

## Planning Connections - July-August 2017

*CDOT planning news you can use.*

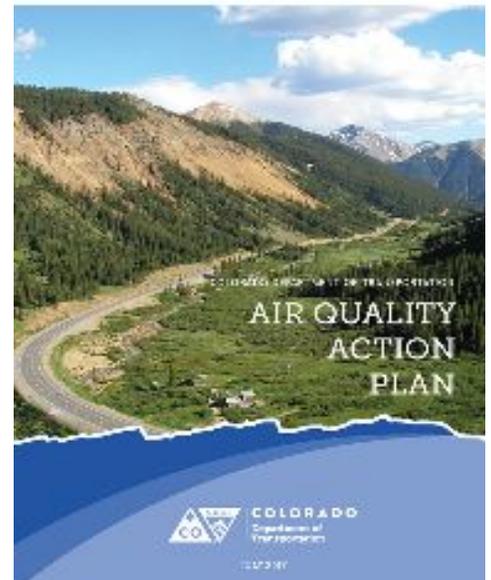
### Joint Effort Produces Updated Air Quality Action Plan

Environmental Programs Branch and the Multimodal Planning Branch joined forces to produce the 2017 Air Quality Action Plan (Plan), which was posted [online](#) in July. The plan was undertaken for two reasons:

- To respond to a planning factor to reduce greenhouse gas emissions added in the state FASTER legislation in 2009; and
- To set and monitor air quality performance measures required in the past two federal transportation authorization laws, the 2012 MAP-21 and the 2015 FAST Act.

The 2017 Plan updates the 2012 Plan by reporting what has occurred since the previous plan was produced. But, other than that, the new Plan was created from scratch. The plan focuses on all air pollution, not just greenhouse gas emissions, and on external CDOT strategies that have the potential to improve air quality. Every year the appendices will be updated to monitor air quality improvement efforts and results. The document itself will be updated when necessary.

The Air Quality Action Plan has five sections: the Plan Goal to improve air quality from the transportation sector statewide; background on laws and regulations, federal efforts, and CDOT roles; performance measures to track emissions and gas consumption; CDOT programs and initiatives; and appendices (past and future strategy tables and results). Rose Waldman and Sarah Mitchell from Environmental Programs and Michelle Scheuerman, Gail Hoffman, Kathleen Collins, and Mike King from the Multimodal Planning Branch worked on the plan.



### CDOT Preparing for Impacts of Connected and Autonomous Vehicles

Connected and automated vehicles (CAVs) and other emerging technologies are likely to dramatically alter transportation over the coming decades in both predictable and unpredictable ways. As a result, CDOT's planning efforts need to accommodate for the impacts of CAVs and other technologies in a manner that most effectively responds to these changes, promoting their benefits while mitigating their negative impacts. In order to accomplish this goal, CDOT has been working on a multi-pronged approach to address technology in the planning process. Some elements include:

- Creating documents to encourage the consideration of emerging technologies in all transportation planning activities (including at the project level) and for implementation of CDOT's Managed Lanes Policy (PD 1603) that explicitly addresses issues related to technology, including CAVs.
- Engaging in a long-range scenario planning exercise to explore the impacts of CAVs and other technologies on the mobility, safety, mode choice, and future investment needs of the statewide transportation system as part of developing the 2045 Statewide Transportation Plan) and Regional Transportation Plans.
- Developing these templates, tools, and plans: a template for formally integrating technology considerations into the Planning and Environmental Linkage (PEL) process, new transportation modeling tools to incorporate CAV impacts into the Statewide Travel Model and corridor-level analyses, and a CDOT Smart Mobility Plan that will include a TSMO Technology Toolkit. The toolkit will catalogue viable infrastructure and operational technologies for consideration during planning and project development.

CDOT's approach will address technology in all stages of the planning process, from broad statewide policy setting and long-range transportation plan development through project development. These efforts will ensure that decision-makers at each step of planning benefit from the most current technology information available. In conjunction with its RoadX Program, CDOT has already initiated work on several elements and will continue to partner with other state agencies, technology experts, and the private sector to better forecast and adapt to the potential impacts of CAVs on Colorado's transportation system.



*Connected Vehicles – In this depiction of connected vehicles, warning systems and sensors alert drivers to traveling conditions around the vehicles. (Illustration courtesy of RoadX, CDOT)*

## Road Weather Manager Putting Meteorology Degree to Use

C. David Johnson graduated with a degree in meteorology from the University of Northern Colorado and started working for the CDOT permits office two months after graduation. After 10 years in the permits office as a permits writer, supervisor and manager, he began working as CDOT's first roadway weather manager in December 2016.



*C. David Johnson*

David's primary job is to help CDOT be better prepared for weather-related transportation issues. His duties include leading the Division of Maintenance in 48-hour pre-storm conference calls to better prepare for predicted storms; inventorying and mapping all of the state's roadway weather information system units; and mapping problem areas on state highways.

David is busier this summer than he was in the winter. "Questions that arise during situations like this (the sun eclipse and the summer months) include: Will cloud cover shift and cause traffic volume to move to better see the eclipse? Do fire burn scars impact flooding in the area and affect summer maintenance activities. . . I'm quickly learning that the role of winter operations involves year-round needs,"

he wrote. He's working on several projects this summer that will impact winter operations, such as testing remote friction sensors to fill in the gaps between stationary, road weather information system stations and trying to optimize where snow plows go during a storm based on shed locations, storm parameters, personnel, material and equipment availability, crash data, historic weather-related problem areas like icing, shading, blowing snow and extreme snowfall accumulations. Among other projects are those to change the Maintenance Decision Support System (MDSS) so that the route segments reflect actual snowplow routes and tightening up the Pathfinder program, a Federal Highways Administration program that improves communication of weather-related events among federal, state, and local authorities and the general public.

Lisa Streisfeld of Transportation Systems Management and Operations (TSM&O) and David also lead a Road Weather Management Team with members from Division of Maintenance, ITS, Colorado Transportation Management Center, TSM&O, and the Region Maintenance Offices. David and the team will be evaluating new roadway weather technologies, like integrated mobile sensors on fleet vehicles, and snow and ice data platforms which provide real-time information on roadway conditions.

## Updates in Brief

- **Safe Routes to Schools Applications:** On Aug. 1, FY2018 Colorado Safe Routes to School grant applications became available at <https://www.codot.gov/programs/bikeped/safe-routes>. Contact Leslie Feuerborn, Colorado Safe Routes to Schools program manager, with any questions or for additional information. Grant information sessions are being offered throughout

the state and via video conferencing. More details about the trainings and how to register can be found at <https://goo.gl/forms/WhEGoXvZ1PHAd7y02>.

- **CDOT Strava Data Sparks Interest:** In the month that CDOT has had Strava Metro bicycle and pedestrian trip data, 24 local agencies or bicycling and walking advocate organizations have been granted free access to it. CDOT purchased the Strava Metro data for a two-year pilot to determine its usefulness in improving planning, safety, and infrastructure for bicyclists and pedestrians throughout the state. Strava is a free mobile app and website that allows users to track their human-powered travel via GPS. Strava is providing CDOT with a variety of information, including bicycling and pedestrian counts, origin-destination information, and intersection wait times. [Ken Brubaker](#), CDOT bicycling and pedestrian facility engineer, said the data should help CDOT know if a specific road or trail is used more for commuting or recreation, and what kind of infrastructure might be required. For more information on Strava, visit [https://www.strava.com/?\\_branch\\_match\\_id=429400072114465095](https://www.strava.com/?_branch_match_id=429400072114465095)
- **Entrepreneur of the Year Award:** David Spector, director of the CDOT High Performance Transportation Enterprise, on July 13 received the Public-Private Entrepreneur Award from the American Road and Transportation Builders Association in Washington, D.C. The award was made for Spector's contributions to the progress of public-private partnerships (P3), express lanes, and other methods to finance and improve the state's transportation.
- **AASHTO Awards:** The following CDOT projects received awards from the American Association of State and Highway Transportation officials in 2017 and were acknowledged at July 20 meeting of the Transportation Commission:
  - I-70 Mountain Express Lane Project for operations excellence for a medium-sized project (CDOT Engineering Region 1);
  - SH 9 Colorado River South Wildlife and Safety for best use of technology and innovation for a medium-sized project (Region 3); and
  - US 36 Express Lanes for best use of technology and innovation for a large project (Region 1).
- **CDOT Accomplishments:** CDOT accomplishments in the goal areas of the *2040 Statewide Transportation Plan* - safety, mobility, economic vitality, and maintenance - are posted three to four times a year on the CDOT Colorado Transportation Matters website under [Progress Made](#). Check the webpage periodically so see if your work area is mentioned. Eventually the accomplishment wrap-ups will be moved to the Your CDOT Dollar website. Current items listed include applications for federal safety dollars; the success of the Winter Park Express and Bustang in improving mobility; and a three-agency publication about designing downtown city streets in a way that may improve a community's economic and physical health.

## Transportation Commission and STAC

- [Summaries](#) of the Transportation Commission's July 19-20 and Aug. 16-17 meetings are posted on the STAC webpage.
- Notes of the July 28 and August 25 STAC meetings will be available [here](#). Notes from the August 25 meeting will be included in the packet for the September 22 STAC meeting.

*If you have suggestions for topics or updates to submit, please send to [gail.hoffman@state.co.us](mailto:gail.hoffman@state.co.us). Copies of past issues of *Planning Connections* are available [here](#) under *Planning Process*.*