



# SUSTAINABILITY PROGRAM & ACTION PLAN

FISCAL YEAR 2016

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# SUSTAINABILITY MISSION STATEMENT

As part of CDOT's mission to "provide the best multi-modal transportation system for Colorado that most effectively and safely moves people, goods and information", CDOT's Sustainability Program is committed to developing and supporting a sustainable organization and transportation system.

While providing an effective and safe multi-modal transportation system and organization, CDOT will (with the support of the CDOT Sustainability Council):

- ❖ Strive to reduce its emissions, waste, energy use, and water consumption to preserve and enhance human, environmental, and fiscal health.
- ❖ Maximize and promote efficient resource use, reuse, recycling, and repurposing.

All CDOT employees and those working with CDOT are encouraged to become acquainted with and implement the strategies outlined in this document. CDOT will continue to comply with State requirements, continue to improve its environmental performance, and endeavor to be a leader in sustainable efforts.

# SUSTAINABILITY PROGRAM

## CHAPTER 1 INTRODUCTION

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Since 2005, Colorado Governors have been endorsing and establishing a statewide commitment to sustainability. Because of these mandates and the growing awareness of sustainability's value, the Colorado Department of Transportation (CDOT) is formalizing the concept and goals of sustainability through the development of this Sustainability Program. The objective of the CDOT Sustainability Program is to guide and communicate how CDOT intends to meet the goals outlined in the Colorado Greening of State Government Executive Orders. This document is intended to introduce the concept of sustainability, establish the groundwork for a sustainability program within CDOT, encourage a sustainable ethic throughout CDOT, outline measures that will enhance CDOT's sustainable performance for the year, and keep a summary of accomplishments from past years' sustainable activities.

This document will act as a multi-divisional resource for CDOT staff regarding:

- ❖ What the benefits are of implementing sustainable actions,
- ❖ Who to contact regarding sustainability initiatives,
- ❖ Disseminating ideas, providing information, and providing direction for implementation of sustainable actions,
- ❖ Where to locate information on the Executive Order, CDOT current sustainability direction, CDOT past sustainability accomplishments, and training opportunities for CDOT employees regarding sustainability opportunities by job type.

# CHAPTER 2 WHAT IS SUSTAINABILITY?

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## 2.1 DEFINITION

The most commonly recognized and accepted definitions of sustainability are from:

- ❖ A White House Council on Environmental Quality Report from 1981 which stated “If economic development is to be successful over the long term, it must proceed in a way that protects the natural resource base...”,
- ❖ The Brundtland Commission of the United Nations in 1987 which stated “development which meets the needs of current generations without compromising the ability of future generations to meet their own needs.”, and
- ❖ The Environmental Protection Agency which explains the concept as “Sustainability creates and maintains the conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations.”.

The model and goal of sustainability considers three primary principles: Social, Environmental, and Economic. These principles are evaluated based on the impacts each has on the other with regards to the present and the future.

To summarize and provide clarity on the goals and purpose of CDOT’s Sustainability Program, consider the following statement regarding Transportation and Sustainability from the Federal Highway Administration INVEST (Infrastructure Voluntary Evaluation Sustainability Tool).

“Transportation projects and programs serve many different, and sometimes competing, objectives. “Sustainability” is a concept that enables decision-makers to make balanced choices around these objectives. The three principles of the “triple bottom line” upon which sustainability is based—social, economic, and environmental—capture the broad range of transportation goals and objectives. In times of diminishing economic and natural resources, using sustainable approaches in transportation infrastructure will help us to continue to enhance quality of life and serve the transportation needs of the present without compromising the ability of future generations to meet their needs.”

## 2.2 SUSTAINABILITY PRINCIPLES

A Handbook for Developing Sustainability Performance Measures was developed for the Transportation Environmental Resource Council (TERC) Sustainability Subcommittee (<http://www.coloradodot.info/programs/environmental/transportation-environmental-resources-council-terc/terc-sustainability-subcommittee.html>). The TERC is a forum that CDOT and the Federal Highway Administration (FHWA) convened which allows local, state, and federal agencies the opportunity to discuss state transportation decisions and plan for environmental stewardship. For more information on the TERC Sustainability Subcommittee handbook and activities, see CDOT’s website as cited in the **References Chapter 5**.

As part of the Sustainability Handbook development, TERC member agencies participated in the development process to reach a consensus on terminology and definitions that might be used by their respective agencies. The sustainability principles listed in Table 1 were the result of a nationwide and worldwide search for common terminology used in sustainability programs and are encouraged to be used by Colorado agencies.

**Table 1. Sustainability Principles**

<p><b><u>Community WellBeing</u></b> - Engage in activities and implement policies that:</p> <ul style="list-style-type: none"> <li>❖ Provide reasonable access to people, places, goods, and services;</li> <li>❖ Strive for social, interregional and intergenerational equity, meeting the basic needs of all individuals including women, the poor, the rural, and the disabled; and</li> <li>❖ Protect the health, safety and quality of life of all people while recognizing unique community characteristics.</li> </ul> <p><b><u>Environmental Stewardship</u></b> - Engage in activities and implement policies that:</p> <ul style="list-style-type: none"> <li>❖ Make sustainable decisions that are compatible with, preserve, and enhance the natural environment, reducing environmental impacts;</li> <li>❖ Reduce emissions and waste and encourage energy efficiency and use of renewable resources; and</li> <li>❖ Reduce consumption of energy, materials, land, and other resources.</li> </ul> <p><b><u>Economic Vitality and Quality</u></b> - Engage in activities and implement policies that:</p> <ul style="list-style-type: none"> <li>❖ Fully account for and reflect social, economic and environmental costs and benefits;</li> <li>❖ Foster economic vitality and opportunities; and</li> <li>❖ Revitalize and enhance existing communities.</li> </ul>
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The above principles are further supported by a Context Sensitive Solutions (CSS) approach in project design. The FHWA defines CSS as “a collaborative, interdisciplinary approach that involves all stakeholders in developing a transportation facility that complements its physical setting and preserves scenic, aesthetic, and historic and environmental resources while maintaining safety and mobility. Context Sensitive Design (CSD), on the other hand, applies to a transportation project’s engineering design features, and may include design features that help the project fit harmoniously into the community, for example, form liners for bridge piers, colored crosswalks, or cubing detail.”

For more information on CSS and CSD, see CDOT’s and FHWA’s websites as cited in the **References Chapter 5**.

### 2.3 SUSTAINABILITY CATEGORIES

As a subset of the above principles, the following sustainability categories should be considered when evaluating sustainability (in no particular order):

- ❖ Equity & Access (ex. Are CDOT facilities compliant with the Americans with Disabilities Act?),
- ❖ Cultural & Community Development (ex. Is the addition of sidewalks and bike lanes appropriately considered during CDOT project development?),
- ❖ Human Health & Safety (ex. Are CDOT staff appropriately trained to complete their jobs without risk to their health and safety and that of the public?),
- ❖ Land Use (ex. Are CDOT construction projects minimizing their impact to undeveloped lands?),
- ❖ Habitat & Biodiversity (ex. Are CDOT projects avoiding or minimizing their impacts to local ecosystems when feasible?),
- ❖ Materials & Resources (ex. Is waste reduced, reused, recycled, or composted when feasible?),

- ❖ Water (ex. Are low flow or no-flush toilets installed when and where feasible?),
- ❖ Energy Emissions (ex. Are CDOT employees minimizing their idling to the full extent possible?),
- ❖ Fiscal Health/Financial (ex. Is CDOT maximizing the cost savings it can achieve when using recycled or reused materials during construction?),
- ❖ Best Business Practices (ex. Are CDOT employees reducing travel for meetings and utilizing video-conference rooms to the extent possible?), and
- ❖ Local Economic Development (ex. Do the appropriate agencies and organizations participate in the transportation planning and development process discussions, to maintain and improve local economies?)

These categories are comprehensive and reflect those used by other organizations. They cover the major sustainability issues involving CDOT and the state transportation system.

## 2.4 WHY SUSTAINABILITY?

CDOT must be a conscientious and accountable agency that is as efficient, effective, and elegant<sup>1</sup> as possible. As an employer, CDOT is responsible for upholding the health and well-being of its staff members by offering a safe and satisfying work environment. As a service provider, CDOT must be socially and economically responsible to the taxpayers by achieving cost savings on resources, materials, and waste management. As one of the largest state agency consumers of natural resources (coal, oil, crude asphalt, petroleum, water) in Colorado, sustainability reaches beyond wise use and management of fiscal funds. Sustainability encompasses the protection of natural resources and materials for future generations.

Some past and current examples of sustainability initiatives throughout CDOT are:

- ❖ The use of recycled asphalt shingles and reclaimed asphalt paving (RAP).  
165,449 tons of RAP were used on CDOT projects in FY 2015. RAP contains approximately 4% asphalt binder. This means that CDOT did not have to pay for approximately 6,618 tons of binder in 2015. Depending on the grade of the binder, costs range from \$500 to \$700/ton, so CDOT had potential savings of over \$3 million in binder alone. RAP aggregates are typically cheaper than virgin aggregates, so there are additional savings in aggregate costs.
- ❖ CDOT facilities and maintenance yards use biodegradable cleaning solvents instead of petroleum-based solvents that can contaminate the environment (air, soil, and groundwater).
- ❖ Using double-sided default printing on network computers to reduce paper consumption saves CDOT money, in addition to reducing the amount of wood and energy required to make and deliver the paper. Recycled paper still requires energy to manufacture, so paper reduction is the best solution.
- ❖ CDOT Maintenance identified a way to use recycled waste and wash water to produce a salt brine liquid deicer<sup>2</sup>.
  - This reduces the amount of chlorides introduced into the environment compared to magnesium chloride.
  - It is less expensive than magnesium chloride products - CDOT Region 5 saved \$394,030 in FY11 by using the salt brine deicer.

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<sup>1</sup> Part of Governor Hickenlooper's plan to build greater public confidence in good government.

<sup>2</sup> Salt brine deicer is best suited for use on relatively flat roadways, where the temperatures do not drop below 15-17°F, and where the winds aren't sustained greater than 8 miles-per-hour.

# CHAPTER 3 ROLES & RESPONSIBILITIES

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## 3.1 CDOT SUSTAINABILITY PROGRAM MANAGER

The Sustainability Program Manager (Manager) for CDOT is located in the Environmental Programs Branch within the Division of Transportation Development (DTD). The Manager has a broad responsibility to identify opportunities to incorporate sustainability principles into agency decision-making, management, activities, and operations. The Manager is responsible for the development, implementation, and messaging of the Sustainability Program and Sustainability Action Plan. The development of a Sustainability Program includes collaborating with various CDOT staff to determine and establish appropriate goals for tracking progress toward complying with the Greening of State Government Executive Orders (See the Sustainability Action Plan).

As the authority on sustainability, the Manager collaborates with the CDOT Sustainability Council (Council) members, CDOT management and staff, and other agency representatives, as necessary, to develop and advance the CDOT Sustainability Program. The responsibility of managing and facilitating the Council is delegated to the Manager from the Director of DTD.

The Manager is the CDOT representative on the Greening Government Leadership Council (GGLC), which is a group stewarding the Greening Government Executive Orders, with members representing all state agencies. As the GGLC representative, the Manager is responsible for compiling CDOT data for the Annual Greening of State Government report to the Governor. This includes coordinating with various staff to document accomplishments CDOT has achieved in support of the Greening of State Government Executive Orders.

The Manager is responsible for meeting with the Director of DTD and/or the Executive Director, at least annually, to discuss CDOT's progress towards complying with the Greening of State Government Executive Orders. This will include a summary of the Annual Greening of State Government Report to the Governor.

## 3.2 CDOT SUSTAINABILITY COUNCIL

The Council is a cross-divisional internal group of employees that represent a variety of staff levels and functional areas throughout CDOT. Council members support the overall Sustainability Program including its plans and reduction goals. Council representatives meet and provide oversight of the Sustainability Program and its associated plans. The Council reviews sustainability plans and goals developed by the Manager or designated sub-committees. The Council then recommends policy and practice changes to the Manager and Director of DTD.

Sub-committees will be established, as recommended, by the Manager and Council to:

- ❖ Address specific sustainability projects and initiatives,
- ❖ Educate employees about sustainability efforts and initiatives, and
- ❖ Promote the support, voluntary participation, and integration of these efforts into CDOT.

The plans and initiatives implemented by the Council are structured to ensure compliance with state executive order requirements. The Council implements the requirements of the Greening of State Government Executive Orders and associated regulatory authorities.

# CHAPTER 4 SUSTAINABILITY ACTION PLAN

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## 4.1 INTRODUCTION

This Sustainability Action Plan and supporting documents act as multi-divisional resources disseminating ideas, providing information, and providing direction for the encouragement and implementation of sustainable actions throughout CDOT. Staff can utilize the Sustainability Action Plan Chapter and supporting documents to understand and identify Sustainability Strategic Goals (Section 4.4) and Colorado Greening of State Government Executive Order Goals with regards to CDOT Focus Areas (Facilities, Planning, Project Development, Construction, and Maintenance) as they become available. A complete introduction to Sustainability at CDOT will be available in on-line training by the end of fiscal year 2016. The CDOT Sustainability Program website (<https://www.codot.gov/programs/environmental/Sustainability>) houses all CDOT sustainability-related information, guidance, and other resources.

The internal-to-CDOT, and external, sustainability requirements are frequently changing as the concept of sustainability becomes more widely accepted and sustainability goals are developed. The Sustainability Action Plan in this chapter is meant to keep CDOT current with these regulations while helping CDOT staff understand how sustainability affects their jobs and what sustainable actions they are able to complete in support of CDOT's Sustainability Program. The CDOT Sustainability Action Plan Chapter and Appendix A: Current Fiscal Year Action Items includes action items and goals for the upcoming fiscal year and will act as guidance summarizing:

- ❖ Current state and federal regulatory requirements,
- ❖ CDOT initiatives, and
- ❖ Recommendations on the implementation of sustainable actions with regards to sustainability categories.

This document will also have Appendix B: Past Fiscal Years Accomplishments to see the past years performance regarding Sustainability Strategic Goals (Safety, Economic Viability, Ecosystems, etc. - as discussed in Section 4.4) and CDOT Focus Areas (Facilities, Planning, Programming, Project Development, Construction, Maintenance, and System Operations). These appendices will be updated on an annual basis following fiscal year end. The Sustainability Action Plan Chapter and supporting Appendix A will be reviewed and approved by the CDOT Sustainability Council and the Executive Director. Upon approval, any changes to this Chapter 4 and to Appendix A: Current Fiscal Year Action Items, will be changed in the Sustainability Plan that is posted on the Sustainability website.

As CDOT facilitates and other staff adopt sustainable actions and behaviors, CDOT and its staff will be recognized as an innovative leader in the realm of sustainable DOTs by:

- ❖ Striving to reduce its emissions, waste, energy use, and water consumption to preserve and enhance human, environmental, and fiscal health.
- ❖ Maximizing and promoting efficient resource use, reuse, recycling, and repurposing.

Executive Director Update: Per Greening Government Executive Order D 2015-013, "At least on an annual basis, each Executive Director shall review its agency's greening government results with its Council appointee to make adjustments needed to achieve the greening government goals". The CDOT Executive Director shall be briefed in September on the Sustainability Program, including the contents of this report.

## 4.2 REGULATORY REQUIREMENTS

### 4.2.1 MOVING AHEAD FOR PROGRESS IN THE 21ST CENTURY (MAP-21)

MAP-21 is a funding and authorization bill to govern United States federal surface transportation spending. One of the national goals established by MAP-21, “regardless of resource limitations” is:

**Environmental Sustainability** - To enhance the performance of the transportation system while protecting and enhancing the natural environment

### 4.2.2 COLORADO GREENING OF STATE GOVERNMENT EXECUTIVE ORDER

Starting with Governor Bill Owens in 2005, the daily activities of Colorado state agencies were recognized as having a significant impact on the quality of health of the public, the environment, and the economy. That’s why, in July of 2005, the first Greening of State Government Executive Order was signed. This Executive Order and those that ensued, directed state agencies to achieve specific reductions, to complete reduction plans in support of these goals, and to increase the use of renewable energy and energy efficient measures. The following 2015 Executive Order rescinds past Greening of State Government EOs and defines what reductions and initiatives state agencies should accomplish by FY 2020. The numeric reduction goals are as follows:

#### Colorado Greening of State Government Executive Order Numeric Reduction Goals

##### Energy & Water Management

- ❖ Reduce energy consumption per square foot by a minimum of 2% annually (normalized for weather) and at least 12% by FY 2020 from a baseline of FY 2015. Executive State agencies and departments shall further achieve an absolute reduction of energy consumption by 5% over the same time period.
- ❖ Reduce potable water consumption by a minimum of 1% annually (normalized for weather) and at least 7% by FY 2020 relative to an FY 2015 baseline.

##### Vehicle Petroleum Consumption

- ❖ Reduce average petroleum-based fuel consumption per vehicle by a minimum of 4% annually and at least 20% by FY 2020 from a baseline of FY 2015 or 2% annually and at least 10% by FY 2020 for vehicles deemed exempt. Executive State agencies and departments shall further achieve an absolute reduction in petroleum-based fuel consumption by 15% or 7.5% for vehicles deemed exempt over the same time period.

##### Environmentally Preferable Purchasing

- ❖ In FY 2017, at least 50% of the paper collectively purchased by all executive State agencies and departments must contain a minimum of 30% post-consumer waste content, increasing annual purchases by 10% to at least 90% by FY 2020.

##### Greenhouse Gas Emissions

- ❖ Reduce greenhouse gas emissions by a minimum of 1% annually and at least 5% below FY 2015 levels by FY 2020.

##### Recycling and Waste Management

- ❖ Develop and submit a plan for waste prevention and diversion to the Council by December 31, 2016. This plan must set clear goals for expanding waste prevention and diversion efforts

within the agency or department as well as identify a measurement plan to assess progress toward goals.

- ❖ Waste and Recycling Management is not included as a numeric resource reduction goal area. However it is a primary directive in the EO, therefore included in the Sustainability Action Plan.

There are several additional requirements and deadlines for State Agencies. The Executive Order in its entirety is included on the Sustainability website (<https://www.codot.gov/programs/environmental/Sustainability>).

### 4.3 NON-REGULATORY EFFORTS

This section provides an overview of pertinent non-regulatory sustainability efforts that influence CDOT's Sustainability Program.

#### 4.3.1 UNITED STATES DEPARTMENT OF TRANSPORTATION (USDOT)

To demonstrate its commitment to Sustainability, the USDOT is integrating sustainability into its day-to-day activities, operations and facilities to reduce its environmental impacts. Since CDOT falls under the realm of the USDOT, CDOT should consider and follow their sustainability model, when applicable.

“The USDOT will continue to pursue opportunities for the national transportation system which:

- ❖ Promote energy and natural resource conservation,
- ❖ Decrease emissions of GHGs and other pollutants,
- ❖ Enhance our operations by minimizing use of hazardous materials and chemicals,
- ❖ Advance our national interest in increasing energy efficiency,
- ❖ Reduce our dependence on fossil fuels,
- ❖ Ensure transportation infrastructure resiliency and
- ❖ Build livable communities.”

#### 4.3.2 CDOT ENVIRONMENTAL STEWARDSHIP GUIDE

The CDOT Environmental Stewardship Guide documents CDOT's environmental ethic with regards to the natural and built environments, the cultural and social fabrics of our communities, and the quality of life of the people who live in Colorado.

### 4.4 CDOT SUSTAINABILITY STRATEGIC GOALS

To support and focus CDOT's Sustainability Program, the following internal Sustainability Strategic Goals will act as CDOT guidance and will be directly supported by the Greening of State Government Executive Order goals defined in Chapter 4. Many of the reduction goals will support multiple strategic goals, as the concept of sustainability is multi-faceted affecting social, economic, and environmental areas. The majority of these strategic goals are recommended in the Transportation Research Board (TRB), National Cooperative Highway Research Program (NCHRP), Guidebook for Sustainability Performance Measurement for Transportation Agencies. These strategic goals were developed by the CDOT Sustainability Council, which includes maintenance, facilities, property management, materials, and environmental staff. Recommendations from the Transportation Environmental Resource Council (TERC) Sustainability Subcommittee were also considered in the development of this document and the Sustainability Program Document. The CDOT

Sustainability Strategic Goals below should be considered internal goals for CDOT employees to promote, integrate into CDOT culture, and work toward achieving.

- ❖ **Safety (Social)** - Ensure that the CDOT Safety Value, “We work and live safely, and we protect human life, preserve property, and put employee safety before production”, is applied.
- ❖ **Mobility and Accessibility (Social, Economic)** - Promote alternate modes of transportation for staff that are affordable and equitable opportunities.
- ❖ **Economic Viability (Economic)** - Promote efficient use of CDOT fiscal resources by adopting sustainable business practices and ensuring the economic feasibility of transportation investments.
- ❖ **Education (Social, Economic, and Environmental)** - Support training and development of CDOT staff to promote more efficient work processes.
- ❖ **Ecosystems (Environmental)** - Protect and enhance the environment at CDOT facilities.
- ❖ **Waste Generation (Social, Economic, and Environmental)** - Reduce waste generated by CDOT facilities through recycling and landfill diversion programs, where cost effective and feasible.
- ❖ **Resource Consumption (Social, Economic, and Environmental)** - Reduce the use of nonrenewable resources. Promote the use and reuse of renewable fuels, recycled products, and repurposed items.
- ❖ **Emissions and Air Quality (Social, Economic, and Environmental)** - Reduce CDOT employee and facility emissions of air pollutants and greenhouse gases.

CDOT also strives to implement sustainable actions that affect external stakeholders through the planning, construction, operations, and maintenance processes. As the internal strategic goals become part of CDOT culture, CDOT employees, CDOT contractors/consultants, and the general public will start integrating sustainable activities in routine day-to-day activities and will ultimately become stewards of sustainability. CDOT staff should be encouraged to become acquainted with and implement strategies to comply with regulatory requirements, continue to improve CDOT’s environmental performance, and endeavor to be a leader in supporting the Sustainability Program and the above reduction goals.

In Appendix B: Past Fiscal Years Accomplishments are summarized. These CDOT accomplishments tracked are those that support the CDOT Sustainability Strategic Goals and the Greening of Colorado Government Executive Order. In Appendix A: Current Fiscal Year Action Items, CDOT action items and goals that are planned for the current fiscal year in support of the sustainability goals are summarized. As specific strategies and examples are identified to fulfill goal attainment, this information will be added to the tables in Appendix B and posted on the Sustainability website.

If you have an accomplishment or action item that should be added to the tables, please contact CDOT’s Sustainability Program Manager, Sarah Mitchell.

# CHAPTER 5 REFERENCES

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# CHAPTER 7 FISCAL YEAR 2015 ACCOMPLISHMENTS

The following table lists the Action Items from Fiscal Year 2015 and the status/accomplishments for each Action Item. The goal columns are broken down to demonstrate how the accomplishments support the CDOT Strategic Goal areas (Safety, Mobility and Accessibility, Economic Viability, Education, Ecosystems, Waste Generation, Resource Consumption, and Emissions and Air Quality) and the State of Colorado Performance Goal areas (Energy, Water, Petroleum, Greenhouse Gas (GHG), Environmentally Preferable Purchasing (EPP), and Landfill Diversion).

## Fiscal Year 2015 Action Items and Status

Action Item from Fiscal Year 2015	Goals		Status/Accomplishments
	State of Colorado	CDOT	
Annual Electronics Recycling - Host a collection event around Earth Day (April 22nd).	Energy, Landfill Diversion	Ecosystems, Waste Generation, Resource Consumption	CDOT HQ hosted the electronics recycling event on April 21, 2015 and collected 10,760 pounds of electronics and batteries, compared to the 6,847 pounds collected in 2014.
Renewables in ROW program - Develop a guidance document explaining the requirements for renewable energy generation in CDOT ROW by December 31, 2014.	Energy, Petroleum, GHG	Economic Viability, Resource Consumption, Emissions and Air Quality	The guidance is nearing completion. A longer review period than anticipated was needed to gather feedback from HQ Property Management, HQ Right of Way, and Regional ROW Managers.
EV Charging Station - Facilitate the installation of an EV charging station at CDOT HQ and the acquisition of a plug-in EV (PHEV) for CDOT motor pool by end the of FY2015.	Energy, Petroleum, GHG	Mobility and Accessibility, Economic Viability, Education, Resource Consumption, Emissions and Air Quality	The charging station was installed in front of the HQ building in March 2015. It was signed and open for use in April. <u>**Two additional EV charging stations were installed in HQ Motor Pool to accommodate the two PHEV's that were purchased.</u>
Greening Government Leadership Council (GGLC) - Participate on statewide GGLC and subcommittees.	Energy, Water, Petroleum, EPP, GHG, Landfill Diversion	Safety, Mobility and Accessibility, Economic Viability, Education, Ecosystems, Waste Generation, Resource Consumption,	The Colorado Energy Office eliminated their role as manager/facilitator of the GGLC. The GGLC then developed a new mission, purpose, and vision under a charter document, which included an annual nomination of a chair, vice chair, secretary, and alternate secretary. Sarah Mitchell was nominated as the vice chair for FY15 and FY16. The GGLC wrote a new Greening of State Government Executive Order at the request of the Governor's Office. The GGLC also developed a Tips, Tools, and Templates (T <sup>3</sup> ) document that would be populated in support of each resource reduction

Action Item from Fiscal Year 2015	Goals		Status/Accomplishments
	State of Colorado	CDOT	
		Emissions and Air Quality	goal area (Energy, Water, Petroleum, Environmentally Preferable Purchasing (EPP), Greenhouse Gas (GHG), and Waste Diversion) in the draft Executive Order.
Sustainability On-Line Training - Develop on-line training class for CDOT staff by the end of FY2015.	Energy, Water, Petroleum, EPP, GHG, Landfill Diversion	Safety, Mobility and Accessibility, Economic Viability, Education, Ecosystems, Waste Generation, Resource Consumption, Emissions and Air Quality	Worked with Colorado and CDOT Human Resources, the CDOT Office of Learning and Development, and SAP staff to gain approval to develop a new course for CDOT staff and define the required format
Sustainability in Roadway Design and Construction Pilots - Compile feedback from regional pilot projects into a summary report. Pilot projects will be ongoing through Calendar Year 2015 and potentially longer. Report will be completed when pilot projects are completed.	Energy, Water, Petroleum, EPP, GHG, Landfill Diversion	Safety, Mobility and Accessibility, Economic Viability, Education, Ecosystems, Waste Generation, Resource Consumption, Emissions and Air Quality	One project volunteered to be a pilot and utilize the guidance. The guidance was not utilized and new volunteer pilots will utilize the guidance.
CDOC Solar Garden Installation - Document solar garden installation in FY2015 and work with CDOT Public Relations staff when garden goes live. Expected completion by the end of FY2015.	Energy, Petroleum, GHG	Economic Viability, Resource Consumption, Emissions and Air Quality	The CDOC solar garden went live in December 2014 and the cost avoidance of subscribing to the solar garden is anticipated in FY16.
Electronic Data Interchange (EDI) Implementation and EnergyCAP Data Population - Complete the development of a process to comply with EO requirements by maintaining	Energy, Petroleum, EPP, GHG	Economic Viability, Education, Resource Consumption,	All Xcel and Holy Cross accounts are being populated in EDI and EnergyCap via EDI. Black Hills Power has not been willing to participate. The CDOT regional business offices have been trained to manually enter non-EDI participating vendor

Action Item from Fiscal Year 2015	Goals		Status/Accomplishments
	State of Colorado	CDOT	
energy consumption data in EnergyCAP through electronic billing and manual entry into SAP.		Emissions and Air Quality	invoices into SAP so they can be exported and imported into EnergyCap.
Maintenance Sustainability Strategy - Develop a sustainability plan specific to CDOT maintenance facilities and activities. Expected completion by the end of FY2015.	To Be Determined	To Be Determined	A maintenance strategy is being integrated into the Sustainability Online Training and a more detailed strategy will be evaluated after the training is completed.
WasteZero Executive Director Update - Research and make recommendation on whether a highway trash and recycling pick-up program pilot should happen. Expected completion by the end of FY2015.	Landfill Diversion	Ecosystems, Waste Generation, Resource Consumption, Emissions and Air Quality	Potential options being considered by the Maintenance Branch Manager.
Procurement of Trash and Recycling Services Statewide (Office facilities, maintenance facilities, and highway operations) - Evaluate the potential for the procurement of statewide trash and recycling services. Expected completion by end of FY2015.	Energy, Petroleum, EPP, GHG, Landfill Diversion, Economic	Ecosystems, Waste Generation, Resource Consumption, Emissions and Air Quality	Proposal submitted to the Research Branch as a nominee for a potential FY17 Research project.
Potential Impacts of Solar Arrays on Highways Safety and Operations - CDOT Research Branch Project. Evaluate potential impacts and develop a report with findings and recommendations. Report expected to be finalized by December 2014.	Energy, Petroleum, GHG	Economic Viability, Resource Consumption, Emissions and Air Quality	Research paper completed and posted on the CDOT Research webpage at <a href="https://www.codot.gov/programs/research/pdfs/2015-research-reports/solar-arrays/view">https://www.codot.gov/programs/research/pdfs/2015-research-reports/solar-arrays/view</a>
CDOT Statewide General Aviation (GA) Airport Sustainability Management Plan Program - Participate in and support the program development process. Estimated completion September 2015.	Energy, Water, Petroleum, EPP, GHG, Landfill Diversion	Safety, Mobility and Accessibility, Economic Viability, Education, Ecosystems, Waste Generation, Resource Consumption, Emissions and Air Quality	The Plan was developed with input from GA airports, the FAA, DIA, and CDOT. It is hosted online through CDOT in a Salesforce program and has been piloted by 3 airports in Colorado. Completion is anticipated in late 2015.

Action Item from Fiscal Year 2015	Goals		Status/Accomplishments
	State of Colorado	CDOT	
American Lung Association (ALA) Ride and Drive Event - Coordinate with ALA to host an event at CDOT HQ where employees can view and drive various types of alternative fuel vehicles. Estimated completion in July 2014 with a potential second event in Colorado Springs dependent on HQ event success.	Energy, Petroleum, GHG	Mobility and Accessibility, Education, Emissions and Air Quality	A successful Ride and Drive event was hosted at CDOT HQ in July 2014 with over 80 test drives being completed.
CNG Project - Administer the grants for the statewide CNG project with both CEO and RAQC. Participate in meetings with CEO and RAQC to monitor progress in this first year of the program. Assist with coordination with FHWA. Multi-year project.	Energy, Petroleum, GHG	Mobility and Accessibility, Education, Resource Consumption, Emissions and Air Quality	Through the Alt Fuels Colorado Program: <u>Vehicle Awards:</u> \$4.5 million to-date, 253 vehicles funded for 26 fleets (66% CNG, 27% propane, 7% CNG/bi-fuel - 72% heavy-duty, 18% medium-duty, 10% light-duty) <u>Stations Awards:</u> \$7.5 million to-date, 15 CNG stations with 3 co-located EV chargers
Bike and Pedestrian Activities - Continue to support the development of bike and pedestrian as alternate modes of travel (EcoPass, Bike to Work Day/Month, etc.). On-going.	Energy, Petroleum, GHG	Mobility and Accessibility, Education, Resource Consumption, Emissions and Air Quality	Worked with several local jurisdictions to install and monitor 24/7 bicycle and pedestrian counts. In the majority of locations, we're finding there are more people biking and walking than we ever expected.  Revision of the Statewide Bicycle and Pedestrian Plan. We reviewed and updated the performance measures. This Plan was used to develop criteria for TAP funds.  Updated Chapter 14 of the CDOT Roadway Design Manual. Made adjustments to reflect the many new advancements in bicycle and pedestrian design.
Long-Range Transportation Plan - Incorporate sustainability into planning process. Estimated completion Spring 2015.	Energy, Petroleum, GHG	Mobility and Accessibility, Education, Resource Consumption, Emissions and Air Quality	CDOT identified Strategic Actions to focus on, as limited funding allows. The Strategic Actions are the emphasis of specifically the next 10-years of the plan implementation. The Strategic Actions are organized by goal area.  One of the Strategic Policy Actions as part of the 2040 Statewide Transportation Plan was Sustainability and the Environment. One encompassed Risk and Redundancy: Improve the resiliency and redundancy of the transportation system to address the potential effects of extreme weather and economic adversity, emergency management and

Action Item from Fiscal Year 2015	Goals		Status/Accomplishments
	State of Colorado	CDOT	
			<p>security. CDOT will develop further planning efforts in this areas including identification of key corridors and coordination with other agencies.</p> <p>The Executive Summary of the 2040 Statewide Transportation Plan states: Policy Directive 14 guides the development of the Statewide Transportation Plan, its implementation, and future investment decisions that balance preservation and maintenance, efficient system management and operation strategies, and capacity improvements.</p>
Western Road Usage Charge Consortium (WRUCC) - Participate in a pooled fund research study investigating sustainable funding sources for DOTs.	Energy, Petroleum, GHG	Economic Viability, Education, Resource Consumption	<p>The WRUCC has added North Dakota as a member. This is in addition to Oregon, Washington, Texas, Nevada, California, Colorado, Idaho, Utah, Arizona, Hawaii, Montana, and Oklahoma.</p> <p>Four have been completed:</p> <ul style="list-style-type: none"> <li>• Addressing Out-of-State Drivers in a RUC System (Phase 1 of 2);</li> <li>• Impacts of Changing Vehicle Fleet Fuel Economy on State Transportation Funding;</li> <li>• Critical Examination of Oregon RUC Program;</li> <li>• Establishment of RUC Communication Task Force.</li> </ul>
CDOT Municipal Separate Storm Sewer Systems (MS4) Permit - Adopt into new CDPHE MS4 permit the ability to treat stormwater holistically as a watershed instead of on a project-by-project basis, eventually resulting in fewer water quality ponds and decreased maintenance costs.	Energy, Petroleum, Water, GHG	Economic Viability, Ecosystems, Waste Generation, Resource Consumption, Emissions and Air Quality	<p>During FY 15 CDOT began to implement the Interim New Development and Redevelopment Program (NDRD). This program established the CDOT Permanent Water Quality (PWQ) Mitigation Pool, which can be used to fund watershed level PWQ projects. The Colorado Department of Public Health and Environment provided the final draft CDOT MS4 permit. This draft permit included requirements for the PWQ Mitigation Pool and allows CDOT to continue to implement the program requirements established under the Interim NDRD Program. The CDOT PWQ Mitigation Pool Committee (MPC) announced the first PWQ Call for Projects and began the first round of selection for watershed projects.</p>
Risk and Resiliency Efforts - During project development for permanent flood repair projects, evaluate risk and resiliency options to build more sustainable roadways.	To Be Determined	To Be Determined	Ongoing effort in particular response to September 2013 flood recovery efforts.

Action Item from Fiscal Year 2015	Goals		Status/Accomplishments
	State of Colorado	CDOT	
Develop sustainability performance measures for CDOT, baselines, and methods for tracking.	To Be Determined	To Be Determined	Ongoing effort working with staff throughout CDOT and preparing for future Greening of State Government Executive Orders.
Reclaimed Asphalt Pavement (RAP) - Encourage the use of RAP on CDOT pavement projects.	Energy, Petroleum, GHG	Economic Viability, Resource Consumption, Emissions and Air Quality	The RAP usage has increased from 14.98% in 2014 to 15.52% in 2015. 165,449 tons of RAP were used on CDOT projects in FY 2015. RAP contains approximately 4% asphalt binder. This means that CDOT did not have to pay for approximately 6,618 tons of binder. Binder costs range from \$500 to \$700/ton, so CDOT had potential savings of around \$3 million in binder alone. RAP aggregates are typically cheaper than virgin aggregates, so there are additional savings in aggregate costs.
CNG and EV Roadway Signs - Initiate the installation of CNG and EV signs on CDOT roadways.	Energy, Petroleum, GHG	Mobility and Accessibility, Education, Resource Consumption, Emissions and Air Quality	CDOT worked with the Colorado Energy Office to identify active and proposed CNG stations. They are being mapped and those that meet CDOT's signage requirements will receive traveler services information signs on the roadway.
Colorado Climate Action Plan - Write the transportation section of the Colorado Climate Action	Energy, Petroleum, GHG	Economic Viability, Mobility and Accessibility, Education, Resource Consumption, Emissions and Air Quality	With input from throughout CDOT, wrote the transportation chapter for the Colorado Climate Plan. The document was released by the Governor in September 2015 and is located at: <a href="http://cwc.state.co.us/environment/climate-change/Pages/main.aspx">http://cwc.state.co.us/environment/climate-change/Pages/main.aspx</a>
Heavy Diesel Equipment Idling Reduction Demonstration Project - Diesel pollutant reductions used for mobile source air toxics (MSAT)/GHG programmatic National Environmental Policy Act (NEPA) mitigation and fuel efficiency.	Energy, Petroleum, GHG	Economic Viability, Education, Resource Consumption, Emissions and Air Quality	No Action. This program is on hold until we can work something out with OIT that allows the maintenance folks to access the electronic computer units (ECUs) on the equipment. Without access to the information gathered by the ECUs we are unable to track benefits of the program (reduction in idling/fuel savings).

Action Item from Fiscal Year 2015	Goals		Status/Accomplishments
	State of Colorado	CDOT	
Refuel Colorado Fleets - Educate statewide fleets on alternative fuels and vehicle efficiencies.	Energy, Petroleum, GHG	Economic Viability, Education, Resource Consumption, Emissions and Air Quality	<p>Since April of 2013, Denver Metro Clean Cities (DMCC) has hosted 18 education and networking events that have attracted 1200 people from throughout the 8 county area.</p> <p>The DMCC performed 7 fleet audits to suggest alternative fuel replacements and exhibit the lifecycle operating costs of the alternative replacement versus a traditional replacement. Fleet audits were conducted for Adams County, Jefferson County, Jefferson County Schools, Boulder County, City of Aurora, City of Lakewood, and City and County of Denver. Because of the success of the program, the jurisdiction was expanded from three counties to 10 counties through September 2015.</p> <p>Major accomplishments of the program since 2013: 40 engaged fleets, 8 fleet audits, 28 fueling stations, 141 AFV purchases.</p>
Clean Air at School Engines Off (CASEO) - Student run activity to encourage decreased idling pollutant emissions on school property. Program utilized as programmatic NEPA MSAT/GHG mitigation.	Energy, Petroleum, GHG	Education, Resource Consumption, Emissions and Air Quality	The CASEO program was implemented at eight schools in the Front Range and Western Slope. Schools participating in the program achieved an average idling emissions reduction of 58%.
Engines-OFF Colorado - Engage local community fleets to reduce idling and encourage fuel efficiency. Program utilized as programmatic NEPA MSAT/GHG mitigation.	Energy, Petroleum, GHG	Education, Resource Consumption, Emissions and Air Quality	Directed funds to Garfield County Environmental Health who conducted outreach to the 7 local governments within Garfield County. Participating local governments adopted fleet-based idle reduction policies/programs and received signage and training on idle reduction for municipal operations.
Particulate Matter 10 (PM10) Air Quality Excess Roadside Sand Cleanup Program - Per State Implementation Plan and the RAQC, maintain prescribed fugitive dust cleanup from winter storm operations (sand and deicer) in the Denver metro area aka. "sweepbox".	GHG	Resource Consumption, Emissions and Air Quality	PM10 modeling for the I70 East project demonstrated that fugitive road dust is a major contributor to total roadway emissions of PM10. As a result, the I70 East project area has committed to adopting the same control measures as the "sweepbox" program area. Sweepbox control measures include not using sand during snow events and conducting regular sweeping of the roadways. The emissions reduction benefits of utilizing the sweepbox program as compared to

Action Item from Fiscal Year 2015	Goals		Status/Accomplishments
	State of Colorado	CDOT	
			the general PM10 sanding program range from 47-82% depending on road type.
Start-Stop Engine Technology - Testing on fleet F-150 trucks to minimize vehicle idling, decrease fuel consumption, and decrease emissions. Ongoing as long as Ford continues to offer it and State Fleet awards F150s.	Energy, Petroleum, GHG	Economic Viability, Education, Resource Consumption, Emissions and Air Quality	Expect to have all 49 2015 F150s deployed by the end of November. At that point I will begin monitoring fuel economy against a similar cross-section of light fleet vehicles.
Auto Vehicle Locators - Testing to monitor CDOT white and orange fleet vehicles to increase accountability and assist with preparedness and planning in emergencies.	Energy, Petroleum, GHG	Economic Viability, Education, Resource Consumption, Emissions and Air Quality	The AVL program document is near completion and expected to be signed off soon. AVL installation is continuing so monitoring can commence.
Zonar Fleet Management System - Pilot to require pre- and post- driving vehicle checks to increase vehicle performance and safety, reduce costs, and decrease emissions through regular maintenance monitoring.	Energy, Petroleum, GHG	Economic Viability, Education, Resource Consumption, Emissions and Air Quality	Moving towards full implementation of the Heavy Fleet as money becomes available. The department has purchased 860 additional Zonar units with installs to start in FY16.

# FISCAL YEAR 2016 ACTION ITEMS

The table below lists CDOT’s Fiscal Year 2016 Action Items, associated sustainability goal area(s), and Champion/Contact for each Action Item. The goal columns are broken down to demonstrate how the accomplishments support the CDOT Strategic Goal areas (Safety, Mobility and Accessibility, Economic Viability, Education, Ecosystems, Waste Generation, Resource Consumption, and Emissions and Air Quality) and the “State of Colorado Executive Order (EO)” Greening of State Government Resource Reduction Goal Areas (RRGAs) (Energy, Water, Petroleum, Greenhouse Gas (GHG), and Environmentally Preferable Purchasing (EPP)). Waste and Recycling Management is a primary directive in the EO, therefore “Waste” is also included in the State of Colorado EO column.

Action Item for Fiscal Year 2016	Goals		Champion/Contact
	State of Colorado EO	CDOT	
Annual Electronics Recycling - Host a collection event around Earth Day (April 22, 2016).	Energy, Waste	Ecosystems, Waste Generation, Resource Consumption	Sarah Mitchell <a href="mailto:sarah.mitchell@state.co.us">sarah.mitchell@state.co.us</a> (303) 757-9764
Solar in ROW program - Finalize the guidance document explaining the requirements for solar energy generation in CDOT ROW by Spring 2016.		Economic Viability, Resource Consumption, Emissions and Air Quality	Sarah Mitchell <a href="mailto:sarah.mitchell@state.co.us">sarah.mitchell@state.co.us</a> (303) 757-9764
Electric Vehicle (EV) Charging Station - Encourage the use of the two plug-in EVs at CDOT motor pool by introducing the HQ EV chargers and hosting an internal “show and tell” by Spring 2016.	Energy, Petroleum, GHG	Mobility and Accessibility, Economic Viability, Education, Resource Consumption, Emissions and Air Quality	Sarah Mitchell <a href="mailto:sarah.mitchell@state.co.us">sarah.mitchell@state.co.us</a> (303) 757-9764 and John Kreitner <a href="mailto:john.kreitner@state.co.us">john.kreitner@state.co.us</a> (303) 757-9653
Greening Government Leadership Council (GGLC) - Participate on statewide GGLC and subcommittees. Promote the new Greening of State Government Executive Order (EO) through the online sustainability training and public announcements/distributions. Educate and encourage CDOT staff as needed.	Energy, Water, Petroleum, EPP, GHG, Waste	Safety, Mobility and Accessibility, Economic Viability, Education, Ecosystems, Waste Generation, Resource	Sarah Mitchell <a href="mailto:sarah.mitchell@state.co.us">sarah.mitchell@state.co.us</a> (303) 757-9764

		Consumption, Emissions and Air Quality	
Sustainability On-Line Training - Develop on-line training class for CDOT staff by the end of FY2016.	Energy, Water, Petroleum, EPP, GHG, Waste	Safety, Mobility and Accessibility, Economic Viability, Education, Ecosystems, Waste Generation, Resource Consumption, Emissions and Air Quality	Sarah Mitchell <a href="mailto:sarah.mitchell@state.co.us">sarah.mitchell@state.co.us</a> (303) 757-9764
Sustainability in Roadway Design and Construction Pilots - Assess feasibility of utilizing guidance at this time.	Energy, Water, Petroleum, EPP, GHG, Waste	Safety, Mobility and Accessibility, Economic Viability, Education, Ecosystems, Waste Generation, Resource Consumption, Emissions and Air Quality	Sarah Mitchell <a href="mailto:sarah.mitchell@state.co.us">sarah.mitchell@state.co.us</a> (303) 757-9764
CDOC Solar Garden Installation - Document Logan County solar garden generation and CDOT electric cost avoidance. Complete true-up at end of Fiscal Year. Ongoing effort.		Economic Viability, Resource Consumption, Emissions and Air Quality	Sarah Mitchell <a href="mailto:sarah.mitchell@state.co.us">sarah.mitchell@state.co.us</a> (303) 757-9764
Electronic Data Interchange (EDI) Implementation and EnergyCAP Data Population - Continue to support the development of processes to comply with EO requirements by maintaining energy consumption data in EnergyCAP through electronic billing and manual entry into SAP. United Power will be converted to EDI in FY16.	EPP	Economic Viability, Education, Resource Consumption, Emissions and Air Quality	Sarah Mitchell <a href="mailto:sarah.mitchell@state.co.us">sarah.mitchell@state.co.us</a> (303) 757-9764 and Trellany Daviss <a href="mailto:trellany.daviss@state.co.us">trellany.daviss@state.co.us</a> 303.757.9567
Tracking of Water Consumption - Continue to support the development of processes to comply with EO requirements by maintaining water consumption data in EnergyCap.	Water	Economic Viability, Education, Resource Consumption	Sarah Mitchell <a href="mailto:sarah.mitchell@state.co.us">sarah.mitchell@state.co.us</a> (303) 757-9764 and Trellany Daviss <a href="mailto:trellany.daviss@state.co.us">trellany.daviss@state.co.us</a> 303.757.9567

<p>CDOT Statewide General Aviation (GA) Airport Sustainability Management Plan Program (including video) - Continue to support the program finalization and post links/info on the Sustainability webpage. Estimated completion Spring 2016.</p>	<p>Energy, Water, Petroleum, EPP, GHG, Waste</p>	<p>Safety, Mobility and Accessibility, Economic Viability, Education, Ecosystems, Waste Generation, Resource Consumption, Emissions and Air Quality</p>	<p>Sarah Mitchell  <a href="mailto:sarah.mitchell@state.co.us">sarah.mitchell@state.co.us</a>  (303) 757-9764</p>
<p>American Lung Association (ALA) Ride and Drive Event - Coordinate with ALA to research and potentially host an event in Colorado Springs where employees can view and drive various types of alternative fuel vehicles. Estimated completion potentially June 2016.</p>	<p>Energy, Petroleum, GHG</p>	<p>Mobility and Accessibility, Education, Emissions and Air Quality</p>	<p>Sarah Mitchell  <a href="mailto:sarah.mitchell@state.co.us">sarah.mitchell@state.co.us</a>  (303) 757-9764</p>
<p>CNG Project - Continue to administer the grants for the statewide CNG project with both CEO and RAQC. Participate in meetings with CEO and RAQC to monitor progress in this first year of the program. Assist with coordination with FHWA. Multi-year project.</p>	<p>Energy, Petroleum, GHG</p>	<p>Mobility and Accessibility, Education, Resource Consumption, Emissions and Air Quality</p>	<p>Michael King  <a href="mailto:michael.king@state.co.us">michael.king@state.co.us</a>  (303) 757-9997</p>
<p>CNG Fueling Training Video - Created the CNG Fueling Training Video to educate users on how to safely fuel compressed natural gas (CNG) vehicles found in the CDOT fleet.</p>	<p>Energy, Petroleum, GHG</p>	<p>Mobility and Accessibility, Education, Economic Viability, Resource Consumption, Emissions and Air Quality</p>	<p>Sarah Mitchell  <a href="mailto:sarah.mitchell@state.co.us">sarah.mitchell@state.co.us</a>  (303) 757-9764</p>
<p>Bike and Pedestrian Activities - Continue to support the development of bike and pedestrian as alternate modes of travel (EcoPass, Bike to Work Day/Month, etc.). Ongoing.</p>		<p>Mobility and Accessibility, Safety, Education, Resource Consumption, Emissions and Air Quality</p>	<p>Betsy Jacobsen  <a href="mailto:betsy.jacobsen@state.co.us">betsy.jacobsen@state.co.us</a>  (303) 757-9982</p>
<p>As part of the Northern Colorado Bike and Ped Collaborative, CDOT is helping to coordinate and sponsor a one-day conference focusing on the linkages among active transportation, health, land use and the economy. More than 150 people are expected to</p>			

attend to hear presentations from nationally-known expert Mark Fenton, as well as Governor Hickenlooper, Executive Director Shailen Bhatt and others. The event is being held on November 5.			
Western Road Usage Charge Consortium (WRUCC) - Participate in a pooled fund research study investigating sustainable funding sources for DOTs. The WRUCC Steering Group has committed funding for five projects for the FY 16 work plan. An additional six projects under consideration are pending funding. Ongoing through FY17.		Economic Viability, Education, Resource Consumption	Debra Perkins-Smith <a href="mailto:debra.perkins-smith@state.co.us">debra.perkins-smith@state.co.us</a> (303) 757-9525
Research and work to develop sustainability performance measures for CDOT, baselines, and methods for tracking. Ongoing.	To Be Determined	To Be Determined	Sarah Mitchell <a href="mailto:sarah.mitchell@state.co.us">sarah.mitchell@state.co.us</a> (303) 757-9764
Reclaimed Asphalt Pavement (RAP) - Continue to encourage the use of RAP on CDOT pavement projects and track volumes utilized. Ongoing.	Energy, Waste	Economic Viability, Resource Consumption, Emissions and Air Quality	Michael Stanford <a href="mailto:michael.stanford@state.co.us">michael.stanford@state.co.us</a> (303)398-6576
CNG and EV Roadway Signs - Complete the installation of CNG and potentially EV traveler service signs on CDOT interstates.	Energy, Petroleum, GHG	Mobility and Accessibility, Education, Resource Consumption, Emissions and Air Quality	Sarah Mitchell <a href="mailto:sarah.mitchell@state.co.us">sarah.mitchell@state.co.us</a> (303) 757-9764 and KC Matthews <a href="mailto:kc.matthews@state.co.us">kc.matthews@state.co.us</a> 303-757-9543
Colorado Climate Action Plan - CDOT will work with the State Transportation Advisory Commission to develop a stakeholder engagement process to take place over the next year. Completion by September 2016.	Energy, Petroleum, GHG, Waste	Economic Viability, Mobility and Accessibility, Education, Resource Consumption, Emissions and Air Quality	Sarah Mitchell <a href="mailto:sarah.mitchell@state.co.us">sarah.mitchell@state.co.us</a> (303) 757-9764
Refuel Colorado Fleets - Educate statewide fleets on alternative fuels and vehicle efficiencies. Ongoing.	Energy, Petroleum, GHG	Economic Viability, Education, Resource Consumption, Emissions and Air Quality	Sabrina Williams <a href="mailto:sabrina.williams@state.co.us">sabrina.williams@state.co.us</a> 303-757-9257

Clean Air at School Engines Off (CASEO) - American Lung Association run program to encourage decreased idling pollutant emissions on school property. Program utilized as programmatic NEPA MSAT/GHG mitigation. Ongoing.	Energy, Petroleum, GHG	Education, Resource Consumption, Emissions and Air Quality	Rose Waldman <a href="mailto:Rose.Waldman@state.co.us">Rose.Waldman@state.co.us</a> (303) 757-9016
Particulate Matter 10 (PM10) Air Quality Excess Roadside Sand Cleanup Program - Per State Implementation Plan and the RAQC, maintain prescribed fugitive dust cleanup from winter storm operations (sand and deicer) in the Denver metro area. Ongoing.	GHG	Resource Consumption, Emissions and Air Quality	Sabrina Williams <a href="mailto:sabrina.williams@state.co.us">sabrina.williams@state.co.us</a> 303-757-9257
Start-Stop Engine Technology - Testing on fleet F-150 trucks to minimize vehicle idling, decrease fuel consumption, and decrease emissions. Ongoing as long as Ford continues to offer it and State Fleet awards F150s. Anticipated full deployment November 2015, then monitoring of fuel economy will begin.	Energy, Petroleum, GHG	Economic Viability, Education, Resource Consumption, Emissions and Air Quality	John Kreitner <a href="mailto:john.kreitner@state.co.us">john.kreitner@state.co.us</a> (303) 757-9653
Auto Vehicle Locators - Testing to monitor CDOT light and heavy fleet vehicles to increase accountability, improve driving efficiencies (decrease idling and speeding), and assist with emergency preparedness and planning. Anticipated light fleet installation completed November 2015.	Energy, Petroleum, GHG	Economic Viability, Education, Resource Consumption, Emissions and Air Quality	Al Martinez <a href="mailto:alfonso.martinez@state.co.us">alfonso.martinez@state.co.us</a> (303) 512-5216
Zonar Fleet Management System - Pilot to require pre- and post- driving vehicle checks to increase vehicle performance and safety, reduce costs, and decrease emissions through regular maintenance monitoring. Current Zonar units planned to be installed by December 1 2015, to bring the total number of units purchased to 960 statewide. Zonar is applied only to CDOT's heavy fleet. Ongoing effort.	Energy, Petroleum, GHG	Economic Viability, Education, Resource Consumption, Emissions and Air Quality	Al Martinez <a href="mailto:alfonso.martinez@state.co.us">alfonso.martinez@state.co.us</a> (303) 512-5216
CDOT/CEO Anti-idling pilot - Part 1 establishes a baseline of petroleum consumption and emissions of all classes of CDOT vehicles while idling. Part 2 - recommendations of anti-idling measures for each class	Energy, Petroleum, GHG	Economic Viability, Mobility and Accessibility, Resource	John Kreitner <a href="mailto:john.kreitner@state.co.us">john.kreitner@state.co.us</a> (303) 757-9653

of vehicle. Install measures in spring, report on results by end of summer- by Energetics.		Consumption, Emissions and Air Quality	
Statewide Transportation Demand Management (TDM) Master Plan - new and ongoing 2016 effort.		Safety, Mobility and Accessibility, Economic Viability, Education, Emissions and Air Quality	Lisa Streisfeld <a href="mailto:lisa.streisfeld@state.co.us">lisa.streisfeld@state.co.us</a> (303) 757-9876
Partnered with the City and County of Denver to complete DOT SmartCities application.		Safety, Mobility and Accessibility, Economic Viability, Education, Ecosystems, Waste Generation, Resource Consumption, Emissions and Air Quality	Amy Ford <a href="mailto:amy.ford@state.co.us">amy.ford@state.co.us</a> (303) 757-9362  Even Dreyer Mayor's Office Deputy Chief of Staff