



AGENDA
DRCOG Board Work Session
Wednesday, June 7, 2017
4 p.m.
1290 Broadway
First Floor Boardroom



1. Call to Order
2. Roll Call
3. Summary of May 3, 2017 Board Work Session
(Attachment A)
4. Public Comment
The chair requests that there be no public comment on issues for which a prior public hearing has been held before the Board of Directors.
5. Discussion of return on investment evaluation for the 2020-2023 Transportation Improvement Program Call for Projects
(Attachment B) Brad Calvert, Director, Regional Planning & Development
6. Discussion of regional/subregional funding targets for the 2020-2023 Transportation Improvement Program Call for Projects
(Attachment C) Douglas W. Rex, Acting Executive Director
7. Adjourn

Persons in need of auxiliary aids or services, such as interpretation services or assisted listening devices, are asked to contact DRCOG at least 48 hours in advance of the meeting by calling (303) 480-6701



ATTACH A

BOARD WORK SESSION SUMMARY
May 3, 2017

Directors present:

Bob Roth, Chair	Aurora
Jeff Baker	Arapahoe County
Bob Fifer	Arvada
Aaron Brockett	Boulder
Elise Jones	Boulder County
David Beacom	Broomfield
Laura Christman	Cherry Hills Village
Rick Teter	Commerce City
Robin Kniech	Denver
Roger Partridge	Douglas County
Steve Conklin	Edgewater
Lynette Kelsey	Georgetown
Scott Norquist	Glendale
Ron Rakowsky	Greenwood Village
Stephanie Walton	Lafayette
Shakti	Lakewood
Phil Cernanec	Littleton
Wynne Shaw	Lone Tree
Ashley Stolzmann	Louisville
Colleen Whitlow	Mead
John Diak	Parker
Rita Dozal	Superior
Herb Atchison	Westminster

Participating via Webex:

Joe Jefferson	Englewood
---------------	-----------

Others present: Doug Rex, Director, Transportation Planning & Operations, Jeanne Shreve, Adams County; Mac Callison, Aurora; Jamie Hartig, Douglas County; Kevin Forgett, Kent Moorman, Thornton; Danny Herrmann, CDOT; and DRCOG staff.

Board Chair Bob Roth facilitated the work session. The session began at 4:00 p.m.

Summary of March 1, 2017 Board Work Session

The summary was accepted as presented.

Public Comment

No public comment was received.

Discussion of initial evaluation criteria for coordinated growth management initiative(s)

Brad Calvert provided background information for this topic, and noted members would be asked to provide high-level input on how such an initiative would function, and what it would seek to accomplish. Staff will share the feedback with an ad hoc technical group of local government planners and regional stakeholders. Based on the input, the technical

group will evaluate collaborative growth management approaches, programs and initiatives. Preliminary recommendations from the technical group will be brought back to the Board in the next few months.

Member input included:

- Preserving open land and help focus future infrastructure investments were the two most-selected topics in the first poll regarding the primary purpose of such an initiative.
 - Directors expressed concern with the appearance of regulating or dictating what jurisdictions should do within their own boundaries. DRCOG should be a record-keeper of growth.
- Maximize the benefits of growth and minimize potential negative effects, and sub-regional collaboration and coordination were the two most-selected topics in the second poll regarding what such an initiative should help do regionally.
- Prepare for longer-term growth (new urban development) and understand potential growth impacts were the two most-selected topics in the third poll regarding what such an initiative should help do locally.
 - There was some sentiment that the word “communicate” was confusing in this context. Some felt the first four items should have been consolidated into one. Staff noted currently growth plans are communicated to DRCOG, but not to surrounding jurisdictions. DRCOG should be an advisor to municipalities.
- The top words selected to describe the DRCOG staff role with a potential regional growth initiative were facilitator and analyst/modeler (equally).
- The top words selected to describe the DRCOG Board’s role with a potential regional growth initiative were representative and approver.
 - There was some sentiment that representative was an obvious choice. Regarding the choice of approver, it was noted that the role of DRCOG Board members in the general sense isn’t what staff members were looking for in this context. The poll was re-run. After the second polling, the word prioritizer was more prevalent.
- The top words selected to describe local staff role with a potential regional growth initiative were reporter and planner.

DRCOG staff will work with local staff and come back at a future work session.

Discussion of focus areas for the 2020-2023 Transportation Improvement Program

Steve Cook provided information on the agenda topic. A draft schedule was provided at member’s seats. He noted a poll was distributed to the TIP Policy Work Group regarding the most important transportation-related Metro Vision objectives to be addressed in the new TIP. The purpose of the poll was not to specifically define TIP focus areas or any policy regarding project eligibility or evaluation criteria, but to see if the results could provide a basis for starting the work group’s discussion. The results of the poll were included in the agenda packet and briefly described by staff.

Member comments included:

- A suggestion was made that perhaps there are items that other regions have included as system-wide principles that could help with our process.

- A question was asked about how this input would be used. Staff noted this is information to determine what areas the work group and Board members might want to discuss in more depth.
- Kicking off with Metro Vision-related items is good, however it was felt that some of the subjects are too broad. It was suggested to use lower-level, more specific themes. Polling on other types of themes might be useful.
- A question was asked if the surveys are useful in spurring conversation.
- If polling, the questions should be very specific. Also, questions should be divided among regional and subregional. Staff noted the focus areas could be different between set-aside, regional, and subregional.
- Differences between jurisdictions and their priorities should be considered.
- The process proposed for the regional portion is good, however there should also be discussion of the value of subregional projects. The set-aside projects and definition of transformational projects should be discussed.
- Measuring project outcomes is desirable.

Discussion of regional share framework for the 2020-2023 Transportation Improvement Program

Doug Rex discussed the regional share framework for the upcoming TIP. The process is envisioned to be more open-ended than previous TIP cycles.

Member comments included:

- It's important to have a projected impact, but it should be tempered by consistency across projects. Rather than measuring individual projects, the portfolio of projects should be considered.
- A menu of focus areas might produce a more objective view. A suggestion was made to have potential project sponsors provide oral presentations to the Board.
- A suggestion was made to require submitted projects to have been through some public process.
- Sponsors should show how a project helps meet the Metro Vision goals. Project sponsors should provide the metrics to be used to measure benefits.

Other Matters

No other matters were discussed.

The work session ended at 6:14 p.m.

ATTACH B

To: Chair and Members of the Board of Directors
From: Douglas W. Rex, Acting Executive Director
303-480-6747 or drex@drcog.org

Meeting Date	Agenda Category	Agenda Item #
June 7, 2017	Informational	5

SUBJECT

Provide high-level feedback on return on investment (ROI) evaluation for projects submitted and evaluated during *2020-2023 Transportation Improvement Program (TIP)* call for projects and subsequent Board consideration and selection.

PROPOSED ACTION/RECOMMENDATIONS

N/A

ACTION BY OTHERS

N/A

SUMMARY

Background

In August 2015, the Board of Directors directed staff to convene a working group comprised of DRCOG staff and Transportation Advisory Committee (TAC) members to identify and review the process used to develop the *2016-2021 Transportation Improvement Program (TIP)*. A [white paper](#) identifying recommendations for the development of the 2020-2023 TIP was presented to the Board in February 2016. In February 2016, the Board accepted the findings of the white paper and directed the Work Group to continue investigating the white paper's five recommendations. Today's discussion will focus on a key element of one of the five recommendations.

Recommendation 3: Create a project selection process that places more emphasis on project benefits, overall value, and return on investment.

Potential Approach to ROI

The TIP Policy Work Group initiated discussion on potential methods to include ROI in the overall approach to evaluate projects at their meetings in April and May. At the June Work Session, DRCOG staff will share a potential approach to estimating ROI. The proposed approach attempts to respond to the findings in the white paper – *project selection process that applies investment decisions based on quantifiable performance metrics directly linked to Metro Vision and regional plan goals and objectives*. The white paper further noted the importance of flexibility to implement projects that address today's needs and advance the region's multimodal transportation system.

In June, staff will share a proposed methodology to complete a ROI analysis during the upcoming project selection process. The potential evaluation method staff will share is based on current approaches used by Minnesota DOT and the Metropolitan Transportation Commission (MPO for the San Francisco Bay Area), among others.

In general, the proposed approach to measure ROI for projects (individual and/or groupings of projects) uses a two-dimensional approach:

- ROI is approximated by calculating the value of benefits across areas (economic, environmental, social, public health, and overall quality of life). The benefits are then measured against known costs of each project to determine an overall ROI or cost-benefit ratio.
- The second dimension is more qualitative, and evaluates each project in relationship to adopted regional goals and outcomes – for example, this could include adopted Metro Vision and Metro Vision RTP outcomes and objectives, and potentially TIP Focus Areas when identified by the Board.

Testing approach

As noted by DRCOG staff at the TIP Policy Work Group in May, while there is a strong track record of applying the above methodology in other regions, it would greatly benefit our efforts to test the approach prior to the TIP project submittal, evaluation and selection which will begin in 2018.

Pending input from the Board at the June Work Session, DRCOG's transportation planning and economics teams will use the above approach to calculate ROI for existing projects (this may include funded projects and waiting list projects). Among other important details, the initial effort to evaluate existing projects is intended to reveal the types of assumptions (value of benefits) that must be made and what data is required to the complete ROI analysis. Ultimately, staff is trying to understand and address what can and/or could be confidently estimated and included in an overall approach to evaluate and select investments.

Today's Discussion

In June, staff will share details on the above approach and seek input from Directors that can inform our upcoming research efforts. As with many research efforts, it's important to start with the end in mind. Director feedback is welcomed on including ROI in the upcoming TIP process generally, but specific input on how Directors envision using ROI in project evaluation and selection in 2018 is requested.

In staff's initial thinking on including ROI in the upcoming TIP process, a few potential considerations have surfaced:

- ROI should be considered part of an overall evaluation framework – a piece of information for the Board to consider, along with other quantitative and qualitative metrics.
- Estimating the dollar value of benefits may be more reliable for larger, regional projects.
- For regional projects, ROI may be able to serve as a metric to inform a determination of eligibility (e.g., must demonstrate "high" ROI), as well as a criterion for Board selection.
- For sub-regional projects, providing ROI to the Board for groupings of projects that are submitted by sub-regions may prove most reliable and informative; versus estimating ROI, specifically a monetary estimation, for each potential subregional project.

Next Steps

As noted above, staff will apply a two-dimensional approach for estimating ROI to existing projects in the current and/or previous TIPs (this may include projects currently on the TIP waiting list). All results will be anonymous, projects and/or bundles of projects will not be identified.

Staff will share results of this ROI analysis with TIP Policy Work Group and the Board and request additional guidance on issues identified during the process (e.g., what assumptions should be used in the final ROI analysis, data that may be required to complete desired analysis, how and when ROI is applied in the upcoming TIP, etc.).

PREVIOUS DISCUSSIONS/ACTIONS

[February 2016, 2016](#) – Board discussion of the 2016-2021 TIP Review White Paper prepared by the TIP Review Work Group

PROPOSED MOTION

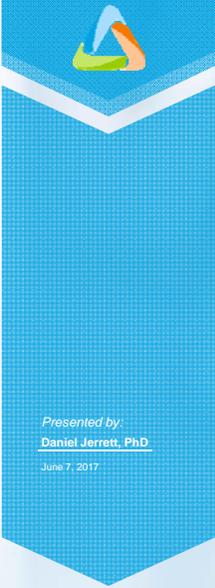
N/A

ATTACHMENT

Staff presentation

ADDITIONAL INFORMATION

If you need additional information, please contact Douglas W. Rex, Acting Executive Director, at 303-480-6747 or drex@drcog.org; or Daniel Jerrett, Chief Economist at 303-480-5644 or djerrett@drcog.org.



2020-23 TIP
Return on Investment (ROI)
for transportation projects

June 2017 Board Work Session

Presented by:
Daniel Jerrett, PhD
June 7, 2017

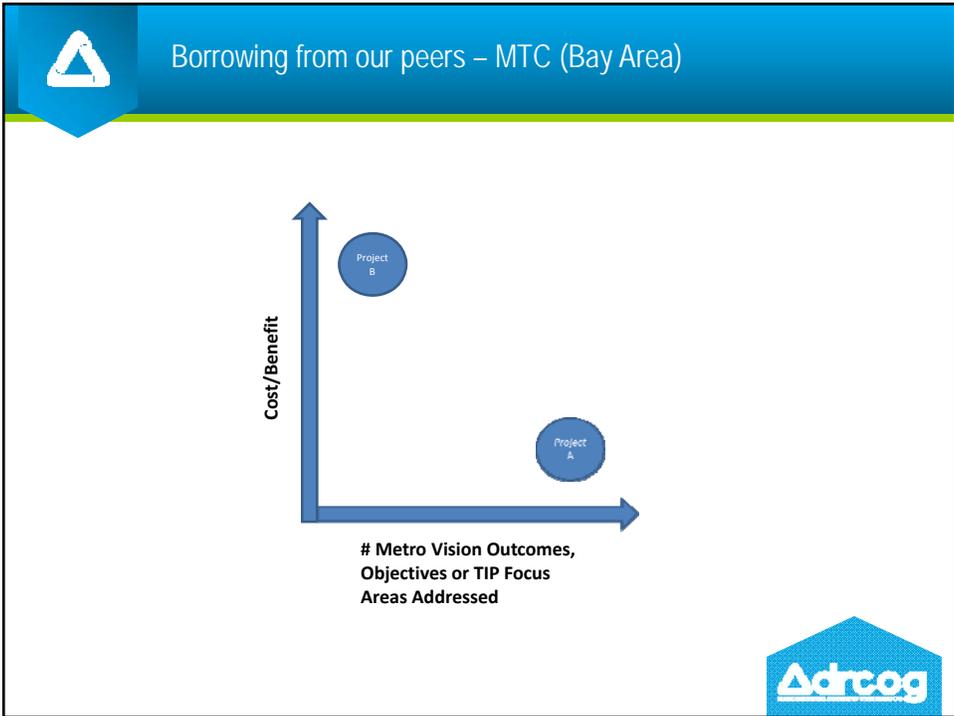
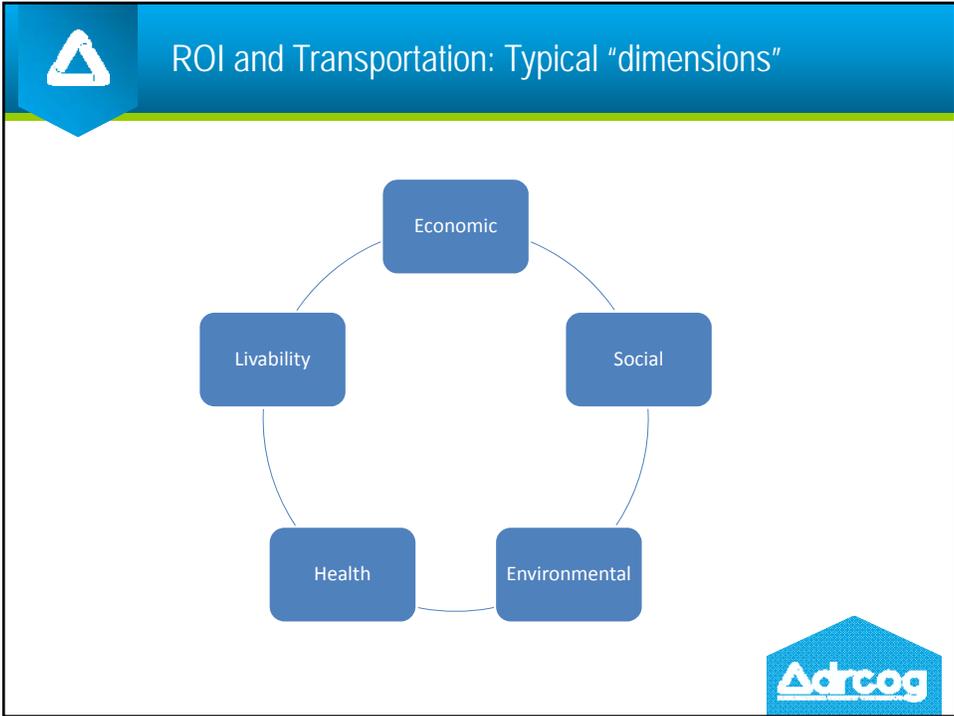


TIP White Paper – Recommendation #3

Create a project selection process that places more emphasis on project benefits, overall value, and return on investment.

Establish a project selection process that applies investment decisions based on **quantifiable performance metrics** directly linked to **Metro Vision and regional plan goals and objectives**, while allowing flexibility to implement projects providing the most benefit to meet today's needs and advance the region's multimodal transportation system.

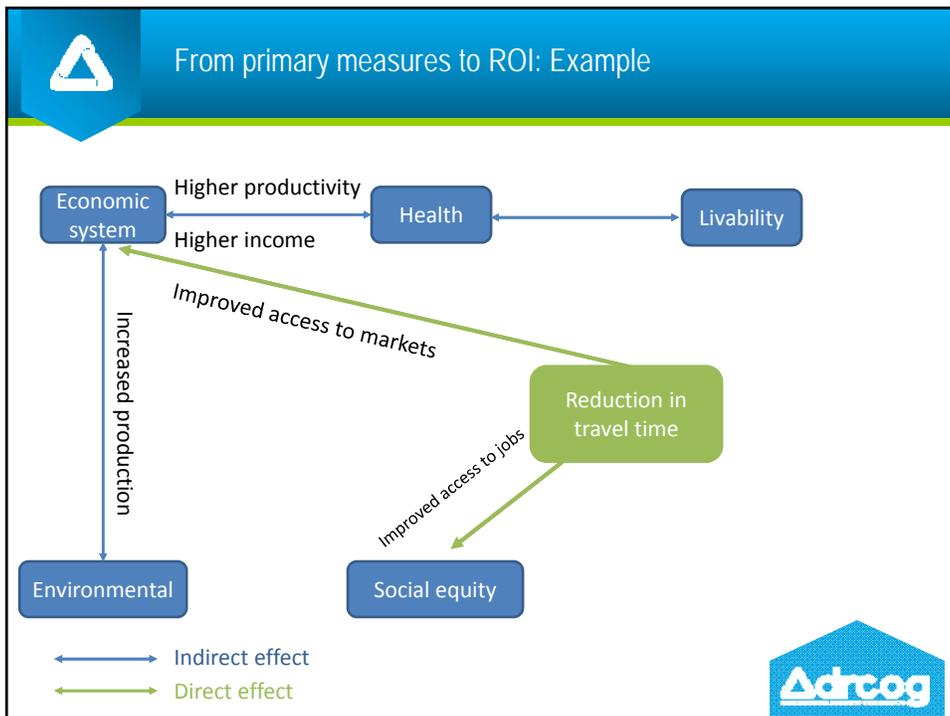




Primary measures

Measured or modeled without interpretation nor monetization:

Measures	Obtained from
Vehicle travel time	Travel model
Greenhouse gas emissions	Travel model +
Vehicle operating cost	Travel model +
Access to ADA facilities	Network Analysis
Access to recreational/cultural amenities	Travel model + Land use model
Access to transit by low income population	Travel model + Land use model
Fatalities and serious injuries	CDOT
...	...

From primary measures to ROI: Pilot approach (example)

Estimating partial monetary effects

Reduction in GHG emissions	Source: FHWA →	\$
+		+
Reduction in vehicle travel time	Source: ... →	\$
+		+
Increased access to recreational amenities	Source: ... →	\$
<div style="background-color: #0070C0; color: white; padding: 5px; text-align: center; margin-top: 5px;">Total benefits: \$</div>		

Pilot approach – what we hope to test:

Expected strengths:

- Simplicity/transparency
- Sensitivities
- Consistency across project types

Potential challenges:

- Indirect effects: double counting and/or underestimation
- Finding reliable multipliers for all primary measures
- Agreement on assumptions

Presented by:
Daniel Jerrett, PhD
June 7, 2017

2020-23 TIP Return on Investment (ROI) for transportation projects

June 2017 Board Work Session

ATTACH C

To: Chair and Members of the Board of Directors

From: Douglas W. Rex, Acting Executive Director
303 480-6747 or drex@drcoq.org

Meeting Date	Agenda Category	Agenda Item #
June 7, 2017	Informational	6

SUBJECT

Provide feedback on the TIP Policy Work Group's discussion on Regional/Subregional funding targets for the 2020-2023 TIP Call for Projects.

PROPOSED ACTION/RECOMMENDATIONS

N/A

ACTION BY OTHERS

N/A

SUMMARY

The TIP Policy Work Group's (TPWG) February 1, 2017 [white paper](#) recommended the Board utilize a new funding allocation model for the *2020-2023 Transportation Improvement Program* (TIP). The primary premise of a dual project selection model is that it has two project selection elements: regional and subregional.

For the Regional Share, funds would be allocated to "transformative" infrastructure projects and programs that have a mutually agreed regional benefit. The Subregional Share would be proportionately targeted for planning purposes to predefined sub-geographic units (i.e., counties) for project identification and recommendations to the DRCOG Board. Attachment 1 provides a flow chart illustrating the Dual Model concept.

At its May meeting, the TPWG began discussions on regional/subregional funding targets. The following two recommendations from the February 2017 white paper provided the foundation for the discussion:

- i. The Work Group believes the funding split between the regional share and the subregional share needs to be determined early in the process to ensure adequate time is allowed for the subregional call for projects and to develop the subregional forum process.
- ii. The amount of funds in the subregional share needs to be "meaningful" to justify establishing a separate project selection process.

After lengthy discussion, the TPWG coalesced around a minimum Subregional Share funding target between 60-80% of the funds available, with a majority of TPWG members present believing that 70% minimum was appropriate.

For illustrative purposes, Attachment 2 reveals the approximate funding range each county would receive for project recommendations, assuming 60-80% of available funds went to the Subregional Share. For this example, population and employment are used to proportionately target Subregional Share funds to each county.

Regional Project Definition

At the May Board Work Session, Directors began discussion on the Regional Share element of the Dual Model concept. Among the items discussed included how to define a regional project. The February white paper describes a regional project as “transformative”, with the understanding that further definition would be provided as the process moved along.

Staff would like Board Directors to give some thought to the Regional Share definition as it deliberates about the appropriate Regional/Subregional funding targets. The reason is simple; how the Board decides on the funding targets will ultimately help define regional projects. For example, if the Board decides to allocate a higher share to the Subregional Share, there will be less funds for Regional Share projects thereby limiting what can ultimately be funded. If more funds are available for the Regional Share, the definition of a regional project could be expanded.

At the June meeting, the TPWG would like Board Director reaction to the following interdependent concepts:

1. Board Director thoughts on the TPWG’s concept of establishing the minimum Subregional Share between 60-80% of the available funds; and
2. Feedback on how an eligible regional project should be defined, given the establishment of a Subregional Share minimum.

PREVIOUS DISCUSSIONS/ACTIONS

[February 15, 2017](#) – Board accepted the TIP Review Workgroup’s second [white paper](#) and directed the TIP Review Work Group to continue and develop the draft 2020-2023 TIP Policy document based on the Regional/Subregional dual model framework for the Board’s consideration.

PROPOSED MOTION

N/A

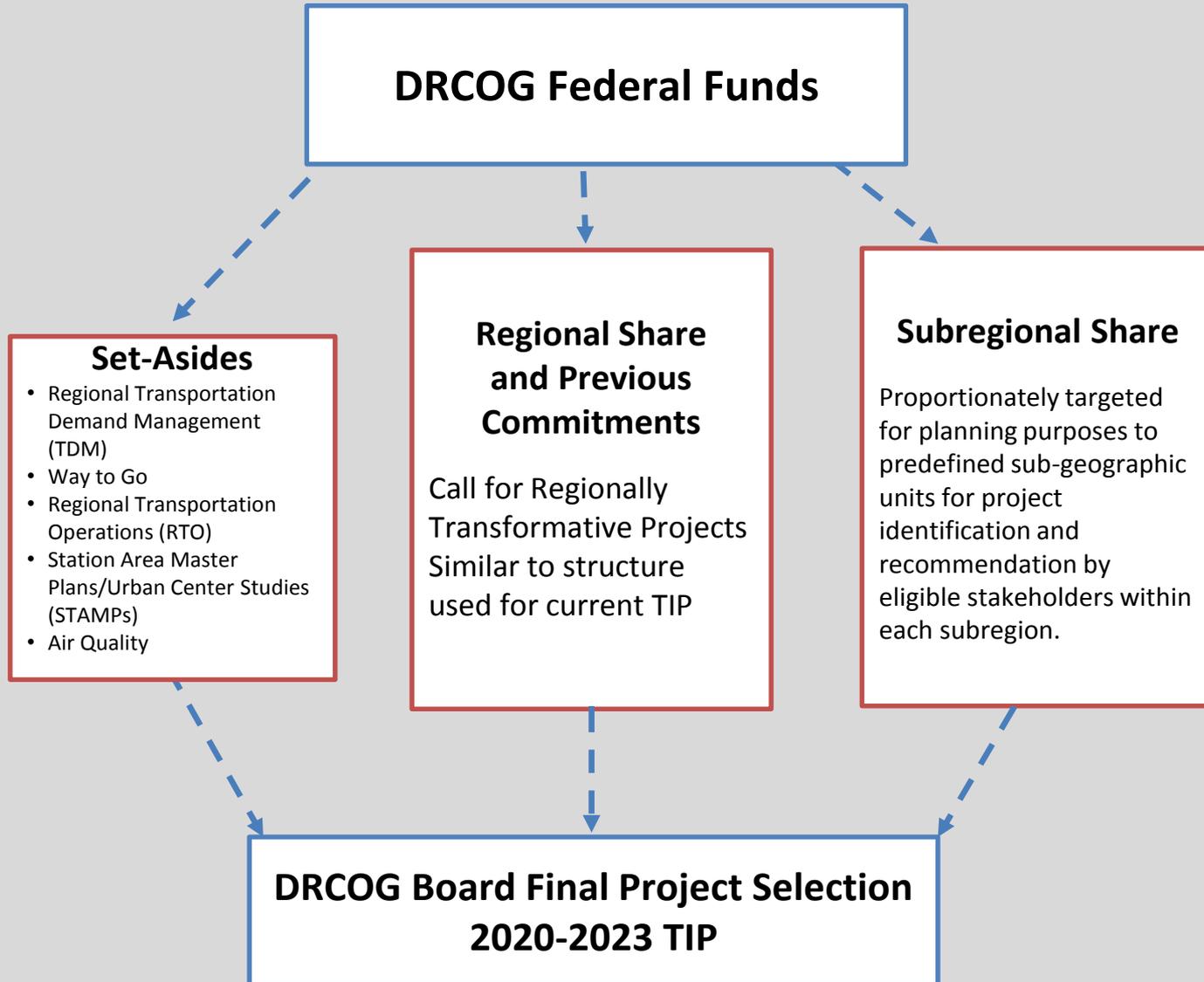
ATTACHMENTS

1. Example Dual Model Concept
2. Example Estimates of 4-Year Subregional Share Funding by County
3. Staff presentation

ADDITIONAL INFORMATION

If you need additional information please contact Douglas W. Rex, Acting Executive Director, at 303 480-6747 or drex@drcoq.org.

Example Dual Model Concept



Example Estimates of 4-Year Funding for Subregional Share & Counties

DRCOG Federal Funds
(FY 2020-2023)
\$280 Million Total

Set-Asides

- Regional Transportation Demand Management (TDM)
- Way to Go
- Regional Transportation Operations (RTO)
- Station Area Master Plans/Urban Center Studies (STAMPs)
- Air Quality

\$40 Million

\$240 Million

Regional Share and Previous Commitments

Call for Regionally Transformative Projects

Similar to structure used for current TIP.

40% = \$96 Million
20% = \$48 Million

Subregional Share

Proportionately targeted for planning purposes to predefined sub-geographic units for project identification and recommendation by eligible stakeholders within each subregion.

60% = \$144 Million
80% = \$192 Million

Example County Allocations

4-year total ranges (Subregional Share 60%-80% of total)

Counties	Avg of Pop and Employ Factors (2015)	
	Percent	4-Year Funding (in Millions)
Adams	13.93%	\$20.1 to \$26.7
Arapahoe	20.10%	\$28.9 to \$38.6
Boulder	10.89%	\$15.7 to \$20.9
Broomfield	2.14%	\$3.1 to \$4.1
Denver	25.60%	\$36.9 to \$49.2
Douglas	8.98%	\$12.9 to \$17.2
Jefferson	16.62%	\$23.9 to \$31.9
SW Weld	1.73%	\$2.5 to \$3.3
	100.0%	\$144 to \$192 Million



Presented by:

Douglas W. Rex

Transportation Planning
and Operations

New 2020-2023 Transportation Improvement Program (TIP) Policy Development

Regional/Subregional Funding Targets

Board Work Session
June 7, 2017



New 2020-23 TIP and Call For Projects

- New TIP to be adopted by March 2019
 - Four years of funding to allocate to projects (FY 2020-23)
- Approve TIP Policy Document (the rules) by December 2017
 - TIP Policy Work Group
 - DRCOG administered \$
 - Eligibility of projects
 - Application procedures and submittal information
 - Evaluation criteria
- “Dual” project selection process (DRCOG \$)
 - Regional Share projects
 - Subregional Share projects (county-based)



Dual Model

Regional Share

- “Transformative” projects
 - Must adhere to Board TIP Focus Areas
- Funds primarily used to supplement larger regional projects submitted by regional partners (e.g. CDOT, RTD, public authorities and other entities that qualify for federal funds)
- Simplified application process
 - Must be able to quantify the benefits to the region
- Projects reviewed by a subcommittee of the Board
 - Make recommendations to the full Board



Dual Model

Subregional Share

- Funds proportionately targeted to predefined sub-geographic units for project identification and recommendation
 - Counties recommended
 - Comfortable relationship among jurisdictions
 - CDOT public hearing process: better coordination of project applications
 - Encourage cooperation and collaboration with neighboring counties on cross-jurisdictional projects
- Subregional share needs to be “meaningful”



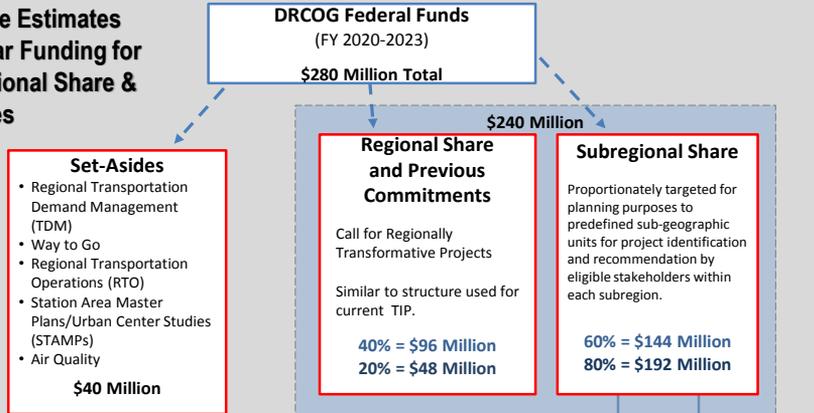


TIP Policy Work Group Discussion

- TIP Policy Work Group (TPWG) discussed in May
 - Regional/Subregional Share Funding Targets
 - How much should be in each pot?
 - Minimum 60-80% range for the Subregional Share
 - a majority of TPWG members present believed 70% is appropriate (30% for the Regional Share).



Example Estimates of 4-Year Funding for Subregional Share & Counties



Example County Allocations
4-year total ranges (Subregional Share 60%-80% of total)

Counties	Avg of Pop and Employ Factors (2015)	4-Year Funding (in Millions)
	Percent	
Adams	13.93%	\$20.1 to \$26.7
Arapahoe	20.10%	\$28.9 to \$38.6
Boulder	10.89%	\$15.7 to \$20.9
Broomfield	2.14%	\$3.1 to \$4.1
Denver	25.60%	\$36.9 to \$49.2
Douglas	8.98%	\$12.9 to \$17.2
Jefferson	16.62%	\$23.9 to \$31.9
SW Weld	1.73%	\$2.5 to \$3.3
	100.0%	\$144 to \$192 Million



Regional Project Definition?

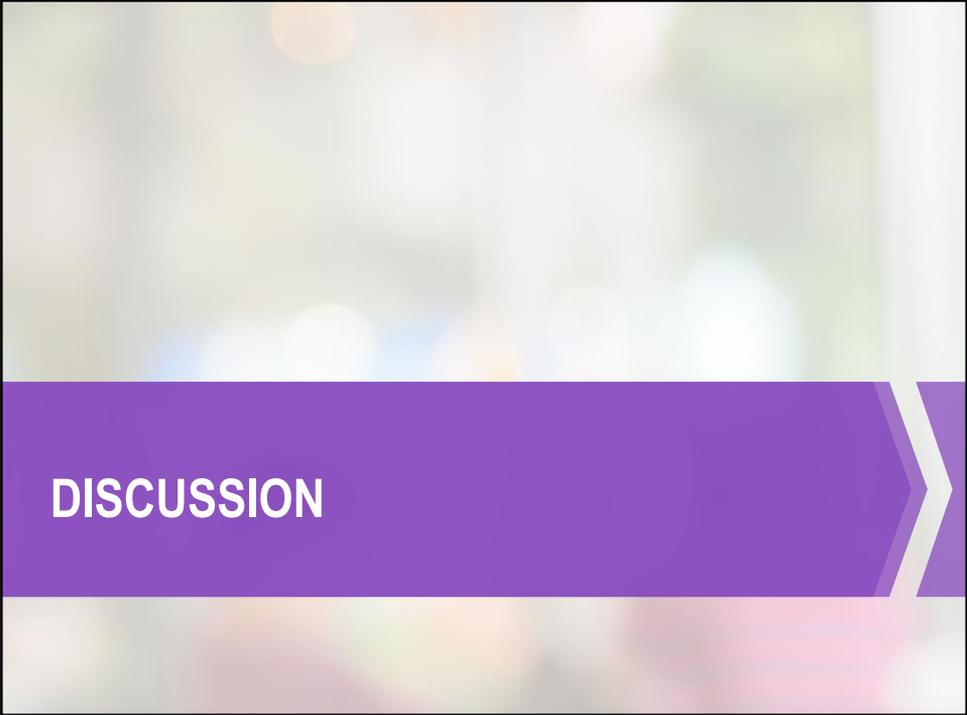
- Regional/Subregional Funding Targets could potentially impact how Regional Share Projects are defined.
 - If more funding is allocated to Subregional Share, then Regional Share project definition will likely be narrower.
 - If less funds are allocated to Subregional Share, then Regional share project definition will likely be broader.



June Board Work Session Feedback

- Board Director thoughts on the TPWG's concept of establishing the minimum Subregional Share between 60-80% of the available funds; and
- Feedback from Board Directors on how they believe a regional project should be defined given the establishment of a Subregional Share minimum.





DISCUSSION