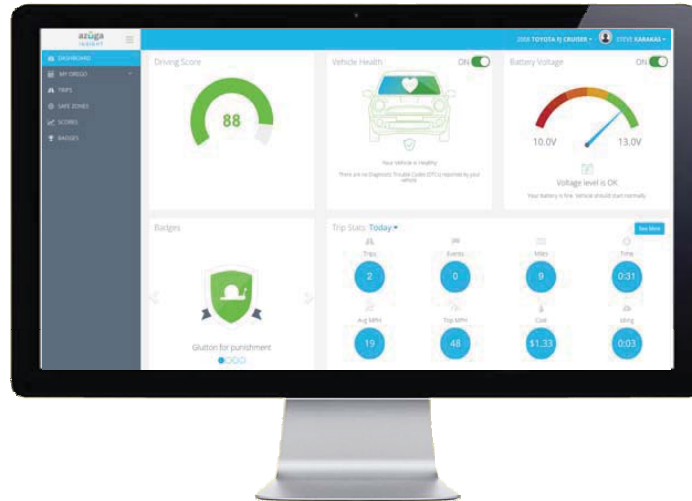
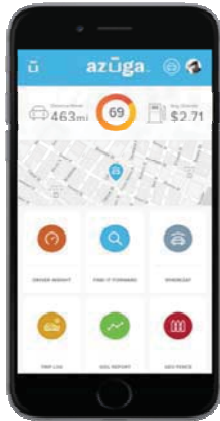


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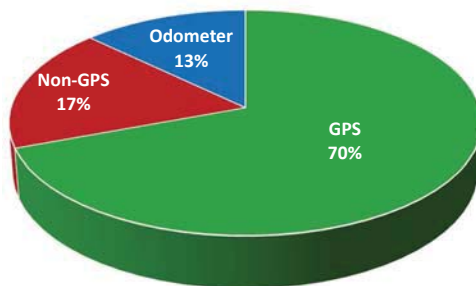


## MRD Website/Mobile App



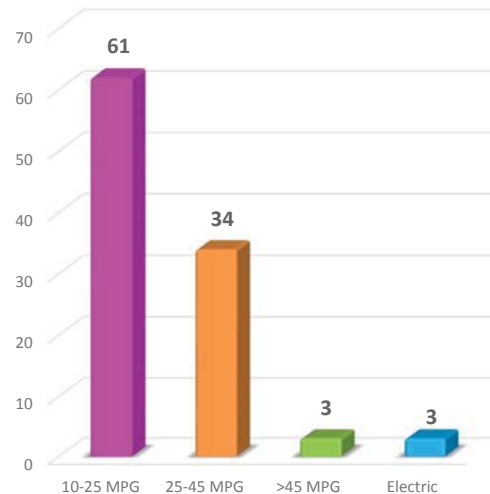
## Colorado Road Usage Charge Pilot Enrollment

Selected Mileage Reporting Options



GPS Option most popular

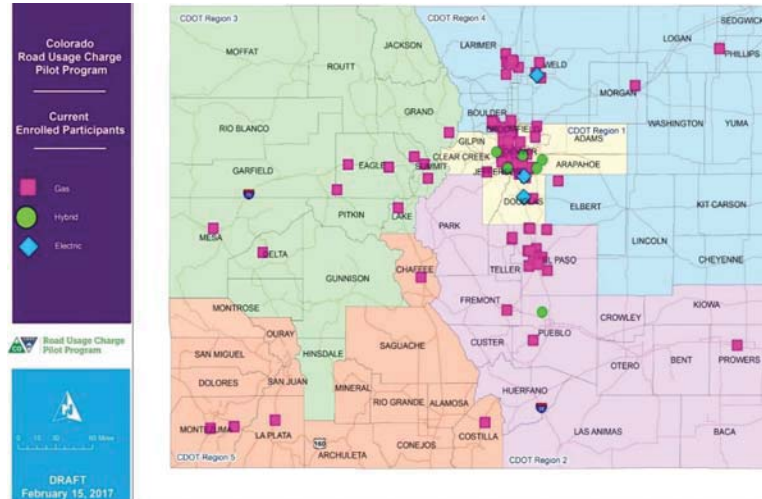
Vehicle Stratification





## Colorado Road Usage Charge Pilot Enrollment

- 100 Participants/101 vehicles enrolled (30 stakeholders/71 general public)
- Geographic Stratification (27 counties, urban/rural)
- Vehicular Stratification (Gas, Hybrids and Electrics)



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## Issues Identified to Address

- **Improve Roadway Ownership Data**
- **Address OBD II Port Competition**
- **Include Multiple Fuel Types**
- **Examine Operations**
  - Revenue Collection
  - Administrative Costs
- **Identify Barriers to Public Acceptance**
  - Urban/Rural Equity Perceptions
  - Data Privacy Concerns

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## Next Steps

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- **Continue to Progress Research**
- **Pilot with Farm Bureau for Agricultural Community**
- **Coordination with Other State Agencies on Next Level**
  - Department of Revenue
  - Office of Information Technology
- **Public and Stakeholder Focus Groups and Education**
- **White Papers on Issues**
- **Leverage RUC West on Regional or Industry Issues**

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## Questions/Open Discussion

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## North Front Range MPO Area - Project Status Updates (5 Oct 2017)

<b><u>Roadway / Segment</u></b>	<b><u>Status</u></b>
<b>SH14</b>	
US287 PR at Ted's Place	<i>Construction is underway</i>
Poudre Canyon Guardrail	<i>Construction is underway</i>
US287 to I-25 Surface Treatment	<i>In Design</i>
<b>I-25</b>	
Crossroads Blvd Interchange / Bridges	<i>Construction is underway</i>
Truck Climbing Lane	<i>Construction is wrapping up</i>
Design /Build	<i>Proposals under review</i>
Fort Collins North Cable Rail	<i>In Design</i>
Ramp Metering- Harmony Rd SB SH392 NB/SB	<i>Project is complete</i>
<b>US34</b>	
Big Thompson Canyon Flood Repair	<i>Canyon is closed for Winter Construction</i>
US34 Business in Greeley Surface Treatment	<i>In Design</i>
PEL Study	<i>Progressing</i>
<b>SH60</b>	
US287 to Milliken Resurfacing	<i>Construction is underway</i>
WCR 40 Intersection Improvements	<i>In Design</i>
SH257 PR (Milliken) – Little Thompson Structures	<i>Awarded to contractor</i>
<b>US85</b>	
Eaton to Ault- ADA ramps & Resurfacing	<i>Construction is underway</i>
<b>US287</b>	
SH1 to LaPorte Bypass	<i>Construction is underway</i>
Foothills Parkway Signal Upgrade	<i>In design</i>
<b>SH392</b>	
US85 Intersection	<i>Construction is wrapping up mid-Oct 2017</i>



## **STAC Summary – September 22<sup>nd</sup>, 2017**

- 1) **Introductions & August Minutes** – *Vince Rogalski (STAC Chair)*
  - a) August 2017 STAC Minutes approved without changes.
- 2) **Transportation Commission Report** – *Vince Rogalski (STAC Chair)*
  - a) Transportation Commission (TC)
    - i) Commissioners discussed potential PD 14 and TIGER grant project submissions.
    - ii) Discussion of Bustang Outrider program expansion.
- 3) **TPR Reports** – STAC Representatives
- 4) **Federal and State Legislative Report** – *Herman Stockinger, Andy Karsian, & Ron Papsdorf (CDOT Office of Policy & Government Relations)*
  - a) State
    - i) The TLRC discussed a number of large transportation projects across the state, including Central 70, some of which may be eligible for SB 267 funding.
    - ii) The Governor has called a special session to fix a drafting error in SB 267 that created unintended funding cuts for special districts, including RTD.
  - b) Federal
    - i) The President has nominated a new FHWA Administrator, Paul Trombino III of Iowa.
    - ii) Congress passed a continuing resolution to extend FY17 operations until December 8<sup>th</sup>.
    - iii) FAA authorization expires on September 30<sup>th</sup> unless extended by Congress.
- 5) **Central 70 Update** – *Tony DeVito (CDOT Central 70 Project Manager)*
  - a) Project overview: add one additional Express Lane in each direction, remove 53-year old viaduct, lower interstate, construct 4-acre park over the interstate, and restripe from I-25 to Brighton Blvd.
  - b) Two lawsuits currently underway by the Sierra Club and Kyle Zeppelin (local developer).
  - c) Kiewit-Meridiam Partners (KMP) selected as the project vendor.
  - d) Project budget of approximately \$1.2 billion:
    - i) \$850 million from Bridge Enterprise
    - ii) \$180 million from SB 228
    - iii) \$50 million DRCOG contribution
    - iv) \$37 million Denver contribution
  - e) Financial close anticipated in Winter 2017 with construction to start in Spring 2018.
  - f) STAC Discussion: Representatives expressed concern about the impact of the project on other Bridge Enterprise needs, inquired about the specific commitment for local neighborhood training and employment, and asked about preparations for potential detours during the construction period.
- 6) **Policy Directive 14 Update** – *Jeff Sudmeier & William Johnson (CDOT Division of Transportation Development)*
  - a) PD 14 establishes performance goals for CDOT and are assessed annually for progress and potential changes.
  - b) Safety challenges are continuing, in part due to growing VMT and in part based on increasing driver distraction.
  - c) Surface Treatment and Bridge Condition targets currently being met but longer-term trends indicate that system condition will decline in the future.
  - d) Areas in which CDOT is meeting current targets include: culverts, tunnels, and geohazards.
  - e) Areas in which CDOT isn't meeting current targets include: buildings, fleet vehicles, and walls.



- f) STAC Discussion: Representatives asked about potential solutions to the distracted driving issue and expressed concerns about the geographic equity of surface treatments and bridge repairs. Staff promised to return with additional data to facilitate that discussion in the future.
- 7) **INFRA, TIGER, and SB 267** – *Debra Perkins-Smith (CDOT Division of Transportation Development) and Herman Stockinger (CDOT Office of Policy & Government Relations)*
  - a) Applications for TIGER are currently open (with \$500 million available nationwide) and due by October 16<sup>th</sup>.
    - i) Potential projects include: Amtrak Southwest Chief, SH 13 Reconstruction, and US 160 Towaoc Passing Lanes.
  - b) Applications for INFRA are currently open (with \$1.5 billion available nationwide) and due by November 2<sup>nd</sup>.
    - i) Potential projects include: I-25 Denver to Colorado Springs Connection, I-70 Westbound Peak Period Shoulder Lanes, I-25 North: SH 56 to SH 402, US 85: Centennial Highway Improvements, and CDOT Connected Vehicle Ecosystem.
  - c) Applications are strengthened by higher local match levels, so CDOT is interested in boosting that element wherever possible.
  - d) STAC Discussion: Representatives discussed the best way to select competitive projects and estimate costs, while also expressing concern about overcommitting the available SB 267 funds. Staff shared lessons learned from previous competitive grants.
- 8) **STIP Lessons Learned** – *Jamie Collins (CDOT Office of Financial Management & Budget)*
  - a) Survey sent to 80 people from STAC, CDOT, and partner agencies in early June and 10 responded.
  - b) Key findings:
    - i) STIP should be easier to understand, provide more project detail, and be more easily searchable. Communication is critical, particularly around funding constraints, data-driven project selection, and transportation terminology.
  - c) STAC Discussion: *No comments.*
- 9) **Other Business** – *Vince Rogalski (STAC Chair)*
  - a) The next STAC Meeting will be held on October 27<sup>th</sup> at CDOT Headquarters in Denver.
- 10) **STAC Adjourns**