

# Transportation Planning in the Denver Region

Approved December 2004

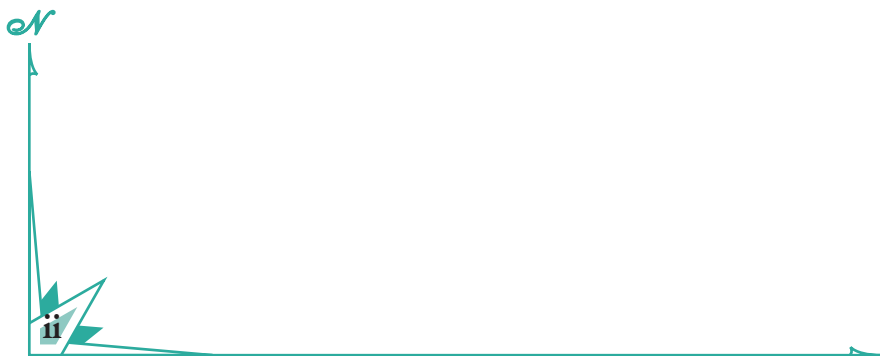
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# Table of Contents

<b>EXECUTIVE HIGHLIGHTS</b> .....	1
<b>1. INTRODUCTION</b> .....	7
1. Purpose of this Document .....	7
2. Planning Geography .....	7
<b>2. POLICY DIRECTION</b> .....	9
1. Federal Policy Requirements .....	9
2. State Policy Requirements .....	11
3. Metro Vision Guidance .....	12
4. Memorandum of Agreement Guiding Principles .....	13
<b>3. PARTICIPANTS</b> .....	15
1. DRCOG Committee Structure .....	15
2. Public Involvement .....	18
<b>4. PLANNING PROCESS PRODUCTS</b> .....	19
1. Unified Planning Work Program .....	19
2. Long-Range Transportation Plan .....	21
3. Transportation Improvement Program .....	29
4. Congestion Management Process .....	34
5. Planning Process Certifications .....	36
<b>5. COORDINATION WITH OTHER TRANSPORTATION PROCESSES</b> .....	39
1. CDOT Interchange Approval .....	39
2. CDOT Corridor Optimization .....	41
3. Revisions to State Highway Access Categories .....	42
4. Major Environmental Processes .....	43
5. DRCOG Fixed Guideway Transit Review .....	48
6. FasTracks Annual Review .....	48
7. CDOT and RTD Master Intergovernmental Agreement .....	49
8. Planning and Development Process for FTA New Starts Projects .....	49
9. State Implementation Plans for Air Quality .....	51
10. CDOT Resource Allocation .....	53
11. CDOT TIP Selection Processes .....	55
12. RTD Transit Development Program .....	61
13. DRCOG Toll Facilities Review .....	62
<b>APPENDIX A SELECT FEDERAL AND STATE LEGISLATIVE AND REGULATORY REFERENCES</b> .....	63



# List of Exhibits

Exhibit 1	DRCOG Transportation Management Area and Transportation Planning Region. . . . .	8
Exhibit 2	Planning Factors in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users . . . . .	10
Exhibit 3	Transportation Planning Committee Structure . . . . .	16
Exhibit 4	Composition and Responsibilities of the DRCOG Board and Transportation Committees . . . . .	17
Exhibit 5	Typical Unified Planning Work Program Timeline . . . . .	20
Exhibit 6	Typical Long-Range Transportation Plan Timeline . . . . .	22
Exhibit 7	Partner Responsibilities in Developing Long-Range Transportation Plans . . . . .	23
Exhibit 8	Air Quality Conformity Responsibilities . . . . .	27
Exhibit 9	Typical Transportation Improvement Program Timeline . . . . .	30
Exhibit 10	Partner Responsibilities in Developing the Transportation Improvement Program . . . . .	31
Exhibit 11	The Two Levels of Congestion Management Strategy Evaluation in the DRCOG Region. . . . .	35
Exhibit 12	Steps in the 1601 Process . . . . .	40
Exhibit 13	Steps in the Corridor Optimization Process . . . . .	41
Exhibit 14	State Highway Access Categories . . . . .	42
Exhibit 15	Process for Changing State Highway Access Category . . . . .	43
Exhibit 16	Categories of Environmental Study . . . . .	44
Exhibit 17	General Process for Conducting a Major Environmental Study. . . . .	44

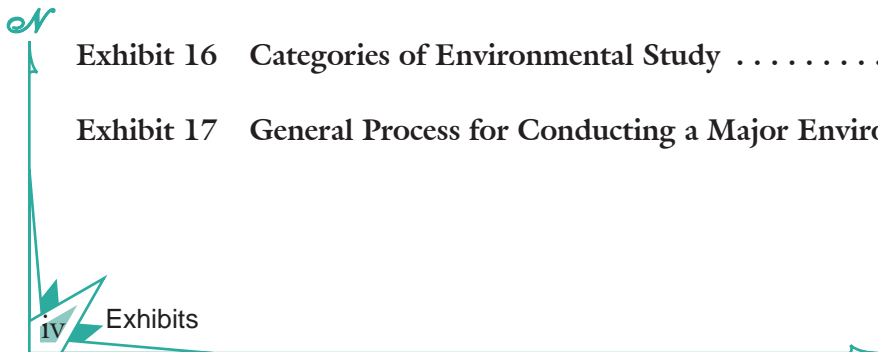
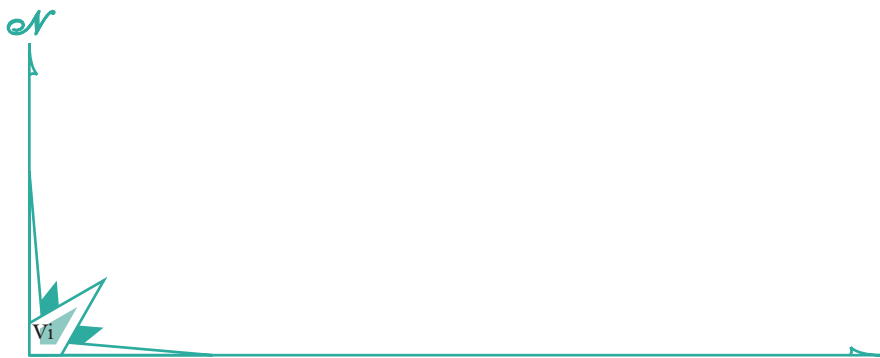


Exhibit 18	Coordination Between Regional Transportation Plan and Environmental Study's Decision Document . . . . .	47
Exhibit 19	Items Adressed by the CDOT/RTD Master Intergovernmental Agreement . . .	49
Exhibit 20	New Starts Evaluation Criteria . . . . .	50
Exhibit 21	Developing and Adopting an Air Quality State Implementation Plan . . . . .	52
Exhibit 22	Denver Region Air Quality Status . . . . .	53
Exhibit 23	Steps in CDOT's Project Priority Programming Process . . . . .	56
Exhibit 24	Creating the Select List . . . . .	57
Exhibit 25	Selecting Safety Projects . . . . .	58
Exhibit 26	CDOT Selection of 5310, 5311, 5316, and 5317 Projects . . . . .	59
Exhibit 27	Selecting Safe Routes to Schools Projects . . . . .	60
Exhibit 28	Steps in Preparing the Transit Development Program . . . . .	61







# Executive Highlights

## Common Acronyms

CDOT	Colorado Department of Transportation
DRCOG	Denver Regional Council of Governments
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
MOA	Memorandum of Agreement
MPO	Metropolitan Planning Organization
RTD	Regional Transportation District
RTP	Regional Transportation Plan
STIP	State Transportation Improvement Program
TIP	Transportation Improvement Program

## Chapter 1—Introduction

- Transportation planning for the Denver region is a continuing, cooperative and comprehensive process.
- The Denver Regional Council of Governments (DRCOG), Regional Transportation District (RTD) and Colorado Department of Transportation (CDOT) are the primary partners in this process.
- A Memorandum of Agreement (MOA) forms and directs this partnership.
- *Transportation Planning in the Denver Region* provides details on how the process currently works.
- It will be reviewed every two years and revised as necessary.
- DRCOG is the Metropolitan Planning Organization (MPO) for the transportation management area and the Regional Planning Commission for the nine plus-county transportation planning region.

## Chapter 2—Policy Direction

- Regional transportation planning processes are guided by federal and state laws, rules, and policies.
- Federal law requires that MPOs take the lead in regional transportation planning in urbanized areas.
- Transportation planning within the transportation management area is guided by the federal metropolitan Planning Rules.
- Statewide transportation planning is guided by state statutes and federal statewide Planning Rules. In carrying out its responsibilities in the portions of the DRCOG transportation planning region outside the transportation management area, CDOT consults with DRCOG.
- Metro Vision is the region's vision of its desired future; implementing the Metro Vision Plan is a primary objective of the DRCOG regional transportation planning process.
- The MOA specifies principles and objectives for carrying out the regional transportation planning process.

## Chapter 3—Participants

- The DRCOG Board is the policy body for the MPO.
- The MOA organizes the transportation planning process through the establishment of the Regional Transportation Committee and the Transportation Advisory Committee.
- Both the Regional Transportation Committee and DRCOG Board must take favorable action before regional transportation planning policies and products are considered adopted.
- At the staff level, the Agency Coordination Team promotes interagency coordination, cooperation, and communication.
- Constructive public involvement is essential; decisions are made only after the public is made aware of proposed actions and has the opportunity to comment.

## Chapter 4—Planning Process Products

### Unified Planning Work Program

- The Unified Planning Work Program describes all metropolitan transportation planning activities for the coming two years in the region.
- It provides the basis for the “scope of work” for the federal planning funds that DRCOG receives.
- Federal agencies review and approve the Unified Planning Work Program to ensure that the proposed work activities are consistent with federal requirements and eligible for federal funds.

### Long-Range Transportation Plan

- The Metro Vision Regional Transportation Plan (RTP) is the Denver region’s long-range transportation plan.
- The Metro Vision RTP is part of the Metro Vision Plan.
- One component of the Metro Vision RTP is the Metro Vision transportation system (referred to in state rules as the “vision plan”).
- The other component is the fiscally constrained RTP, which is the subset of the Metro Vision transportation system that can be achieved with reasonably available financial resources.
- In the transportation management area, the fiscally constrained RTP conforms with the requirements of the Clean Air Act.
- Development of the Metro Vision RTP is a lengthy process entailing substantial cooperative effort by the partner agencies.

### Transportation Improvement Program (TIP)

- DRCOG’s TIP identifies the federally-funded transportation projects to be implemented in the transportation management area during the next six years.
- It is updated every four years.
- The TIP implements the fiscally constrained RTP.
- No project using federal surface transportation funds can move forward unless it is included in the TIP.
- For each TIP, the preparation process is defined by a policy document adopted through the regional transportation planning process.
- DRCOG, CDOT and RTD currently have separate processes to select projects for funding. The selected projects are incorporated in the TIP.
- The MOA partners are continuing to work to better integrate TIP project selection.
- The TIP is fiscally constrained and conforms with the requirements of the Clean Air Act.

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## **Congestion Management Process**

- A congestion management process provides for effective management of transportation facilities through the use of travel demand reduction and operational management strategies.
- In the transportation management area, federal funds cannot be programmed for any highway project that would significantly increase capacity for single occupant vehicles unless the project is based on a congestion management process.
- DRCOG identifies and evaluates congestion management strategies at the regional level as part of the overall regional transportation planning process.
- At the project level, the sponsor conducts the needed congestion management examinations.

## **Planning Process Certification**

- DRCOG and CDOT must certify to the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) that the transportation planning process is conducted in accordance with all applicable federal regulations.
- Certification holds an MPO and all planning partners accountable for the function and quality of the planning process in its region.
- The joint self-certification process is conducted when a new TIP is prepared.
- Also, every four years, FHWA and FTA jointly conduct a planning certification review.

## **Chapter 5—Coordination with Other Transportation Process**

### **CDOT's Interchange Approval Process (1601)**

- 1601 defines the policy and procedures by which CDOT will consider applications for new or modified interchanges on state highways.
- Analytic requirements and approval responsibility vary depending on the category type CDOT assigns to the application.
- For certain types of improvements, the applicant must prepare a system level study.
- CDOT must approve the system level study before the improvement is included in the fiscally constrained RTP.

### **CDOT's Corridor Optimization Process**

- Corridor optimization is a CDOT process to evaluate how future travel demands in corridors should be met.
- The corridor optimization process develops CDOT's preferred corridor strategy.
- Transportation Commission approval of a corridor optimization report does not constitute a funding commitment.
- An approved corridor optimization plan is CDOT's input to the regional process in development of the Metro Vision RTP.

### **Revision to State Highway Access Categories**

- The *State Highway Access Code* specifies a classification system for access management purposes.
- Every state highway is assigned an access category and the *Code* establishes the process and procedures for making changes to the assigned category.
- DRCOG is afforded the opportunity to review changes to the assigned access category requested within the transportation planning region.

## Major Environmental Processes

- The National Environmental Policy Act (NEPA) requires the environmental impact of projects that receive federal funding to be assessed.
- The relationships between major NEPA environmental studies and the regional transportation planning process include listing environmental studies in TIPs and Unified Planning Work Programs, interagency review of environmental study work scopes, DRCOG committee consideration of purpose and need statements, and environmental study evaluation of alternatives' consistency with the Metro Vision Plan.
- The description and cost of the project to be cleared in an environmental decision document must be consistent with that in the adopted fiscally constrained RTP. To do so sometimes requires an amendment to the fiscally constrained RTP.

## DRCOG Fixed Guideway Transit Review

- State statute (per Senate Bill 90-208) requires that the MPO review and approve any fixed guideway mass transit system element proposed by RTD before it can be constructed.
- Criteria for review of proposed projects are adopted by the DRCOG Board through the transportation committees process.
- The Senate Bill 90-208 assessment explicitly confirms or rejects the technical and financial feasibility of the proposal.

## FasTracks Annual Review

- RTD's FasTracks Plan is a broad long-term program requiring numerous assumptions about technology and financing, which may change over the course of implementing the Plan.
- DRCOG's Senate Bill 90-208 initial approval of FasTracks required that RTD prepare an annual report for consideration by the regional transportation planning process identifying significant changes in the FasTracks Plan as they develop.
- The DRCOG Board through the transportation committees process determines if the changes identified require further Senate Bill 90-208 action.

## CDOT and RTD Master Intergovernmental Agreement

- CDOT and RTD executed a Master Intergovernmental Agreement for continued coordination and planning for highway and transit development.
- The Master Agreement establishes a framework to assure that all proposed projects, programs, and facilities are accommodated to the maximum extent practicable.
- It establishes a context for corridor-specific agreements.

## Planning and Development Process for FTA New Starts Projects

- FTA has a defined process that applicants must follow for capital investment grants for new fixed guideway systems or extensions to existing ones (called New Starts).
- The three key development phases in this process are alternatives analysis, preliminary engineering, and final design.
- FTA evaluates each proposed New Starts project nationwide according to a defined set of criteria.

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- RTD provides FTA with relevant information each time RTD advances a corridor into preliminary engineering or final design, each time it applies for a full funding grant agreement, and annually to support FTA's New Starts report to Congress.

### **State Implementation Plans for Air Quality**

- The federal Clean Air Act requires that states prepare state implementation plans to show how a nonattainment area will attain national air quality standards and how attainment will be maintained.
- State implementation plans establish emissions budgets and specify control measures.
- In air quality nonattainment-maintenance areas, fiscally constrained RTPs and TIPs must conform to the appropriate state implementation plans; i.e., the region meets emissions budgets and required transportation control measures are being implemented.
- The Denver region currently meets national air quality standards and has approved state implementation plans (maintenance plans) for three relevant pollutants. The region is considered by the Environmental Protection Agency to be attainment-maintenance for those pollutants.
- In 2007, an area that includes much of the Denver region was designated as nonattainment for ozone based on a new 8-hour standard.

### **CDOT Resource Allocation**

- Resource allocation is the process the Transportation Commission uses to forecast revenues, identify needs on the state highway system, and define how resources will be allocated to address those needs.
- Federal law requires the state and MPO to cooperatively develop estimates of funds available for implementation of fiscally constrained long-range transportation plans and TIPs.
- To this end, CDOT and DRCOG executed a Memorandum of Understanding in November 2004 that acknowledged a funding baseline and established allocation methodologies for unanticipated incremental and new revenues above the baseline and for unallocated funds for strategic projects.

### **CDOT TIP Project Selection Processes**

- CDOT uses the project priority programming process to obtain local agency input on which state highway projects it should fund in the TIP and state transportation improvement program (STIP).
- CDOT uses management systems to identify the optimal use of resources in several funding programs, such as surface treatment and bridge.
- The current strategic projects program consists of 28 high priority transportation projects throughout the state.
- Regional priorities program funds may be used to address needs in any of the CDOT investment categories.
- Congestion relief funds must be applied to projects that improve congestion on congested segments of the state highway system.
- CDOT inspects all public highway bridges in the state and assigns a sufficiency rating, and bridges that are structurally deficient or functionally obsolete are identified on the Select List.
- From the Select List, CDOT identifies those to be replaced or rehabilitated using available federal and state funds.
- A portion of federal funds is set-aside to achieve reductions in the number and severity of crashes through elimination of roadway hazards. CDOT conducts a process to select projects to receive this funding.

- FTA provides funding to CDOT for specific public transportation programs. CDOT conducts a process to select projects to receive this funding.
- CDOT conducts a process to select projects for Safe Routes to School (FHWA) funds.

### **RTD Transit Development Program**

- The transit development program is RTD's six-year fiscally constrained operating and capital improvement plan; it is revised annually.
- Local governments, transportation management organizations, and the public provide input to RTD.
- RTD uses the transportation development program to identify its federally-funded projects for inclusion in the TIP.

### **DRCOG Toll Facilities Review**

- State statute (per House Bill 05-1148) requires that the MPO review and approve any toll highway plan proposed in the DRCOG area by the Colorado Tolling Enterprise.
- Criteria for review of proposed projects are adopted by the DRCOG Board through the transportation committees process.
- The House Bill 05-1148 assessment findings for the toll highway/system proposal consider the operation, technology, feasibility, and financing.





# Introduction

Transportation planning for the Denver region is a continuing, cooperative, and comprehensive process. Three agencies—the Denver Regional Council of Governments (DRCOG), the Regional Transportation District (RTD), and the Colorado

Department of Transportation (CDOT)-- are the primary partners in this effort. A Memorandum of Agreement (MOA) signed in 2001 forms and directs this partnership.



## 1. Purpose of this Document

*Transportation Planning in the Denver Region* augments the MOA by providing the details of how this transportation planning process works. It has been approved by the Regional Transportation Committee (see Section 3.1), which has Board and executive management membership from all three MOA partners. It:

- describes the policies and procedures of the process, in the context of federal, state and regional requirements (Chapter 2)
- details how the three partners cooperate in carrying out the process (Chapter 3)
- identifies the five key regional transportation planning products required by federal law and explains how the participants work together to produce those products (Chapter 4); and
- shows how the regional process dovetails with individual processes of the three partners, and interacts with local governments, air quality



## 2. Planning Geography

For transportation planning purposes, the Denver region consists of two geographic areas.

- **The Transportation Management Area.** Federal law requires that each urbanized area in the nation (as defined by the U.S. Bureau of Census) with a population over 200,000 be designated as a transportation management area. That transportation management area must cover the entire urbanized area(s) and the contiguous geographic area(s) likely to

planning agencies, and other participants to accomplish transportation planning in the Denver region (Chapter 5).

DRCOG, CDOT and RTD  
are the MOA partners.

This document presents **current** details and understandings. However, process details change continually in response to new federal and state laws and regulations, regional issues and initiatives, and the evolving focus of the individual MOA partner agencies. To keep this document current, every two years the Regional Transportation Committee considers whether it is necessary to update the document. If revisions are deemed necessary, the Regional Transportation Committee identifies which revisions can be accepted simply by committee action, and which must be referred to the Boards of all three MOA partner agencies for endorsement. The biennial consideration takes place before mid-year. Revisions, if needed, are generally completed by year's end.

become urbanized within, at a minimum, a 20-year period. Federal law further requires that regional transportation planning in a metropolitan area be conducted by a **Metropolitan Planning Organization (MPO)** and encourages designation of a *single* MPO to serve multiple urbanized areas that are adjacent to each other. The FHWA/FTA- designated transportation management area depicted in Exhibit 1, for which DRCOG is the MPO, includes four urbanized areas, encompasses slightly more than 3,600 square miles, and consists of the portions of Adams

and Arapahoe counties west of Kiowa Creek; all of Broomfield, Denver, Douglas, and Jefferson counties; all of Boulder County except Rocky Mountain National Park; and a portion of southwest Weld County. The transportation management area designation defines the entire metropolitan planning area.

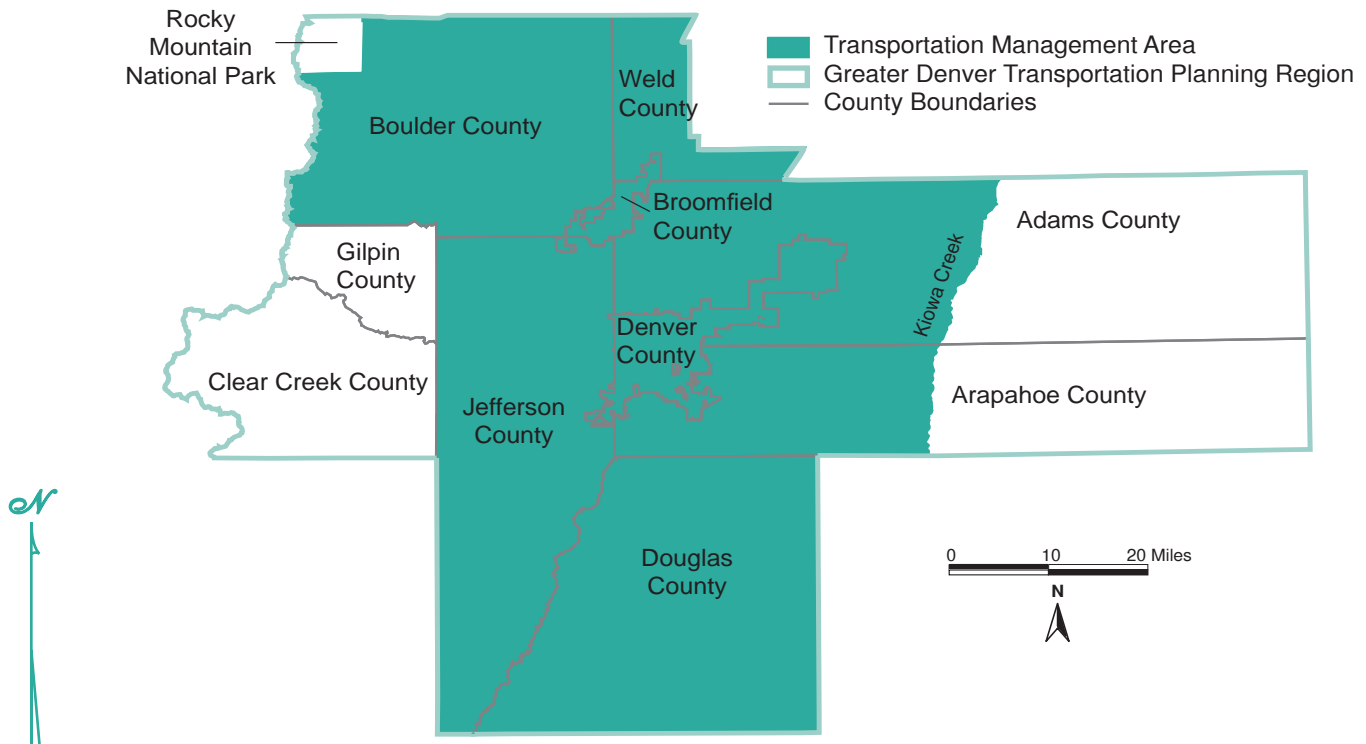
- **The Transportation Planning Region.** State statute requires the state transportation planning process be conducted in cooperation with “regional planning commissions.” For this purpose, Colorado has been subdivided into 15 transportation planning regions formed around regional planning commissions. DRCOG is the Regional Planning Commission for the counties of Adams, Arapahoe, Boulder, Broomfield, Clear Creek, Denver, Douglas, Gilpin, Jefferson and southwest Weld. The entire 5,288-square-mile nine plus-county area is called the **Greater Denver Transportation Planning Region**. Gilpin and Clear Creek counties and the eastern portions of Adams and Arapahoe counties,

which are all outside the transportation management area, are often referred to as the **Mountains and Plains** area of the Denver region.

The transportation management area and transportation planning region boundaries change over time. For example, the boundaries were revised in 2008 to include the contiguous portion of southwest Weld County anticipated to be urbanized within the next 20 years.

Prior to 2007, the transportation management area included all of the region’s air quality nonattainment or maintenance areas. But, in 2007, the Environmental Protection Agency declared an area that includes the DRCOG transportation management area plus the remaining portions of Adams, Arapahoe, and Boulder counties, plus portions of Larimer and Weld counties as nonattainment for ozone under the 8-hour standard. A memorandum of agreement noted in Section 4.2 governs the transportation conformity evaluations conducted for this nonattainment area.

**Exhibit 1 • DRCOG Transportation Management Area and Transportation Planning Region**





# Policy Direction

Regional transportation planning processes are guided by laws, rules, and policies set by the federal and state governments. In the DRCOG

region, Metro Vision and the transportation planning Memorandum of Agreement provide further direction.



## 1. Federal Policy Requirements

The requirements and responsibilities for transportation planning are contained in federal law and in federal regulations that implement the law. Appendix A lists relevant federal legislative and regulatory references.

### Federal Law

About every five or six years, Congress enacts a law to “authorize” funds for surface transportation programs. Congress typically uses these reauthorization acts to review, revise and refine all aspects of federal surface transportation policy, including transportation planning. Since 1973, federal transportation law has placed the responsibility for carrying out the regional transportation planning process in urbanized areas on MPOs.

The most recently enacted reauthorization act is the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, commonly called SAFETEA-LU, which builds from its predecessor, the Transportation Equity Act for the 21st Century (TEA-21). Key transportation planning products adopted after July 1, 2007, must comply with SAFETEA-LU.

SAFETEA-LU identified the following national policy:

*“It is in the national interest to encourage and promote the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight*

*and foster economic growth and development within and between States and urbanized areas, while minimizing transportation-related fuel consumption and air pollution.”*

Federal law requires that a **metropolitan planning organization (MPO)** take the lead in regional transportation planning in urbanized areas. **DRCOG is the MPO for the Denver region.**

As has been the case with reauthorization acts for the past several decades, SAFETEA-LU tasks MPOs with developing plans and programs to accomplish the act’s objective in metropolitan areas, using a continuing, cooperative, comprehensive process. Reauthorization acts also typically identify planning factors that the metropolitan transportation planning process must address (see Exhibit 2), require that the process be certified as compliant with federal law, and designate the major products of the process.

Chapter 4 provides descriptions of the required planning products and activities.

### Federal Transportation Planning Rules

Federal regulations are typically issued to implement the federal law. Usually, a year or two after each reauthorization act, the U.S. Department of Transportation revises portions of the code of federal regulations to reflect not only changes explicitly stated in the act, but also changes in philosophy that were part of the discussion and debate leading to adoption of the act. The portions of the federal regulations

pertaining to transportation planning are commonly referred to as “the Planning Rules.”

The federal Planning Rules for metropolitan transportation planning provide more specifics about the major products and certification. Beyond that, they state the requirements for other process elements including:

- agreements that define transportation planning partnerships between the state, public transportation providers, and the MPO
- agreements between MPOs and air quality planning agencies regarding air quality-related transportation planning
- defining and adjusting planning area boundaries and MPO policy body membership
- inclusion of other transportation-related agencies and groups; and
- public involvement.

Transportation planning within the transportation management area is guided by federal metropolitan Planning Rules.

### Other Federal Laws and Regulations

While federal reauthorization acts and ensuing federal regulations govern the metropolitan transportation planning process, the process must also respond to numerous other federal actions, including (but not limited to) the National Environmental Policy Act, the Clean Air Act, the Clean Water Act, the Civil Rights Act, and the Americans with Disabilities Act, and executive orders.

## Exhibit 2 • Planning Factors in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users states that the metropolitan transportation planning process must provide for consideration of projects and strategies that will:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
2. Increase the safety of the transportation system for motorized and nonmotorized users
3. Increase the security of the transportation system for motorized and nonmotorized users
4. Increase accessibility and mobility of people and freight
5. Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
7. Promote efficient system management and operation; and
8. Emphasize the preservation of the existing transportation system.

*These are called the eight factors.*



## 2. State Policy Requirements

### Federal Relationship

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users requires state departments of transportation to conduct statewide transportation planning and programming, and federal Planning Rules for statewide transportation planning provide regulatory details. While the requirements in federal law and regulation for statewide planning are generally similar to those for metropolitan planning, the specific federal requirements for transportation planning in metropolitan areas are defined in the appropriate metropolitan elements of federal law and regulations, rather than by the statewide elements. Federal law does not require statewide long-range transportation plans to be fiscally constrained.

Federal law does require the statewide process to interact with the metropolitan process in areas where the metropolitan process is required. This interaction is described in various federal laws and regulations as **cooperation** or **coordination**. Each has a slightly different definition, but both imply that the involved parties work together to make sure products are seamless and schedules are consistent.

Outside the metropolitan areas, federal law requires states to conduct their transportation planning process in **consultation** with the local officials responsible for transportation.

### State Statute

Colorado statute clarifies that statewide transportation planning and programming is to be done in cooperation with regional planning commissions. The Greater Denver Transportation Planning Region is one of the 15 transportation planning regions established for this purpose. DRCOG, as the Regional Planning Commission for that transportation planning region, has metropolitan transportation planning responsibilities within the transportation management area and a consultation role outside

(in the Mountains and Plains area). State statute also requires that:

- a 20-year regional transportation plan be developed for each transportation planning region that includes a metropolitan area
- a regional transportation plan show what can be reasonably expected to be implemented with the revenues that are likely to be available (in other words, fiscally constrained).
- CDOT integrate and consolidate the regional transportation plans into a comprehensive statewide transportation plan
- a Statewide Transportation Advisory Committee review and comment on all regional transportation plans submitted and provide advice to CDOT (each of the 15 transportation regions in the state has one representative on this committee); and
- a county hearing process be used as “the proper forum” for local government input into the short-range transportation programming process.

### Transportation Commission Rules and Regulations

As required by state statute, the Transportation Commission has adopted rules and regulations for the statewide transportation planning process. As with federal regulations, these rules augment statutory language. Included in the Commission’s rules are requirements for:

- public participation
- transportation planning region boundary revisions
- elements to be included in regional transportation plans
- review of regional plans by the Statewide Transportation Advisory Committee
- development and approval of the statewide transportation plan; and
- updates and amendments of regional and statewide plans.

CDOT has issued a *Regional Transportation Planning Guidebook*, designed to assist regional

planning commissions in developing regional transportation plans consistent with federal and state requirements.

Also, the Transportation Commission routinely adopts procedural directives or rules for other

transportation planning-related processes. Those most relevant to the DRCOG regional process are discussed in Chapter 5.

Relevant state statutes are listed in Appendix A.



### 3. Metro Vision Guidance

As a regional planning commission, DRCOG adopts and maintains a regional plan. Metro Vision is the long-range plan to manage growth within the Denver area. The Metro Vision Plan addresses development, transportation needs, and environmental quality. It serves as a comprehensive foundation for regional planning efforts and provides a regional context for local decision-making on growth and development issues. It recognizes the impact growth will have on the provision of infrastructure, water quality, clean air, and the environment and calls for an efficient development pattern that supports transit, protects valuable recreation and open space, and provides for diversity in community structure and housing choices.

#### What is the vision for the Denver region?

In 2035, the Denver region will be a dynamic mixture of distinct pedestrian-friendly, urban and suburban communities within a limited area. It will be distinguished by a transportation system that includes sidewalks, bike paths, bus service, rail transit and roads; plentiful parks and open space; and clean air and water.

The Metro Vision 2035 Plan establishes the vision for the Denver region in 2035. How the region can achieve the vision is presented in three topical areas:

- growth and development
- transportation system
- environmental quality

Components include extent of urban development, urban centers, senior-friendly development, and parks and open space, among others. Each component has a vision, goal, and several policies. Together, the components create the future preferred vision.

Implementing Metro Vision influences where future population settles and businesses locate, which, in turn, affects travel behavior and the need for transportation facilities and services.

Implementing the Metro Vision Plan is a primary objective of the DRCOG regional transportation planning process.



## 4. Memorandum of Agreement Guiding Principles

As stated in Chapter 1, the three partner agencies (DRCOG, RTD, and CDOT) entered into an MOA in July 2001 for the transportation planning process for the DRCOG region. The MOA was modified in June 2008 to expand the geographic scope to southwest Weld County. The purpose of the MOA is to implement federal and state statutes and regulations addressing regional transportation planning to ensure that a collaborative process occurs among the three agencies.

As defined in the MOA, the purpose of the collaborative regional transportation planning process is:

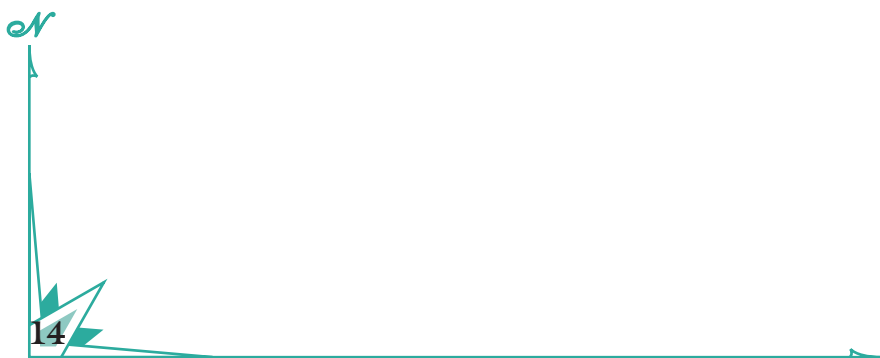
*“To develop... a multimodal transportation system for the region that supports the region’s Metro Vision Plan and amendments thereto; meets each party’s planning needs, roles, and responsibilities; and addresses the needs of the public.”*

The MOA acknowledges the roles and responsibilities of the three agencies regarding transportation planning as defined by federal and state laws and regulations. The MOA further describes the functions, products, and organization of the planning process.

The MOA specifies that the regional transportation planning process is carried out in a manner consistent with the following principles and objectives:

- Each year, input on the goals and objectives of the regional process is solicited and the goals and objectives for transportation planning are collaboratively established to guide ongoing and future transportation investments. This is accomplished through:
  - joint meetings of members of the agencies’ governing boards
  - coordinating the processes for setting project priorities
  - providing opportunities for meaningful public participation
  - establishing a clear decision-making structure; and
  - establishing cooperative interagency staff communication.
- Development and transportation plans are integrated so that both are mutually supportive. This is accomplished by working with local municipalities and counties to:
  - coordinate the integration of transportation planning and land use
  - preserve adequate right-of-way for future transportation options
  - assure that regional needs are addressed; and
  - coordinate and prioritize transportation investments to achieve a balance of transportation and quality of life issues.

The **Memorandum of Agreement** formally commits DRCOG, RTD, and CDOT to work together on transportation planning for the Denver region.





# Participants

Transportation planning in the Denver region uses the experience and input of many people and organizations. The DRCOG Board is the MPO of the transportation management area and the Regional Planning Commission of the Greater Denver Transportation Planning Region. CDOT

and RTD are partner agencies in the regional transportation planning process as affirmed in the MOA. Local officials, interest groups, the public, and others provide important direction and comment. Other federal, state and regional agencies play key roles, too.



## 1. DRCOG Committee Structure

As stated in the MOA, the regional transportation planning process is organized around the series of committees shown in Exhibit 3. Exhibit 4 details committee composition and responsibilities.

The **DRCOG Board** is made up of local elected officials from the region's towns, cities and counties. **The DRCOG Board is the policy body for the MPO.**

The **Regional Transportation Committee (RTC)** is a permanent committee that prepares and forwards policy recommendations to the DRCOG Board. DRCOG Board policy actions that differ from the Regional Transportation Committee recommendation must be referred back to the Regional Transportation Committee for reconsideration.

The **Transportation Advisory Committee (TAC)** is a permanent committee that assists the Regional Transportation Committee and the DRCOG Board by reviewing the work of the transportation planning process.

**Ad hoc committees (or task forces) and work groups** may be established by the DRCOG Board, Regional Transportation Committee, and/or Transportation Advisory Committee. They are given short-term assignments to assist on specific topics, tasks, or activities. Membership is set by the initiating committee, but typically includes experts on the specific subject and/or representatives of affected groups.

The **Agency Coordination Team (ACT)** is a standing work group made up of staff from the MOA partner agencies, air quality planning agencies, and federal agencies. The team exists to promote coordination, cooperation, and, importantly, communication among agencies. Its regular duties include:

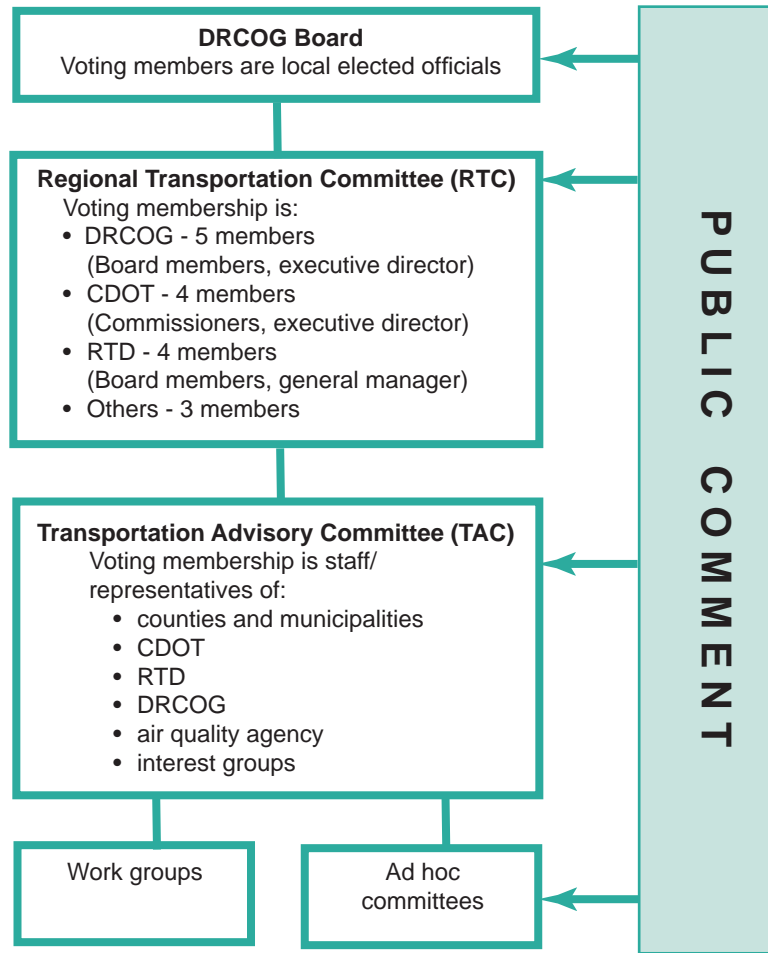
- synchronizing the schedule of planning activities (including Transportation Advisory Committee and Regional Transportation Committee consideration),
- reviewing transportation planning products, and
- coordinating Unified Planning Work Program (see Chapter 4) activities with agencies' planning activities.

The air quality/transportation interagency consultation process is facilitated by meetings of the Agency Coordination Team.

Transportation planning products described in Chapter 4 typically require *adoption by the DRCOG Board through the transportation committees process*. That phrase means:

- sequential review by the Transportation Advisory Committee, the Regional Transportation Committee, and the DRCOG Board, and
- the Regional Transportation Committee and the DRCOG Board must both take favorable action for policies and products to be considered adopted.

### Exhibit 3 • Transportation Planning Committee Structure



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## Exhibit 4 • Composition and Responsibilities of the DRCOG Board and Transportation Committees

	DRCOG Board	Regional Transportation Committee	Transportation Advisory Committee
Authority	<ul style="list-style-type: none"> <li>• State statute</li> <li>• DRCOG Articles of Association</li> </ul>	<ul style="list-style-type: none"> <li>• MOA</li> <li>• DRCOG Board adopts committee description</li> </ul>	<ul style="list-style-type: none"> <li>• MOA</li> <li>• DRCOG Board adopts committee description</li> </ul>
Responsibilities	<ul style="list-style-type: none"> <li>• Prepares, maintains, and regularly reviews comprehensive regional plan (Metro Vision)</li> <li>• Adopts all regional transportation planning products, including the Metro Vision RTP and TIP</li> <li>• Products and policies are adopted when Board and Regional Transportation Committee both take favorable action</li> </ul>	<ul style="list-style-type: none"> <li>• Assists the DRCOG Board in regional transportation planning</li> <li>• Prepares regional transportation planning policy recommendations for action by the DRCOG Board</li> </ul>	<ul style="list-style-type: none"> <li>• Facilitates dialogue and cooperation among local governments, regional agencies, the state, and other stakeholders on regional transportation issues</li> <li>• Provides advice and guidance on methods of planning and implementation, and helps develop policy options</li> <li>• Reviews planning products and processes</li> <li>• Makes recommendations to the Regional Transportation Committee on transportation plans and improvement programs</li> </ul>
Membership	<ul style="list-style-type: none"> <li>• Each municipality, county, and city-and-county within the nine plus-county region is eligible to be a member of DRCOG</li> <li>• Each member may designate one local elected official as its member representative and one as its alternate                             <ul style="list-style-type: none"> <li>– Denver may designate two members</li> </ul> </li> <li>• Governor appoints three non-voting members</li> </ul>	<ul style="list-style-type: none"> <li>• Five from DRCOG—the chair, vice chair, two Board members, and the executive director</li> <li>• Four from CDOT—three Denver-area transportation commissioners and the executive director</li> <li>• Four from RTD—three board members and the general manager</li> <li>• DRCOG, CDOT, and RTD may designate alternates in writing</li> <li>• Three others—appointed annually by the Regional Transportation Committee chair upon unanimous recommendation of the DRCOG, CDOT and RTD executives</li> <li>• 16 voting members total</li> </ul>	<ul style="list-style-type: none"> <li>• 15 local-government representatives appointed by the DRCOG chair:                             <ul style="list-style-type: none"> <li>– two each from Adams, Arapahoe, Boulder, Douglas, and Jefferson counties and one from southwest Weld County;                                     <ul style="list-style-type: none"> <li>□ at least three are appointed from counties</li> <li>□ at least seven are appointed from municipalities (at least two but no more than three are from cities smaller than 35,000 in population)</li> </ul> </li> <li>– two from Denver and one from Broomfield</li> <li>– one from the non-MPO area of the transportation planning region</li> <li>– appointees are city or county managers/administrators, or public works, transportation, or planning directors, or equivalent</li> </ul> </li> <li>• CDOT directors for regions 1, 4, and 6 and transportation development division</li> <li>• RTD’s planning/development director</li> <li>• DRCOG’s transportation planning/operations director</li> <li>• Regional Air Quality Council executive director</li> <li>• One representative each of environmental, freight, transportation demand management/non-motorized, senior, aviation, non-RTD transit, and business/economic development interests (nominated by the DRCOG chair and confirmed by the Regional Transportation Committee)</li> <li>• Alternates may be designated in writing</li> <li>• FHWA and FTA have ex-officio representation</li> <li>• 29 voting members total</li> </ul>
Quorum	<ul style="list-style-type: none"> <li>• One-third of all voting member representatives</li> </ul>	<ul style="list-style-type: none"> <li>• 12 voting members or designated alternates</li> </ul>	<ul style="list-style-type: none"> <li>• 15 voting members or designated alternates</li> </ul>
Decisions Made	<ul style="list-style-type: none"> <li>• Regular questions: with a majority of voting member representatives present</li> <li>• Adoption or amendment of elements of regional plan: with a majority of all voting member representatives</li> </ul>	<ul style="list-style-type: none"> <li>• With 12 affirmative votes</li> </ul>	<ul style="list-style-type: none"> <li>• With 15 affirmative votes</li> </ul>



## 2. Public Involvement

Constructive public involvement is essential at all levels of transportation planning. DRCOG is responsible for proactively engaging the public in the regional transportation planning process, and embraces federal requirements that MPOs provide the public *with complete information, timely public notice, full public access to key decisions, and early and continuing involvement* in developing the planning products described in Chapter 4. DRCOG's efforts focus upon region-wide transportation issues, the interrelationship of transportation planning with land use and other planning activities, and the Metro Vision plan. *Public Involvement in Regional Transportation Planning* documents DRCOG's public involvement process. DRCOG reviews the process annually.

Recent federal regulations and executive orders have emphasized broadening public participation in transportation planning to include affected groups that have not traditionally been very involved, such as disabled, low-income, and minority constituents. All DRCOG-hosted public hearings and forums are held in venues that are wheelchair accessible, and DRCOG accommodates and provides services for persons with other disabilities when such services are requested in advance.

Specific goals of DRCOG's public involvement process are:

- **present information and educate the public** about the regional transportation planning process, including the role of the MPO, the DRCOG transportation committee structure, and the types of products that are developed and the implications of those products.
- **continuously solicit public input** through its Board members, public forums, public hearings, attending local community and interest group meetings, distributing questionnaires and newsletters—especially at the beginning of planning processes, at key decision points, and when final drafts are prepared. DRCOG makes maximum use of

opportunities to speak to communities and organizations at their scheduled meetings; experience has shown that going out to the public rather than expecting the public to come to a DRCOG meeting is more productive.

- **facilitate information flow between the public and decision-makers** by compiling public issues, comments and concerns into complete and concise documents.
- **consider and respond to public concerns.** DRCOG considers public concerns in preparing draft documents. The transportation committees and the DRCOG Board consider expressed public concerns when making decisions. DRCOG is responsible for drafting responses to identified issues and for documenting the consideration given to major issues by decision-makers. For certain processes (specifically, the Metro Vision RTP and TIP, described in Chapter 4), if significant comments are received on the draft documents, DRCOG prepares a summary, analysis, and report on the disposition of those comments.

The goal of public involvement is to assure that the decisions regarding a proposed plan or project are made only after the public is made aware of and has the opportunity to comment on the proposal.

The DRCOG regional transportation planning process and its corresponding system-level public participation is a coordinated effort of the MOA partner agencies. However, public participation takes place at the city, county, corridor, and project levels too. In fact, individuals concerned about a specific project or citywide plan, for example, will find their participation to be more meaningful in a public involvement process conducted specifically for that project or plan. While DRCOG provides opportunities for further public comment on proposed projects during development of regional products such as the Metro Vision RTP or TIP, DRCOG's public involvement is intended to augment, not replace, project-specific public involvement activities.



# Planning Process Products

Federal laws and regulations require the regional transportation planning process to produce five major products. The following sections describe what each one contains and how each is prepared:

1. Unified Planning Work Program
2. Long-Range Transportation Plan
3. Transportation Improvement Program
4. Congestion Management Process
5. Planning Process Certifications



## 1. Unified Planning Work Program

The **Unified Planning Work Program describes all metropolitan transportation planning and transportation-related land use and air quality planning activities, regardless of funding source, on a two-year cycle**, addressing the planning priorities facing the DRCOG region. It identifies tasks that will be accomplished using federal transportation planning funds. The MOA partners participate in the activities of the Unified Planning Work Program; each contributing information, effort and resources. The work program defines the nature, extent and duration of that participation. The three partners conduct their individual planning programs in cooperation with the regional program. Each agency is responsible for:

- identifying priority planning issues of concern
- preparing work tasks to address them
- completing assigned tasks; and
- cooperating with other agencies so that tasks can be completed.

The Unified Planning Work Program provides the basis for the “scope of work” of the contract that DRCOG executes with CDOT to receive federal transportation planning funds.

The Unified Planning Work Program typically includes the following:

- a description of the region’s transportation objectives and critical issues and how the Denver region will address them, through the work program, during the coming two years. Input on the objectives and issues is obtained through a meeting of the governing boards of the three agencies and/or through transportation committees discussion and review.
- the accomplishments of preceding Unified Planning Work Programs and the current status of the transportation planning program
- an overview of Unified Planning Work Program priority activities
- descriptions of the planning tasks to be performed using federal transportation planning funds and match (and other funds identified by mutual agreement), specifically identifying work activities, objectives, products, participants, responsibilities, and expected completion schedule
- identification of funding sources, with revenues and expenditures shown by agency by task, and with documentation that meets federal and state requirements; and
- descriptions of other major transportation planning activities by MOA partner agencies and local governments using other funds. These projects are briefly identified for informational reference.

The work program year is the federal fiscal year, which begins each October 1. Preparation of the Unified Planning Work Program typically begins in March of odd-numbered years. DRCOG leads this effort, with significant collaboration from RTD and CDOT and assistance from other agencies through the Agency Coordination Team. FHWA and FTA review the work program to assure that the proposed activities are consistent with federal requirements and eligible for federal funding. The Unified Planning Work Program is adopted by the DRCOG Board through the transportation committees process. When the adopted work program receives formal federal approval, CDOT prepares and executes the consolidated transportation planning grant contract with DRCOG using a summary version of the Unified Planning Work Program as the scope of work. Exhibit 5 shows a typical timeline for developing the Unified Planning Work Program.

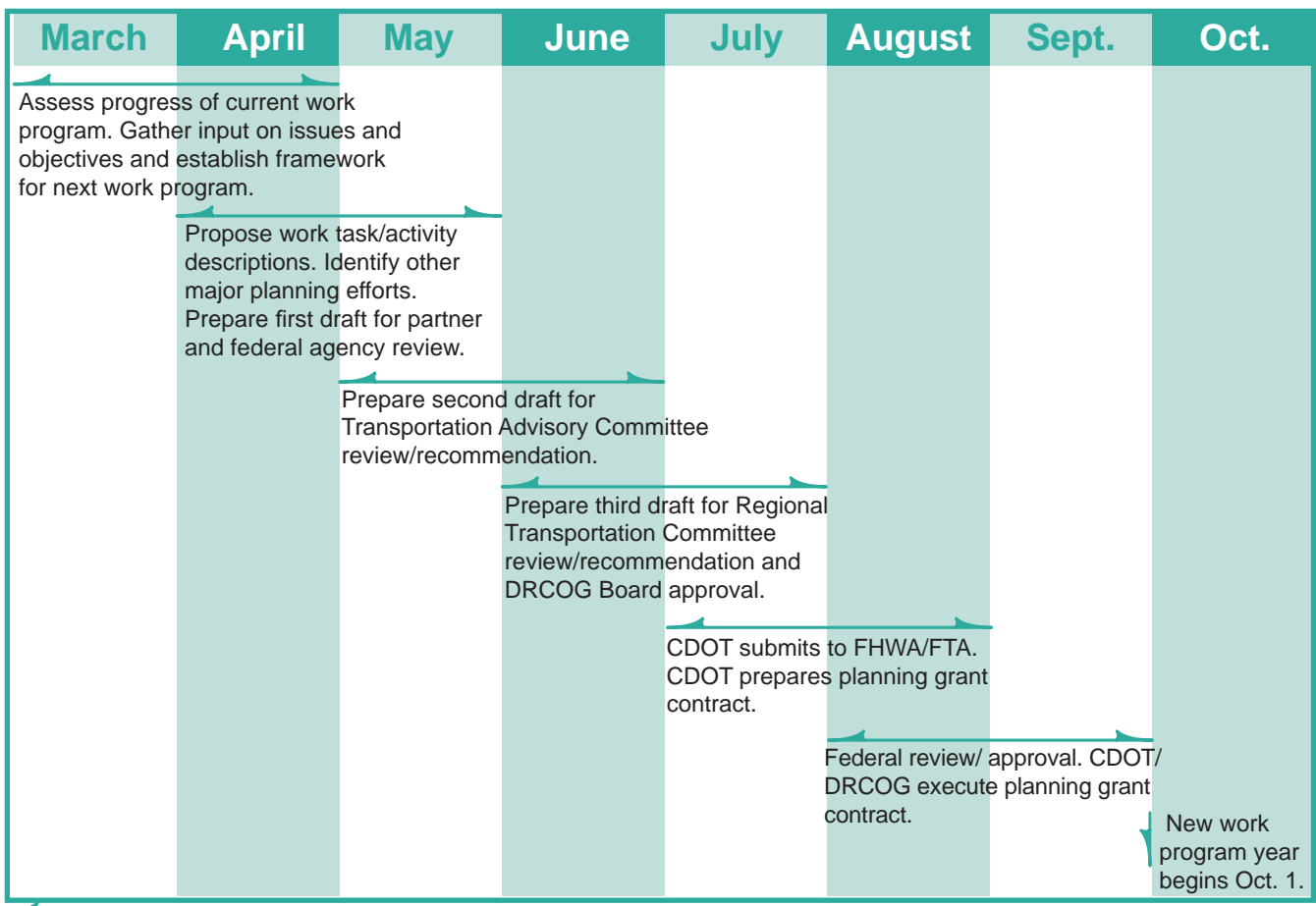
### Relationship to the Statewide Transportation Planning/Programming Process

CDOT provides input on planning issues and concerns and on Unified Planning Work Program tasks, products and timing desired by the statewide process. As funding allows, the Unified Planning Work Program includes the mutually agreed upon activities necessary to assure seamless products and consistent schedules.

### Amendments

Generally midway through each federal fiscal year and at the end of the first federal fiscal year, progress on the work program is reviewed by the Agency Coordination Team. As needed, revisions are identified and an amended Unified Planning Work Program is adopted by the DRCOG Board through the transportation committees process. CDOT conveys the adopted amended Unified Planning Work Program to FHWA and FTA for approval.

**Exhibit 5 • Typical Unified Planning Work Program Timeline (Odd-numbered years)**





## 2. Long-Range Transportation Plan

The Metro Vision Plan is a comprehensive policy document that expresses the region's vision for growth, development, environmental quality, and transportation. It identifies the long-range transportation vision, goal, and policies needed to support the desired physical, social, and economic development of the region (the other plan components). Traditionally, DRCOG develops and maintains a **Metro Vision regional transportation plan (RTP)** as a part of the region's Metro Vision Plan. The Metro Vision RTP provides more detail than the Metro Vision Plan and includes two key components:

- The **Metro Vision transportation system** reflects a transportation system and accompanying programs and services necessary to enhance the region's quality of life and adequately respond to mobility demands. Not fiscally constrained, the Metro Vision transportation system is the region's "20-year transportation plan" required by state law and referred to in state rules as the "vision plan."
- The **fiscally constrained regional transportation plan** is the subset of the Metro Vision transportation system required by federal law for transportation management areas. The fiscally constrained RTP identifies the affordable, multimodal transportation system that can be achieved over a minimum 20-year planning horizon with financial resources that are expected to be "reasonably available."

**The specific titles of these two components may change over time**, but the concept of identifying both a "vision" transportation system and one that is fiscally constrained is expected to

The Metro Vision RTP is the Denver region's long-range transportation plan. Its key components are:

- the Metro Vision transportation system
- the fiscally constrained RTP

remain. For consistency, both the Metro Vision transportation system and fiscally constrained RTP cover the entire transportation planning region. Both components of the Metro Vision RTP are reviewed and amended/updated as necessary. Within the transportation management area, federal law requires the fiscally constrained RTP to be reviewed and updated at least every four years to validate air quality conformity.

Federal regulations require the fiscally constrained RTP to identify and document the regional transportation policies, facilities, improvements, and services comprising the integrated multimodal transportation system; a system that facilitates the safe and efficient movement of people and goods, addressing current and future transportation demand, within fiscal constraints. The fiscally constrained RTP:

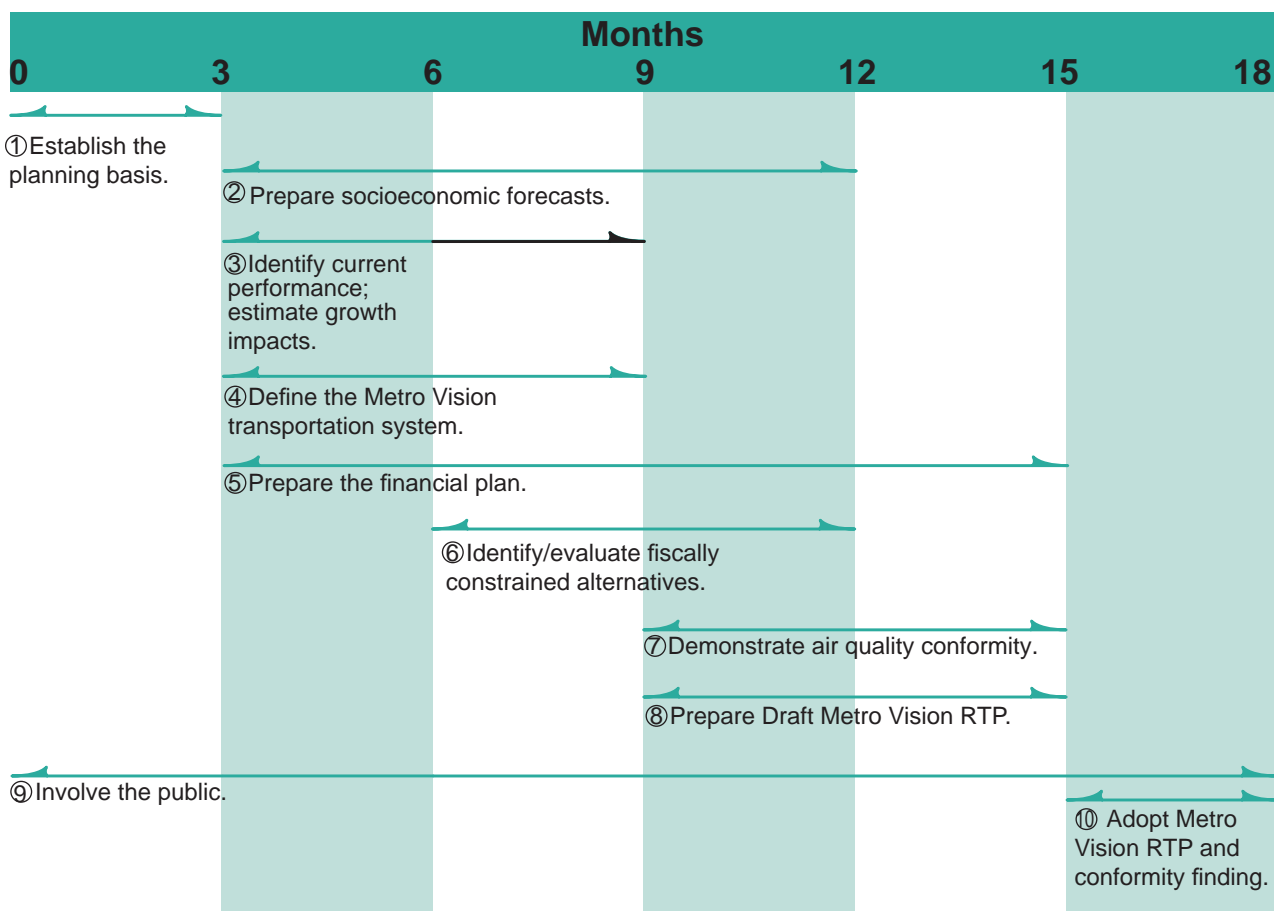
- shows the consideration given to the region's comprehensive long-range land use plan and development objectives (i.e., the other elements of Metro Vision)
- considers the planning factors (see Chapter 2)
- forecasts the future transportation demand of persons and goods
- emphasizes facilities serving important national, regional, and metropolitan functions
- provides general project descriptions (referred to in the regulations as "design concept and scope") sufficient to develop realistic cost estimates and permit air quality conformity examination
- considers the findings of the congestion management process
- identifies modernization and rehabilitation strategies necessary to preserve the transportation system
- identifies operational and management strategies to make most efficient use of the transportation system
- includes a safety element coordinated with the State strategic highway safety plan of strategies and policies
- discusses environmental mitigation policies, programs, or strategies

- includes appropriate bicycle and pedestrian facilities and proposed transportation enhancement activities
- contains a financial plan describing the cost and funding assumptions and showing fiscal constraint; and
- within the transportation management area, conforms with Clean Air Act requirements.

When a long-range transportation plan is being developed, the MOA partners are working on a complex series of interrelated and overlapping tasks spanning 18 to 24 months. A general description of typical tasks follows. Exhibit 6 illustrates the tasks on an 18-month timeline, and Exhibit 7 shows long-range transportation plan development responsibilities of the MOA partners.

### Exhibit 6 • Typical Long-Range Transportation Plan Timeline

Numbered tasks are described further in the text.



## Exhibit 7 • Partner Responsibilities in Developing Long-Range Transportation Plans

### **DRCOG:**

- prepares/adopts the Metro Vision Plan including the transportation element
- prepares/adopts the Metro Vision RTP including both the Metro Vision transportation system and the fiscally constrained regional transportation plan
- prepares/adopts the finding of air quality conformity for the fiscally constrained RTP
- coordinates activities, assures collaboration, facilitates review and approval process
- prepares socioeconomic forecasts
- runs regional travel model
- identifies and evaluates transportation strategy alternatives including congestion management options
- leads the process that selects priority capital projects for the integrated multimodal system
- leads development of the financial plan demonstrating fiscal constraint
- coordinates the air quality conformity process
- conducts public involvement activities and consults with land management and environmental resource agencies
- publishes the Metro Vision Plan, Metro Vision RTP, and conformity documents and makes them available to the public
- maintains process for amending the Metro Vision RTP

### **CDOT:**

- provides guidance about state regulations, Transportation Commission investment priorities, and plan preparation
- provides state highway system performance data and goals
- identifies capital expansion, safety, preservation (system quality), security, and operations (program delivery) needs for state highways to implement Metro Vision and participates in the capital project evaluation/selection process for the integrated multimodal system
- reviews highway networks and regional travel model results including data for air quality conformity
- works with DRCOG to cooperatively estimate long-range transportation revenues and cooperates in the development/review of the financial plan
- provides an overview of environmental mitigation opportunities
- assists with the development of strategy and project cost estimates
- reviews the Metro Vision RTP and facilitates review by Statewide Transportation Advisory Committee
- participates in public involvement and agency consultation activities
- integrates and consolidates the Metro Vision RTP into the statewide transportation plan

### **RTD:**

- provides transit system performance data
- identifies capital expansion, safety, preservation, security, and operations needs for the transit system to implement Metro Vision and participates in the capital project evaluation/selection process for the integrated multimodal system
- reviews transit networks and assists with regional travel modeling
- works with DRCOG to cooperatively estimate long-range transportation revenues and assists with the financial plan
- assists with the development of strategy and project cost estimates
- reviews the Metro Vision RTP
- participates in public involvement and agency consultation activities

## Step 1. The planning basis

To begin, the region's adopted long-range transportation vision, goals, policies and action strategies are examined in concert with the long-range land use/development vision and in light of then-current federal and state requirements. Through the transportation committees process, they are reconfirmed or revised as appropriate to establish the long-range planning basis and foundation of the Metro Vision RTP. Subsequently, to assist in examining alternative transportation strategies and networks, eligibility and evaluation criteria and/or methodologies consistent with the goals and policies are identified. These too are brought through the transportation committees process for policy level acceptance.

## Step 2. Socioeconomic forecasts

Socioeconomic forecasts are the foundation of regional travel and air quality modeling. Estimates of population, employment, and households by income group for the current year, the horizon year of the long-range plan, and for interim "staging" years required for air quality conformity modeling are produced. Assisted by a panel of economists and demographic experts (including the state demographer), DRCOG starts by establishing **regional control totals** based on broad national and state forecasts and expectations. These regional totals are then distributed down to smaller areas called **transportation analysis zones**, taking into account Metro Vision policies, transportation characteristics, and market and other factors that determine each small area's development or redevelopment potential. Local governments assist by verifying current data, providing local development plans and expectations, and reviewing initial estimates. The 6,250-square-mile (approximate) DRCOG modeling area has more than 2,800 transportation analysis zones.

During the course of the regional plan development, numerous transportation analysis zone-level data sets are prepared. Preliminary data sets are used for understanding the implications of growth (step 3) and for review by local governments. Alternative data sets may be prepared to reflect and test both unconstrained

and fiscally constrained network options (steps 4 and 6) and growth and development options (step 3). All data sets add up to the regional control totals. The socioeconomic forecasts are "finalized" when regional travel modeling for air quality conformity is started (step 7).

## Step 3. Current system performance and the implications of growth

DRCOG summarizes the current overall performance of the regional transportation system using performance measure data from CDOT, RTD, local governments, public transportation authorities, and the regional travel model. DRCOG also uses preliminary data from the regional travel model to quantify how much travel demand will increase over the time period covered by the plan and to spotlight the implications of this growth if transportation facilities beyond those currently underway are not built (i.e., how performance will deteriorate in the future if further improvements to the system are not made). This step establishes base measures of performance against which potential improvement options can be compared.

As part of this step, DRCOG may identify alternative land use/development scenarios (differing allocations of growth) with transportation systems options and evaluate them to examine benefits, impacts and costs. In the past, such evaluation (combined with other analyses) led to the "urban form" elements currently contained in Metro Vision.

## Step 4. Define the Metro Vision transportation system

In this step, DRCOG works with the MOA partners, local governments, public highway authorities, other interested parties, and the public to identify the future transportation system that would best align with and implement the other components of Metro Vision. The Metro Vision transportation system typically describes an integrated multi-modal system that includes:

- rail and bus transit service, and multimodal passenger facilities
- the principal and major regional arterial and freeway network
- improvements for bicyclists and pedestrians
- freight system improvements, and

- preferred perspectives on maintenance and preservation, management and operations, safety, security, environmental mitigation and enhancement of the transportation system.

Each of these elements is updated during the process to the extent that revisions are warranted. Some of these are described in substantially more detail in stand-alone documents, which may or may not be updated during specific plan development cycles.

Conceptual cost estimates are prepared, and the total cost to build, operate, and maintain this system is identified; however, **this system has no fiscal constraints**. The Metro Vision transportation system becomes the starting point for defining the fiscally constrained RTP.

The Metro Vision transportation system is incorporated in summary form in the Metro Vision Plan document and discussed in more detail in the Metro Vision RTP.

As an Appendix of the Metro Vision RTP, DRCOG maintains “corridor visions” for 35 key multimodal corridors of the region. The individual corridor visions include a vision statement, corridor goals/objectives, corridor context, discussion of select environmental resources, and depiction of the strategies and projects that comprise the unconstrained vision necessary to influence and respond to future growth and development.

### Step 5. The financial plan

The fiscally constrained component of the Metro Vision RTP must include a financial plan that reconciles the estimated costs of constructing, maintaining, and operating the proposed transportation system with reasonably expected revenues over the time period covered by the plan. Developing the financial plan is a cooperative effort by the MOA partners, local governments, public highway authorities and others.

The financial plan for any fiscally constrained RTP must consider and ultimately define numerous financial aspects including (but not limited to):

- the base fiscal year for revenue estimates

- the precise number of years covered by the plan
- how conservative or optimistic and how flexible or inflexible the estimation of “reasonably expected to be available” revenues is. Funding sources include traditional federal-formula and state sources, discretionary sources, local governments, private developers, tolling, existing and new public transportation authorities, public-private partnerships, transit farebox, and potential new state, regional, or local transportation funding initiatives.
- for any agency whose responsibilities extend beyond the DRCOG region (CDOT, for example), how much revenue is allocated within the DRCOG region; and
- cost estimation; i.e., what is needed at the broad investment category level and what is needed for specific projects.

The Agency Coordination Team and/or ad hoc committees may work through technical issues pertaining to fiscal constraint. Relevant information is provided to the transportation committees for explicit consideration of draft revenue and cost estimates prior to the DRCOG Board approval of networks for air quality conformity testing (step 6). The final financial plan is explicitly considered by the transportation committees as it becomes part of the Metro Vision RTP document to be adopted by the DRCOG Board.

DRCOG will clearly identify the funding gap between the cost of the Metro Vision transportation system and the revenues available to implement the fiscally constrained RTP.

### Step 6. Fiscally constrained alternatives

The Metro Vision transportation system requires a level of funding beyond what is reasonably expected, but the fiscally constrained RTP must specify only those improvements that can be afforded. The objective of this step is to define the subset of Metro Vision transportation system projects and strategies that best achieve the Metro Vision Plan’s planning and transportation objectives within the constrained level of funding. This is accomplished by first evaluating the roadway and transit capital improvements of the Metro Vision transportation system using the accepted criteria and/or

methodologies (step 1) to identify projects that are the highest priority. Initial evaluation results are used to identify alternative improvement “packages” (groups of projects). Programmatic options may also be examined, such as:

- the level of facilities to be considered for improvement in the fiscally constrained RTP
- the relative emphasis to be placed on mobility, operations, preservation, safety, etc.
- modal preferences or multimodal opportunities; and
- inclusion of projects that will (or could) be funded by future voter initiatives, tolling, etc.

The alternative packages or programmatic options are then further evaluated. DRCOG performs this task with assistance from MOA partner agencies, local governments, and the transportation committees. A key product of this step is approval by the DRCOG Board through the transportation committees process of draft fiscally constrained highway and transit networks to be assessed for air quality conformity. Interim year “stages” of these networks are subsequently identified for air quality conformity testing.

### **Step 7. Air quality conformity**

The fiscally constrained components of long-range transportation plans must conform to appropriate State Implementation Plans for air quality (see Section 5.9). As established in federal regulations for conformity determinations, the proposed fiscally constrained RTP networks are modeled in combination with the final transportation analysis zone-level socioeconomic forecasts to determine travel on the roadway and transit system. The regional travel model results including traffic volumes, vehicle miles of travel, average vehicle speed, and transit ridership by time of day are used to predict the amount of various pollutants emitted by these on-road mobile sources. The amount of predicted pollutant emissions must not exceed budgets established in State Implementation Plans. Implementation of transportation control measures is also assessed. These criteria are examined for the long-range horizon year of the fiscally constrained RTP and for interim years established considering federal and State Implementation Plan requirements. All criteria must be met for all years evaluated. If so,

DRCOG prepares a technical document supporting a conformity finding. This document is taken to the Air Quality Control Commission in a public hearing; that body formally comments on the finding. Also a public hearing is held at the DRCOG Board. The DRCOG Board adopts the conformity finding through the transportation committees process as part of the Metro Vision RTP adoption. The conformity finding documentation, along with the plan documentation, is provided to FHWA/FTA for the federal conformity determination. The federal conformity determination for a fiscally constrained RTP is valid only for four years. Exhibit 8 shows air quality conformity responsibilities.

### **Step 8. Metro Vision RTP preparation**

DRCOG develops the Metro Vision RTP document. If multiple roadway/transit network alternatives were approved for conformity evaluation in step 6, the evaluations and committee processes that define the specific capital projects to be included in the final draft fiscally constrained RTP are conducted. The Metro Vision RTP includes all the elements noted in step 4. For the fiscally constrained RTP, appropriate regional strategies or areas of emphasis are identified consistent with the financial plan. The parts of the corridor visions that are fiscally constrained are updated. The financial plan is detailed and transportation benefits and impacts are documented. DRCOG prepares drafts of Metro Vision RTP text and, through review by the transportation committees, works through remaining issues. A copy of the draft is also provided to CDOT to coordinate review by the Statewide Transportation Advisory Committee.

### **Step 9. Public involvement and agency consultation**

DRCOG’s general public involvement procedures are discussed in Chapter 3 and are applied to the process of regional transportation plan development. Public involvement includes outreach from the beginning of the process through its completion. Agency consultation typically takes place as appropriate in steps 3 through 7. DRCOG usually holds a minimum of two public meetings when working on a new plan and may conduct public forums or open houses as well. As possible, public participation events of



## Exhibit 8 • Air Quality Conformity Responsibilities

An MOA between DRCOG and the Colorado Department of Public Health and Environment outlines specific roles and responsibilities for transportation conformity evaluations. Another MOA between DRCOG and five other transportation or air quality agencies specifically addresses 8-hour ozone conformity. The working interpretation of these MOAs includes:

- The interagency consultation process shall be convened at the outset of the plan development process and at key points throughout.
  - The draft fiscally constrained RTP roadway and transit networks approved in step 6 serve as the transportation system basis. Per the 8-hour ozone MOA, the DRCOG travel model covers all of the southern subarea of the 8-hour ozone nonattainment area (the subarea boundary line is the nominal alignment of Weld County Road 38, the extension of the Boulder/Larimer County boundary eastward to the Morgan County line). DRCOG coordinates with Weld County and CDOT Region 4 to define the networks outside of the DRCOG region.
  - DRCOG, in cooperation with RTD, CDOT, and affected local governments and public transportation authorities, develops a schedule of improvements for the interim staging years required in the conformity process.
  - DRCOG details these networks by identifying roadway classification, laneage, “area type,” transit service frequency, parking costs, and numerous other transportation modeling assumptions.
  - DRCOG also determines other factors that may need to be assumed in the air quality analysis, such as:
    - estimates of the travel reductions attributable to nonmotorized facilities and demand and system management strategies in the fiscally constrained RTP, or
    - local government and agency commitments to decreased sanding or improved street sweeping reducing small particulate pollution.
- DRCOG runs the regional travel model and provides the results to the Agency Coordination Team to check reasonableness.
  - Thirty days afterward, DRCOG submits the final transportation data to the Air Pollution Control Division, which calculates the final pollutant emission levels and provides the results to DRCOG within 30 days. The agencies may agree on more or less time, considering the nature of the data and overall time and schedule for RTP adoption.
  - DRCOG prepares the conformity finding technical document. This includes incorporating emissions data that the North Front Range MPO and Air Pollution Control Division have developed for the northern subarea of the 8-hour ozone nonattainment area. The 8-hour ozone MOA and draft SIP allow the parties to utilize either the entire nonattainment area or the two subareas in demonstrating 8-hour ozone conformity.
  - The Air Quality Control Commission, the North Front Range MPO Planning Council, and the DRCOG Board each hold public hearings on the conformity finding. DRCOG distributes the technical document a minimum of 30 days before the earliest of three public hearings.
  - Pursuant to its public hearing, the Air Quality Control Commission provides comments to DRCOG about conformity of the fiscally constrained RTP.
  - Upon adoption by DRCOG for the southern subarea and North Front Range for the northern subarea, DRCOG transmits the conformity finding documentation along with the plan documentation to FHWA/FTA.
  - FHWA/FTA issue the federal conformity determination.

the MOA partner agencies are jointly sponsored or mutually attended. Formal public hearings with appropriate public notice are held at the DRCOG Board meetings for adoption of an update or revision to the Metro Vision Plan and for adoption of the Metro Vision RTP and associated conformity finding for the fiscally constrained RTP. DRCOG summarizes all public comments received via outreach, forums, meetings, phone and email messages, and other sources, drafts responses, and presents this information to the transportation committees and DRCOG Board to consider. If significant public comments are received on draft documents, a summary, analysis, and report on the disposition of such comments is included as part of the final Metro Vision RTP documentation.

### Step 10. Metro Vision RTP adoption

The Metro Vision RTP and fiscally constrained RTP conformity finding require public review and adoption by the DRCOG Board through the transportation committees process. Upon transportation committees recommendation of the draft Metro Vision RTP and conformity finding documentation, DRCOG announces a formal public hearing and those documents are made available for public examination. Final transportation committees recommendations and DRCOG Board action take place after consideration of public input. Upon adoption, DRCOG transmits the Metro Vision RTP to CDOT; the Metro Vision transportation system component for integration into the state's vision transportation plan (along with the Metro Vision Plan's policy level documentation) and the fiscally constrained RTP component for inclusion in the state's fiscally constrained transportation plan.

### Relationship to Statewide Transportation Planning/Programming Process

Federal rules require statewide transportation plans to be coordinated with metropolitan transportation plans and states to cooperate with MPOs on the portions of the plans affecting metropolitan planning areas. These requirements are acknowledged in the MOA. State statute requires CDOT to "integrate and consolidate" regional transportation plans into

a comprehensive statewide transportation plan. The rules for statewide transportation planning indicate that "regional transportation plans... shall...form the basis for developing...the statewide transportation plan" and that "at a minimum, the statewide transportation plan shall include priorities as identified in the regional transportation plan." If the Metro Vision RTP is developed in a process consistent with state rules and is responsive to Statewide Transportation Advisory Committee and CDOT reviews (reflected by favorable action by the Regional Transportation Committee), CDOT integrates it into the statewide plan.

### Amendments

The Metro Vision RTP may be amended semi-annually following the DRCOG Board-adopted Metro Vision Plan Assessment process. The "cycle 1" amendment process usually begins in January and finishes in July. It focuses on requests that do not require changes to the transportation analysis zone-level socioeconomic forecasts. The "cycle 2" amendment process usually runs from July to January. Major amendments that entail changes to the transportation analysis zone-level socioeconomic forecasts are only accommodated in "cycle 2." The amendment schedule and nature of allowable amendments may be altered by DRCOG Board action. Corresponding amendments to the Metro Vision Plan are at the DRCOG Board's discretion.

An amendment to the fiscally constrained RTP **and** new air quality conformity finding are required for highway or transit network changes of regional significance, such as:

- new rapid transit lines
- new interchanges
- interchange improvements that add or delete travel movements; and
- highway widenings of one centerline-mile or more on plan roadways.

An amendment to the fiscally constrained RTP, but **no** new air quality conformity finding, is required for:

- RTP network changes outside the transportation management area
- changes in the proposed funding source; and
- substantive changes to elements of the Metro Vision RTP that are not specifically included in the air quality conformity modeling (such as revision of the bicycle corridors map).
- highway widenings of less than one centerline-mile on plan roadways
- changes to local, collector and minor arterials implemented with local or private funds
- minor scope changes to projects
- minor changes to non-conformity-modeled elements, and
- text clarifications or corrections.

An amendment to the fiscally constrained RTP is **not required** for lesser revisions, such as:



### 3. Transportation Improvement Program

The Transportation Improvement Program (TIP) is a staged multiyear program of projects to implement the fiscally constrained RTP. The TIP identifies the federally-funded surface transportation strategies and projects (or phases of projects) to be implemented in the DRCOG transportation management area during the next few years. Per state protocol, the TIP also includes the CDOT projects being implemented using only state funds.

The federal requirement under SAFETEA-LU is that TIPs cover at least four years. To be consistent with the State TIP (STIP), DRCOG's TIP covers a six-year period; federal agencies consider the last two years as informational. The TIP is updated at least every four years as required by federal regulations.

Like the fiscally constrained RTP, the TIP must conform with the requirements of the Clean Air Act, so it must identify **all** regionally significant projects, regardless of funding source, being completed in the TIP period. That includes roadway capacity projects being built by local governments with local funds, new tollways or capacity increases to existing ones by public highway authorities, and major projects being implemented by RTD with its funds.

DRCOG leads the TIP development, working collaboratively with the MOA partners, air quality agencies, local governments and others. TIP

No project using federal surface transportation funds can move forward unless it is shown in the TIP. Only projects that implement the fiscally constrained RTP can be selected for funding.

development and adoption takes about 15 months and a general description of usual tasks follows. Exhibit 9 shows a typical timeline and Exhibit 10 identifies TIP development responsibilities of the MOA partners. Pursuant to the MOA, the three partners are working together to better integrate project selection in the TIP, and the evolving integration efforts are identified each TIP cycle.

#### Step 1. Develop policy for TIP preparation

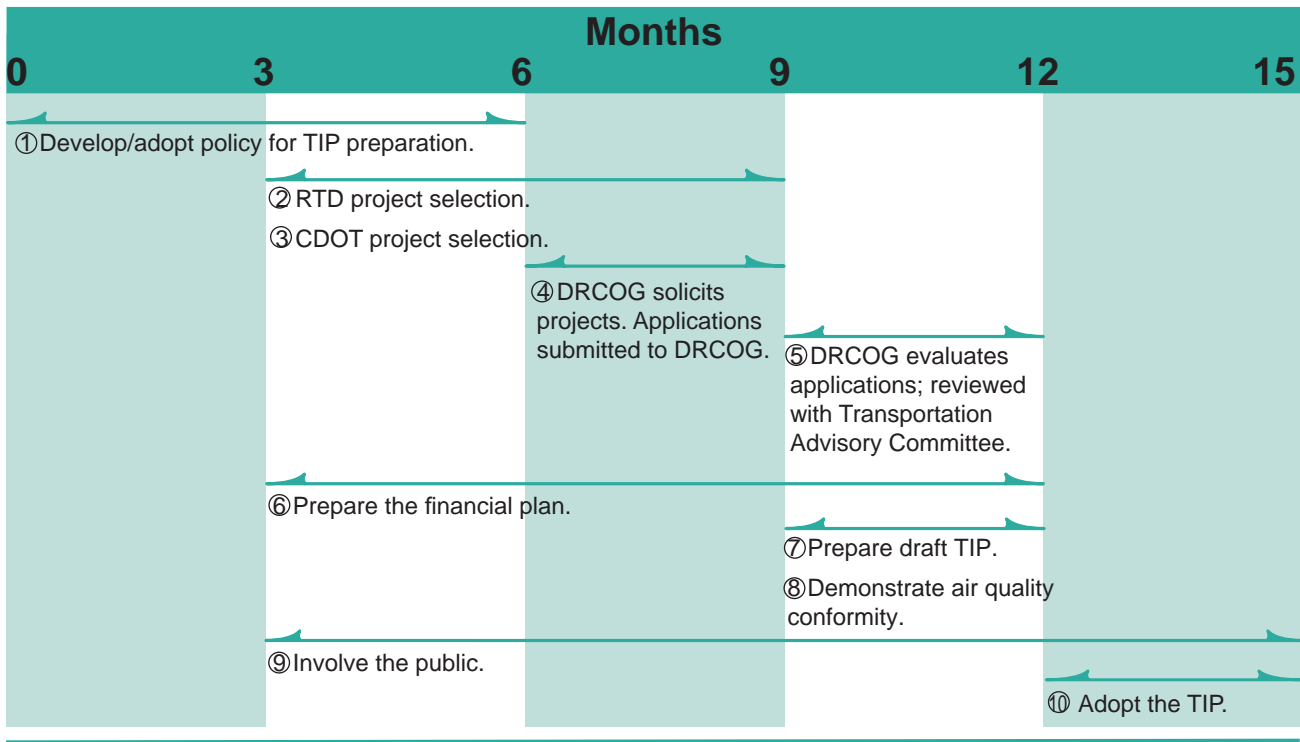
Each time a new TIP is prepared, the first step is to establish or confirm the process, procedures, criteria, etc. that will be used to develop it and revise it. DRCOG assembles these into a policy document for adoption by the DRCOG Board through the transportation committees process. Ad hoc committees or working groups are typically established to assist in this effort. The policy document is adopted before DRCOG solicits applications for TIP funding (step 4).

Policy items typically considered and discussed include:

- reconfirming the time horizon of the TIP, how many years will be fully programmed, and perspectives on how many years are considered “committed”
- identifying TIP project selection integration actions

## Exhibit 9 • Typical Transportation Improvement Program Timeline

Numbered tasks are described further in the text.



- defining the regional objectives and strategies for project selection. Because the TIP is the mechanism to identify the projects and strategies from the fiscally constrained RTP that are the highest priority to implement in the immediate future, the goals and objectives from the Metro Vision Plan and Metro Vision RTP are reviewed to provide a TIP project selection basis
- identifying eligible applicants for DRCOG-selected categories and deciding how many applications each may submit
- establishing project eligibility (including and perhaps beyond federal criteria) for DRCOG-selected categories. This task typically defines “project types” consistent with regional goals/objectives
- specifying other application requirements, such as carryover project commitment, financial requirements including responsibility for providing local match and funding possible project cost increases, recipient responsibility for timely implementation, and who (from the applicant’s organization) is allowed to submit the applications
- defining the evaluation criteria by project type to rank/rate applications for DRCOG-selected categories; and
- defining the subsequent methods or procedural steps that result in project selection for the draft TIP.

Federal surface transportation funds are provided to states and regions in numerous different federal funding programs or “categories.” DRCOG directly selects projects for funding in three federal programs titled:

- Surface Transportation Program -Metro
- Surface Transportation Program -Enhancement
- Congestion Mitigation/Air Quality

### Step 2. RTD project selection

RTD has primary responsibility for selecting projects for the TIP that use federal transit formula (“Section 5307 and 5309”) and transit discretionary funds. RTD uses the Transit Development Program as the basis for its project selections and initial submittals to DRCOG (see Section 5.12). RTD provides its Section 5307 Program of Projects to DRCOG.

## Exhibit 10 • Partner Responsibilities in Developing the Transportation Improvement Program

### **DRCOG:**

- prepares/adopts the TIP
- prepares/adopts finding of air quality conformity
- coordinates activities, assures collaboration, facilitates review and approval process
- develops eligibility requirements and selection criteria for DRCOG-selected categories
- solicits projects and assists potential applicants
- may submit its own projects for selection consideration
- evaluates applications and selects projects in those DRCOG-selected categories
- ensures consistency of proposed projects with the fiscally constrained RTP
- develops the financial plan demonstrating fiscal constraint
- solicits descriptions of regionally significant projects being implemented in the TIP horizon using non-federal revenues
- coordinates the air quality conformity process including running the regional travel model if needed
- conducts public involvement activities
- publishes/distributes the TIP
- maintains process for TIP revisions

### **CDOT:**

- provides guidance about state regulations
- works with DRCOG to cooperatively estimate available short-range state and federal highway revenues and cooperates in the development/review of the financial plan
- solicits proposals and selects projects for funding with CDOT-controlled revenue
- provides details of CDOT-selected projects for inclusion in the TIP
- may submit its own projects for DRCOG-selected categories of the TIP
- participates in interagency review of proposed projects
- if needed, reviews highway networks and regional travel model results including data for air quality conformity
- reviews TIP information and documentation
- participates in public involvement activities
- incorporates the TIP into the STIP subsequent to governor's approval

### **RTD:**

- works with DRCOG to cooperatively estimate short-range regional and federal transit revenues and assists with the financial plan
- identifies projects for federal funding through its Transit Development Program
- provides details of RTD projects using federal funds to be included in the TIP
- provides details of other significant RTD projects using non-federal funds
- may submit its own projects for DRCOG-selected categories of the TIP
- participates in interagency review of proposed projects
- if needed, reviews transit networks and assists with regional travel modeling
- reviews TIP information and documentation
- participates in public involvement activities

### Step 3. CDOT project selection

CDOT receives federal highway funds from a variety of federal programs and also receives revenues from the Colorado Highway Users Tax Fund and from the Colorado General Fund (as provided by the state legislature). The Transportation Commission has established a structure for identifying and addressing needs on the state highway system with this combination of funds (see Section 5.10). CDOT projects are defined for purposes of the TIP in the following investment category or program areas:

- strategic projects
- surface treatment
- regional priorities
- congestion relief
- bridge
- safety
- elderly, disabled, rural, and other transit

Section 5.11 describes the CDOT TIP project selection processes. Projects selected in the transportation management area are included in the TIP. CDOT does not specifically identify whether the funds are state or federal; the TIP lists them all as state funds. CDOT operations and maintenance projects are not required to be listed in the TIP unless they are of a “capital” nature.

### Step 4. Solicitation for DRCOG-selected projects

Once the TIP preparation policy document has been adopted (step 1), DRCOG formally announces it is soliciting applications for TIP funding. The application forms and submittal process are Web-based. The application specifies instructions per the adopted policy document and embeds all evaluation criteria so applicants can immediately see how well their projects score and assess their competitiveness. The solicitation announcement typically gives sponsors six to eight weeks to complete and submit applications.

DRCOG conducts training on how to use the application program and jointly with CDOT holds a series of workshops on what it means to implement

projects using federal TIP funds. DRCOG also provides relevant material on its Web site.

### Step 5. Review and evaluation of submittals

DRCOG evaluates TIP applications using the process and methodology adopted in step 1. The Transportation Advisory Committee reviews the evaluations; a work group or ad hoc committee may be convened to assist. TIP applicants, DRCOG and CDOT or RTD may hold “peer reviews” of certain projects to better understand scope, cost, and schedule implications. DRCOG typically produces a validated scoring/ranking of eligible submitted projects, by project type, for consideration by the transportation committees, the public, and the DRCOG Board.

The exact nature of the final selection process tends to vary from one TIP cycle to the next, but the specific process defined in step 1 is carried forward. Typically, transportation committees review the ranked lists of projects, work groups or ad hoc committees assist in crafting options as to the best “mix” of projects, and geographic equity is examined. An interagency review phase allows the MOA partners to share their tentative selections with each other (along with projects proposed but not selected) for review and comment on synergistic and multi-modal opportunities and implementation conflicts.

### Step 6. Financial plan

The TIP must contain a financial plan showing proposed expenditures are consistent with reasonably expected revenues. DRCOG works cooperatively with CDOT and RTD to determine reasonably expected revenue by funding category, by year. The financial plan may contain proposals for new revenues, new revenue sources (for example, federal discretionary funds), or innovative financing, as long as they can be established as reasonably available. Costs are supplied by CDOT, RTD, and other project sponsors as part of their applications/submittals. The final financial plan is explicitly considered by the transportation committees and the DRCOG Board as part of the TIP adoption.

## Step 7. Draft TIP

After interagency review, the tentatively-selected projects from the DRCOG process and the potentially-revised submittals from RTD and CDOT are reviewed for consistency with the fiscally constrained RTP. DRCOG then assembles a consolidated draft TIP document, adding any federal discretionary or congressionally-earmarked projects. DRCOG identifies the regionally significant projects that will be completed using non-federal funds during the period of the TIP for inclusion in the network demonstrating air quality conformity and listing in the TIP document.

## Step 8. Air quality conformity

The process for demonstrating the TIP's air quality conformity is similar to that used for the fiscally constrained RTP (see Section 4.2). Regionally significant roadway capacity and major transit guideway improvements selected for the TIP or implemented using non-federal funds in the TIP time horizon are compared to the projects anticipated to be completed during the first interim "stage" of the fiscally constrained RTP (see Section 4.2, steps 6 and 7). If TIP horizon projects are not in that stage, an RTP conformity revision is processed concurrently. The regional travel model is run, pollutant emissions levels are estimated and compared to budgets, and implementation of State Implementation Plan transportation control measures is verified (see Section 5.9). Coordination is made with the North Front Range MPO to assure the requirements of the 8-hour ozone memorandum of agreement are addressed. If all criteria are met, DRCOG staff prepares a technical document supporting a conformity finding and public hearings are held. The DRCOG Board adopts the conformity finding through the transportation committees process as part of the TIP adoption. These items are provided to FHWA/FTA to issue the federal conformity determination.

## Step 9. Public involvement

Project selection considers the concerns of the public. Project sponsors are responsible for providing opportunities for public comment on projects and applications submitted to DRCOG. RTD's and CDOT's processes include public

participation. A formal TIP public hearing, with appropriate public notice, is conducted by the DRCOG Board prior to adoption. The TIP public involvement process also serves as the Section 5307 public involvement process, and the public hearing is noticed accordingly. DRCOG summarizes all public comments received per the public record, drafts responses as appropriate, and presents this information to the transportation committees and DRCOG Board. If significant public comments are received on draft documents, a summary, analysis, and report on the disposition of such comments is included as part of the final TIP documentation.

## Step 10. TIP adoption

The TIP and conformity finding require public review and adoption by the DRCOG Board through the transportation committees process. Upon transportation committees recommendation of the draft TIP and conformity documentation, DRCOG announces a formal public hearing and those documents are made available for public examination. Formal transportation committees recommendations and DRCOG Board action take place after consideration of public input. Upon adoption, the TIP is transmitted to the Governor for approval and to CDOT for inclusion in the STIP.

## Relationship to the Statewide Transportation Planning/Programming Process

The projects in DRCOG's adopted TIP are included without modification in the STIP, provided that the TIP was prepared in a process consistent with federal rules, demonstrates air quality conformity, and is approved by the Governor.

## TIP Revisions

The TIP may be revised between formal development cycles following the policies adopted in step 1. For any revision, air quality conformity must be considered. Typically, revisions are either of a policy or administrative nature.

**Policy amendments** entail significant changes that require public review and adoption by the DRCOG Board through the transportation committees process. The TIP policies of step 1

define the types of revisions that might require policy amendments. Examples from the current policy include:

- changing a project's funding by more than \$3 million during the TIP's first four years
- deleting a project, or deferring it from the first four years of the TIP, or
- adding a project such that a new conformity evaluation would be required.

Policy amendments are currently processed quarterly. For most, air quality conformity determination is a simple statement that there is no impact on conformity. Others, however, require an entire new conformity determination.

**Administrative modifications** are less significant and, by definition, do not affect air quality conformity. DRCOG processes them and no committee review or DRCOG Board approval is

required. Examples from the current TIP policy include:

- changing the designated responsible agency with the original sponsor's approval
- shifting funding within the TIP's first four years, or
- calling out specific projects to use bridge, safety, surface treatment, safe routes to school, or certain transit funds.

### Annual Listing of Federally Obligated Projects

Each fiscal year, DRCOG prepares a listing of projects for which federal funds were obligated from data supplied by CDOT and the Federal Transit Administration. This listing is presented to transportation committees and posted on the DRCOG website for public consumption.



## 4. Congestion Management Process

In transportation management areas, federal law requires the regional transportation planning process to include a congestion management process:

*"...that provides for safe and effective integrated management and operation... of new and existing transportation facilities... through the use of travel demand reduction and operational management strategies."*

The DRCOG region's congestion management framework, accepted by the DRCOG Board in 1993, is that congestion management requirements are addressed within the other transportation planning tasks, processes, and documents to the extent possible. Congestion management fits into the overall regional transportation planning process; it does not stand alone and is not a static product. The congestion management philosophy of considering travel demand reduction and operational management strategies as ways to assure the efficient and effective use of transportation facilities is routinely included in all project development

and transportation planning processes in the region. As the MPO, DRCOG is responsible for coordinating the congestion management process.

In transportation management areas such as Denver that are attainment-maintenance for air quality (see Section 5.9), federal funds **cannot** be programmed for any highway capacity project that would significantly increase capacity for single-occupant vehicles unless the project is based on an approved congestion management process.

The key components of the congestion management process are:

- **Congestion definition.** In the DRCOG region, congestion is considered "severe" for linear segments of the designated regional roadway system that have a congestion mobility grade of "D" or "F." The congestion mobility grade is calculated on a 1 to 20 point scale for every roadway segment. Points are calculated for each of five unique congestion measures, accumulated to a grand total, and used for the assignment of a grade. A map of roadway locations with a grade of "D" or "F" is produced annually.

## Congestion Mobility Grade Measures

**Duration** – How long does the congestion last?  
(“number of hours per day congested”)

**Severity** – How long are the delays at individual locations?  
(“percent of travel time in delay in peak hour”)

**Magnitude** – What is total amount of delay for all travelers at that location?  
(“Total daily delay time per mile”)

**Variation** – What is the variation in travel time between off-peak and rush hour?

**Reliability** – How frequently do crashes, incidents, or events occur?  
(“crashes per mile per year”)

- **Performance monitoring.** DRCOG assembles congestion information from a variety of sources including the regional travel model, local government and CDOT traffic counts, and outside sources such as the national

*Urban Mobility Report* prepared by the Texas Transportation Institute. Annual reports are produced to present updated information and new types of measures.

- **Strategy identification and evaluation.** In this component, the causes of congestion are examined and congestion management strategies are explored. Per the DRCOG congestion management system framework, this activity takes place at two distinct levels, the regional level and the project level, as described in Exhibit 11.
- **Implementation.** Projects must implement specific congestion management actions defined in the project level evaluation. Decisions as to schedule, responsibilities, and funding sources for the more regional congestion management strategies are made during the TIP process.
- **Monitoring of strategy effectiveness.** Recipients of Congestion Mitigation/Air Quality program funds (see Section 4.3) have a benefits reporting requirement to FHWA and the Transportation Commission. The

### Exhibit 11 • The Two Levels of Congestion Management Strategy Evaluation in the DRCOG Region

1. **Regional level.** During the development of long-range regional transportation plans, strategies for congestion management are identified and evaluated. The region’s preferred strategies are identified as part of the Metro Vision transportation system and the fiscally constrained RTP identifies the subset that will be “emphasized” with the reasonably expected funding resources. Separate but consistent documents may be prepared for certain strategies, such as a regional intelligent transportation system strategic plan or a travel demand management strategic plan.

2. **Project level.** For major highway and transit capacity projects, project level evaluation examines **specific** congestion management actions either alone, in combination, or in support of the project. Project level analysis is a more detailed and geographically-focused

evaluation of costs, benefits, and impacts of specific strategies. One source of information on strategies is the DRCOG Congestion Mitigation Toolkit. **The agency managing project development is responsible for project level congestion management evaluations.** There are two key examinations:

- Identification and evaluation of a “management strategy only” alternative to determine whether or not it could substitute for the additional capacity of the “build” alternatives being considered.
- If building additional highway or transit capacity is necessary, then congestion management strategies that most effectively support the operation of the “build” alternative are included in and implemented by the project.

DRCOG Board may direct that other projects conduct effectiveness studies when the project is completed or that projects install monitoring devices so that effectiveness can be easily examined. The DRCOG Board may also identify a Unified Planning Work Program task to examine the effectiveness of specific projects or congestion management strategies.

## Relationship to the Statewide Transportation Planning/Programming Process

Federal law only requires a congestion management process in transportation management areas, not throughout the remainder of the state. In the DRCOG transportation management area, the statewide transportation planning process must explicitly consider, analyze as appropriate, and reflect in its transportation planning products the DRCOG congestion management process.



## 5. Planning Process Certifications

Under SAFETEA-LU DRCOG and CDOT must certify to FHWA and FTA that the metropolitan transportation planning process is being conducted in accordance with all applicable federal requirements each time a new TIP is submitted. Similarly every four years FHWA/FTA must conduct its own review of the process. Both the self-certification and the federal quadrennial planning certification review hold an MPO and all planning partners in the transportation management area (including FHWA and FTA) accountable for the function and quality of the planning process in its region.

DRCOG initiates the self-certification process by a critical review of the federal requirements (see Chapter 2). With CDOT input, DRCOG prepares draft certification documentation that is taken for action by the DRCOG Board through the transportation committees process. Public comment is sought at the time of DRCOG Board action. If the conclusion is reached that the regional transportation planning process complies with all applicable federal requirements, the DRCOG Board and CDOT certify the process.

Federal law mandates that the self-certification accompany the submittal of an adopted TIP to FHWA/FTA. DRCOG, CDOT, and the federal

agencies discuss the schedule at the Agency Coordination Team (or elsewhere, as most appropriate).

FHWA and FTA are jointly responsible for conducting the quadrennial planning certification review for the U.S. Department of Transportation. The Environmental Protection Agency and other federal agencies may also participate. The federal agencies typically begin the process by sending out a questionnaire to be completed by the MPO that covers an array of planning topics. DRCOG, with the assistance of the MOA partners, air quality planning agencies, and local governments as appropriate, completes a formal response. The federal agencies conduct a “desk review” of this response, then typically spend two or three days in the region conducting an on-site evaluation, meeting with key staff from the agencies, local elected officials, and the public. FHWA and FTA jointly conclude the quadrennial planning certification review with one of the following actions:

- certify the transportation planning process
- certify the process subject to required corrective actions
- certify the process as acceptable for a portion of the overall requirements (in other words, not certify the process for some programs), or
- withhold certification.

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A certification conclusion is valid until a new FHWA/FTA quadrennial certification process is conducted.

If certification is limited or withheld, some federal funding to the region may be withheld by FHWA/FTA.

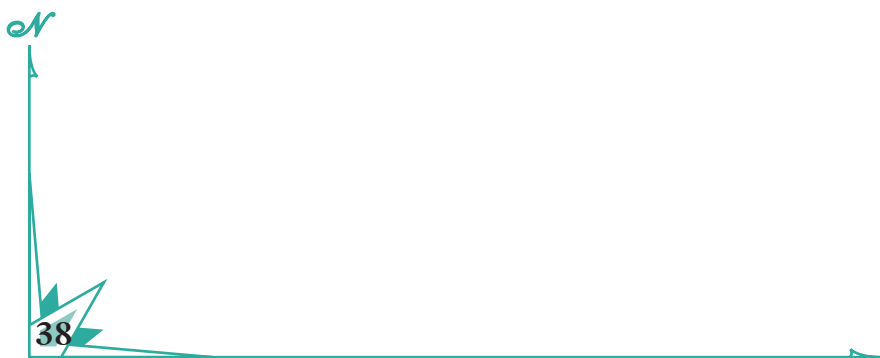
For the quadrennial certification review, FHWA and FTA determine at the start of each year when each of the MPO certification reviews will occur nationwide. An MPO may negotiate the timing of that review if it is incompatible with other major events of the organization. The joint certification

conclusion is released approximately two to three months after the on-site review, typically no later than the end of the federal fiscal year.

### **Relationship to the Statewide Transportation Planning/Programming Process**

The MPO self-certifications and quadrennial certification review conclusions may be considered by CDOT in its certification to FHWA and FTA that the statewide transportation planning process is being carried out in accordance with all federal requirements.

21





# Coordination with Other Transportation Processes

RTD, CDOT, air quality planning agencies, and local governments undertake numerous transportation planning and programming activities that interact with the regional process.

This chapter identifies those most relevant to the regional process, describes them, and shows how they relate to the regional process and how the activities are coordinated.



## 1. CDOT Interchange Approval

CDOT's Interchange Approval Process Policy Directive was established to ensure fair and consistent treatment of proposals for new interchanges or major interchange improvements on state highways. The Policy Directive was amended in December 2004 (and reconfirmed October 2008) and a Procedural Directive that implements it was issued in October 2005. The "1601 process" is applied to all state highways (interstates, other freeways, and non-freeway facilities) and to all applicants (local governments, public highway authorities, and CDOT itself) to manage the location of interchanges so that the state highway system's mobility and level of service is preserved. Such interchanges/improvements cannot be constructed until the applicant completes all the steps of the 1601 process identified in the Procedural Directive. Exhibit 12 summarizes those steps.

### Categories of Applications

Type 1: New interchanges on interstates or freeways, or any application not initiated by CDOT that seeks CDOT cost-sharing. Approval by Transportation Commission.

Type 2: New interchanges not on interstates or freeways, or any modification or reconfiguration to existing interchanges (with no CDOT cost-sharing). Approval by CDOT Chief Engineer (may be elevated to Transportation Commission).

Type 2a: Minor interchange improvements with little or no impact to the transportation system. Approval by the CDOT Chief Engineer (may be delegated to the CDOT Regional Director).

### Relationship to the Regional Transportation Planning Process

The Metro Vision transportation system of the Metro Vision RTP may include new interchanges on state highways or major improvements to existing ones without any 1601 steps being completed.

The fiscally constrained RTP typically must depict proposed new interchanges or interchange improvements for purposes of fiscal constraint and, in some instances, air quality conformity, either through the development of a new RTP or an amendment to an existing one. The following types of interchange improvements, which will typically be either Type 1 or Type 2 applications, are considered regionally significant and must be reflected in the conformity modeling network:

- new interchange
- improvements upgrading a local service interchange to a freeway-to-freeway interchange
- improvements adding missing movements to an existing interchange (for example, changing a half diamond to a full diamond, or adding new freeway-to-freeway ramps not currently provided)
- removal of an interchange or elimination of movements

For regionally significant interchange improvements in the transportation management area, appropriate CDOT approval of the system level study is needed no later than three weeks after the due date for project requests in the development of a new RTP or for RTP amendments. The applicant must provide the draft system level study (Type 1 and Type 2), or other data (Type 2a), to DRCOG 20 days before the date of needed CDOT action. For non-regionally significant interchange improvements in the transportation management area, and for any interchange improvements in the remainder of the transportation planning region,

appropriate CDOT approval of the system level study (Type 1 and Type 2) or other data (Type 2a) is needed at least 45 days prior to the DRCOG Public Hearing on a new fiscally constrained RTP or RTP amendment. If CDOT approval is not obtained in these timeframes, the request must be deferred until the next scheduled RTP amendment cycle. In all cases, applicants must provide DRCOG a conceptual level cost estimate, even if a system level study is not prepared.

The DRCOG land use forecasts for the current plan horizon are the analytic base for 1601 studies where fiscally constrained RTP funding sources are expected or desired. CDOT may also request a build-out assessment to further define project level requirements and financial commitments.

As appropriate, CDOT reports on the status of 1601 studies in the region to transportation committees.

## Exhibit 12 • Steps in the 1601 Process

The 7 steps in the 1601 process are briefly summarized as follows (for detail, see the 1601 *Procedural Directive*):

1. The applicant notifies the appropriate CDOT region of its desire to build a new interchange or improve an existing interchange on the state highway system, and the CDOT region sets a **pre-application project scoping meeting**. The purpose of the meeting is to determine the scope category and anticipated process and schedule for the proposed project. The CDOT Regional Director must approve the progression of any application to Step 2.
2. The applicant is responsible for all costs associated with the development, administration, and evaluation of such applications. If the applicant is not CDOT, an initial **intergovernmental agreement** is developed between the applicant and CDOT addressing: anticipated improvement category; responsibility for administrative and application costs; identification of needed studies and analytical procedures; level of design detail needed; environmental study expectations; long range plan consistency requirements; access permitting; and other relevant topics.
3. The applicant completes a **system level study** to identify the short and long term environmental, community, safety, and operational impacts on the state highway and surrounding transportation system. The system level study includes a preliminary financial plan that identifies all costs and proposed responsibility for funding and the effect of the proposed funding on the fiscally constrained RTP. Type 2a applications do not require a system level study, but the applicant must prepare data sufficient to substantiate that there is no potential for significant negative impact.
4. The Transportation Commission (Type 1) or CDOT Chief Engineer (Type 2) reviews and, if acceptable, **approves the system level study**, with conditions.
5. DRCOG must establish that the proposed new interchange or interchange improvements are **consistent with the fiscally constrained RTP**; often this requires an amendment to the RTP.
6. The applicant must prepare **conceptual design**, which must be approved by the CDOT Chief Engineer or Regional Director. The design report must contain any Access Code-related requirements. The applicant must complete the **NEPA** process, with the CDOT Chief Engineer or FHWA issuing the appropriate decision document. When the interchange is on the interstate, FHWA must grant access approval.
7. If the applicant is not CDOT, a **final intergovernmental agreement** between CDOT and the applicant is executed that details the actions to be implemented, ownership, costs, and a funding plan clearly identifying responsibilities. The CDOT Chief Engineer approves the final intergovernmental agreement, if it is acceptable. If the final funding plan differs substantially from that approved by the Transportation Commission in Step 4, it is submitted to the Transportation Commission for reconsideration.

*Upon completion of the final intergovernmental agreement, CDOT issues a state highway access permit. The applicant completes design, right-of-way acquisition, and construction per the approved final intergovernmental agreement and access permit.*



## 2. CDOT Corridor Optimization

Corridor optimization is the name CDOT has given to its process to identify how future travel demands in given corridors should be met. Corridor optimization produces a document that defines CDOT's vision of the future for potential highway expansion, future right-of-way needs, and permitted access. The document also suggests how transit, the parallel arterial street system, and other alternatives could help meet future overall corridor demands. The process is detailed in the Transportation Commission's *Corridor Optimization Guidelines (2001)*.

CDOT identifies corridors it believes might benefit from an optimization study and prioritizes the corridors for study. Transportation Commission approval is needed before a study can begin. While the Guidelines state that the study process is a collaborative effort between CDOT, regional, and local agency staff, it is the Transportation Commission's responsibility to approve a final Corridor Optimization Report. Exhibit 13 outlines the steps in the corridor optimization process.

### Relationship to the Regional Transportation Planning Process

Funding for corridor optimization studies within the transportation management area is shown in the TIP. Corridor optimization studies in the region are also mentioned in the informational section of the Unified Planning Work Program.

For a specific corridor, CDOT's corridor optimization process develops **CDOT's preferred corridor strategy** and an approved Corridor Optimization Plan becomes CDOT's input to the Metro Vision transportation system. Differences of vision between local governments, RTD, and/or CDOT as reflected in city, county, or corridor optimization plans are resolved when the Metro Vision RTP is developed. Decisions about what Corridor Optimization Plan recommendations can be funded are initially made when the fiscally constrained RTP is prepared. Implementation funding is programmed through the TIP in the transportation management area and the STIP in the remainder of the transportation planning region.

The DRCOG land use forecasts may be used as a starting point for a corridor optimization study.

However, the corridor optimization process may consider several different land use/transportation scenarios.

As appropriate, CDOT updates the transportation committees on the status of ongoing corridor optimization studies in the region.

### Exhibit 13 • Steps in the Corridor Optimization Process

The corridor optimization process is briefly summarized as follows (for detail, see the Guidelines):

1. Define limits of study and identify public agency participants.
2. Develop a problem statement, documenting the existing transportation system in the corridor and the travel markets that use the corridor.
3. Develop alternatives that directly respond to the problem statement. These alternatives provide a range of options that illustrate the trade-offs among costs, transportation benefits, and other impacts.
4. Assess the alternatives for effectiveness, land use consequences, potential environmental impacts, and economic feasibility.
5. Develop the Corridor Optimization Plan that defines the role of highways, transit, the arterial street system, and other alternatives such as high-occupancy vehicle lanes, transportation system and demand management, and intelligent transportation systems in meeting overall corridor travel demands.
6. Prepare a Business/Finance Plan to scope possible/feasible innovative and traditional funding mechanisms that may be available to implement the corridor vision.
7. Document the study in a Corridor Optimization Report that includes both the Corridor Optimization Plan and the Business/Finance Plan, and present the report for Transportation Commission action.

*CDOT is responsible for each step. Transportation Commission approval of a Corridor Optimization Report does not constitute a funding commitment by CDOT or the Transportation Commission.*



### 3. Revisions to State Highway Access Categories

The *State Highway Access Code* identifies the procedures and standards by which CDOT and local governments regulate property access to or from state highways. The *Code*, revised by the Transportation Commission in 1998 (major) and 2002 (minor) pursuant to state statute, specifies a classification system of eight separate categories for access management purposes, as shown in Exhibit 14. In 1999, CDOT and local governments cooperatively assigned each state highway segment a category on the basis of existing and future function and location of the highway/segment.

The *Code* establishes the process and procedure for making changes to the assigned category, which is accomplished through a rule-making hearing by the Transportation Commission. Exhibit 15 outlines the process. CDOT maintains the current schedule of assigned categories reflecting the original category assignment and all changes approved since 1999.

#### Relationship to the Regional Transportation Planning Process

Managing the state highway system to enhance safety, maintain smooth traffic flow, and protect the functional capability of the system (the intent of the *Code*) is consistent with policies of the Metro Vision Plan. In concept, state highways shown on the Metro Vision RTP network should carry an access designation consistent with the regionally-significant nature of that plan; specifically F-W, E-X, R-A, and NR-A (see Exhibit 14). In the already-developed portions of the region, established roadside development may make assignment of these high level access categories unrealistic and lower classifications based on the existing level of development may be the best that can be achieved.

When notified by CDOT of a proposed access category revision, DRCOG staff:

- for any NR (nonrural) designation requested, examines the request for consistency with the Metro Vision Plan urban growth boundary/area
- for any state highway on the Metro Vision RTP, checks whether the proposed access category is generally consistent with the expectations that come with being shown on that plan.

If there are no concerns, DRCOG does not submit testimony at the rule-making hearing. If there are inconsistencies or concerns, DRCOG staff immediately alerts the local agency and CDOT staff. If those problems can be addressed or reasonably explained, DRCOG does not submit testimony. If concerns are not or cannot be addressed, DRCOG may present testimony. There may be a need to revise or adjust the Metro Vision RTP during the next update or revision cycle to reflect approved access category changes.

As appropriate, CDOT updates the transportation committees on the outcome of relevant access category change requests.

#### Exhibit 14 • State Highway Access Categories

The *Code* identifies eight categories for access management as follows (for detail, see the *Code*):

- F-W (interstate, freeway)
- E-X (expressway, major bypass)
- R-A (rural regional highway)
- R-B (rural highway)
- NR-A (nonrural regional or principal highway)
- NR-B (nonrural arterial)
- NR-C (nonrural arterial, low speed character)
- F-R (frontage road)

er

The process for making changes to the assigned state highway access category is briefly summarized as follows (for detail, consult the *Code*):

1. Relevant local government, MPO or transportation planning region (with the approval of the local government), or CDOT initiates a request for a category change.
2. At least 90 days before anticipated Commission action, the applicant provides information to CDOT to support the request, including an explanation of the need for the requested change and a discussion of how the change is consistent with the purposes and standards of the *Code*.
3. CDOT:
  - reviews each request
  - prepares a recommendation to the Transportation Commission
  - provides a copy of pertinent documents to the appropriate local governments and MPO or transportation planning region 30 days prior to Commission action, and
  - prepares the notice of the rule-making hearing.
4. At the hearing, all interested persons are provided the opportunity to submit written or verbal testimony.
5. The Transportation Commission acts on the changes, based on the record of the rule-making hearing, as soon as practical following the hearing.



#### 4. Major Environmental Processes

The National Environmental Policy Act (NEPA), adopted in 1969, requires federal agencies to assess the environmental impact of major federal actions, including projects that receive federal funds, using an interdisciplinary approach that provides opportunities for public review and input. Since then, a large body of regulations, processes and procedures, and case law has specified how these assessments are completed. Further, numerous other public health laws, regulations, and executive orders have been enacted, broadening the scope of and requirements for environmental-type considerations, which are typically folded into the NEPA umbrella.

The purpose of this section is to define the relationships between the regional transportation planning process and major environmental studies. For this relationship to be understood, some NEPA terminology and process information is briefly presented. Exhibit 16 identifies the categories of environmental study and indicates which are considered major. Exhibit 17 summarizes the general process for conducting major environmental studies. CDOT’s *Environmental Stewardship Guide* provides a good overview and additional detail is contained in the CDOT *NEPA Manual*.

#### Relationship to the Regional Transportation Planning Process

The federal rules for NEPA and for metropolitan transportation planning have evolved since their initial adoption several decades ago. Congress has expressed its intent that transportation planning and environmental considerations be better coordinated and the federal transportation planning rules enacted after SAFETEA-LU provided substantial direction about “linking the transportation planning and NEPA processes.” The MOA partners are working through how

#### Environmental Process Acronyms

EA	Environmental Assessment
EIS	Environmental Impact Statement
NEPA	National Environmental Policy Act
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

## Exhibit 16 • Categories of Environmental Study

Proposed transportation actions or potential projects are categorized according to the likely environmental impact.

**Categorical exclusions** are assigned to actions or projects that individually or cumulatively do not have a significant environmental impact. A categorical exclusion is **not** considered to be a major environmental process.

An **environmental impact statement** (EIS) is

required for actions or projects that are likely to have significant impacts to the environment. **All EISs are** considered to be major environmental processes.

For actions or projects where the significance of the environmental impact is not clearly known, an **environmental assessment** (EA) is prepared. **Select EAs may be** considered to be major environmental processes, as presented in this section.

## Exhibit 17 • General Process for Conducting a Major Environmental Study

The **general** process for conducting an EIS or EA is similar, as described in the following overview. *For any specific study, some steps may be conducted in a different order. There are also some specific requirement differences between an EIS and an EA.*

1. Identify roles. The lead agency in a major environmental study is a federal role (e.g., FHWA, FTA, or joint lead). The lead agency is responsible for assuring that all aspects of the relevant NEPA processes are completed per federal requirements. The applicant (CDOT, RTD, public transportation authorities, or local governments, sometimes cooperatively) typically completes or manages the actual work under the lead agency's guidance.
2. Define and conduct agency coordination and public involvement, including initial notification to the public and affected agencies.
3. Define the scope of the proposed project and its purpose and need; what the project is trying to accomplish and why it is needed, what the problems are that need to be addressed.
4. Describe the affected environment. Identify, assess, and understand the existing conditions of the numerous potentially sensitive environmental resources.
5. Identify alternatives that respond to the purpose and need. A "no action" alternative must be defined as a baseline for comparison.
6. Evaluate the alternatives. Quantify how well each alternative addresses the needs and the environmental (and other) impacts or consequences. In larger studies, a multi-step evaluation process is probable (though not required), with an initial step that eliminates alternatives that are not viable due to fatal flaws, followed by a preliminary screening using a few criteria to eliminate alternatives that are clearly inferior, followed by a more detailed assessment of the remaining alternatives using a full set of criteria.
7. Prepare and distribute the environmental **disclosure** document. The lead agency issues the EA, or the draft and final EIS.
8. Identify a preferred alternative, including needed avoidance, minimization, and mitigation of project impacts. In studies where funding is not available to fully construct the preferred alternative, "priority" project elements or phases must be identified for inclusion in the decision document.
9. During a formal comment period, solicit public and agency review. Appropriately address comments submitted.
10. Prepare and distribute the **decision** document. For an EIS process, the lead agency issues a Record of Decision. For an EA process, it issues a Finding of No Significant Impact if the proposed project has no significant impacts that cannot be mitigated. If impacts of environmental significance are considered likely, the EA process may conclude that an EIS must be prepared.

these new rules will be specifically applied in the future within the Denver region. The relationship guidance presented in this section is applicable to environmental studies currently underway. This guidance is important because several major environmental studies underway are in corridors for which sufficient implementation funding is not identified (i.e., projects in those corridors are **not** included in the fiscally constrained RTP with the resources expected to be reasonably available during the next 20 years or more).

The following relationships are established:

- **Authorizing the study.** Within the transportation management area, an EIS or EA is included in the TIP if federal, state, or RTD funds are being used. EISs or EAs, regardless of funding source, are listed in the informational section of the Unified Planning Work Program.
- **Pre-study activities.** The applicant provides a draft work scope for a specific EIS or EA directly to the other MOA partners at a time no later than the release of the consultant solicitation for work. The MOA partners review that draft and provide timely comments. Issues are worked out between the applicant and the MOA partner agencies before the consultant work scope is finalized. As part of this review, the MOA partners confirm which of the following relationship requirements the study needs to meet. The relationship requirements are considered to be standard for all EISs, but for EAs the determination is made on a case-by-case basis cooperatively between the MOA partners and applicant at the Agency Coordination Team.

CDOT's *Environmental Stewardship Guide* states:

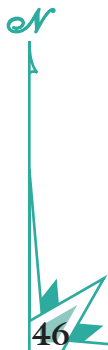
*"A carefully prepared Purpose and Need statement provides a credible foundation for the subsequent study and promotes acceptance by the public and review agencies."*

Early input from the regional transportation planning process assists in creating this credible foundation.

- **Early review of regional planning process linkages and consistency**
  - **Purpose and need.** As the NEPA study is developing a draft purpose and need statement during scoping, DRCOG is customarily asked to provide review comments from the perspective of the MPO. To assist in developing its response, DRCOG solicits input from member jurisdictions that may be affected by the proposed project and reviews the draft purpose and need statement with the Transportation Advisory Committee. The specific point for committee input (e.g., in resource agency scoping or public scoping) is established cooperatively by DRCOG and the applicant on a case-by-case basis depending on the project and its issues, but in a way so as not to unduly affect the NEPA study schedule. The Transportation Advisory Committee may be consulted if there are uncertainties. The applicant assists in any committee briefing.
  - **Metro Vision.** As one of its evaluations, the NEPA study expressly considers and articulates the relationships (consistency or conflicts) between the project/alternatives and the "urban form" and transportation components of the Metro Vision Plan. This consideration may help generate appropriate alternatives or eliminate others and the consistency examination can help identify how alternatives do or do not respond to the region's "desired" future growth.
  - **Project location and RTP "placeholder."** The NEPA study identifies whether the study location is within the area subject to regional air quality conformity determination and what placeholder projects the then-current fiscally constrained RTP shows within the corridor (see background discussion in Exhibit 18).

- **Evaluation criteria.** As the NEPA study identifies its objectives and the measurement methods it uses to assess how well alternatives achieve those objectives, it considers criteria that DRCOG uses in the regional transportation plan development process.
- **Land use forecasts.** Regional air quality conformity is demonstrated for the fiscally constrained RTP based on the DRCOG small area land use forecasts. As such, those forecasts form the baseline for the transportation measures/criteria and related evaluations within the NEPA study. Other forecasts may be used for sensitivity analysis, investigating even longer-range improvement needs, examining the implications of a transportation alternative on inducing growth or redefining land use (an indirect effect), and for the portion of the Greater Denver Transportation Planning Region where air quality conformity is not applicable.
- **Congestion Management Process requirements.** Within the transportation management area, the NEPA study addresses the project level congestion management requirements (see Section 4.4) or references such efforts that may be conducted outside the NEPA study. Outside the transportation management area, a congestion management examination is not required, but is encouraged.
- **Approaching the NEPA decision**
  - **Relationship of NEPA preferred alternative to the Metro Vision transportation system.** If the NEPA preferred alternative differs significantly from the placeholder depicted in the Metro Vision transportation system of the Metro Vision RTP, it is brought to the regional transportation planning process to be considered for inclusion in the plan during the next “scheduled” plan amendment or update process. As a preference begins to develop in the NEPA study, the applicant alerts DRCOG and that issue may be brought to transportation committees for discussion.
  - **Relationship of NEPA decision to the fiscally constrained RTP.** Exhibit 18 presents a matrix for synchronizing the NEPA decision document with the fiscally constrained RTP. Close coordination among the applicant, lead agency, and DRCOG is encouraged during this period to avoid delays to the NEPA study **or** unreasonable expectations on the regional transportation planning process.
  - **Relationship of NEPA decision to the TIP.** Within the transportation management area, the elements of the project anticipated during the period of the TIP, including environmental impact mitigation, must be part of the adopted conforming TIP before the NEPA decision document can be issued.

An environmental **disclosure** document can be issued for alternatives or a preferred alternative NOT included within the fiscally constrained RTP, but completion of such document is no guarantee of funding and no guarantee of inclusion in the fiscally constrained RTP. A **NEPA decision** document, however, cannot be issued until the selected project, project elements, or project phases are included within an adopted, fiscally constrained RTP that, in air quality nonattainment-maintenance areas, has demonstrated air quality conformity.



## Exhibit 18 • Coordination between Regional Transportation Plan and Environmental Study's Decision Document

**Background.** Prior to a major NEPA study, the transportation improvements identified in the Metro Vision RTP may be considered best estimate placeholders. In the fiscally constrained RTP, the placeholder is assumed in the cost computations for fiscal constraint and, in air quality nonattainment-maintenance areas, is part of the modeled network used to demonstrate regional air quality conformity. As decision processes, EISs and EAs intend to identify a preferred alternative that can be implemented. To do so, the description (design concept and scope) and cost of the project to be approved in the NEPA **decision** document must be consistent with that in the adopted fiscally constrained RTP. That could entail amending the fiscally constrained RTP or the NEPA study identifying the “priority” elements or phases of a preferred alternative that would be completed within the available fiscally constrained funds or both. The cost of any project/phase included in the fiscally constrained RTP must include and account for environmental mitigation measures anticipated in the NEPA decision document.

### Scenarios and requirements.

1. Project desired in the NEPA decision document is not significantly different from the adopted fiscally constrained RTP placeholder and is within the placeholder budget for fiscal constraint or within an acceptable tolerance level. This tolerance level agreed upon by CDOT, DRCOG, and FHWA is defined as a project cost within 30 percent of the fiscally constrained RTP placeholder cost in the same year dollars and a cumulative cost of all individual decision document projects within 20 percent of the total cost of all regionally significant projects in the fiscally constrained TIP. *No RTP amendment is needed. NEPA decision document can be issued.*
2. Project desired in the NEPA decision document is significantly different from the adopted fiscally constrained RTP placeholder but is within the placeholder budget or tolerance.
  - Within the air quality nonattainment maintenance area. *“Significantly different” within the nonattainment-maintenance area implies need to redo air quality conformity determination. A fiscally constrained RTP amendment is required, which DRCOG would consider during the next scheduled plan amendment or development cycle. NEPA decision document can be issued only after fiscally constrained RTP is revised and air quality conformity demonstrated.*
  - Outside the air quality nonattainment-maintenance area. *A fiscally constrained RTP amendment is needed, but would be considered “minor” since air quality conformity is not involved. Applicant should coordinate with DRCOG on timing of fiscally constrained RTP amendment and issuance of NEPA decision document.*
3. Project desired in the NEPA decision document is beyond the tolerance level and the applicant has a proposal for how RTP fiscal constraint will be maintained (for example, deleting or deferring other projects in the fiscally constrained RTP, or adding additional revenues). *A fiscally constrained RTP amendment is required, which DRCOG would consider during the next scheduled plan amendment or development cycle. NEPA decision document can be issued only after fiscally constrained RTP is revised and, in the air quality nonattainment-maintenance area, air quality conformity demonstrated.*
4. Project desired in the NEPA decision document is beyond the tolerance level and the applicant has no proposal for how fiscal constraint will be maintained. *NEPA decision document cannot be issued until project is in the fiscally constrained RTP, but with no applicant proposal for maintaining fiscal constraint DRCOG would consider this only during the next scheduled plan development cycle.*



## 5. DRCOG Fixed Guideway Transit Review

Senate Bill 90-208 is a Colorado statute enacted in 1990 that states:

*“The Regional Transportation District (RTD) Board shall take no action relating to the construction of a regional fixed-guideway mass transit system until such a system has been approved by the designated Metropolitan Planning Organization (MPO). Each component part or corridor of such system must be approved by the MPO. Such action shall include approval of the method of financing and the technology selected for such projects.”*

Appendix A lists the relevant state statute.

Senate Bill 90-208 provides the legislature assurance that fixed-guideway construction proposed by RTD is technologically sound, financially feasible, and consistent with the expectations of affected jurisdictions as represented in the MPO process.

Criteria for the review of proposed projects per Senate Bill 90-208 are adopted by the DRCOG Board through the transportation committees process. RTD submits fixed-guideway transit proposals to DRCOG and, in its proposal, describes the project in detail, provides a rationale for why it is being pursued, and provides

information pertinent to each of the criteria. DRCOG conducts a technical assessment of the proposal using the information provided by RTD and its own examinations. Based on the criteria, DRCOG prepares a draft assessment report making preliminary findings and conclusions, which is reviewed by RTD. The proposal is also presented to the public in a hearing at the DRCOG Board. DRCOG prepares a final assessment report reflecting resolution of technical and financial issues with RTD and summarizing public comment. Final transportation committees recommendations and DRCOG Board action to approve the specific proposal (or not) take place upon consideration of the final report.

### Relationship to the Regional Transportation Planning Process

The Senate Bill 90-208 evaluation is conducted by DRCOG through the regional transportation planning process. As a priority transportation planning activity, such evaluations are identified in the Unified Planning Work Program. RTD fixed guideway transit facilities must be in the fiscally constrained RTP and the TIP before they can be implemented. The Senate Bill 90-208 assessment confirms the fiscally constrained nature of the proposal per the fiscally constrained RTP or provides a rationale for plan amendment. The project can be included in the TIP for construction only after the DRCOG Board has issued a favorable Senate Bill 90-208 finding.



## 6. FasTracks Annual Review

In April 2004, DRCOG completed the initial Senate Bill 90-208 review of RTD’s FasTracks Plan, which was subsequently approved by the region’s voters in November 2004. FasTracks is a broad, region-wide, long-term program and numerous assumptions were made about both technology and financing. To ensure the legislative intent of the review but address the likelihood of change during the course of FasTracks implementation, DRCOG’s initial Senate Bill 90-208 approval of FasTracks required an annual review by the regional transportation planning process. For this review, RTD prepares an annual FasTracks report, which identifies changes in:

- project definition, scope, or technology
- costs of overall plan and corridors
- revenue projections
- implementation schedule
- operating characteristics
- level of bus service

The DRCOG Board through the transportation committees process determines if the changes identified are significant enough to require further Senate Bill 90-208 action. RTD Board final action on any significant change to the FasTracks Plan requires MPO approval through the annual review process.



## Relationship to the Regional Transportation Planning Process

The annual review is identified as a work



## 7. CDOT and RTD Master Intergovernmental Agreement

In April 2004, CDOT and RTD executed a Master Intergovernmental Agreement for continued coordination and planning for transportation development within the portion of the state in the RTD district. The Master Agreement establishes a framework process for coordination of CDOT's and RTD's transportation improvements to assure that all proposed projects, programs, and facilities are accommodated to the maximum extent practicable. Each party further commits to minimizing costs for upgrades or modifications necessitated by the other party's construction to the maximum degree possible. The Master Agreement establishes a context for corridor-specific intergovernmental agreements that address corridor planning, environmental study coordination, final design, management, and funding of improvements. Exhibit 19 identifies the elements covered by the Master Agreement. An exhibit attached to the Master Agreement identifies expectations for corridors where CDOT and RTD, jointly or separately, have either ongoing environmental study or near-term expectations for such.

## Relationship to the Regional Transportation Planning Process

The coordination committed by the Master Agreement affects how CDOT and RTD propose



## 8. Planning and Development Process for FTA New Starts Projects

The Federal Transit Administration's (FTA) Final Rule on Major Capital Investment Projects prescribes the process that applicants must follow to be considered for capital investment grants for new fixed guideway systems or extensions to

activity in the Unified Planning Work Program. The annual process may result in the need to amend the fiscally constrained RTP or TIP to accommodate significant changes.

studies for inclusion in the Unified Planning Work Program and TIP, corridor projects in the RTP, and specific construction projects in the TIP.

## Exhibit 19 • Items Addressed by the CDOT/RTD Master Intergovernmental Agreement

1. Project Coordination
  - Physical impacts to existing facilities
  - Impacts based on maintaining operations and safety
  - Impacts based on legal, regulatory, or design standard requirements
  - Impacts in long-term projects:
    - identification of future improvements
    - conceptual design
    - final design and construction elements
    - design approval of construction elements
    - environmental study coordination
  - Responsibility for determining impacts
  - Sharing of personnel
2. Right-of-way
  - Use of CDOT right-of-way
  - Cost of additional right-of-way
3. Credit for Funds Expended
4. Dispute Resolution
5. Implementation by Corridor or Project Specific Agreements

existing systems (called New Starts). There are three key development and documentation phases in this process:

- **Alternatives Analysis** is a study, typically undertaken at the outset of the preparation of a draft Environmental Impact Statement, that evaluates appropriate modal and alignment options for addressing mobility needs in the specific corridor.

- **Preliminary Engineering** refines recommendations from the Alternatives Analysis, resulting in estimates of project costs, benefits and impacts at a level of detail necessary to complete the Environmental Impact Statement process. Other requirements, such as developing a project management plan, must also be completed during this phase.
- **Final Design** includes right-of-way acquisition, utility relocation, and the preparation of final construction plans, detailed specifications, construction cost estimates and bid documents.

FTA evaluates each proposed New Starts project according to a set of defined criteria, summarized and provided for reference in Exhibit 20. FTA uses the information to rate New Starts projects around the country and make recommendations to Congress regarding a project’s viability for federal funding. FTA prepares an “Annual Report on New Starts” that provides a current snapshot of all New Starts projects nationally including each one’s current strengths and weaknesses.

RTD, solely or in cooperation with CDOT and/or local jurisdictions, coordinates and sponsors each phase of New Starts project development in the Denver region. RTD prepares New Starts information addressing the FTA criteria:

- each time it requests entry in Preliminary Engineering or Final Design
- each time it applies for a Full Funding Grant Agreement
- for FTA’s annual report.

RTD may apply for a Full Funding Grant Agreement with FTA to obtain federal capital grant funding when the fixed guideway project has:

- been included in the adopted RTP
- been approved by the RTD Board with the local funding commitment established, and
- proceeded to a point in the development process where estimated costs, benefits, and impacts are known with a very high degree of confidence.

A Full Funding Grant Agreement establishes the maximum amount of FTA participation in the project, a yearly funding schedule, and a construction schedule to complete the project and open it to revenue service.

Appendix A lists relevant regulatory references.

### Relationship to the Regional Transportation Planning Process

The Alternatives Analysis is a bridge between transit project development and the regional transportation planning process. An Alternatives Analysis is considered complete when a locally preferred alternative is selected by local and regional decision makers, approved by the RTD Board, and adopted into the fiscally constrained RTP. A transit project can continue into Preliminary Engineering, Final Design, and Full Funding Grant Agreement only as long as it remains included in the fiscally constrained RTP.

As appropriate, RTD updates the transportation committees on its New Starts status.

## Exhibit 20 • New Starts Evaluation Criteria

FTA evaluates project justification based on:

- mobility improvements
- environmental benefits
- operating efficiencies
- cost effectiveness
- transit-supportive land use policies and future patterns
- other factors

FTA also evaluates local financial commitment.

FTA issues periodic guidance detailing the procedures for preparing the New Starts submittal.



## 9. State Implementation Plans for Air Quality

The federal Clean Air Act defines a process for Environmental Protection Agency (EPA) development and approval of National Ambient Air Quality Standards for a variety of pollutants that can adversely affect human health (e.g., carbon monoxide, ozone, and small particulates). The law requires State Implementation Plans (SIPs) be prepared to show how a nonattainment area—that is, a region that does not currently meet the air quality standards—will attain standards by implementing and enforcing emission control strategies and how attainment will be maintained. Appendix A lists relevant legislative and regulatory references.

### Air Quality Process Acronyms

APCD	Air Pollution Control Division
AQCC	Air Quality Control Commission
EPA	Environmental Protection Agency
RAQC	Regional Air Quality Council
SIP	State Implementation Plan

- **Nonattainment area SIPs** are pollutant-specific plans that detail how a region will meet the specific air quality standard by specific dates.
- **Maintenance plans** are pollutant-specific SIPs that outline how an area that has met the specific air quality standard will continue to do so for a 10-year period.
- **Regional haze SIPs** show how visibility will be improved in national parks and wilderness areas (for example, Rocky Mountain National Park in the DRCOG area).
- **Conformity SIPs** are the federally enforceable state regulations governing transportation conformity determinations.

The requirements of each SIP depend on the pollutant, classification, and attainment dates. The term SIP generally refers to all of the individual plans and regulations that are

submitted to and approved by the EPA. Key elements typically included in SIPs are:

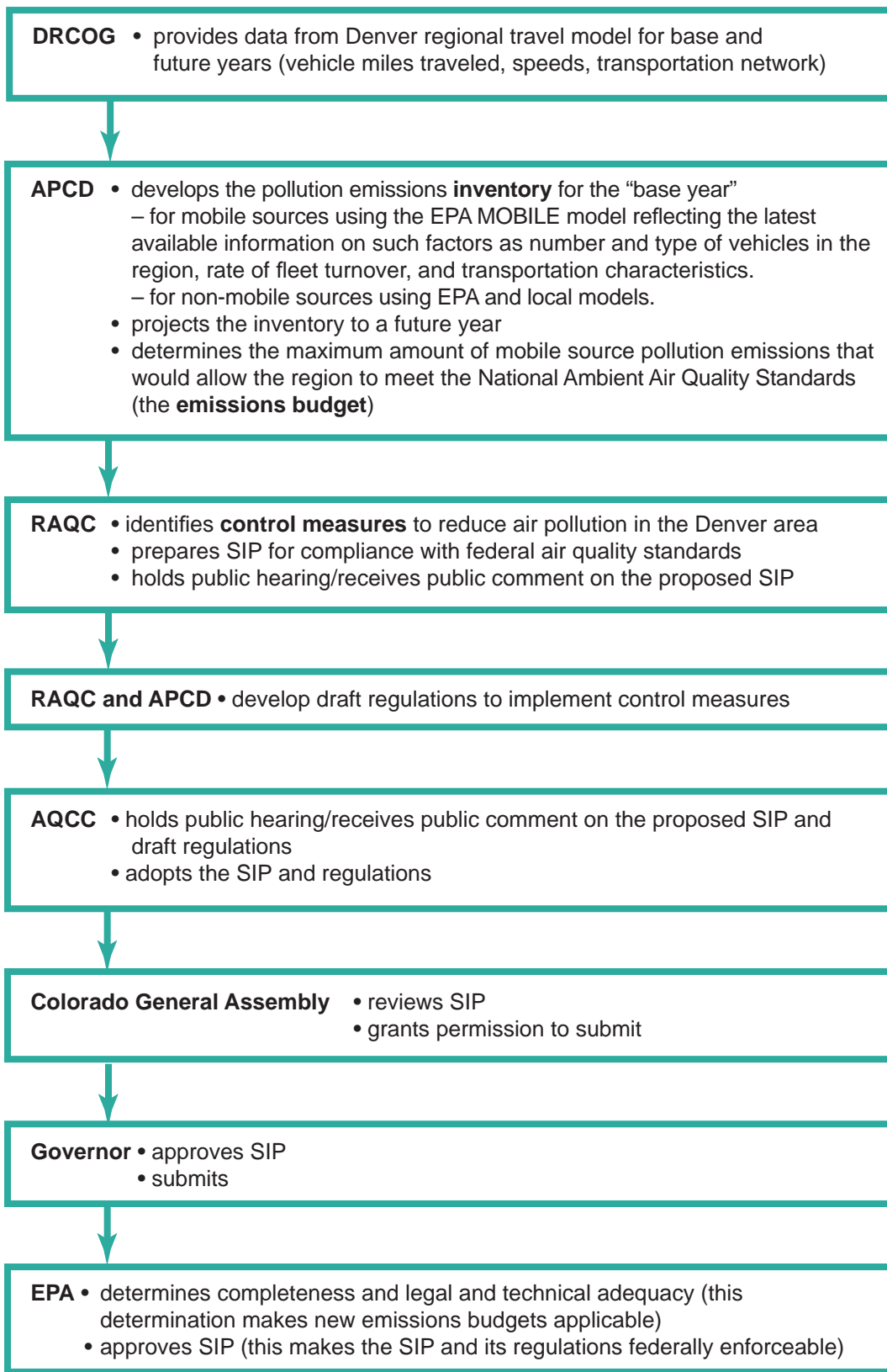
- An **inventory** that accounts for all relevant emissions and emission sources. The inventory is used in (1) establishing emissions reduction targets, (2) setting caps on mobile source emissions (i.e., from roadways and traffic), and (3) as needed, performing air quality dispersion modeling.
- An **emissions budget**, which is the maximum allowable amount of each pollutant from mobile sources.
- **Control measures** as needed to help reach or maintain the emissions budget, including Transportation Control Measures focusing on reducing vehicle use and/or congestion.

Exhibit 21 shows general tasks for SIP development and adoption. The Air Quality Control Commission (AQCC), a regulatory body appointed by the Governor, is responsible for the adoption of SIPs and their implementing regulations in Colorado through a public rule-making process. The Regional Air Quality Council (RAQC) is the lead air quality planning agency for the Denver region, so designated by the Governor. The RAQC has the primary responsibility for preparation of Denver area SIPs including selection of control measures. The Air Pollution Control Division (APCD) of the Colorado Department of Public Health and Environment operates the air monitors, collects emission inventory information, provides technical assistance to the SIP process, and enforces adopted air quality regulations.

The Clean Air Act provides for sanctions if a needed SIP is not submitted to EPA or if EPA finds it incomplete, inadequate, or disapproves it. Sanctions can include federal funds being withheld for certain categories of transportation projects.

Exhibit 22 identifies the Denver region's air quality status.

## Exhibit 21 • Developing and Adopting an Air Quality State Implementation Plan



1. As of 2002, the Denver region met national air quality standards and has approved maintenance plans for the following pollutants and, as such, is considered to be **attainment-maintenance** for them:
  - carbon monoxide
  - PM10 (particulates less than 10 microns in size)
  - Ozone (traditional standard for peak 1-hour measurement)
2. In 1997, the EPA established a new, more stringent standard for ozone, based on measurements averaged over an 8-hour period. In 2004, the EPA defined a new nonattainment area for ozone using the new 8-hour standard. It encompasses all of the Greater Denver Transportation Planning Region except for Clear Creek and Gilpin counties plus portions of Larimer and Weld counties including the Fort Collins-Loveland and Greeley urbanized areas. EPA deferred the formal nonattainment designation for several years as an Ozone Early Action Compact was signed and an Ozone Action Plan developed to meet the 8-hour standard by 2007. However, based on 2005-2007 data, this area did not meet the 8-hour standard, and EPA formally designated it as in nonattainment in November 2007.
3. Visibility (the metro area “brown cloud”) is not regulated by Clear Air Act requirements.

### Relationship to the Regional Transportation Planning Process

The EPA requires federal actions to conform to the appropriate SIP. Conformity in the Clean Air Act means conformity to a SIP’s purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards and achieving expeditious attainment of such standards. Fiscally constrained long-range transportation plans, TIPs, and federally-funded projects in nonattainment and maintenance areas must conform to the SIP. Conformity for a fiscally constrained RTP or TIP is demonstrated by showing that expected mobile source emissions are at or below SIP **emissions budgets** and that

adopted **transportation control measures** are being (or will be) implemented consistent with the schedule in the SIP. Conformity procedures are described in Sections 4.2 and 4.3.

As appropriate, APCD or RAQC updates the transportation committees on SIP issues and status.

Federal and state laws require an air quality and transportation interagency consultation process. The consultation procedures are formally integrated into the SIP. The consultation process in the DRCOG region is facilitated by meetings of the Agency Coordination Team.



## 10. CDOT Resource Allocation

The Transportation Commission makes decisions about the management and operation of the state highway system including construction, operations, and improvement and is also responsible for adopting statewide long-range transportation plans and STIPs. To carry out its planning, programming, and budgeting responsibilities, the Transportation Commission determines estimated revenues, needs, and how the resources are allocated. The

Transportation Commission does this by a process called resource allocation.

### Step 1. Revenue forecasting

Fiscally constrained long-range transportation plans must reflect financial resources that are expected to be reasonably available over the time period of that plan. Federal laws and rules mandate that forecasting must be done cooperatively with relevant parties. To forecast revenues over a long period of time, many

things must be considered and ultimately defined. Such items typically include, but are not limited to:

- How traditional sources of funds should be forecast over a 20- to 25-year period.
- Whether different assumptions are needed for different funding sources, such as local resources or federal formula funds.
- How private development contributions should be estimated.
- What the expectations are for new sources of funding, such as tolling, public/private partnerships, or revenue initiatives at the state, regional, or local level.
- What the effect of inflation will be.

## Step 2. State highway system needs

CDOT has embraced a performance-based approach to financial decision-making and has evolved a structure for identifying needs on the state highway system. The top level of this structure currently consists of five investment categories:

- mobility
- program delivery
- safety
- system quality
- strategic projects (which are specific projects of statewide significance).

The next level of the structure is program areas. For example, system quality has several program areas including bridge, surface treatment, and maintenance. Performance measures are established at the program and in some instances the investment level. Performance objectives may be established. Evaluation tools and /or predictive models are developed to compute system performance in response to various levels of investment.

## Step 3. Allocation of resources

Federal law requires the state and MPO to cooperatively develop estimates of funds available for implementation of fiscally constrained metropolitan RTPs and TIPs. To that end, a Memorandum

of Understanding (MOU) between CDOT and DRCOG was executed in November 2004 for the purpose of addressing revenue allocation. The intent of the MOU was to ensure an equitable allocation of transportation revenues throughout the state and specifically to the DRCOG area, to the maximum extent practicable. The funding referenced by the MOU includes all statewide revenue available to CDOT from federal sources and state funds, but does not include local or regional funds or toll facilities. The term of the MOU is through 2009. The MOU acknowledged a funding baseline that had been established by the Transportation Commission and established allocation methodologies for:

- unallocated funds for strategic projects
- incremental revenues (from existing sources above baseline projections)
- new revenues (from new sources such as new legislation, a referendum or voter initiative, or one-time revenues).

## Relationship to the Regional Transportation Planning Process

When the Transportation Commission adopts resource allocation, CDOT sets control totals by investment category and/or program area for CDOT engineering regions/transportation planning regions over the life of the plan. The regional transportation planning process determines which projects/strategies will be included in the fiscally constrained RTP and CDOT's participation in the regional process helps ensure that the fiscally constrained RTP's financial plan accurately reflects the CDOT control totals. The six-year control totals also guide DRCOG and CDOT as projects are developed for inclusion in the TIP/STIP. The MOU established a mutually acceptable resource allocation methodology to set these control totals. The MOU also guides allocation of unanticipated revenues during a TIP cycle.

As part of RTP or TIP development, as appropriate, CDOT updates the transportation committees on the resource allocation outcome. DRCOG and CDOT staffs present an annual report to the DRCOG Board to verify the MOU process and progress.



## 11. CDOT TIP Project Selection Processes

CDOT has numerous funding programs organized around its investment categories and program areas. Federal law requires collaboration and consultation in project selection and prioritization. There are two primary methods by which CDOT selects projects for funding in the TIP within the transportation management area and in the STIP in the Mountains and Plains area. They are:

- CDOT uses the **project priority programming process** to identify projects or project phases for several of the funding programs. This process was established by Transportation Commission resolution in 1994 after coordination with other agencies including MPOs to address consistency with federal expectations. It is conducted during each TIP/STIP development cycle. Exhibit 23 summarizes key steps of the process.
- CDOT uses **management systems** to identify the optimal use of resources in other funding programs. The management systems incorporate performance measures and monitoring, strategy evaluation tools, and predictive models to identify cost-effective projects that will assist in achieving established performance objectives

The CDOT funding programs for which projects are shown in the TIP and STIP are:

- strategic projects
- surface treatment
- regional priorities
- congestion relief
- bridge
- safety
- elderly, disabled, rural, job access/reverse commute, and new freedom transit
- safe routes to school

The selection method and process for these CDOT funding programs is described in following sections.

CDOT also has numerous funding programs that

it uses for budgeting purposes but which are not required to be shown in the TIP or STIP. These include:

- maintenance activities (the maintenance level of service program) for which funding is allocated based on the maintenance management system
- program delivery that funds ongoing CDOT operations for administration, engineering, and project and program support, including the CDOT planning work program

### Strategic Projects Program

The CDOT Strategic Projects Program was established to accelerate the funding and development of high priority transportation projects throughout the state. The current program, also known as 7th pot, consists of 28 specific projects identified by the Transportation Commission from the mobility, system quality, and safety investment categories and approved by the voters of Colorado for bond funding to expedite implementation. The Transportation Commission establishes funding amounts and delivery schedules for these projects. Any future strategic projects program will be defined by the Transportation Commission through the statewide transportation planning process.

### Surface Treatment Program

CDOT's Surface Treatment Program is included in the TIP and STIP as pools of funding (by CDOT engineering region) that can be applied in specific locations as needed throughout the year. This funding program is part of the system quality investment category. Each CDOT engineering region develops its list of surface treatment projects based on the state's pavement management system. The project priority programming process may influence implementation decisions among high priority projects, but a minimum of 70 percent of the projects selected must be consistent with recommended investments from the pavement management system. The projects selected by the engineering regions are identified within each region's surface treatment pool.

## Regional Priorities Program

Regional Priorities Program funds must be used on the state highway system and may be used to address needs in any of the investment categories as deemed appropriate by CDOT through the project priority programming process. Transit or other projects may be funded in this program if they relieve congestion or improve operations of the state highway system. These funds are currently allocated to CDOT engineering regions through the CDOT resource allocation process (see Section 5.10).

## Congestion Relief Program

The Congestion Relief Program was established by the Transportation Commission in 2004 with the specific objective of improving congestion on the State Highway System. This program is part of the mobility investment category. Funding began in fiscal year 2007. Congestion relief funds are distributed through the CDOT resource allocation process to CDOT engineering regions based on vehicle miles traveled on congested roadway segments. CDOT defines a roadway

### Exhibit 23 • Steps in CDOT's Project Priority Programming Process

1. CDOT prepares **background** information, including relevant roadway and traffic information and the status of current TIP/STIP projects/phases. The latest cost estimates for projects currently under development are confirmed.
2. Based on resource allocation and other resource expectations, CDOT **estimates revenues** for each year of the six-year TIP/STIP, by engineering region, by major program.
3. The three CDOT engineering regions typically hold a **countywide meeting** with each of the nine counties in the DRCOG region. At a location in each county, CDOT discusses projects, priorities, and proposed revisions to the TIP, STIP and RTP consistent with updated cost and revenue estimates with local officials and staff. The counties take the lead in inviting other local agencies within their county and in publicizing meetings, which are open to the public. DRCOG and RTD discuss their processes for TIP project selection. Other issues, such as elimination of roadways from the state highway system and the potential for other funding mechanisms, may also be discussed. CDOT typically encourages each county to present a consolidated perspective of its project priorities.
4. Each CDOT engineering region meets **individually with each MPO and transportation planning region** in the area it serves. Considering input from the countywide meetings and other evaluations or information, this meeting leads to initial prioritization of projects within that planning region. For the DRCOG area, the transportation committees process may fulfill the intent of the individual MPO/ transportation planning region meeting.
5. Each CDOT engineering region then holds a **joint meeting of all its MPOs and transportation planning regions**. DRCOG participates in such meetings in engineering regions 1 and 4. Priorities are considered in the context of the entire engineering region, not just the DRCOG area.
6. Each CDOT engineering region then provides DRCOG with the list of proposed projects to be considered in the TIP. This is shared with MOA partners in the TIP interagency review phase. The final list is included in the **draft TIP** for public hearing and DRCOG Board approval through the transportation committees process.
7. Upon approval by the Governor, CDOT incorporates the adopted TIP into the draft STIP. CDOT engineering region 1 informs DRCOG of the projects/phases it has selected for inclusion in the draft STIP in the Mountains and Plains area of the Greater Denver Transportation Planning Region. CDOT verifies the financial and long-range plan consistency aspects, and makes the draft STIP available to the public for review and comment. Once the **STIP is approved** by the Transportation Commission, CDOT transmits it to FHWA and FTA for federal approval.

segment as congested when the volume during the 30<sup>th</sup> highest hour of the year is greater than or equal to 85 percent of computed capacity. Congestion relief funds must be applied to projects on congested segments of the state highway system. CDOT uses the project priority programming process to identify potential projects. Project sponsors establish baseline data and performance goals for their proposal using appropriate mobility performance measures such as travel time index, duration of congestion, and level of service. Project selection includes consideration of cost-effectiveness. Sponsors are required to evaluate how well the project met the performance goals (congestion improvement) after project completion.

### Bridge Project Selection

The bridge project selection process prioritizes funding for repair, reconstruction, and replacement of bridges throughout the state. It is a program area of CDOT's system quality investment category. Funding is distributed to CDOT engineering regions through the CDOT resource allocation process (see Section 5.10).

The federal Highway Bridge Replacement and Rehabilitation Program is the specific source of federal bridge funding. To be eligible for that funding, a bridge must be on the **Federal Select List of Bridges**. The process for creating the Select List is summarized in Exhibit 24.

FHWA requires that 15 to 35 percent of total bridge funding go to off-system bridges. A bridge on a public highway that is part of the federal-aid system (for operations and maintenance) is "on-system"; one that is not is "off-system." Typically, CDOT allocates between 20 and 25 percent to off-system bridges. For on-

system bridges, CDOT prepares cost estimates and uses its bridge management system to develop priorities for bridge improvements within the available budget. A "Special Highway Committee" provides recommendations for off-system bridge projects. Selected projects within the transportation management area are placed in the TIP.

### Exhibit 24 • Creating the Select List

1. Every two years, **CDOT inspects** all public highway bridges within the state in accordance with the National Bridge Inspection Standards.
2. From the inspection, bridges are given a **sufficiency rating** (a value from 0 to 100, with zero being the worst), based on structural safety, serviceability, and essentiality for public use. The inspection also determines which bridges are structurally deficient and functionally obsolete, based on criteria defined by FHWA.
3. Structurally deficient and functionally obsolete bridges with a sufficiency rating less than 80 are placed on the **Select List**.
4. Select List bridges whose rating is below 50 qualify for **replacement** under federal bridge funding; those with a rating between 51 and 80 qualify for **rehabilitation** funding.
5. **CDOT reports** the conditions of bridges to FHWA and includes a statewide list of off-system needs.

*The number of bridges on the Select List has stayed about constant for a number of years; as some bridges are rehabilitated or replaced, others deteriorate and meet eligibility criteria.*

## Safety Project Selection

To achieve reductions in the number and severity of crashes, a portion of federal highway funds is set-aside to implement services and eliminate identified roadway hazards. Exhibit 25 summarizes how CDOT selects projects for funding in its safety investment category.

## Elderly, Disabled, Rural, Job Access/Reverse Commute, and New Freedom Transit Program Project Selection

FTA provides funding for capital equipment purchases for transportation of elderly and disabled persons within the urbanized area (called “Section 5310”). FTA also provides funding for administrative, capital, and operating expenses for continuing public transportation service in the non-urbanized areas of the state (called “Section 5311”) including the non-urbanized areas of the Greater Denver Transportation Planning Region. FTA Section 5316 provides grants to improve access to transportation for employment-related activities for low-income individuals (program referred to as Job Access/Reverse Commute). The FTA New Freedom program (called “Section 5317”) provides funding for new services and programs that go beyond the Americans with

Disabilities Act requirements. CDOT administers all FTA 5310 and 5311 funds, plus FTA 5316 and 5317 for all parts of the state except the Denver-Aurora urbanized area.

Projects proposed for these FTA programs must be included within, and be consistent with, a regionally adopted coordinated public transportation human services transportation plan. The transit element of the adopted Metro Vision RTP serves as this coordinated plan. The Metro Vision RTP transit element contains both a long-term (plan horizon) and short-term (six-year) identification of transit service needs, objectives, implementation priorities and eligible funding recipients. In developing the transit element, DRCOG coordinates with local governments, CDOT, private entities, coordinating council(s) and service providers including RTD, typically by means of a task force or work group. Key components of the transit element are included within the actual Metro Vision RTP document, but a separate document containing detailed information is also prepared. The transit element assists in evaluating grant applications for FTA 5310, 5311, 5316 and 5317 funds. Exhibit 26 summarizes CDOT’s selection process. Note that in the Denver-Aurora urbanized area, RTD administers FTA 5316 and 5317 funds and DRCOG conducts the project selection process, in a manner similar to that used by CDOT.

## Exhibit 25 • Selecting Safety Projects

1. CDOT regularly prepares a list of state highway **locations with a high potential for crash reduction** that may be able to benefit from safety improvements.
2. Every three years, CDOT allocates safety program funding and provides **notification** of funding availability and application requirements.
3. Local governments and CDOT regions prepare **applications** for safety improvements, either for locations on the state highway list or for non-state highway sites if the local agency can provide crash data from its own records. The application typically includes a description of the hazard and location, crash history, traffic counts, a description of proposed improvements, and an estimate of implementation cost. Applications are submitted to CDOT for consideration.
4. For each application CDOT completes a **pass/fail eligibility** assessment on the basis of specific statistical analysis called binomial probability.
5. For projects that pass the eligibility assessment, CDOT completes a **cost/benefit** analysis, comparing the benefits of the project (in reduced crashes) to the costs.
6. CDOT **selects** eligible projects with the highest benefit/cost ratio to the limit of the funding allocation for implementation.

## Exhibit 26 • CDOT Selection of 5310, 5311, 5316, and 5317 Projects

1. Every two years (usually in the spring of odd-numbered years), CDOT issues a “**Notice of Availability**” of 5310, 5311, 5316 and 5317 funds and makes available an application package.
2. Potential sponsors review the transit element and **coordinate with DRCOG** as to whether or not the potential project and sponsoring agency is in the transit element. Requests must be consistent with an adopted transit element.
  - If the project is in the transit element, the applicant can submit the application to CDOT.
  - If the project is not in the transit element but is consistent, DRCOG processes a transit element amendment at the next scheduled opportunity. The sponsor can then submit its application to CDOT.
- If the project is not in the transit element and is not consistent, DRCOG would not support a transit element amendment and the request would be ineligible.
3. Sponsors submit eligible **applications** to CDOT.
4. CDOT **reviews** the applications, verifies their eligibility with DRCOG, evaluates the applications, and **selects** projects for funding.
5. Upon CDOT notification, DRCOG includes, as appropriate, projects selected in the **TIP**. CDOT includes other selected projects in the **STIP**.
6. CDOT coordinates the **contractual process** and distributes the funding to the project sponsor.

## Safe Routes to Schools Project Selection

The federal Safe Routes to Schools program is designed to encourage more walking and biking to school. SAFETEA-LU authorized \$1 million in federal funds for each state for five years. Some

of the selected projects are for infrastructure, such as bike and pedestrian paths and sidewalks. From 10 percent to 30 percent of the available funds must go for non-infrastructure educational programs. Exhibit 27 summarizes CDOT's selection process.

### Exhibit 27 • Selecting Safe Routes to Schools Projects

1. The CDOT Executive Director **appoints** an Advisory Committee of nine members to make funding recommendations to the Transportation Commission. Advisory Committee members serve for at least two years. Five members represent statewide organizations of educators, parents, bicyclists, pedestrians, and law enforcement. The Statewide Transportation Advisory Committee selects an additional four members with the approval of the CDOT Executive Director: two from Metropolitan Planning Organizations and two from Transportation Planning Regions.
2. CDOT **notifies** city and county governments, schools, tribes, and school districts of the availability of Safe Routes to Schools funds, application requirements, and submittal deadlines, and conducts workshops across the state on applying for the funds.
3. Sponsors **submit** applications to the Advisory Committee through CDOT's Safe Routes to Schools Coordinator. The Safe Routes to Schools Coordinator then forwards the applications to the applicable CDOT engineering regions for comment and provides a list of applications received to the MPOs.
4. MPOs must **certify** applications of more than \$100,000 that are located in an Urbanized Area. The certifications must demonstrate that all actions to include the projects in the TIP for that Urbanized Area will be taken before applications may be approved.
5. The Advisory Committee **evaluates** applications based on demonstrated need; potential to reduce injuries and fatalities among children; potential to encourage walking and bicycling to school; extent of existing safety hazards; improvement or connection to existing and potential walking and bicycling routes; local support for a project; extent to which project fulfills goal of funding projects in proportion to the geographic distribution of the student population; and other federally allowed or required criteria.
6. The Transportation Commission acts on recommendations of the Advisory Committee, awarding funding to specific applications. Upon CDOT notification, DRCOG includes, as appropriate, projects selected in the **TIP**. CDOT includes other selected projects in the STIP.
7. CDOT coordinates the **contractual process** and distributes the funding to the project sponsor.

### Relationship to the Regional Transportation Planning Process

CDOT's project selection processes serve as the basis for projects CDOT identifies and submits to DRCOG for inclusion in the TIP in the transportation management area. DRCOG and RTD participate in the countywide meetings of CDOT's project priority programming process to promote interagency coordination. That process

also requires individual and joint meetings with MPOs and transportation planning regions to mutually consider project funding priorities.

For the TIP, strategic projects and regional priorities program projects must be consistent with the adopted fiscally constrained RTP. The surface treatment, congestion relief, bridge, safety, transit, and safe routes to school programs and their funding are included in the fiscally

constrained RTP as programs but without specific projects identified.

On occasion, CDOT may be asked to brief the transportation committees on topics related to CDOT TIP project selection such as:

- strategic projects progress
- pavement or bridge management systems
- the effectiveness of completed congestion relief projects
- the status of the bridge or safety programs.



## 12. RTD Transit Development Program

The transit development program is RTD's six-year fiscally constrained operating and capital improvement plan that is revised annually.

RTD uses the transit development program for submitting projects to DRCOG for inclusion in the TIP. Exhibit 28 summarizes annual transit development program development steps.

### Relationship to the Regional Transportation Planning Process

RTD presents its proposed transit development program to the Transportation Advisory Committee for comment. Upon adoption, the transit development program becomes the basis for RTD's submittal to DRCOG of transit projects to be included for funding in the TIP.

### Exhibit 28 • Steps in Preparing the Transit Development Program

1. RTD prepares **revenue estimates** for each year of the transit development program. Revenue estimates include state and local sales and use tax, farebox revenues, and federal grants. Revenue projections are based on economic indicators, including regional growth projections, from state and local economists. Federal funds are estimated based on past trends, formula allocations, and recent congressional actions.
2. Annually in December, RTD develops **proposed projects** for consideration. Standardized information including the estimated cost of the project is developed. Cost estimates consider such factors as capital cost, service hours by service project type, and principal and interest payments on long-term debt.
3. **Local governments** and transportation management organizations, through a series of meetings held approximately quarterly beginning in January, provide input to RTD as to possible transit capital and service projects desired within their jurisdictions in the timeframe of the transit development program.
4. RTD reviews each proposed project and **prioritizes** them.
5. RTD adjusts the prioritized list to fit the expected revenues once the financial projections have been completed. RTD reviews the draft transit development plan for consistency with Civil Rights Act requirements.
6. RTD reviews the draft transit development program with local governments and transportation management organizations at the appropriate quarterly meeting.
7. The draft transit development program is brought to the RTD Board at a public meeting for **adoption**, typically before the annual budget is reviewed and adopted in August.
8. The adopted transit development program is incorporated into RTD's annual **budget**.



### 13. DRCOG Toll Facilities Review

House Bill 05-1148 is a Colorado statute enacted in 2005 that states the Colorado Tolling Enterprise board:

*“shall take no action relating to the construction of a toll highway until after the toll highway system that includes the toll highway has been reviewed by every metropolitan planning organization or regional planning commission that is located in whole or in part within the toll highway system. The board shall develop a plan for the construction of a toll highway that addresses the operation of the toll highway, the technology to be utilized, the project feasibility, the project financing, and any other federally required information. Each toll highway plan in a toll highway system shall be separately approved by each metropolitan planning organization or regional planning commission.”*

Appendix A lists the relevant statute.

Criteria for the review of proposed projects per House Bill 05-1148 are adopted by the DRCOG Board through the transportation committees process. The Colorado Tolling Enterprise submits toll highway/system proposals to DRCOG with sufficient detail for DRCOG to evaluate the proposals per the adopted criteria.

DRCOG conducts a technical assessment of the proposal using information provided by

the Colorado Tolling Enterprise and its own examinations. Based on the criteria, DRCOG prepares a draft assessment report making preliminary findings and conclusions. The proposal is presented to the public at a public hearing before DRCOG Board members.

DRCOG prepares a final assessment report reflecting resolution of technical, operational, feasibility, and financial issues with the Colorado Tolling Enterprise, summarizing public comment, and identifying options for Board consideration. Final transportation committees recommendations and DRCOG Board action to approve the specific proposal (or not) take place upon consideration of the final report.

#### Relationship to the Regional Transportation Planning Process

The House Bill 05-1148 evaluation is conducted by DRCOG through the regional transportation planning process. As a priority transportation planning activity, such evaluations will be identified in the Unified Planning Work Program. Toll highways (or toll lanes) must be in the fiscally constrained RTP and TIP before they can be implemented. The House Bill 05-1148 assessment confirms the fiscally constrained nature of the proposal per the fiscally constrained RTP or provides a rationale for plan amendment. The project can be included in the TIP and RTP for construction only after the DRCOG Board has issued a favorable House Bill 05-1148 finding.



# Appendix A

## Select Federal and State Legislative and Regulatory References

### FEDERAL LEGISLATIVE REFERENCES

Public Law 109-59	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)
23 U.S.C. 134	Metropolitan planning
49 U.S.C. 5303 et seq.	Metropolitan planning (formerly 49 U.S.C. 1607)
23 U.S.C. 135	Statewide planning
23 U.S.C. 303	Management systems
42 U.S.C. 7401 et seq.	Code for Clean Air Act
23 U.S.C. 324	Code for Civil Rights Act (Title VI)
29 U.S.C. 794	Code for Civil Rights Act (Title VI)
42 U.S.C. 4321 et seq.	Code for National Environmental Policy Act (NEPA)
Public Law 101-336	Americans with Disabilities Act

### FEDERAL REGULATORY REFERENCES

23 C.F.R. Part 450 (Sect. 300-338)	Metropolitan planning rule
49 C.F.R. Part 613 (Sect. 100)	Metropolitan planning rule
23 C.F.R. Part 450 (Sect. 200-224)	Statewide planning rule
49 C.F.R. Part 613 (Sect. 200)	Statewide planning rule
23 C.F.R. Part 500	Management systems
23 C.F.R. Part 200	USDOT regulations for Civil Rights (Title VI)
49 C.F.R. Part 21	USDOT regulations for Civil Rights (Title VI)
49 C.F.R. Part 611	FTA final rule on major capital investment projects (New Starts)
40 C.F.R. Part 51	Environmental Protection Agency regulations for State Implementation Plan (SIP)
40 C.F.R. Part 93	Environmental Protection Agency conformity regulations
49 C.F.R. Parts 27, 37, & 38	USDOT regulations of Americans with Disabilities Act
23 C.F.R. Parts 770-772	USDOT regulations of NEPA
40 C.F.R. Parts 1500-1508	Council on Environmental Quality regulations of NEPA

## COLORADO STATUTE REFERENCES

30-28-105	Regional planning commissions
43-1-1101-1105	Transportation planning
43-2-147	Access code authority
32-9-107.7	Senate Bill 90-208
43-4-805.5	House Bill 05-1148
25-7-105(1)	Air Quality Control Commission authority for SIP
43-1-106	Transportation Commission