

Regional Transportation and Land Use Decision Making

APPENDIX 2: Detailed Case Studies

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APPENDIX OVERVIEW AND METHODS

This appendix contains detailed summaries of the four case studies researched for this project: Central Puget Sound (Washington), Portland (Oregon), Denver (Colorado), and San Diego (California). All four cases were selected because of the institutional structures and mechanisms being used to coordinate land use and transportation on a regional level.

The project was led by a multidisciplinary team from the University of Oregon and Portland State University. The project also involved a team of graduate students working over two terms for the University of Oregon's Community Planning Workshop.

Case Selection

The research team conducted a review of published literature, research reports, state agency documents, and Web sites to identify potential cases for investigation. We used three criteria for selecting the case study regions:

- Land use and transportation is being addressed on a regional scale,
- Region encompasses multiple municipalities and jurisdictions, and
- Region is using grant programs and Transportation Improvement Program (TIP) funding to promote regional growth centers.

Based on this review, we selected four cases and obtained commitments from regional organizations to participate in the study:

- **PSRC** Puget Sound Regional Council (Central Puget Sound, Washington)
- **Metro** Portland (Portland, Oregon)
- **DRCOG** Denver Regional Council of Governments (Denver, Colorado)
- **SANDAG** San Diego Association of Governments (San Diego, California)

Background Research

For each case study, the research team reviewed documents, research reports, and published research. The team conducted interviews with approximately ten key individuals in each region addressing topics such as: approaches to regional coordination and governance, incentive programs to coordinate transportation and land use, the role of regional plans, relevant policies, and cross-boundary issues.

The **stakeholder interviews** included a comparable cross-section of individuals in each region, including: (1) MPO staff, (2) MPO elected officials, (3) state agency officials, and (4) staff with transit agencies, regional agencies, or Federal agencies.

The team also conducted two group interviews with the Regional Project Evaluation Committee (RPEC) in Puget Sound and the Transportation Policy Advisory Committee (TPAC) in the Portland Metro region using a similar interview format.

Online Survey

For each case study we conducted an online survey of people involved in regional transportation and land use decision-making, including local government staff and elected officials, state agency staff, and regional agency staff. The survey asked respondents to evaluate several issues in their region, including:

- Regional governance and coordination of decision making
- Effectiveness of specific policies and programs in supporting coordination
- Regional trends related to transportation and land use planning

Individuals were notified of the survey by e-mail and asked to complete it online. After the initial e-mail, two follow up reminders were also sent. As shown in Table 1, the survey was sent to a total of 450 individuals in the four regions, and a total of 199 responded (response rate = 44%).

Table 1 Survey Respondent Information

	PSRC	DRCOG	Metro	SANDAG
Survey sample size	101	117	163	69
Survey responses	61	59	44	35
Survey response rate	60%	59%	44%	35%
Organizational Affiliation				
Federal Government	0%	2%	0%	0%
State Government	11%	9%	9%	3%
County Government	15%	22%	2%	6%
City Government	39%	49%	39%	71%
Tribal Government	0%	0%	0%	0%
Port	7%	0%	2%	0%
Transit District	10%	4%	5%	3%
Private Sector	7%	3%	11%	0%
MPO	2%	3%	9%	3%
Interest Group	3%	3%	5%	0%
Community Representative	2%	0%	16%	0%
Other	5%	5%	2%	14%

Research Forum

On September 8-9, 2010, the findings from this research were presented at a forum in Portland, Oregon. The invitation-only forum involved at least two participants from each of the four case studies, invited researchers, and officials from state and Federal agencies. The schedule of the forum included:

- Federal transportation context
- Context and background on cases by MPO staff from each case study area
- Presentation of findings by research team
- Legislative context by Congressmen Oberstar (MN) and DeFazio (OR)
- Research panels on findings and future research needs
- Facilitated breakout sessions covering: (1) funding, (2) governance, (3) coordination mechanisms, and (4) policy.

Information, notes, and discussion from this forum were gathered by the research team and summarized in the Appendix. The team used this information to refine the analysis and recommendations presented in this document.

Limitations and Caveats

There are several limitations in our methods. Ideally, we could evaluate our cases using outcome data. However, the policies are relatively new, and many years of data are required to determine statistically valid trends. Our study provides an interim assessment of these policies using the opinions of regional stakeholders.

The interviews and surveys were designed to include a parallel set of participants for each case, but the committee composition and respondents varied. Also, respondents in different regions may have had different expectations of performance. Finally, we relied on a relatively small set of respondents. For these reasons, we have been cautious in our cross-case comparisons and generalizations.

DETAILED CASE STUDY: PORTLAND METRO

The Metropolitan Service District (Metro) encompasses three counties (Clackamas, Multnomah, and Washington) and 25 cities, including Portland, Beaverton, Tualatin, Oregon City, Milwaukie, Gresham, and Fairview. This summary describes Metro's history, governance structure and responsibilities, and activities related to land use and transportation.

MPO History and Context

Portland Metro covers 463 square miles, but the greater metropolitan area extends to a larger area, including across the Washington-Oregon border to the north.¹ Metro formed through merging with the Columbia Region Association of Governments (CRAG). The Oregon Legislature approved the creation of Metro in 1977; it was approved by voters in 1978. It began operating in 1979. Metro adopted its first urban growth boundary and was designated by the Federal government as the region's metropolitan planning organization (MPO). Metro also became responsible for solid waste planning, and operation of the Washington Park Zoo.

In 1979, Metro created the Joint Policy Advisory Committee on Transportation (JPACT).² JPACT is a 17-member committee that provides a forum for elected officials and representatives of agencies involved in transportation to evaluate transportation needs in the region, as well as make recommendations to the Metro Council.³ The following section will detail the history of Metro's major planning documents.

Region Covered by MPO

The Metro region stretches from the Columbia River to neighborhoods along the Willamette River in Wilsonville, and from the foothills of the Coast Range near Forest Grove to the banks of the Sandy River at Troutdale. The Cascade Range provide the region with dramatic views of Mt. Hood, Mt. St. Helens, Mt. Rainier, and Mt. Adams.⁴

The physical size of Metro's jurisdictional boundary is 463.2 square miles (see Figure 1), which includes land in Clackamas, Multnomah, and Washington counties in Oregon, and Clark County in Washington. There are 399.5 square miles of land within the urban growth boundary, of which 24% is in Clackamas County, 46% is in Multnomah County, and 30% is in Washington County.⁵ Clark county land is not

¹ Metro, *Region, County, and City Areas*. 2006. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=24905> (accessed January 2010).

² Metro. "Joint Policy Advisory Committee."

<http://www.oregonmetro.gov/index.cfm/go/by.web/id=305> (accessed January-February 2010).

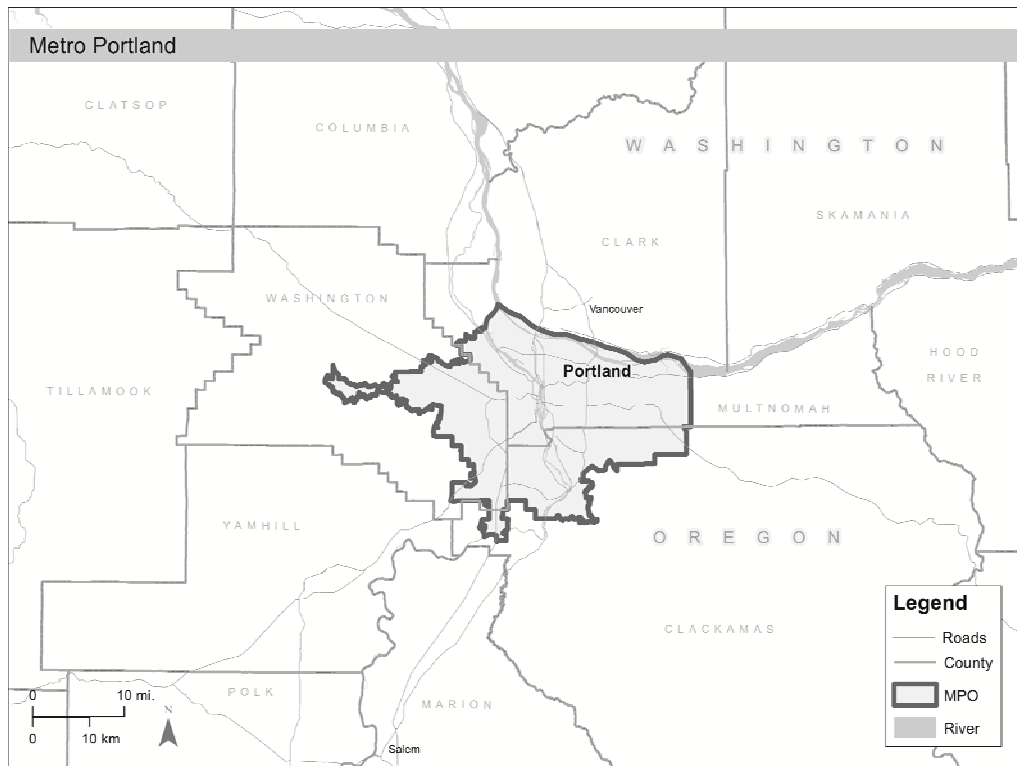
³ Metro, *2035 Regional Transportation Plan*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3> (accessed January- February 2010), introduction.

⁴ Metro, "Welcome to Metro." <http://www.oregonmetro.gov/> (accessed July 2010).

⁵ Metro, *Region, County, and City Areas*. 2006. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=24905>. (accessed January 2010).

included in the urban growth boundary. The land encompassed in Metro's boundary accounts for 4.7% of the state's total land area.⁶

Figure 1. Metro Region



Prepared by: InfoGraphics Lab, Geography Department, University of Oregon

In 2005, Metro was home to just under 1.4 million people, which is 38.4% of the state's population. There are 41 individual jurisdictions within the four counties that comprise the Metro region. The Portland-Vancouver Metropolitan Area is expected to add just over one million more people in the next 25 years (see Table 1). This increase is expected to increase demands for the region's transportation system and transit.⁷

⁶ Metro, *2035 Regional Transportation Plan*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3>. (accessed January- February 2010), i.

⁷ Metro, *2035 Regional Transportation Plan*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3>. (accessed January- February 2010), ch.2, 5.

Table 1. Population Forecast for Metro Counties

County	2005	2035	% Increase
Multnomah Subareas			
Portland City and Neighborhoods	538,078	679,782	26%
East Multnomah County	144,722	199,918	38%
Clackamas	373,400	743,000	99%
Washington	501,400	756,300	51%
Three-County Subtotal	1,557,600	2,379,000	53%
Clark (WA)	403,504	718,402	78%
Four-County Total	1,961,104	3,097,402	58%

Source: Metro, 2035 Regional Transportation Plan. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3>, ch.2, 5.

Since 2000, international migration accounted for about 30% of the population growth in the metropolitan region. Regional research indicates that the areas with highest percentage of in-migration tend to be receiving populations that are lower income and more ethnically and culturally diverse. These in-migration areas also tend to be less well served by transit, bicycle, and pedestrian facilities, creating a need for investment to address transportation equity for populations.⁸

The average age in the greater Portland-Vancouver region has dropped since the 2000 census. This drop is expected to continue until about 2011, after which the proportion of people over 65 is expected to increase. In 2000, about 10.5% of the population in the Portland-Vancouver area was over 65; by 2030, that number is forecasted to be 17%. This aging population will require transportation facilities designed to serve people with a range of physical abilities.⁹

Over the past 30 years, the Metro region's economy has experienced job growth, shifts in job types, and growth in traded sector businesses. From 1975 to 2005, the area's job growth has doubled-- from 500,000 jobs in 1975 to one million in 2005. About three-quarters of those jobs were added in nontraded (service) sectors. The remaining jobs were added in traded-sector industries such as high technology, distribution and logistics, and apparel manufacturing. In the long term, job growth is anticipated to remain strong in these areas, with a 74% increase in employment predicted for the four-county area by 2035.¹⁰

MPO Structure

Metro is governed by elected officials, which include the president, councilors, and the auditor. The president is regionally elected and presides over the Council, sets its policy agenda, and appoints all members of Metro's committees, commissions, and boards. The six council members are elected by the six Metro districts every four years in nonpartisan races. The auditor is elected regionally and operates independently of the Metro Council. The auditor is responsible for Metro's annual

⁸ Metro, 2035 Regional Transportation Plan. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3>. (accessed January- February 2010), ch.2, 6.

⁹ Ibid, ch.2, 7.

¹⁰ Ibid, ch.2, 7.

financial statements and for conducting performance audits of the various departments and programs. The chief operating officer is appointed by the Council and charged with the duties of carrying out Council policies, managing Metro operations, and overseeing a workforce of more than 1,600 employees.¹¹

In 2001, Metro's Transportation Department combined with the Growth Management department, consolidating into a single Planning and Development department to both improve efficiency and reduce costs. This department is responsible for the Regional Transportation Plan (RTP) and the Metropolitan Transportation Improvement Program (MTIP).

MPO Funding

Metro obtains its funding from a beginning fund balance and from revenues. The beginning fund balance is money that is carried over from previous fiscal years, as well as the proceeds from voter-approved bonds, reserves stipulated for specific purposes, and money for cash flow needs. Of Metro's total resources, 54% comes from current revenues; 49% of this is generated by fees from enterprise activities.¹² The largest of Metro's enterprise activities is solid waste disposal, and its revenues are derived from fees charged on solid waste deposited at Metro's transit stations.

Another source of revenue is the Metro excise tax, which is paid by users of Metro facilities and services in accordance with the Metro Charter and Metro Code. This tax supports the costs of general government activities, such as the Council office, elections expense, and lobbyist functions, as well as various department activities. Additional sources of revenue include various grants, interest earnings, and donations.¹³

Advisory Committees

The Metro Policy Advisory Committee (MPAC) is a committee of local government representatives and citizens mandated by the Metro Charter. The role of MPAC is to advise the Metro Council on policy issues. MPAC was established by the Metro Charter in 1992, and it is comprised of 21 voting members representing cities, counties, special districts, and the public, and six nonvoting members including a representative from the Oregon Department of Land Conservation and Development, Port of Portland, cities in Clackamas County outside the UGB, cities in Washington County outside the UGB, the City of Vancouver, Washington, and Clark County, Washington. Additionally, three Metro Councilors participate as nonvoting liaisons. Specifically, MPAC advises the Metro Council on the amendment or adoption of the Regional Framework Plan. Discussion or action items addressed by the committee include issues such as regional transportation, urban growth boundary management, and other planning issues.

¹¹ Metro. "About Metro." <http://www.oregonmetro.gov/index.cfm/go/by.web/id=24201/level=1> (Accessed January 2010).

¹² Metro. "Finances and funding." <http://www.oregonmetro.gov/index.cfm/go/by.web/id=24271/level=2> (accessed February 2010).

¹³ Metro. "Finances and funding." <http://www.oregonmetro.gov/index.cfm/go/by.web/id=24271/level=2> (accessed February 2010).

To provide input from the technical level, the Metro Technical Advisory Committee (MTAC), a 37-member committee of planners, citizens and business representatives, provides detailed technical support to the Metro Policy Advisory Committee (MPAC). MTAC is governed by bylaws that are included in the MPAC bylaws.¹⁴

Regional Land Use Planning

The adoption of the Metro Charter in 1992 gave Metro the responsibility of developing a Future Vision and a Regional Framework Plan (RFP). The Future Vision, which was adopted in 1995, is a nonregulatory plan examining ecological, economic, and community issues across a greater nine-county region. The document was prepared by a Future Vision Committee to help guide the RFP and provide a starting point for evaluation criteria for each element of the RFP.¹⁵

2040 Growth Concept

The 2040 Growth Concept is Metro's long-range growth management strategy. Between 1992 and 1994, Metro studied different growth management strategies using urban development analysis tools and forecasting technologies. Each option was analyzed by evaluating its effects on land consumption, travel times and distances, open spaces and air quality, and various other urban landscapes. Three Growth Concepts emerged from this analysis: (1) growing out, (2) growing up, and (3) neighboring cities. A fourth option was to do nothing.¹⁶

In 1994, the final 2040 Growth Concept was created, drawing on the best qualities of these four options, as well as the findings from extensive public involvement activities. This plan was unanimously supported by the Metro Policy Advisory Committee and it was adopted by the Metro Council in 1995.¹⁷

Urban Growth Management Functional Plan

Following the adoption of the 2040 Growth Concept, Metro adopted the Urban Growth Management Functional Plan in 1996. The purpose of this plan was to implement the regional goals and objectives that had previously been adopted as the Regional Urban Growth Goals and Objectives (RUGGOs). Included in the RUGGOs were the Metro 2040 Growth Concept and the RFP.¹⁸ The Functional Plan contains regional policies on key regional growth issues, such as accommodation of

¹⁴ Metro. "Metro Policy Advisory Committee." <http://www.oregonmetro.gov/index.cfm/go/by.web/id=31111> (accessed January-February 2010).

¹⁵ Future Vision Commission, *Future Vision Report*. March, 1995. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=29886/level=3> (accessed January-February 2010), 4, 6.

¹⁶ Ibid, 4.

¹⁷ Ibid, 5.

¹⁸ Metro, *Urban Growth Management Functional Plan*. April, 2007. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=274/level=3> (accessed January-February 2010), 4.

projected growth, regional parking policy, and the coordination of transportation and land use planning.¹⁹

The Urban Growth Management Functional Plan contains policies that recommend and require changes to city and county comprehensive plans, as well as implementing ordinances. Also included are binding requirements and nonbinding recommendations for cities and counties in the region. In order to allow Metro's cities and counties enough flexibility to meet requirements, the plan is structured to allow local jurisdictions the choice of either being held to performance standard requirements, or requesting prescriptive requirements.²⁰

One element of the Urban Growth Management Regional Functional Plan is the Regional Parking Policy. The policy was developed in response to Oregon's Transportation Planning Rule that calls for reducing vehicle miles traveled per capita and restricting construction of new parking spaces. The policy requires cities and counties to amend their comprehensive plans to require no more parking than the minimum stated in the Regional Parking Ratio.²¹

Regional Framework Plan

In 1997, the Metro Council adopted the Regional Framework Plan (RFP). The RFP is a comprehensive set of policies on issues of regional significance such as land use, transportation, water quality, and natural areas. The RFP implements its policies through a set of specific purpose functional plans.²²

The RFP has indirect authority over land use decisions in the Metro area. The RFP ensures the implementation of its policies through the use of designated functional plans. As stated in implementation policy 7.3.4, the RFP policies shall be applied to Metro land use, transportation, and greenspace activities. The functional plans and other land use activities shall be consistent with these policies. Policy 7.5.1 states that Metro's policy is to develop limited purpose functional plans that are consistent with the RFP. Policy 7.5.2 identifies these functional as the vehicles for requiring changes in city and county comprehensive plans in order to achieve consistency and compliance with the RFP.²³

In order to properly implement RFP policies through the functional plans at the local level, RFP policy 7.7.2 recognizes the role of cities, counties, and special districts within the Metro region to amend their comprehensive plans to conform

¹⁹ Metro, *The Nature of 2040*. June, 2000. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=29882> (accessed January-February 2010), 12.

²⁰ Metro, *Urban Growth Management Functional Plan*. April, 2007. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=274/level=3> (accessed January-February 2010), 4.

²¹ *Ibid*, 13.

²² Metro, *The Nature of 2040*. June, 2000. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=29882> (accessed January-February 2010), 3.

²³ *Ibid*, ch.7, 2-3.

to the functional plans adopted by Metro.²⁴ The RFP also contains policy requirements for local jurisdictions to comply with the RFP.

Metro requires all cities and counties to adopt a comprehensive plan consistent with the RFP within two years of the plan's approval by the Oregon Department of Land Conservation and Development. Metro Council also has the power to adopt provisions to adjudicate and determine the consistency between local plans and the RFP.²⁵

Specific Policies Relating to Land Use/Transportation Integration

Within the RFP many land use policies specifically relate to the integration of land use and transportation (see Table 2). These policies range from urban design to residential design, and from street design to transportation management. Many of these policies refer directly to the 2040 Growth Concept, stating that growth patterns and land use must occur as directed by the 2040 Growth Concept, and that these policies will work to implement it. What follows is a list of RFP policies that are specific to Metro's efforts to integrate transportation and land use planning.

Transit Oriented Development Program

In 1997, Metro developed its innovative Transit Oriented Development (TOD) Program to help facilitate mixed-use development along transit lines to encourage increased use of public transit. The TOD program specifically pursues the 2040 Growth Concept by providing public investments to developers to build more densely, and to focus on creating walkable environments. Metro realizes that in many places, the market does not allow for intense mixed-use development with a high number of dwelling units per acre. Also, rising construction costs have made it economically unfeasible to build multistory buildings in many areas, especially in the suburbs of the region. By recognizing this, the TOD program identifies and removes barriers to the creation of transit villages, main streets, and mixed-use urban centers that the 2040 Growth Concept envisions.²⁶ This program demonstrates Metro's strong, active support of transportation and land use planning integration.

The TOD program uses public investments to help shape Metro's desired development patterns in the region. Metro influences development through its planning and regulatory policies, but TOD is the only Metro program that delivers "bricks and mortar" incentives.²⁷ In 1998, the TOD program was the first in the nation to obtain authorization to use Federal transit funds to acquire TOD

²⁴ Metro, *Regional Framework Plan*. December, 2005. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=432/level=3> (accessed January-February 2010), ch. 7, 6.

²⁵ Metro, *Regional Framework Plan*. December, 2005. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=432/level=3> (accessed January-February 2010), ch. 8, 2-6.

²⁶ Metro. "Transit-oriented Development." <http://www.oregonmetro.gov/index.cfm/go/by.web/id=140> (accessed February 2010).

²⁷ Metro, *Annual Report 2007: Transit-Oriented Development and Centers Program*. March, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=140> (accessed February 2010), 2.

development sites for private development. This authorization is codified in the Federal Transit Authority Joint Development Policy, stating that “a development project is a transit project if it is physically or functionally connected to transit and enhances the transit system.”²⁸ This authorization began the U.S. Department of Transportation’s acceptance of a close relationship between development patterns and travel behavior, thus recognizing the importance of integrated transportation and land use planning.²⁹

Table 2: Examples of Regional Framework Plan Policies³⁰

Policy	Description
1.2.1	Ensure that development in the region occurs in a coordinated and balanced fashion by: <ul style="list-style-type: none"> ▪ Providing infrastructure concurrent with pace of growth ▪ Creating a balanced transportation system with less dependence on private automobiles
1.10.1	Support the identity and functioning of communities through incentives and regulations to guide development and redevelopment that: <ul style="list-style-type: none"> ▪ Promotes pedestrian “friendly” areas. ▪ Reinforces nodal, mixed-use, neighborhood-oriented design. ▪ Includes concentrated, high-density, mixed-use urban centers.
1.10.2	Encourage pedestrian- and transit-supportive building patterns to minimize the need for auto trips and to create a development pattern conducive to face-to-face community interaction.
1.11.1	Coordinate growth in cities outside the UGB through cooperative agreements which provide for green corridors through rural reserves to serve as a link between Metro areas and other cities
1.15.2	Develop a regional strategy for enhancement of Centers, Station Communities, and Main Streets in the region
1.16.2	Protect and improve the region’s existing neighborhoods by providing access to walking, bicycle, and transit, where possible.
2.4.1	Ensure that the identified function, capacity, and level of service of transportation facilities are consistent with applicable regional land use and transportation policies as well as adjacent land use patterns.
2.13.1	Plan local street systems to complement planned land uses and to reduce dependence on major streets for local circulation.
2.15.1	Plan for an appropriate level, quality, and range of public transportation options to serve the region and support implementation of the 2040 Growth Concept.
2.32.1	Implement a regional transportation system that supports the 2040 Growth Concept through the selection of complementary transportation projects and programs.

To obtain Metro’s desired development goals, TOD strategies include: buying land for future transit-oriented projects, purchasing TOD easements on projects, and providing site improvements.

Through the 2009 fiscal year, TOD has spent or allocated over \$17 million, with funds allocated to land acquisition, projects, and operating costs (see Figure 2).

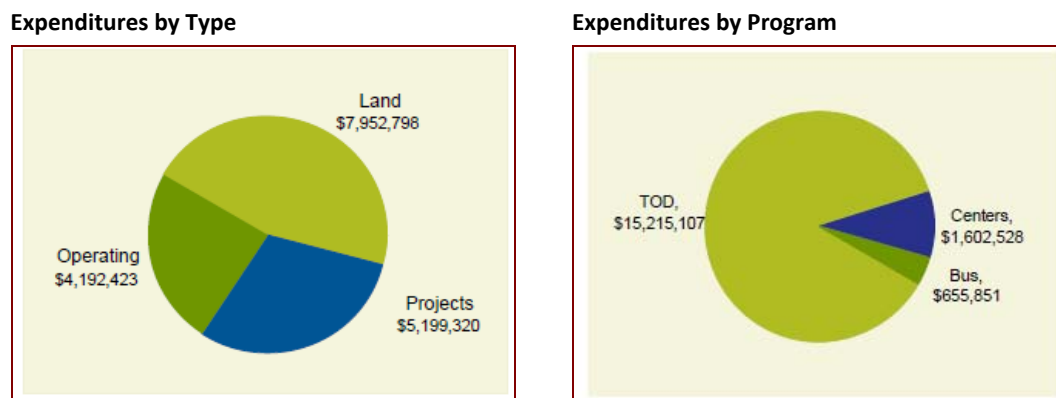
²⁸ Metro Planning Department, *Transit-Oriented Development Program Process and Examples*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=140> (accessed February 2010), 3.

²⁹ Metro. “Transit-oriented Development.” <http://www.oregonmetro.gov/index.cfm/go/by.web/id=140> (accessed February 2010).

³⁰ Metro, *Regional Framework Plan*. December, 2005. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=432/level=3> (accessed January-February 2010), ch. 2, 2-12.

Three categories of TOD programs are eligible for funding: transit-oriented developments, frequent bus stop sites, and regional or town centers identified in the 2040 Growth Concept plan.

Figure 2. TOD Program (1997-2007)



Source: Metro, *Annual Report 2007: Transit-Oriented Development and Centers Program*. March, 2008. Document PDF available on Metro Web site:

<http://www.oregonmetro.gov/index.cfm/go/by.web/id=140>

The project review process consists of five steps:

1. Determine Base Case (project without TOD funding)
2. Determine TOD Case (project with TOD funding)
3. Determine Ridership Delta (transit riders utilizing transit as a result of a TOD)
4. Capitalize farebox revenue over thirty years (transit fare revenues that would be generated by the ridership delta)
5. Compare to cost premiums; the project with the lower of the two numbers is operative (this is almost always the TOD)

Each TOD project involves many layers of funding. For example, the \$14.8 million Milwaukie North Main Village included ten sources of funding, including \$455,000 from the Metro Centers program.³¹

Regional Transportation Planning

As a federally designated MPO, Metro is required by law to coordinate regional transportation planning, which includes the distribution of transportation funds through both the RTP and the MTIP. The area covered by an MPO's transportation planning activities is considered the Metropolitan Planning Area (MPA). At a minimum, this area must include the delineated urbanized areas, areas that are

³¹ Metro Planning Department, *Transit-Oriented Development Program Process and Examples*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=140> (accessed February 2010), 14.

expected to be urbanized within the next 20 years, and areas that are within the Air Quality Maintenance Area Boundary.³²

The RTP is designed to cover at least a 20-year period, and to be updated every three to five years. To prepare for a scheduled update, development throughout the Metro region determines whether growth and associated travel demand occurs as forecasted. Metro reviews its population and employment forecasts annually, and updates them at least every five years.³³

In 1991, Oregon's Land Conservation and Development Commission (LCDC) adopted the Oregon Transportation Planning Rule (TPR), which implements the State Land Use Planning Goal 12, Transportation. The TPR requires most cities and counties as well as the state's four MPOs to adopt transportation system plans that consider all modes of transportation, energy conservation, and avoidance of reliance on any one mode of transportation. In Metro, the previously drafted RTP became the now required transportation system plan. The RTP must be consistent with the Oregon Transportation Plan, which was adopted in 1992 and amended in 2006 by the Oregon Transportation Commission.³⁴

In 1982, the Metro Council approved the first Regional Transportation Plan (RTP). The current RTP was completed in 2007. A revised 2035 Regional Transportation Plan was adopted in June 2010. This update is the first to incorporate the 2040 Growth Concept, the Regional Framework Plan, and the State's Transportation Planning Rule.

Forecasts show that \$9.07 million of reasonably expected revenue will be available in the Metro region from 2007 to 2035. Of this total, \$3.73 million is comprised of state and Federal funds and the remaining \$5.34 million is from local funds. Federal funds account for 41% and local funds 59% of reasonably expected revenue.

Process for Developing Regional Plan

Metro leads the process of transportation planning through consultation and coordination with Federal, state, regional, and local governments, resource agencies, and other stakeholders with interest in or affected by the planning process. These activities are guided by a federally mandated decision-making framework. Metro has many planning partners, including the 25 cities and counties within the region, ODOT, the Oregon Department of Environmental Quality, Port of Portland, South Metro Area Rapid Transit (SMART), TriMet, and state and Federal agencies such as the FHWA and the FTA.

Since the Portland-Vancouver metropolitan area extends into Washington, Metro coordinates on bistate issues with the City of Vancouver, Clark County, Port of Vancouver, Southwest Washington Regional Transportation Council (RTC), C-Tran (Clark County's public transportation service), Washington Department of Transportation, Southwest Washington Air Pollution Control Authority, and other

³² Metro, *2035 Regional Transportation Plan*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3> (accessed January- February 2010), 1-4.

³³ Ibid, 7-31.

³⁴ Ibid, 1-9.

Clark County governments in Washington. RTC is the federally designated MPO for the Clark County portion of the Portland-Vancouver metropolitan region.³⁵

Four advisory committee bodies facilitate the regional consultation, coordination, and decision-making structure of Metro: JPACT, Metro Policy Advisory Committee (MPAC), Transportation Policy Alternatives Committee (TPAC), and Metro Technical Advisory Committee (MTAC). Additionally, the Metro Committee for Citizen Involvement (MCCI) provides advice to the Metro Council on how to best engage the public in the planning process. On bistate issues, the Bi-State Coordination Committee advises the RTC, JPACT, and the Metro Council. Ultimately, all transportation-related actions (including Federal MPO actions) are recommended by JPACT to the Metro Council. The Council can either approve the recommendations, or refer them back to JPACT for reconsideration. Final approval of recommendations requires concurrence from both JPACT and the Council.³⁶

The RTP includes two separate layers of planned projects and programs that respond to Federal, state, and regional planning mandates. The first layer is the financially constrained system of investments responding to Federal planning requirements and based on Metro's financial forecast. The second is the illustrative system of investments responding to regional and state planning requirements, and assumes that significant new revenue must be identified in order to provide an adequate transportation system over the RTP planning period from 2008 to 2035.³⁷

Public Involvement

In addition to the advisory committees, Metro uses a variety of methods to involve the public in the RTP development process. To involve stakeholders, Metro held nine stakeholder workshops in the fall of 2006 to update the policy in the 2035 RTP. These workshops involved 127 people and 50 community organizations and government entities. Four of the workshops were held with Metro's advisory committees. Five were held with business and community groups representing specific public interests, public responsibilities, or groups that have historically been underrepresented in the Portland Metropolitan Region's transportation planning and decision-making process. In September and October of 2006, Metro held separate bicycle and pedestrian workshops with pedestrian and bicycle planners from local and state governments, advocacy groups, and the private sector to obtain input on Metro's bicycle and pedestrian needs.³⁸

To gather the public's opinion and input throughout the RTP development process, Metro conducted a scientific public opinion survey. This survey was designed to complement and supplement information gathered from prior public input and engagement activities by soliciting a statistically accurate measure of the public's values and transportation needs. During the research phase for the 2035 RTP

³⁵ Metro, *2035 Regional Transportation Plan*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3> (accessed January- February 2010), 1-2.

³⁶ Ibid, 1-3.

³⁷ Ibid, 1-3.

³⁸ Metro, *2035 Regional Transportation Plan*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3> (accessed January- February 2010), 1-16.

update process, an interactive project site on the Metro Web site included an online survey, fact sheets, and an update process. From October 15 through November 15, 2007, four Metro Council public hearings as well as a public comment period addressed a discussion draft of the 2035 RTP posted online. Metro also utilized media outreach in the form of press releases newsletters, fact sheets, and summary reports documenting the results of major tasks.³⁹

Specific Policies for Land Use and Transportation Integration

Coordination of land use and transportation planning as described in the RTP is strongly linked to the 2040 Growth Concept. Adopted in 1995, the RTP identifies the building blocks essential to integrating transportation and land use planning. The success of this 2040 Growth Concept relies on achieving the RTP's goals. The 2040 Design Types developed by the 2040 Growth Concept presents a land-use hierarchy which serves as a framework for prioritizing RTP investments. The RTP therefore prioritizes projects where the Growth Concept dictates land use and density. Additionally, the RTP responds to long-term visions through a "systems approach" that views the transportation system as an integrated system, thus shifting the emphasis from moving vehicles to moving people and goods throughout the region.⁴⁰

The RTP identifies ten goals with corresponding objectives and actions. Actions related to the integration of transportation and land use planning include:

- Action 1.1.2: Coordinate land use and transportation decisions to ensure identified function, design, and capacity of transportation facilities are consistent with regional system concepts and support adjacent land use patterns.
- Action 1.1.5: Create incentives for development projects in 2040 target areas, and promote transit-supportive design and infrastructure.⁴¹
- Action 3.1.14: Analyze a 3-minute radius from 2040 centers and work with local jurisdictions to develop bicycle and pedestrian networks that use a variety of facility types.⁴²
- Action 7.1.4: Remove barriers and reinforce compact development patterns to encourage walking and bicycling to basic services and nearby activities as a way to integrate exercise into daily activity.⁴³
- Action 9.2.3: Ensure that land use decisions protect public investments in infrastructure and encourage compact development patterns to reduce transportation infrastructure costs of serving development.
- Action 9.2.5: Develop agreements between transit service providers and local jurisdictions on the provision of transit service and the build-out of priority 2040 land use areas and related street infrastructure.⁴⁴

³⁹ Ibid, 1-17.

⁴⁰ Ibid, 3-3.

⁴¹ Metro, *2035 Regional Transportation Plan*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3> (accessed January- February 2010), 3-8.

⁴² Ibid, 3-12.

⁴³ Ibid, 3-20.

⁴⁴ Ibid, 3-23.

Concerns about the Plan

The Bicycle Transportation Alliance (BTA) and the Coalition for a Livable Future (CLF) have both recently spoken out in criticism of the 2035 RTP. Critics argue that the plan focuses too much investment on highway widening and road projects, and falls short in measures to reduce greenhouse gas emissions.⁴⁵ The BTA says that the plan is “not sufficient towards changing the overall reliance on automobiles and the associated consequences.” The Coalition also criticized Washington County specifically for trying to build their way out of congestion by building more roads.⁴⁶

In response to these criticisms, Metro Councilor Rex Burkholder noted that changing people’s mindsets is a slow and difficult process. Burkholder stated, “I think our policies are very bold. We’re one of the first to have an outcomes-based planning model using real performance measures, using real traffic counts, looking at environmental health. It’s not easy, that’s why it’s incremental.”⁴⁷

Requirements for Local Transportation Plans

The State Transportation Planning Rule (TPR) requires that most cities and counties within Metro’s jurisdictional boundary adopt a local Transportation Systems Plan (TSP) in their comprehensive plans. These are required by the TPR as well as by Federal law to be consistent with the policies and guidelines in the RTP.⁴⁸ By state law, the RTP must include recommendations and requirements for the local TSPs. Specific requirements include:

- Consistency with the policies, objectives, motor vehicle level-of-service measure and modal targets, system maps, and functional classifications found in chapter one of the 2035 RTP.⁴⁹
- Consistency with the 2020 population and employment forecast contained in either chapter two of the 2004 RTP, or the alternative forecast found in chapter seven of the 2035 RTP.
- Compliance with the elements of the RTP implementation strategy found in chapter six of the 2035 RTP.

Local TSPs must identify transportation needs for a 20-year period, including needs for regional travel within the local jurisdiction. The local TSP development process begins with identifying local transportation needs, and then appropriate strategies or solutions are identified through a two-phase process of system-level and project-level planning.

Once a local TSP is completed, Metro reviews the plan and amendments prior to its adoption. After the TSP is adopted, Metro will complete a final consistency review,

⁴⁵ Coalition for a Livable Future. 2008. “Shift the Balance on Transportation: Coalition for a Livable Future’s Analysis of the 2035 Regional Transportation Plan Update” Portland, OR.

⁴⁶ Maus, Jonathon. “Burkholder responds to criticism of Metro’s Regional Transportation Plan.” November 18th, 2009. Blog post on <http://bikeportland.org/2009/11/18/burkholder-responds-to-criticism-of-metros-regional-transportation-plan/> (accessed February 2010).

⁴⁷ Ibid.

⁴⁸ Metro, 2035 Regional Transportation Plan. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3> (accessed January- February 2010), 7-15.

⁴⁹ Ibid, 7-14.

and once Metro deems it consistent with the RTP, the TSP will be forwarded to the Department of Land Conservation and Development (DLCD) for consideration for state review.⁵⁰

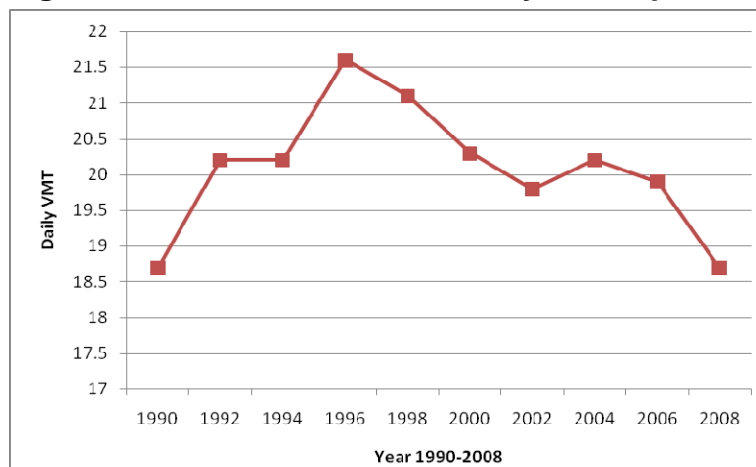
Regional Transportation Trends and Issues

The following section outlines a number of unique transportation issues that currently impact the Metro service area.

Commuting

Most commuters in the Metro region travel to work in private vehicles, but between 1990 and 2000 private vehicle commuting actually decreased slightly.⁵¹ However, the daily VMT per person increased about 8%, from 18.7 miles in 1990 to 20.3 miles in 2004. While most commuters (68%) spend less than 30 minutes commuting to work, the share of people in the region who commute for more than 30 minutes one way increased. However, the average commute time in the region grew by only six minutes between 1990 and 2000, from 19 to 25 minutes.⁵² As shown in Figure 3, VMT reached a peak in the mid to late 1990s, and has since decreased.

Figure 3. Portland-Vancouver Daily Per Capita VMT



Source: Metro, *1990-2008 Daily VMT*. 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=16340/level=4>

Transit

The current regional transit system is comprised of light rail, bus, park-and-ride lots, paratransit, streetcars, and commuter rail service. Between 1990 and 2000, ridership on bus and light-rail lines in the Metro region increased by 58%, which is nearly double the percentage growth rate in population. Approximately 52 miles of

⁵⁰ Ibid, 7-16.

⁵¹ Metro, *2035 Regional Transportation Plan*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3> (accessed January- February 2010), ch. 2, 8.

⁵² Ibid, ch. 2, 9.

MAX light rail lines operated by TriMet currently run through Portland, connecting Gresham, Hillsboro, Beaverton, Clackamas, the Portland Expo Center, and the Portland International Airport with downtown Portland. In September 2009, the MAX Green Line began operation on the east side of the Portland Metro area, connecting Clackamas with Portland State University. An additional MAX line from Portland State University to Milwaukie is expected to open in 2015; a line to Vancouver, Washington, is in the planning stages.

Regional bus service is provided by TriMet and the South Metropolitan Area Rapid Transit (SMART). TriMet bus service includes 93 routes covering 892 miles. SMART buses serve Wilsonville, and connect with bus services in Portland, Tualatin, Canby, and Salem.⁵³

Congestion

Congestion in the Metro region is greatest on the freeways and interstate highway system. Federal planning regulations require that MPOs maintain a Congestion Management Process (CMP). The CMP includes a performance monitoring program that informs needed capital investments and system management strategies to improve performance of the existing roadway infrastructure. In addition to traditional congestion management strategies, nontraditional approaches have been developed to manage congestion, including Intelligent Transportation System strategies, High Occupancy Vehicle lanes, employer incentives, and Safe Routes to School strategies.⁵⁴

Special Issues

One of Metro's largest transportation projects is the rebuilding of the I-5 bridge that crosses the Columbia River, linking Portland with Vancouver. The current bridge is congested, fails to meet earthquake standards, has inadequate bike and pedestrian facilities, and cannot accommodate rapid transit.

In July 2008, the Locally Preferred Alternative (LPA) was selected to be a single replacement bridge with light rail extending north to Clark College. One expected outcome of the LPA is that it will support and attract transit oriented development in both Portland and Vancouver along the new light rail line. Over the next year, Metro will face key concerns, including bridge financing and tolling options, design of the I-5 bridge, pedestrian and bike pathways, light rail route and station locations and design, sustainability plan, and mitigation plan.⁵⁵

Another issue with regional implications is enhancement of transit service between the city of Lake Oswego and downtown Portland. After completing an Environmental Impact Statement, a Locally Preferred Alternative will be determined. The three alternatives for consideration are enhanced bus service, a

⁵³ Metro, *2035 Regional Transportation Plan*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3> (accessed January- February 2010), ch. 2, 12.

⁵⁴ Metro, *2035 Regional Transportation Plan*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3> (accessed January- February 2010), ch. 2, 17-18.

⁵⁵ Oregon Department of Transportation and Washington Department of Transportation. "Columbia River Crossing." <http://columbiarivercrossing.org/> (accessed January 2010).

streetcar line, and a no-build option. Should the enhanced bus service or the streetcar option be chosen, construction on the project will begin in 2014 to open for operation in 2016.⁵⁶

Transportation Improvement Program

The Federal government requires all MPOs to produce a Transportation Improvement Program documenting the schedule of transportation investments over a four-year period. The Metropolitan Transportation Improvement Program (MTIP) is the federally required document identifying how all Federal transportation money will be spent in the Metro region. The MTIP includes projects and programs that are administered by Metro, ODOT, TriMet, and SMART. Metro updates the MTIP every two years.⁵⁷

The MTIP is essential to the implementation of the Regional Transportation Plan (RTP). Federal law requires that all transportation projects using Federal funds be included in the MTIP, as well as be approved in the RTP. The RTP approves more projects than can be afforded by the region in any single year; therefore, the MTIP development process is used to determine a priority schedule year by year for projects included in the RTP. To receive Federal funds for highway and transit projects, the MTIP must describe the project and its air quality effects, identify Federal funding and local matching funds, and develop a schedule and phasing of the project with funding commitments. Additionally, the MTIP must also describe other significant state or locally funded projects that could potentially affect the region's compliance with Federal air quality standards.⁵⁸

The first MTIP was adopted in 2002 for the period 2002-2005. The most recent 2010-2013 update of the MTIP was completed in August 2009.⁵⁹

Federal Funding Direct to MPO

Federal sources of funding are allocated through Federal transportation legislation in several different forms.⁶⁰ For road-related projects, Congress provides revenues to Metro through the FHWA. These funds go first to ODOT, next to Metro (and the state's other MPOs); then Metro distributes these funds to its cities and counties. For transit-related projects, Congress provides revenues through the FTA to Metro, TriMet, and SMART.⁶¹

⁵⁶ Metro. "Lake Oswego to Portland Transit Project."

<http://www.oregonmetro.gov/index.cfm/go/by.web/id=227/level=3> (accessed March 2010).

⁵⁷ Metro. "Metropolitan Transportation Improvement Program."

<http://www.oregonmetro.gov/index.cfm/go/by.web/id=3814/level=4> (accessed January-February 2010).

⁵⁸ Metro, *2008-2011 Metropolitan Transportation Improvement Program*. January, 2008. Document PDF available on Metro Web site:

<http://www.oregonmetro.gov/index.cfm/go/by.web/id=3814/level=4> (accessed January-February 2010), 1.

⁵⁹ *Ibid.*, 4.

⁶⁰ *Ibid.*

⁶¹ Metro, *2035 Regional Transportation Plan*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3> (accessed January- February 2010), 5-2.

Forecasts show that Metro can reasonably expect \$9.070 million to be available in the region between 2007 and 2035. Of this, \$3.732 million is state and Federal funds, and the remaining \$5.338 million is local funds. Federal funds account for 41% and local funds 59% of reasonably expected revenue.⁶²

State DOT Funded from Federal Funds and State Funds

Oregon's revenues for state transportation projects come from the State Highway Trust Fund. This fund obtains its revenue from the statewide gas tax (which has not been increased since 1993), vehicle registration fees, and weight mile taxes on trucks. These funds are distributed by ODOT and the Oregon Transportation Commission in accordance with state statutes. Of these funds, ODOT historically distributes about 28.8% of money to the Metro region.⁶³

Metropolitan Funded

Metro generates funding for transportation projects in the form of special funds and levies. These include property taxes, vehicle parking fees, Port of Portland transportation improvement fund revenues, street utility fees, and the Washington County Urban Road Maintenance District. Metro also supports Local Improvements Districts (LIDs), which are special districts where a group of commercial property owners agree to provide money in addition to their taxes for public improvements and services. For example, a LID in the Portland Central Business District contributed to the construction of the streetcar project.⁶⁴

Local or Direct Funded

Transportation project funding comes from several local sources. Typically 40% of the local portion of the State Highway Trust Fund goes to Oregon's cities and counties. The local gas tax in both Multnomah and Washington counties is another local source of funding. TriMet passenger fares and other revenues contribute to local funding, as does the TriMet and SMART payroll tax.⁶⁵ Development-based sources are another form of funding on the local level. These fees are collected by local governments based on the development or use of land, and include system development charges, Traffic Impact fees, Urban Renewal funding, and developer contributions.⁶⁶

Parties Involved in TIP Process

To develop the MTIP, Metro works with the local, regional, state, and Federal jurisdictions that own, operate, or regulate the region's transportation systems. This includes 25 cities, three counties, two park districts, TriMet, SMART, ODOT, Oregon Department of Environmental Quality, the Port of Portland, FHWA, FTA,

⁶² Ibid, 5-7.

⁶³ Metro, *2035 Regional Transportation Plan*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3> (accessed January- February 2010), 5-3.

⁶⁴ Ibid, 5-5—5-6.

⁶⁵ Ibid, 5-4.

⁶⁶ Ibid, 5-5.

and the city of Vancouver and Clark County in Washington.⁶⁷ The MTIP development process is initiated by Metro, but the work for it begins at the local level. City and County officials receive input from citizens through the local planning process, and the officials later share their local transportation needs with JPACT. Further public input is considered at the regional level when JPACT and Metro review the MTIP for final approval. Once the MTIP is adopted by the Metro Council, it is submitted to the Oregon Transportation Commission (OTC) for approval and inclusion in the State Transportation Improvement Plan (STIP).⁶⁸ All funds allocated to projects in the MTIP must be included without change in the STIP.⁶⁹

MTIP Criteria

In order to determine the schedule of transportation projects to be funded, a project prioritization process is necessary. Project prioritization is the process of identifying which projects in the RTP project list will be prioritized for funding from forecasted revenues.⁷⁰ In an effort to facilitate the integration of transportation and land use planning, the primary policy objective of the MTIP and the allocation of funding is to “leverage economic development in priority 2040 land use areas through investment to support centers, industrial areas, and UGB expansion areas with completed concept plans.” Other MTIP policy objectives include:

- Emphasize modes that do not have other sources of revenue
- Complete gaps in modal systems
- Develop a multimodal transportation system
- Meet the average annual requirements of the State Implementation Plan for Air Quality for the provision of pedestrian and bicycle facilities⁷¹

Qualitative criteria for project selection addresses the project’s relationships to regional policy, some of which directly address the integration of land use and transportation planning. These policies include:

- Regional goals and system definitions contained within the RTP
- Metro’s “Creating Livable Streets” Design Guidelines
- Environmental Justice considerations
- The State Transportation Planning Rule
- Provisions of the Clean Air Act Amendments of 1990, and the associated State Implementation Plan which pertains to air quality⁷²

⁶⁷ Metro, *2008-2011 Metropolitan Transportation Improvement Program*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=3814/level=4> (accessed January-February 2010), 2.

⁶⁸ Metro, *2035 Regional Transportation Plan*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=137/level=3> (accessed January- February 2010), 7-27.

⁶⁹ Metro, *2008-2011 Metropolitan Transportation Improvement Program*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=3814/level=4> (accessed January-February 2010), 3.

⁷⁰ *Ibid*, 10.

⁷¹ *Ibid*, 11.

Another method that the MTIP uses to prioritize transportation projects is a 100-point technical ranking system. The points are divided up as follows:

- 25 points: congestion relief/use of alternative travel modes
- 40 points: support of Metro's Region 2040 Land Use Goals
- 20 points: safety hazard correction
- 15 points: cost effectiveness

This 100-point technical ranking system clearly shows the prioritization of projects that address the integration of transportation and land use, since 65 points can be awarded to projects in areas that encourage density and alternative modes.⁷³

Conclusion

As this report shows, Metro has taken many steps throughout its history as an MPO to integrate transportation and land use planning. One of Metro's greatest assets, and what makes it unique, is its regulatory control over the local jurisdictions within its boundaries. These local jurisdictions must follow Metro's land use and transportation plans, and their own plans must be approved by and be developed in conjunction with Metro.

Metro has developed several plans and documents to integrate transportation and land use planning, including the Regional Transportation Plan, Future Vision, 2040 Growth Concept, Urban Growth Management Functional Plan, Regional Framework Plan, and the Metropolitan Transportation Improvement Program.

The Future Vision (a conceptual, long-range planning document containing values and vision statements) acts as the starting point from which the policies in the Regional Framework Plan are developed. The policies in this plan are then implemented through a set of functional plans that were developed to serve specific functions, such as the Urban Growth Management Functional Plan.

Metro forecasts that in twenty-five years, about one million more people will be living in the Metro area, which will challenge the goal of accommodating this growth within the current urban growth boundary. While long-term trends remain to be seen, the downward trend in vehicle miles travelled and growing trend in transit use are two potential indicators of successful transportation and land use coordination.

⁷² Metro, *2008-2011 Metropolitan Transportation Improvement Program*. January, 2008. Document PDF available on Metro Web site: <http://www.oregonmetro.gov/index.cfm/go/by.web/id=3814/level=4>. (accessed January-February 2010), 12.

⁷³ Ibid, 12.

DETAILED CASE STUDY: CENTRAL PUGET SOUND

The Puget Sound Regional Council (PSRC) is the MPO and Regional Transportation Planning Organization (RTPO) for the central Puget Sound region. This summary describes the PSRC's history, governance structure, and transportation and land use responsibilities.

MPO History and Context

The function of the PSRC is to develop policies and make decisions about transportation planning, economic development, and growth management in the four-county, central Puget Sound region.⁷⁴ The first regional planning organization was established in 1959 and designated as a Federal Metropolitan Planning Organization (MPO) in 1973. By 1974, the region was already taking steps to connect the transportation plan with land use planning. The Central Puget Sound region adopted the Transportation System Plan with a 15-year vision in conjunction with an agricultural land use study. Five years later, in 1979, the region also adopted a long-range land use plan.⁷⁵ The 1990 Washington Growth Management Act initiated several changes. The regional planning organization was reorganized into the PSRC in 1991. The same year the Governor designated the PSRC an MPO under Federal law and RTPO under state law.

Region Covered by MPO

The PSRC includes four counties (King, Kitsap, Pierce, and Snohomish) and 82 cities, including Seattle, Bellevue, Bremerton, Everett, and Tacoma. The geography is diverse, and includes urban, rural, and natural resource lands. Numerous hills, mountains, and lakes surround the urbanized region, with elevation ranging from sea level to over 14,000 feet (see Figure 1).⁷⁶ The numerous Puget Sound channels and waterways make transportation development and access challenging and limits land development options. The central Puget Sound region covers an area of nearly 6,300 square miles. The total land area incorporated makes up only 7% of the region; however over half of the population resides in this incorporated area.⁷⁷ King County, home to the metropolis of Seattle, is the largest county and the most populated.

74 PSRC History, PDF downloaded from <http://www.psrc.org/about/pubs> p. 1.

75 Ibid, 2.

76 PSRC Vision 2040, PDF downloaded from <http://www.psrc.org/about/pubs> p. 8.

77 Puget Sound Trends, Population Change in Cities, Towns, and Counties, July 2001, p. 3.

Figure 1. PSRC Region



Prepared by: InfoGraphics Lab, Geography Department, University of Oregon

Table 1. 2007 PSRC Regional Profile

Jurisdiction	Population	Area (Square Miles)
King County	1,861,000	2,126
Kitsap County	245,000	396
Pierce County	791,000	1,679
Snohomish County	686,000	2,089
Regional Total	3,583,000	6,290

Source: Vision 2040, p. 8, Washington State Office of Financial Management, 2007.

The population is forecasted to increase by 1.7 million people by 2040. As shown in Table 2, Kitsap, Pierce, and Snohomish Counties are expected to grow by over 50% in the forty-year time period between 2000 and 2040. The majority of the growth will likely occur in already urbanized areas. Although King County is also expected to experience a significant population increase, the rate of King County's projected growth is much lower than the other three.

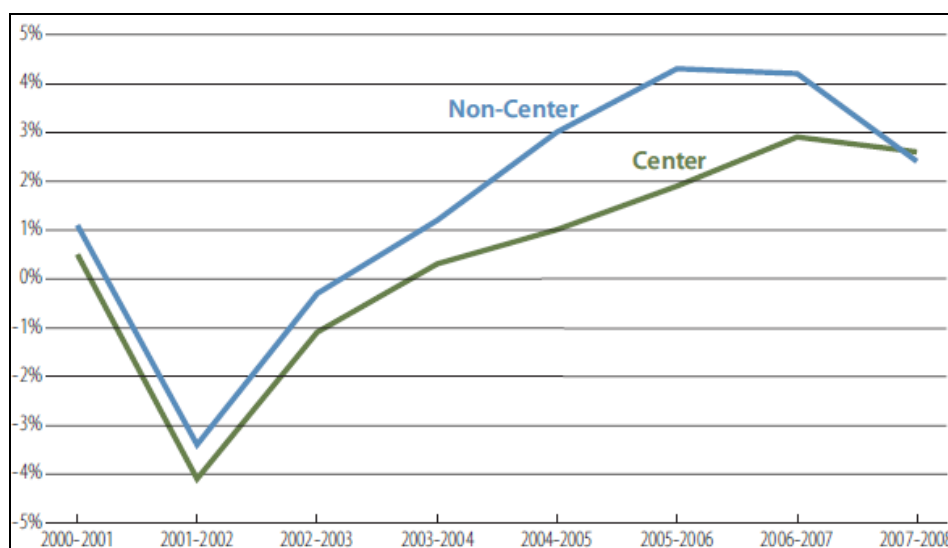
Table 2. PSRC Population Forecast

Jurisdiction	2000	2040	Increase	% Increase
King	1,737,034	2,401,521	664,487	38%
Kitsap	231,969	376,794	144,825	62%
Pierce	700,820	1,125,752	424,932	61%
Snohomish	605,986	1,084,068	478,082	79%
Regional Total	3,275,809	4,988,135	1,712,326	52%

Source: Vision 2040, p. 8, Washington State Office of Financial Management.

Figure 2 illustrates regional employment trends for the entire Puget Sound area as well as for designated regional growth centers (identified in Figure 4). The figure highlights employment growth over the last decade as well as the downturn from the recent national recession.

Figure 2. Percent Change in Employment, 2000-2008



Source: Puget Sound Trends, *Employment in Regional Growth Centers*, October 2009, p. 1.

Regionally, 8.6% of the population is living in poverty.⁷⁸ According to the 2008 American Communities Survey, the highest concentration of poverty in the region is in Pierce County, while the lowest concentration is in Snohomish County. The median age across all member counties is 36.⁷⁹ In terms of racial and ethnic make-up, the

⁷⁸ PSRC 2010-2013 TIP, Appendix C, 64.

⁷⁹ WSDOT Web site, <http://www.wsdot.wa.gov/planning/regional/psrc.htm>

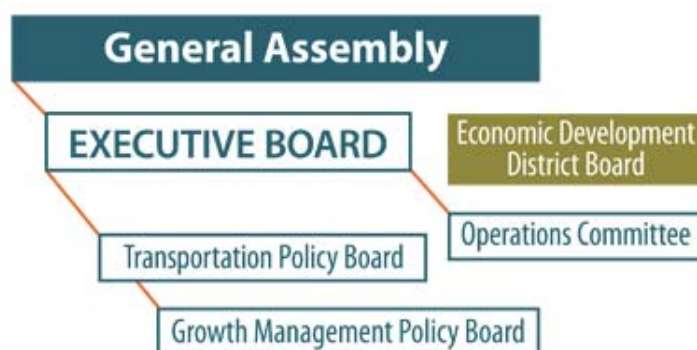
area is predominately white. In the central Puget Sound region, minorities comprise 23.6 percent of the population.⁸⁰ Asian Americans make up the largest subset minority population. King County, and specifically Seattle, has the highest concentration of racial and ethnic diversity in the region.

MPO Structure

The PSRC serves as the regional MPO under Federal law and the Regional Transportation Planning Organization (RTPO) under state law. Washington State requires RTPOs to complete a Unified Planning Work Plan (UPWP) every one to two years. In order to receive funding, the Federal Highway Administration (FHA) and the FTA must approve this plan.⁸¹

The PSRC is governed by the General Assembly, which is made up of all voting member agencies in the PSRC jurisdiction (see Figure 3).⁸² The General Assembly meets at least once a year to vote on major regional decisions, approve the budget, and elect new officers. The growth management vision is adopted by the General Assembly.

Figure 3. PSRC Governance Structure



Source: <http://www.psrc.org/about/boards>

The Executive Board is appointed by the General Assembly and carries out delegated powers and responsibilities between meetings of the General Assembly. The Executive Board is authorized to make technical amendments to the Regional Growth Strategy.

Advisory boards including the Operations Committee, the Transportation Policy Board, the Economic Development Board, and the Growth Management Board make recommendations to decision-makers on the Executive Board. In addition, a joint meeting of members of the Transportation Policy Board and Growth Management Board began in 1999 to encourage consistency between the regional growth management and transportation plans. Additionally, 14 advisory

⁸⁰ PSRC 2010-2013 TIP, Appendix C, p. 57

⁸² PSRC Bylaws (2009), p. 1.

committees fall under four categories including: PSRC advisory, transportation, funding, and data.⁸³

Because they are separate sovereign nations, tribes are not officially required to plan under state law. A total of eight federally recognized Native American tribes are located within the PSRC jurisdiction. These tribes play an important role in advising PSRC on key environmental, land use, and economic issues, and to help coordinate planning efforts.

Regional Land Use Planning

The Washington State Growth Management Act (GMA) (RCW 36.70A.210), adopted in 1990, provides 14 statewide planning goals and provides minimum requirements that must be met by all local land use plans. The GMA concurrency goal is important because the state mandates that development can occur only where there is already adequate road infrastructure and other public facilities present. However, these goals do not have regulatory authority and the concurrency goal does not apply to state highways.⁸⁴ Also guiding *Vision 2040* are the Federal and state Clean Air Acts and the Federal Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).⁸⁵

Vision 2040 has four important focus areas: (1) transportation; (2) growth management; (3) economic prosperity; and (4) the environment. In all four areas, the preferred growth alternative (1.7 million additional people and 1.2 million additional jobs by 2040) is used as the benchmark for decisions and planning purposes.⁸⁶

The central theme of the document is people, prosperity, and planet, which emphasize a triple-bottom-line approach.⁸⁷ Climate change also appears in *Vision 2040* goals, trends and challenges, strategies, and performance measures. *Vision 2040* establishes annual average greenhouse gas (GHG) emissions as a performance measure to monitor in the plan. It further commits the agency to the development of a regional air quality guide and a climate change action plan, working with other agencies and partners to develop greenhouse gas emission reduction targets.

Vision 2040 is organized around a “sustainable environment framework” which seeks to attend to the needs of future generations while addressing the needs of our own day. It was adopted in 2008 as a comprehensive update to previous plans and presents a numeric Regional Growth Strategy which allocates expected population and employment growth to groups of “regional geographies” throughout the region. Growth rates in rural areas are to be significantly decreased from past patterns and trends. A key component of Vision 2040 is the designation of regional growth centers and manufacturing and industrial centers.

The Council is responsible for ensuring that the transportation-related provisions in local comprehensive plans are consistent with the regional plan. Transportation

⁸⁴ WDOT-land concurrency pdf, p. 4.

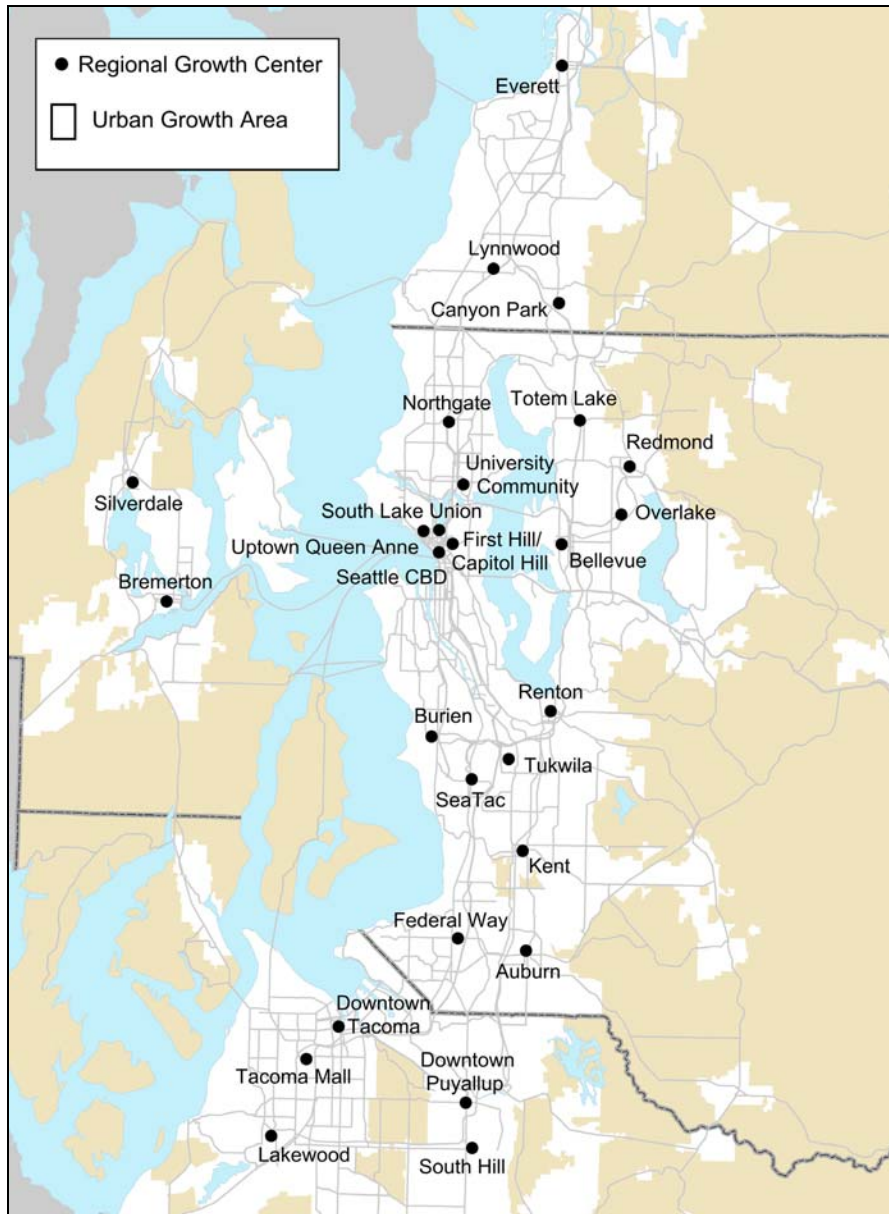
⁸⁵ UPWP, p. 5.

⁸⁶ Vision 2040 Final Environmental Impact Statement (2008), p. 1.

⁸⁷ Vision 2040, p. 6.

2040, an update to the regional transportation plan, was adopted in May 2010 and serves as the functional transportation plan for Vision 2040. It provides for a transportation system that implements the regional vision.

Figure 3. PSRC Designated Centers



Source: Central Puget Sound Region, <http://www.psrc.org/data/gis/map-catalog/>

The American Metropolitan Planning Organization references this plan as an outstanding example for MPOs working to integrate transportation, the environment, land use, and economic development into one plan. In 2008, the

PSRC received an award for Outstanding Regional Achievement in Metropolitan Planning Organizations.⁸⁸

State and Federal Requirements

The Vision is consistent with the planning regulations of the national Clean Air Act and the standards in the Washington Environmental Policy Act, as well as provisions outlined in the environmental review process. The PSRC also works with the Puget Sound Clean Air Agency to identify steps to improve air quality beyond the minimum standards.

Under the Washington State Growth Management Act of 1990, multicounty planning policies are required in the densely populated King, Kitsap, Pierce, and Snohomish Counties of Washington.⁹⁰ Local governments in the four-county region have agreed to use the PSRC to develop these policies. Multicounty planning policies articulate the overall policy direction of the region and serve as a common framework for local, countywide, and regional planning. The multicounty policies are grouped into six topic areas: environment, housing, transportation, development patterns, economic development, and public services.

Plan Development Process

The Vision is shaped by PSRC board members, elected officials, and public input, and is grounded in data collected for the region on economic, environmental, and population trends.

The Growth Management Board (GMB) plays an important role in plan development. The GMB is responsible for regional environmental planning and coordination, ensuring sustainable development, and addressing the impact of climate change. The board is made up of elected officials and citizens from a diverse range of backgrounds and geographic areas within the region. GMB includes representatives from local government, business and labor, environmental, and community organizations.⁹¹

The PSRC has a citizen participation plan that requires early and continuous public participation in the development of the regional growth management strategy.⁹² The PSRC has a grant from the Federal government to develop and maintain a regional database. This database serves to forecast and monitor economic, demographic, and travel conditions in the region, and plays an important role as the foundation for local and regional planning.⁹³

Plan Approval Process

Before the Vision is approved, the plan goes through a thorough public review process. In addition, the GMB, the TPB, and the Economic Development District

⁸⁸ American Metropolitan Planning Organization Web site, <http://www.ampo.org/awards/index.php> (accessed January 2011).

⁸⁹ Vision 2040 Appendix C 1, p. 2.

⁹⁰ The Washington State Growth Management Act with Applications for the central Puget Sound Region, www.psrc.org/assets/2428/gma.pdf, p. 1.

⁹¹ Biennial Budget and Work Program (2010-2011), p. 5.

⁹² PSRC Bylaws p. 6.

⁹³ PSRC2009-2011upwp p. 5.

Board conduct an initial review.⁹⁴ The growth management vision is eventually adopted by the General Assembly. The General Council must make amendments to the multicounty planning policies. The Executive Board, however, is authorized to make technical amendments to the Regional Growth Strategy.⁹⁵

Implementation

Much of the implementation of *Vision 2040* occurs through local planning actions. Cities and counties are directly responsible for implementing countywide planning policies. County-level plans carry significant weight; all other plans must be consistent with them. The PSRC provides technical assistance to build support for implementing *Vision 2040* and incorporating *Vision 2040* provisions into local plans.⁹⁶ Regional process review is done in the form of implementation monitoring and performance monitoring by the PSRC.

Because *Vision 2040* has a strong emphasis on creation and improvement of “centers,” the PSRC encourages the use of transfer of development rights, the purchase of development rights, and conservation incentives. Development standards and regulations for residential and commercial development, especially in centers, are used to accommodate a broader range of project types consistent with the regional vision. These incentives act to increase the percentage of new development and redevelopment to be built at higher performing energy and environmental standards.⁹⁷

Regional Transportation Planning

The Regional Transportation Plan (RTP) serves as a framework for local transportation plans in the region. The legal and regulatory basis is a combination of Federal and state law.

Under the Federal Clean Air Act, the RTP must be updated periodically and must plan for at least a 20-year time horizon. More significantly, the Federal transportation legislation, known as SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users), requires each MPO to develop a regional transportation plan every four years. The legislation requires the transportation vision to be in line with eight SAFETEA-LU planning factors.

The multicounty policies required by the Washington Growth Management Act of 1990 provide direction for transportation planning and investment decisions and form the policy framework for development of *Transportation 2040*. The multicounty policies cover the following categories: environment, development patterns, housing, economy, transportation, and public services.⁹⁸ Under Federal law, the plan must identify all transportation facilities, include a financial plan, and indicate proposed transportation enhancement activities.⁹⁹

⁹⁴ Vision 2040 Appendix 1, PDF downloaded from <http://www.psrc.org/about/pubs> p. 7.

⁹⁵ Vision 2040 Appendix A-1 p. 7.

⁹⁶ Biennial Budget and Work Program (2010-2011), p. 14.

⁹⁷ PSRC Multicounty Planning Policies Appendix C, p. 7.

⁹⁹ PSRC Functions and Mandates, PDF from <http://www.psrc.org/about/pubs> p. 1.

Under state law, PSRC must prepare a regional transportation strategy and a transportation plan.¹⁰⁰ The strategy must identify existing or planned transportation facilities, include a financial plan, and be based on least-cost planning methodology. In addition, the state requires the plan to assess regional development patterns, capital investment, and other measures necessary to make the most efficient use of existing transportation facilities. The state calls for a strong focus on alternate transportation modes and transportation measures in regional corridors. It also requires MPO plans to implement adopted growth strategies to coordinate high capacity mass transit with other types of transit. The state requires the MPO transportation plan to be consistent with county, local, and state transportation plans.¹⁰¹ Other state transportation statutes that apply include the Transportation Demand Management Act, the Commute Trip Reduction Act, and the High Capacity Transit Act.¹⁰²

Under a Washington Supreme Court ruling in 1999, if the local and regional plans are not consistent, the regional plan will prevail (*City of Des Moines v. the PSRC*).

Plan Development Process

The transportation plan update process which resulted in *Transportation 2040* was recently completed in May 2010. The Transportation Policy Board (TPB) played a key role in plan development, along with a number of internal transportation committees. For example, the PSRC must submit a commute trip reduction plan for the region to the Commute Trip Reduction Committee. The citizen participation plan also required early and continuous public participation in the development of the regional transportation plan.¹⁰³

The PSRC performed an analysis of CO₂ emissions both for comparison of alternatives in the long-range transportation plan and for the Environmental Impact Statement (EIS). The agency has formed a Climate Change Technical Working Group to develop these analyses. Specifically, PSRC is working with both EPA and FHWA to update its transportation models to output GHG emissions.¹⁰⁴

Plan Content

The overall purpose for *Transportation 2040* is to select the best alternative in order to “best provide the mobility required to support a growing population to the year 2040, sustain the region’s environment and economic vitality, improve system safety and efficiency, and enhance the region’s overall quality of life.”¹⁰⁵ The plan addresses mobility needs for both personal and commercial trips in the region, across all future modes of travel, including ferries, nonmotorized, aviation, transit, and roadways. Congestion alleviation for both personal trips and freight is cited as the key goal in *Transportation 2040*.¹⁰⁶

¹⁰⁰ Vision 2040 Appendix 1, p. 1.

¹⁰¹ PSRC Functions and Mandates, p. 1.

¹⁰² Biennial Budget and Work Program, p. 5.

¹⁰³ PSRC Bylaws, p. 6.

¹⁰⁴ USDOT, Transportation and Climate Change Clearing House, climate.dot.gov/state-local/integration/case-studies/

¹⁰⁵ 2010 Transportation 2040 Draft, Executive Summary, p. 3.

¹⁰⁶ 2010 Transportation 2040 Draft, Executive Summary, p. 6.

Transportation 2040 includes an increase in transit services, an increase in bike trails and sidewalks (a proposed 553 miles of new off-road trails), an increase in passenger ferries, and a “status quo” level of car ferry service.

Transportation 2040 will implement a comprehensive transit strategy, including completion of additional *Link* light rail extensions to Everett, Tacoma, and Redmond. In addition, plans call for 100% more service than 2006 peak periods and over 80% more service off-peak. All-day service with high frequencies of every 15 minutes would be emphasized.¹⁰⁷

Data and new technology are a key component to improving existing transportation modes in *Transportation 2040*. The plan includes an aggressive program of advanced technology on arterials and freeways. It also includes better signal coordination, active traffic management, new and expanded traveler information services, and transit-specific technologies. The Intelligent Transportation Systems (ITS) and the SMART corridors/CMP (Congestion Management Process) are aimed at monitoring and accessing existing mobility conditions to improve quality and efficiency of future transportation services and infrastructure.

In addition, the region recognizes increased tolling as a part of the region’s future.¹⁰⁸ Added tolls are planned for high occupancy vehicle lanes, freeways, bridges, ferries, and arterial road tolls, as well as implementation of vehicle miles-traveled fees.¹⁰⁹

The PSRC is focusing on “level-of-service standards for transportation on the movement of people and goods instead of only on the movement of vehicles.” By doing this, the Council is able to address nonmotorized, pedestrian, and other multimodal types of transportation options in concurrency programs – both in assessment and mitigation. There is also emphasis placed on tailoring concurrency programs for centers and other subareas to encourage development that can be supported by transit.¹¹⁰

Regional Transportation Trends and Issues

In the central Puget Sound region, 74% of residents have a valid driver’s license, which is slightly above the national average. The total number of licensed vehicles in the region is 3,100,348, which is slightly less than the total population.¹¹¹ Vehicles miles traveled (VMT) per capita is currently at 22.9 miles per day in the region. The regional VMT leveled off during the 1990s and has been declining slightly since 1999 when levels peaked at 24.2 VMT per capita.

The recent decrease may be attributed to increased transit usage (regional transit ridership was up 19.6 percent from 1999 to 2007), and to rising fuel prices. These

¹⁰⁷ 2010 Transportation 2040 Draft, Executive Summary, p. 12.

¹⁰⁹ 2010 Transportation 2040 Draft, Executive Summary, p. 6.

¹¹¹ WSDOT Web site, <http://www.wsdot.wa.gov/planning/regional/psrc.htm>

per capita numbers do not account for VMT in the region from residents living outside the four-county area.¹¹²

Commuter rail, light rail, and public buses are becoming an increasingly integral part of the region's transportation system. Sound Transit serves as the regional transit provider, formally called the Central Puget Sound Regional Transit Authority. The region's five local transit agencies include Community Transit in Snohomish County, Everett Transit for the City of Everett, King County Metro Transit serving King County, Kitsap Transit for Kitsap County, and Pierce Transit serving Pierce County. In addition, the City of Seattle operates the monorail and streetcar services.¹¹³ In terms of transit ridership, approximately 367,500 people in the region take a bus each day and 5,800 use rail.

Ferry transportation is an important component of the Puget Sound transportation system. Ferries operate along seven separate designated routes in the central Puget Sound region, six of which are auto routes and one a passenger-only route.¹¹⁴ Nearly 11,800 people in the entire region use the ferry system daily.¹¹⁵

A number of freeways traverse the Puget Sound region that greatly impact the commutershed and land use patterns of the region. Interstate-5 runs north-south through the central Puget Sound region and experiences heavy congestion during peak travel times. Interstate-405 is largely east of Seattle, running north-south through Bellevue. In addition, Interstate-90 is the only freeway in the region that heads east-west.

Transportation Improvement Program

Under SAFETEA-LU, PSRC is responsible for creation of a Transportation Improvement program (TIP). Federal law mandates that TIP plans have a four-year horizon and be updated every three years. Both the USDOT and the Washington Governor must approve the TIP.¹¹⁶ TIP amendments are approved monthly by the Federal government.

Transportation funding is limited, so most jurisdictions try to leverage funds and create partnerships to make the most of available funds. Strategies to leverage funds include working with WSDOT and the Transportation Improvement Board to leverage state and Federal funds using PSRC funds. The Regional TIP has been in effect since 1983. The finalized TIP must demonstrate compliance with regional plans, local and county visions, *Vision 2040*, and *Destination 2030/Transportation 2040*. This contributes to consistency among all levels of government, as well as between land-use and transportation visions and plans.

TIP Funding Sources

WSDOT is responsible for selecting projects to receive Federal funds from programs such as Interstate Maintenance, the Bridge Program, and the National Highway

¹¹² Puget Sound Trends, *Trends in Vehicle Miles Traveled*, September 2008, p. 2.

¹¹³ Draft Transportation 2040, Chapter 4: Transportation, p. 11.

¹¹⁴ Puget Sound Trends: Ferry Ridership, June 2010, p. 1.

¹¹⁵ 2010 Transportation 2040 Draft, Executive Summary, p. 26.

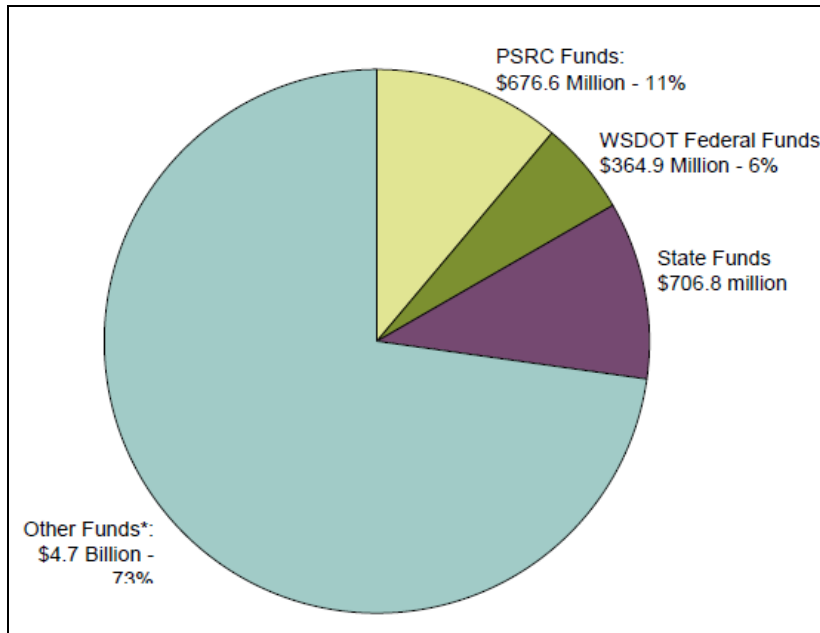
¹¹⁶ PSRC Functions and Mandates (2006), p. 1.

System program. WSDOT also manages funds from several statewide competitive Federal programs such as the Transportation Enhancements Program and the Safety Program. In addition, WSDOT and other state agencies are responsible for distributing state transportation funds.¹¹⁷

Cities counties, ports, transit agencies, and other local governing bodies approve use of local funds. With local funds, only regionally significant projects with air quality impacts are required to be included in the Regional TIP. Funds also come from grants from other agencies.¹¹⁸ Public agencies, tribes, and jurisdictions are all eligible to apply for funding.

Figure 4 shows a breakdown of all transportation projects included in the 2010-2013 Regional TIP by funding source. Although the PSRC Transportation Policy Board (TPB) approves all projects included in the Regional TIP, PSRC has direct control over only 11% of total funds. Also note that the majority of TIP funds (73%) are categorized as "other." This category of 'other' includes local funds, earmarks, and any other Federal grants not administered by PSRC or WSDOT.¹¹⁹

Figure 4. TIP Funding by Source



Source: PSRC 2010-2013 TIP, p. 5.

The PSRC-managed Federal funds can be broken down into three Federal programs: the Surface Transportation Program (STP), the Congestion Mitigation and Air Quality (CMAQ) program, and the Federal Transit Administration (FTA)

¹¹⁷ Policy Framework for PSRC Federal Funds (2009), PDF downloaded from <http://www.psrc.org/about/pubs> p. ____.

¹¹⁸ Policy Framework for PSRC Federal Funds (2009).

¹¹⁹ PSRC 2010-2013 TIP, p. 5.

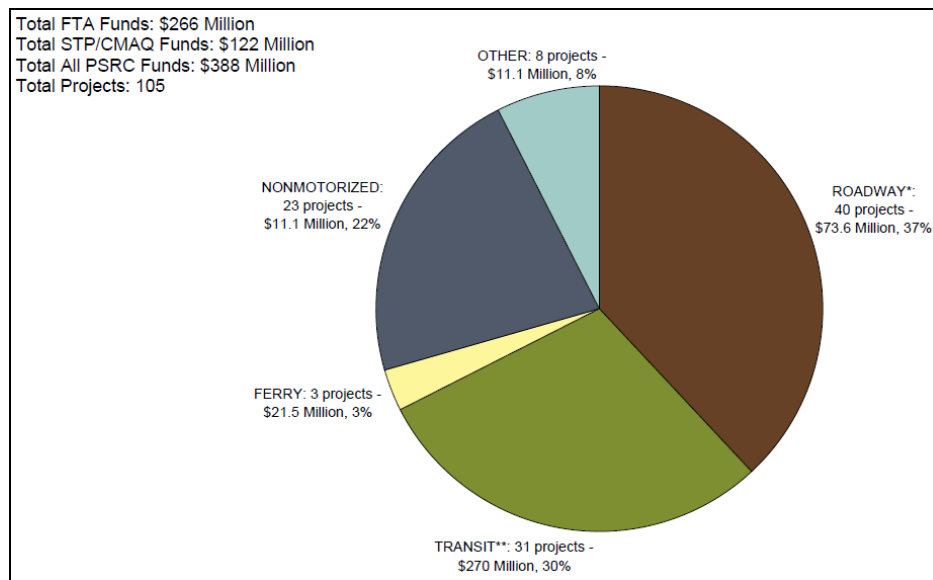
funds.¹²⁰ The following is a brief overview of these three specialized PSRC managed funds.

The Surface Transportation Program (STP) funds are the most flexible; they can be used for a wide variety of transportation projects. STP funds are programmed using a shared regional-countywide process that has been in place since 1995. STP funds fall into two categories: these are urban (STP/U) and rural (STP/R) funds.¹²¹

The Congestion Mitigation and Air Quality (CMAQ) funds must go towards improving air quality by increasing the efficiency of existing transportation facilities, or reducing travel demand on those facilities. The air quality criterion outlined in the TIP process evaluates projects for their potential to eliminate single occupant vehicle trips and reduce vehicle miles traveled (VMT). CMAQ funds also support TIP projects that promote alternative fuels and the reduction of idling.¹²² For the 2011 fiscal year, PSRC is estimating a total of \$37.80 million in available CMAQ funds.

FTA funds may go only toward transit projects in urbanized areas. The following is a pie chart depicting all competitive funds controlled by PSRC, broken down by primary transportation mode.¹²³

Figure 5. PSRC Controlled Funds



Source: PSRC 2010-2013 Draft TIP, p. 3.

TIP Criteria & Decision Making

Projects included in the Transportation Improvement Program (TIP) are selected based on regional transportation, economic, and land use policy criteria.

A Regional Project Evaluation Committee (RPEC) makes recommendations to the Transportation Policy Board on criteria and specific projects for Federal transportation funding. Members of RPEC include local government public works

¹²⁰ 2010-2013 Regional TIP: Appendix C: Policies and Procedures, p. 18.

¹²¹ TIP 2010-2013 Appendix C, p. 22.

¹²² 2010-2013 Regional TIP: Appendix C: Policies and Procedures, p. 33.

¹²³ PSRC 2010-2013 Draft TIP, p. 3.

directors, representatives from transit agencies, the Governor's office, and Washington State Department of Transportation district offices in the region.¹²⁴

The Council's Transportation Policy Board includes representatives from local government, the WSDOT, the state Freight Mobility Strategic Investment Board, transit operators, ports, tribes, the Puget Sound Clean Air Agency, businesses, labor groups, community groups, and other organizations.¹²⁵

A major PSRC policy focus is providing transportation improvements to a center or centers and the corridors that serve them. Centers are defined as regional growth centers and regional manufacturing and industrial centers as identified in *Vision 2040*.¹²⁶ Areas specified as employment clusters also qualify as center areas. The Rural Town Centers and Corridors program was developed in 2004 to support projects that integrate rural highway corridor development with local rural town "Main Street" style development needs.

Regional (PSRC) and county selection processes are differentiated for projects included in the TIP. Although the counties are asked to use the same selection criteria as the PSRC, county projects generally select more locally pertinent projects, helping to ensure that local needs are not overlooked in place of the regional growth vision.¹²⁷ For both county and regional transportation funds, the approved policy of the region is to set aside at least 10 percent of the combined estimated STP and CMAQ funds available for programming during the 2009 project selection process for nonmotorized projects in the four counties.¹²⁸

TIP Point System

All TIP projects controlled by PSRC's competitive selection process are approved using a 100-point system.¹²⁹ The point criteria vary slightly depending on whether the funds come from the STP, CMAQ, or the FTA. Points allocated for PSRC-selected TIP projects for FTA and STP projects are divided as follows:

- **70 points: Corridors Serving Centers**

These 70 points can further be broken down into:

(1) *Benefit to Regional Growth, Manufacturing/Industrial and/or Locally Identified Center = 30 Points*. Ideal candidate projects for these subcriteria provide a benefit to a center or centers by improving access to the center for multiple modes, serving multiple user groups, including those without full-time access to cars, and are adjacent to dense, mixed-use areas that are likely to generate significant use of the project.

¹²⁵ Biennial Budget and Work Program (2010-2011), p. 5.

¹²⁷ 2010-2013 TIP Criteria, Appendix C, p. 40.

¹²⁸ *Ibid.*, 11.

¹²⁹ 2010-2013 Regional TIP: Appendix C, p. 34.

(2) *System Continuity = 20 Points*. Ideal candidate projects improve a corridor in logical segments, preventing the creation of missing links or gaps, thereby improving access to a center or centers.

(3) *Long Term Benefit/Sustainability = 20 Points*. Ideal candidate projects for these criteria provide a long-term solution for meeting projected travel demand for people or goods to a center, considering environmental issues, land use strategies, transportation efficiency, and health impacts.

- **20 points: Air Quality and Climate Change.**

Ideal candidate projects are ones that substantially reduce emissions of greenhouse gases and other air pollutants or will substantially reduce fine particulates from diesel exhaust; and the air quality benefits will occur by 2015.

- **10 points: Project Readiness/Financial Plan.**

Ideal candidate projects have shown that all prerequisites for obligation will have been met by the time the funds are being requested and that regional funding will be sufficient to complete the project or phase of the project.¹³⁰

The points allotted to the air quality criterion for projects seeking CMAQ funds are guaranteed to be equal to a minimum of one-third the total possible points. CMAQ projects use a very similar point criterion system; however, there is increased emphasis on the air quality and climate change criterion. CMAQ Projects can earn a maximum of 40 points as opposed to 20. As a result, there are only 50 points available to CMAQ projects that meet corridors serving centers criteria.¹³¹

Conclusion

The population of the central Puget Sound region is expected to continue to grow in the coming decades and this growth, combined with the geographic constraints of the region, will heighten transportation pressures in the region.

The PSRC faces significant governance challenges due to the large number of local jurisdictions in the region. Regional planning efforts are also complicated by the large number of transit districts operating in the region. Regional planning efforts are also constrained by the relatively limited control of transportation investment at the regional level.

Although several plans have been produced for the region, the history of growth management is relatively short. With each successive plan, the PSRC has been placing more emphasis on integrative regional transportation and land use planning. One key area of emphasis is its growth centers policy, which is supported by countywide policies, grant programs, and transportation incentives.

¹³⁰ 2010-2013 TIP Criteria, Appendix C, p. 34.

¹³¹ 2010-2013 TIP Criteria, Appendix C, p. 53.

DETAILED CASE STUDY: SANDAG

The San Diego Association of Governments (SANDAG) is the metropolitan planning organization of San Diego and San Diego County. This summary describes SANDAG's history, governance structure and responsibilities, and activities related to land use and transportation.

MPO History and Context

The first regional planning organization was formed by San Diego County in 1966 and called the Comprehensive Planning Organization (CPO). The CPO was created as the long-range planning department within the San Diego County government to address transportation and other regional planning issues. It was a voluntary association, headed by representatives of the agencies that wished to be part of the organization.

In 1970, the Governor of California designated the CPO as the Metropolitan Planning Organization to assure countywide coordination and to serve as the technical and informational resource for local governments. One year later, the state designated it the Regional Transportation Planning Agency. In 1972, the members of the planning organization reestablished the organization as a separate joint powers authority, independent of county government.¹³² In 1980, CPO changed its name to the San Diego Association of Governments.¹³³ The San Diego region has faced substantial growth over several decades, and in 1993, SANDAG developed its first growth management strategy.

In 1999, California State Senator Steve Peace (D – San Diego) introduced legislation to create a Regional Infrastructure Transportation Agency, which would have combined SANDAG, the water board, and all the transportation providers into a single agency. This legislation also called for the new agency to be governed by a directly elected board.¹³⁴

The proposed legislation led the SANDAG Executive Committee to appoint officials from the San Diego region to evaluate regional and local land use decision-making in 2000. The Joint Agency Negotiation Team on Consolidation (JANTOC) developed a report offering several alternative governance structures. An important highlight of their work was to ensure that “land use and transportation decisions are made by the same set of decision makers.”¹³⁵

In 2001, the California State Legislature created the Regional Government Efficiency Commission (RGEN) to evaluate the San Diego region's governance

¹³² SANDAG, “About SANDAG: History.”

<http://www.sandag.org/index.asp?fuseaction=about.history> (accessed January – February 2010).

¹³³ Hill, Elizabeth. *SANDAG: An Assessment of Its role in the San Diego Region*. Legislative Analyst's Office. http://www.lao.ca.gov/2006/sandag/sandag_033006.pdf March 2006, 1.

¹³⁴ Barbour, Elisa and Michael Teitz. *Blueprint Planning in California: Forging Consensus on Metropolitan Growth and Development*. Public Policy Institute of California. June 2006, 19.

¹³⁵ Hill, Elizabeth. *SANDAG: An Assessment of Its role in the San Diego Region*. Legislative Analyst's Office. http://www.lao.ca.gov/2006/sandag/sandag_033006.pdf March 2006, 1.

system and to report recommendations on consolidating regional agencies. The Commission proposed a “15-member ‘regional authority,’ with 12 full-time directly elected members.”¹³⁶

In response to these proposals the California Senate passed Bill 1703 in 2002, which strengthened SANDAG’s authority over the region. The agency took over the regional transit planning and capital project development functions of the region’s Metropolitan Transit System and the North County Transit District. The State Legislature also required SANDAG to develop a Regional Comprehensive Plan. Barbour and Teitz noted that SANDAG’s effectiveness as the region’s growth management agency had been under speculation for over a decade, which had spurred the agency to prove that it could produce an effective growth management plan.¹³⁷

In 2006, the California Legislative Analyst’s Office (LAO) was asked to evaluate the San Diego Region’s new governance structure.¹³⁸ The report concluded:

“Over the years, the San Diego region’s governance structure has been criticized for its limitations regarding regional agency accountability and its ability to implement solutions to regional problems. The conclusions of this report generally concur with the earlier findings regarding the San Diego region governance system. That is, we find that the area’s regional agencies have limited public accountability and that their narrow scope of authority and responsibility reduces their effectiveness.”¹³⁹

However, the report also stated:

Identifying weakness in a governance system and possible corrections, however, is a simpler task than enacting measures to address them. Enacting changes requires addressing sensitive policy trade-offs, including issues relating to local versus regional control, elected versus appointed representatives, and governance structure change versus stability. What should the Legislature, Governor, and residents of San Diego do? There really is no single answer. Any decision—whether to maintain the existing governance structure, implement incremental changes, or engage in major restructuring—entails sensitive policy trade-offs and taking actions where the outcomes cannot be fully predicted.¹⁴⁰

The report did not make a recommendation regarding whether an alternative governance structure should be pursued.

Region Covered by MPO

SANDAG’s boundaries coincide with the boundaries of San Diego County and include 18 cities (see Figure 1). The San Diego region is over 4,000 square miles and

¹³⁶ Ibid.

¹³⁷ Barbour, Elisa and Michael Teitz. *Blueprint Planning in California: Forging Consensus on Metropolitan Growth and Development*. Public Policy Institute of California. June 2006. 20.

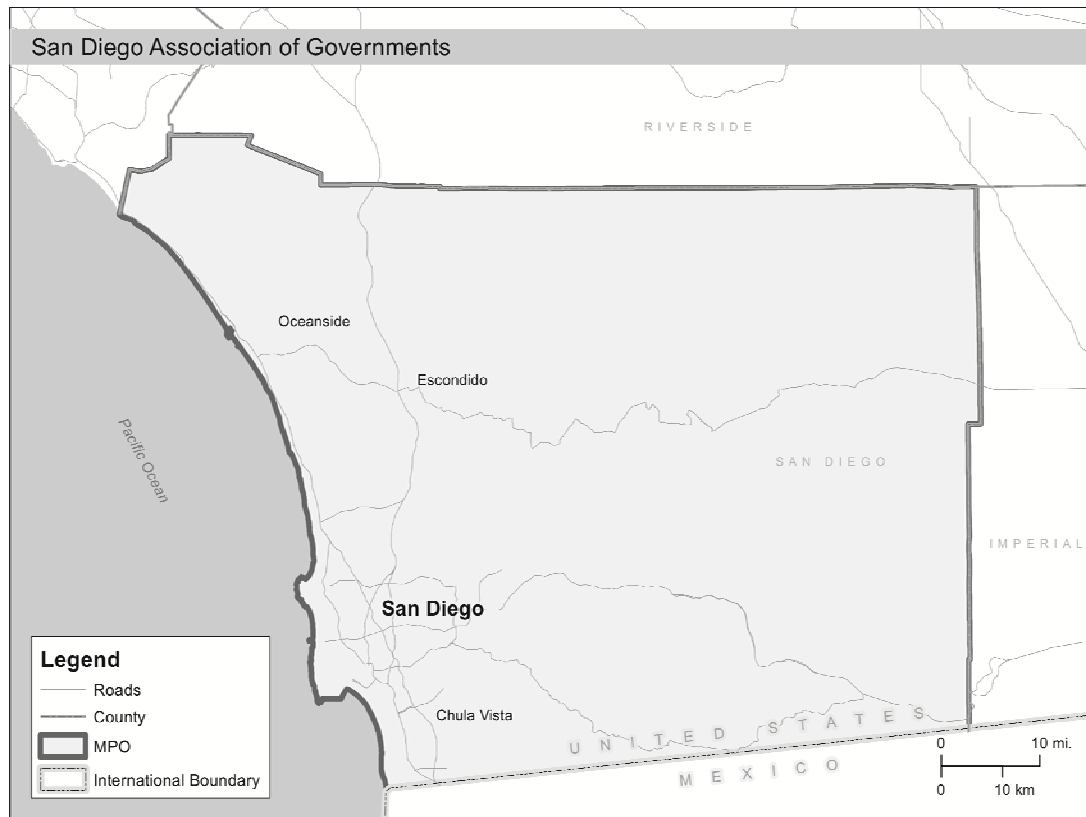
¹³⁸ Hill, Elizabeth. *SANDAG: An Assessment of Its role in the San Diego Region*. Legislative Analyst’s Office. http://www.lao.ca.gov/2006/sandag/sandag_033006.pdf March 2006, 2.

¹³⁹ Ibid, p. 71.

¹⁴⁰ Ibid, p. 71.

the total population estimated for 2009 is close to 3.2 million.¹⁴¹ The City of San Diego contains over half of the region's population while about 11% of the population lives in the five coastal cities north of the City (Carlsbad, Del Mar, Encinitas, Oceanside, and Solana Beach). The geography of the eastern portion of San Diego County makes it sparsely populated due to high mountain terrain, a lack of ground water, and public lands.¹⁴²

Figure 1. SANDAG Region



Source: InfoGraphics Lab, Department of Geography, University of Oregon

Population growth in the San Diego region has averaged about 50,000 persons per year since the mid 1990s. According to SANDAG's 2030 Regional Growth Forecast, the region will add an additional 1 million people by 2030. The following table shows that the region's growth rates have declined since the 1980s. The Regional Growth Forecast projects that by the mid 2020s, the growth rate will fall below 1 percent.¹⁴³

¹⁴¹ SANDAG, "Demographics and Other Data: Fast Facts." http://www.sandag.org/resources/demographics_and_other_data/demographics/fastfacts/regi.htm (accessed January – February 2010).

¹⁴² Hill, Elizabeth. *SANDAG: An Assessment of Its role in the San Diego Region*. Legislative Analyst's Office. http://www.lao.ca.gov/2006/sandag/sandag_033006.pdf March 2006. 3.

¹⁴³ SANDAG. "Fast Facts. San Diego Region." http://www.sandag.org/resources/demographics_and_other_data/demographics/fastfacts/regi.htm

Table 1. Population Trends of San Diego Region (1980 – 2009)

	1980	1990	2000	2009
Total Population	1,861,846	2,498,016	2,813,833	3,173,407
Growth from Prior Period		34%	13%	13%

Source: SANDAG. "Fast Facts. San Diego Region."

http://www.sandag.org/resources/demographics_and_other_data/demographics/fastfacts/regi.htm

The RCP projections of demographic characteristics to 2030 suggest that the San Diego region, as a whole, will become more ethnically diverse and older. Natural increase and net migration (comprised of both foreign immigration and domestic migration) are the two sources of population growth in the region.¹⁴⁴ Future projections also show that largest percent increase in population will be in the age categories of: 55-59, 60-64 and 80 and older.

As of 2005, the San Diego region had a median household income by jurisdiction of over \$50,000. According to SANDAG's RCP, about 61% of the region's housing stock is single family units, and about 35% is multifamily (the rest are mostly mobile homes).¹⁴⁵ The trend of housing characteristics is expected to change over the next 20 years. Due to the lack of vacant, useable single family land, the RCP suggests that nearly half of the housing units built in the region by 2030 will be multifamily housing projects. This trend shift also relates to the increased congestion on highways and local roads.¹⁴⁶

Regional Transportation Issues

This section of the report provides an overview of transportation performance in the San Diego region and outlines SANDAG's strategies in addressing specific issues in the region. SANDAG's governance structure and authority are also described.

Overview of Transportation Performance

As shown in Figure 2, about 75% of the region's residents commute alone to work by automobile.¹⁴⁷ According to the 2030 regional transportation plan (Pathways for the Future), in the 1980s vehicle miles traveled (VMT) grew twice as fast as the population, and in the 1990s VMT growth was 50% higher than population growth. The plan also reported that between 1990 and 2000 the percentage of residents

¹⁴⁴ SANDAG. *Regional Comprehensive Plan for the San Diego Region*. July, 2004.

Document PDF available on SANDAG Web site:

<http://www.sandag.org/index.asp?classid=12&fuseaction=home.classhome> (accessed January – February 2010), 46.

¹⁴⁵ SANDAG. *Regional Comprehensive Plan for the San Diego Region*. July, 2004.

Document PDF available on SANDAG Web site:

<http://www.sandag.org/index.asp?classid=12&fuseaction=home.classhome> (accessed January – February 2010), 43.

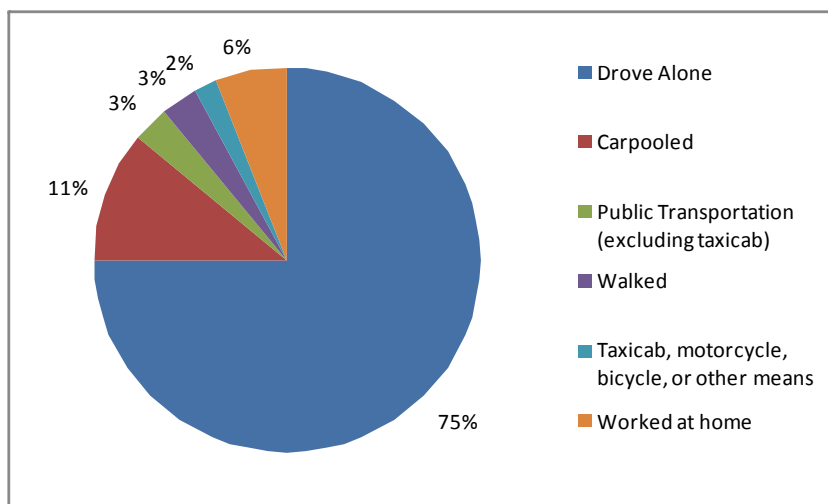
¹⁴⁶ *Ibid.*, 44.

¹⁴⁷ Equinox Center. *Transportation to Work (2007) San Diego Region*. 2009. Document available on Equinox Center Web site: <http://www.equinoxcenter.org/research-topics/transportation/overview.html> (accessed January – February 2010).

who drove alone to work increased, while commuting by all other modes decreased or stayed the same.¹⁴⁸

The two factors responsible for this travel growth were the increase in two-worker households and longer commute distances. The region's growth in travel is expected to continue to outpace population growth and employment in the next 20 years.¹⁴⁹

Figure 2. Transportation to Work in San Diego Region (2007)



Source: Equinox Center. *Transportation to Work (2007) San Diego Region*. 2009. Document available on Equinox Center Web site: <http://www.equinoxcenter.org/research-topics/transportation/overview.html> (accessed January – February 2010).

In the San Diego region, nearly 30% of all highway travel is for work trips. The average work trip is about 10 miles. These trips usually take place during the morning and afternoon hours, which are considered the peak hours of travel demand. The peak hours of travel demand are what challenges the capacity of highways and creates traffic congestion. However, MOBILITY 2030 indicates that average commute time in the region increased by only three minutes from 1990 to 2000.¹⁵⁰ With the growth in travel, many of the region's road systems are operating near or beyond capacity.

SANDAG is also developing a Sustainable Communities Strategy in compliance with California Senate Bill 375, which sets regional greenhouse gas emissions targets through the California Air Resources Board. This new element of the 2050 RTP will

¹⁴⁸ SANDAG 2007. 2030 San Diego Regional Transportation Plan: Pathways for the Future. San Diego: San Diego Association of Governments (SANDAG), pp. 3-4.

¹⁴⁹ SANDAG. *MOBILITY 2030: The Transportation Plan for the San Diego Region*. April, 2003. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=13&fuseaction=home.classhome> (accessed January – February 2010), 32.

¹⁵⁰ SANDAG. *MOBILITY 2030: The Transportation Plan for the San Diego Region*. April, 2003. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=13&fuseaction=home.classhome> (accessed January – February 2010), 32-33.

identify development patterns, transportation policies, and investment strategies to comply with the law.¹⁵¹

MPO Structure

SANDAG's governance structure follows a "council of governments" format in which each local agency appoints one or more elected representatives from its governing board to serve on the governing board of the regional agency. SANDAG hires its own professional staff. Its governing board names an executive director who leads the professional staff. Currently, SANDAG has about 172 professional, support, and executive staff.¹⁵²

Decision-Making and Approval Processes

The SANDAG Board of Directors is composed of mayors, council members, and a county supervisor from each of the region's 19 local governments. By state law, the board also has two representatives for both the City of San Diego and the County of San Diego. There are also nonvoting representatives from Imperial County, the U.S. Department of Defense, Caltrans, San Diego Unified Port District, Metropolitan Transit System, North County Transit District, San Diego County Water Authority, and Mexico.¹⁵³

The Board of Directors uses a tally and weighted voting process, where all actions must be approved by a majority of the tally and weighted votes. Each city and the county gets one tally vote with the exception of the City of San Diego and County of San Diego, each of which receives two tally votes. A measure must receive 11 out of a total of 21 tally votes to be approved. The population in each jurisdiction with respect to the entire County is reflected by the weighted vote.¹⁵⁴

Five standing committees report to the Board of Directors. The committees voting membership are comprised of six locally elected officials: one representative from the San Diego City Council and one from the San Diego County Board of Supervisors, as well as a representative chosen from cities in each of four geographic sections of the county. The roles of the committees are as follows:

- The Executive Committee sets the agenda for monthly Board meetings and reviews the overall work program and budget.
- The Transportation Committee advises the Board on transportation policy, oversees the preparation of the Regional Transportation Plan, and oversees transportation projects.

¹⁵¹ SANDAG, "Land Use and Regional Growth: Comprehensive Land Use & Regional Growth Projects." <http://www.sandag.org/index.asp?projectid=360&fuseaction=projects.detail> (accessed January – February 2010).

¹⁵² Hill, Elizabeth. *SANDAG: An Assessment of Its role in the San Diego Region*. Legislative Analyst's Office. http://www.lao.ca.gov/2006/sandag/sandag_033006.pdf March 2006, 12.

¹⁵³ SANDAG, "About SANDAG: Board of Directors." <http://www.sandag.org/index.asp?fuseaction=about.board> (accessed January – February 2010).

¹⁵⁴ Hill, Elizabeth. *SANDAG: An Assessment of Its role in the San Diego Region*. Legislative Analyst's Office. http://www.lao.ca.gov/2006/sandag/sandag_033006.pdf March 2006, 20.

- The Regional Planning Committee oversees the preparation and implementation of the Regional Comprehensive Plan (RCP).
- The Public Safety Committee advises the Board on all matters related to public safety.
- The Borders Committee is responsible for planning activities that cross regional county and international borders, and prepares the Bi-national, Interregional and Tribal Liaison planning programs.¹⁵⁵ This committee oversees an Interagency Working Group on Tribal Transportation Issues.¹⁵⁶

SANDAG's Authority in the San Diego Region

SANDAG is the federally designated MPO, giving it legal responsibility to develop long-range transportation plans (RTPs) and Regional Transportation Improvement Plans (RTIPs) for the San Diego region.

The State of California has designated SANDAG as the Regional Transportation Planning Agency (RTPA) and the Regional Transportation Commission. These state designations give the agency the power to create Regional Short Range Transit Plans (RSRTPs), and administer TransNet funds.¹⁵⁷

Under state law, SANDAG is responsible for coordinating the regional housing needs assessment (RHNA) and distributing expected household growth to each jurisdiction within the region. The allocation includes housing units for various categories, including low-income households. Jurisdictions are then required to ensure that the housing elements of their general plans provide sufficient land zoned to accommodate the designated amount of growth in housing.¹⁵⁸

Other Governing Organizations in the San Diego Region

The California Department of Transportation (Caltrans) is responsible for mobility across the state. It manages the state highway system and is involved with public transportation systems throughout California. Caltrans is made up of 12 districts throughout the state. The agency's District 11 has jurisdiction over San Diego and Imperial Counties. Caltrans has an advisory membership on several standing committees and working groups including the SANDAG Board of Directors.¹⁵⁹

The County of San Diego coincides with the boundaries of SANDAG. San Diego County is responsible for land use planning and regulation for all unincorporated

¹⁵⁵ Hill, Elizabeth. *SANDAG: An Assessment of Its role in the San Diego Region*. Legislative Analyst's Office. http://www.lao.ca.gov/2006/sandag/sandag_033006.pdf March 2006, 12.

¹⁵⁶ SANDAG, "About SANDAG: Committees." <http://www.sandag.org/index.asp?committeeid=54&fuseaction=committees.detail> (accessed January – February 2010).

¹⁵⁷ *Ibid.*, 35.

¹⁵⁸ *Ibid.*, 44.

¹⁵⁹ SANDAG, "About SANDAG: Committees." <http://www.sandag.org/index.asp?committeeid=54&fuseaction=committees.detail> (accessed January – February 2010).

areas. They also provide law enforcement and operate jails. The County of San Diego is run by a five-member Board of Supervisors, who are elected by district.¹⁶⁰

City jurisdictions provide municipal services to their residents in areas such as land use and local transportation planning, public safety, trash collection, waste water services, parks and recreation services, and infrastructure maintenance. All of the cities in the SANDAG area are governed by a city council form of government, but the mayoral powers and appointment processes vary.¹⁶¹

The 17 tribal governments in the San Diego region are subject to Federal regulations, but not state and local regulations. Tribal governments have the authority to provide services, enforce regulations, and collect taxes.¹⁶²

Other Governance Arrangements

SANDAG's major initiatives include collaboration with the San Diego Regional Airport Authority on airport planning, the early delivery of transportation projects using TransNet funds (a transportation sales tax), and addressing the impacts of transportation and land use on greenhouse gas emissions. The agency also continues to work on ways to implement smart growth strategies outlined in its Regional Comprehensive Plan as well as Transportation Demand Management Programs to mitigate traffic congestion. These strategies are discussed in the Regional Land Use Planning section of this report.

The agency is currently working on several new projects. The SANDAG Transportation Committee is developing the 2050 Regional Transportation Plan, which is planned for adoption in 2011. A couple of new components addressed in the upcoming RTP are the Public Participation Plan and the establishment of a Sustainable Communities Strategy.¹⁶³

The Public Participation Plan (PPP) establishes a step-by-step process for gaining public input for agency programs such as highway projects, transit fare changes, the Regional Transit Plan, the Regional Comprehensive Plan, and smart growth efforts. The final PPP was approved by the SANDAG Board of Directors in December 2009.¹⁶⁴

Regional Land Use Planning

SANDAG is responsible for preparing a Regional Comprehensive Plan (RCP), but it has no direct land use planning authority. This section reviews the regional plan and its role in coordinating land use and transportation.

¹⁶⁰ Ibid., 8.

¹⁶¹ Ibid.

¹⁶² Ibid.

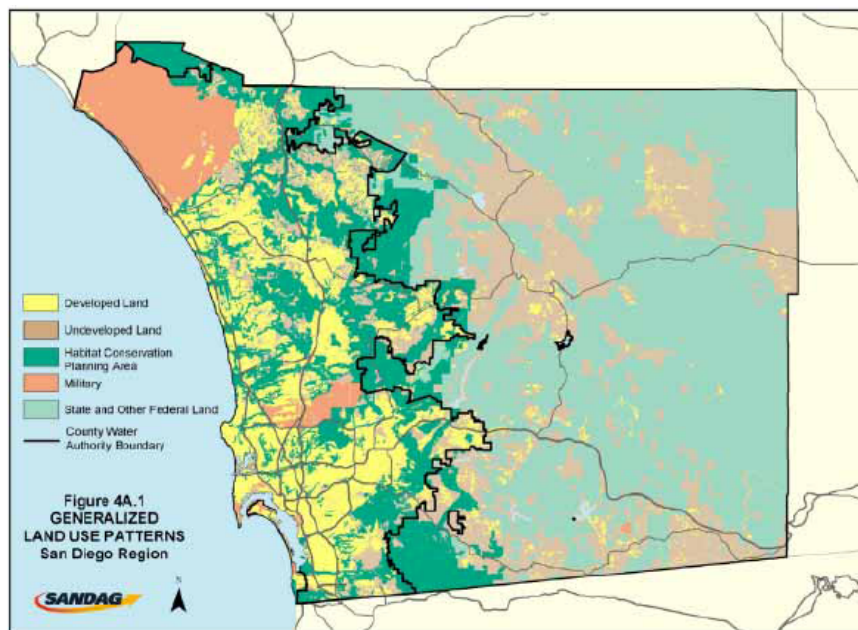
¹⁶³ SANDAG, "Transportation: Comprehensive Transportation Projects."

<http://www.sandag.org/index.asp?projectid=349&fuseaction=projects.detail> (accessed January – February 2010).

¹⁶⁴ SANDAG, "Public Participation Plan."

<http://www.sandag.org/?subclassid=115&fuseaction=home.subclasshome> (accessed January – February 2010).

Figure 3. General Land Use Patterns for the San Diego Region



Source: SANDAG. *Regional Comprehensive Plan for the San Diego Region*. July, 2004. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=12&fuseaction=home.classhome> (accessed January – February 2010), 59.

Regional Comprehensive Plan

The Regional Comprehensive Plan (RCP) is the long-term planning framework for the San Diego Region. It “lays out how the region should grow in terms of housing, transportation, environment, energy and water.” The primary intention of the RCP is to link land use and transportation planning more effectively through collaboration and incentives.¹⁶⁵

The Board of Directors began to develop the RCP in 2002, with assistance from the Regional Planning Committee, the Regional Planning Technical Working Group, and a Stakeholders Working Group. SANDAG’s Regional Planning Committee collected input from working groups and reported the plan’s progress to the Board of Directors.¹⁶⁶

Following a two-year public planning process, the plan was adopted in July 2004.¹⁶⁷ Plan development cost approximately \$2.5 million, half of which was funded through a Caltrans grant.¹⁶⁸ The RCP establishes a planning framework (see Figure 4) that brings together the general plans of each jurisdiction with the intent of integrating local land use with regional transportation decisions. It also provides a

¹⁶⁵ Christensen, Kevin. *Sandag's comprehensive plan outlines county's future needs*. The Daily Transcript. August 13, 2004.

<http://www.sddt.com/reports/article.cfm?RID=241&SourceCode=20040811ro>

¹⁶⁶ Barbour, Elisa and Michael Teitz. *Blueprint Planning in California: Forging Consensus on Metropolitan Growth and Development*. Public Policy Institute of California. June 2006, 20.

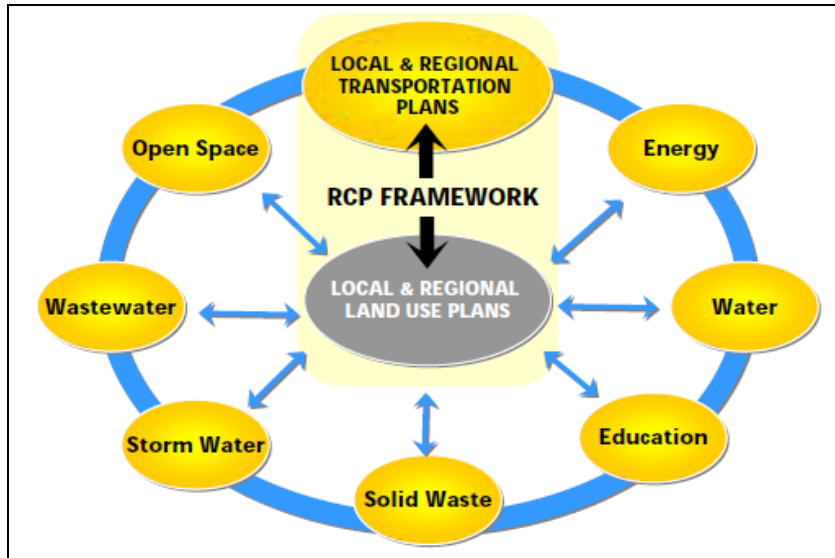
¹⁶⁷ SANDAG, “About SANDAG: History.”

<http://www.sandag.org/index.asp?fuseaction=about.history> (accessed January – February 2010).

¹⁶⁸ Barbour, Elisa and Michael Teitz. *Blueprint Planning in California: Forging Consensus on Metropolitan Growth and Development*. Public Policy Institute of California. June 2006, 20.

policy approach that creates incentives for smart growth planning.¹⁶⁹ The RCP does not supersede local government land use authority, but looks at these individual decisions as a whole, assesses their collective impacts, and examines cumulative development trends on a 25-year horizon.

Figure 4. Framework of the Regional Comprehensive Plan



Source: SANDAG. *Regional Comprehensive Plan for the San Diego Region*. July, 2004. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=12&fuseaction=home.classhome> (accessed January – February 2010), 5.

Specific Policies for Land Use and Transportation Integration

The RCP uses incentive-based programs to influence local jurisdictions to develop their plans in compliance with smart growth planning. The RCP recommended the development of a “Smart Growth Concept Map.” This map, based on input from the 18 cities and county, was developed in 2006 (see Figure 5). It shows the existing, planned, and potential smart growth areas in the region. These are areas where compact, mixed use, pedestrian-oriented development either exists or is encouraged. The map indicates smart growth opportunities at seven different scales: Metropolitan Center, Urban Centers, Town Centers, Community Centers, Rural Villages, Mixed-Use Transit Corridors, and Special Use Centers.¹⁷⁰

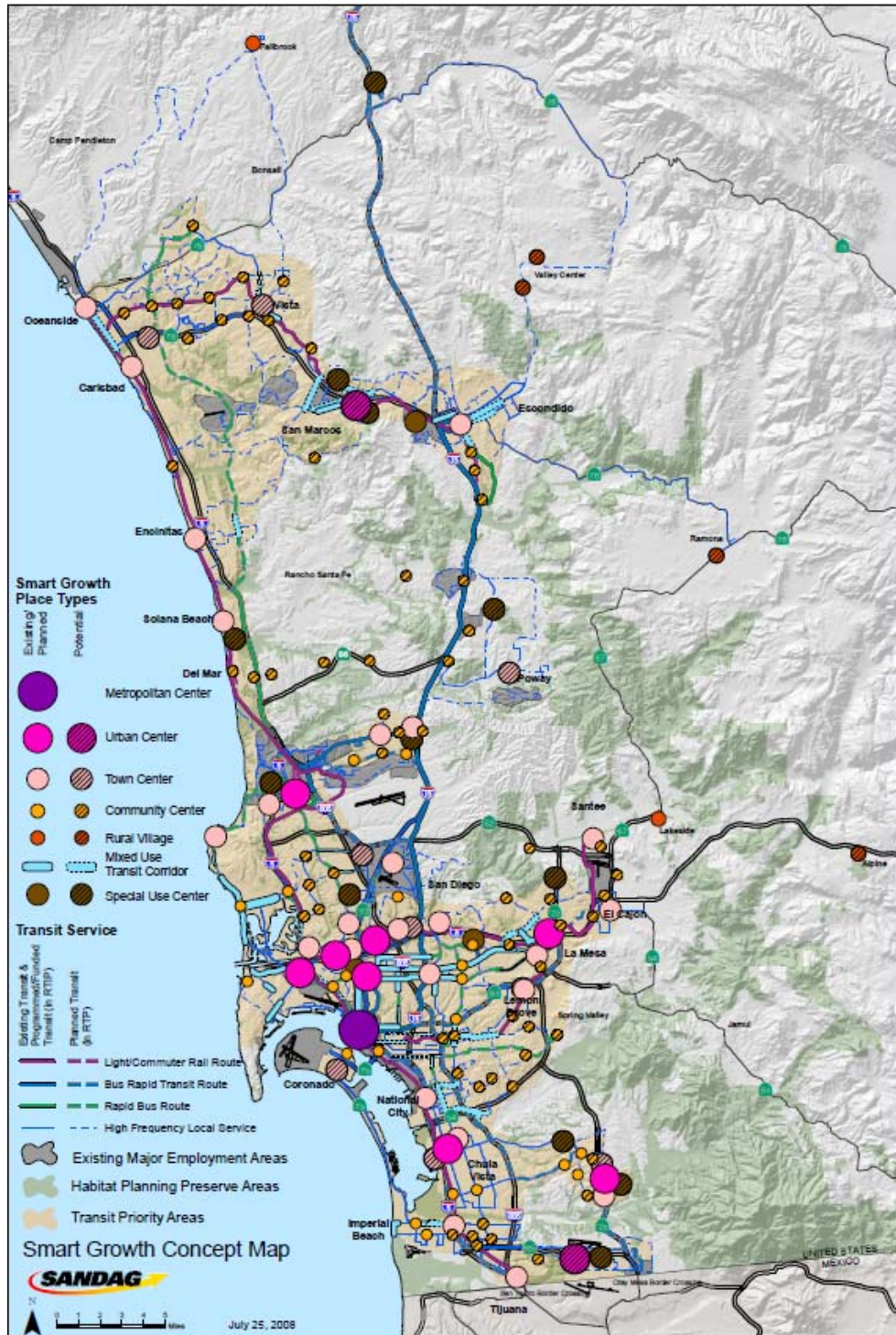
¹⁶⁹ SANDAG. *Regional Comprehensive Plan for the San Diego Region*. July, 2004.

Document PDF available on SANDAG Web site:

<http://www.sandag.org/index.asp?classid=12&fuseaction=home.classhome> (accessed January – February 2010), 4.

¹⁷⁰ SANDAG, “Land Use and Regional Growth: Comprehensive Land Use & Regional Growth Projects.” <http://www.sandag.org/index.asp?projectid=296&fuseaction=projects.detail> (accessed January – February 2010).

Figure 5. SANDAG RCP Smart Growth Concept Map



SANDAG: Smart Growth in the San Diego Region. 2008, 2.

The *TransNet* Smart Growth Incentive Program (SGIP) offers grants to local communities for projects that incorporate smart growth land use and transportation principles. SANDAG funds this program with Federal transportation

enhancement funds and *TransNet* funds. Local communities apply for funding and are awarded based on a set of evaluation criteria prioritized by constructability, condition of existing infrastructure, and availability of matching funds.¹⁷¹

For the year of 2009, two percent of *TransNet* annual funds, or about \$5 million, was allocated for this program. Funds are intended to support “public infrastructure projects and planning activities that will support compact, mixed use development focused around public transit, and increase housing and transportation choices.”¹⁷² These are often bicycle-pedestrian projects, or streetscape improvements. The *TransNet* 40 Year Expenditure Plan allocates approximately \$280 million for the Smart Growth Incentive Program.¹⁷³

Local Government Involvement

The County of San Diego and the region’s 18 cities each have an adopted general plan, made up of mandatory and optional elements, including land use and transportation. State law specifically provides local jurisdictions with the authority to make land use decisions in accordance with their general plans. The Regional Comprehensive Plan pulls together the various local and regional plans from throughout the region and establishes a coordinated regional planning document.¹⁷⁴

SANDAG works with local jurisdictions to strengthen the connection between local plans and the RCP through subregional planning programs, private sector participation, and the development of compacts. Subregional plans are developed for geographic areas smaller than the San Diego Region but larger than a local jurisdiction. These plans are intended to encourage better cross-jurisdictional coordination especially in areas of transportation and land use. SANDAG has created financial incentives and public-private partnerships to encourage the private sector to align with the RCP’s smart growth initiatives.¹⁷⁵ Most of the coordination between SANDAG and its member agencies is conducted through working groups, such as the Regional Planning Technical Working Group, which includes the planning directors of all local jurisdictions and other governmental entities.

¹⁷¹ SANDAG. Smart Growth Incentive Program Factsheet. May, 2005. Document PDF available on SANDAG Web site:

<http://www.sandag.org/index.asp?classid=12&fuseaction=home.classhome> (accessed January – February 2010).

¹⁷² SANDAG, “Land Use and Regional Growth: Comprehensive Land Use & Regional Growth Projects.” <http://www.sandag.org/index.asp?projectid=340&fuseaction=projects.detail> (accessed January – February 2010).

¹⁷³ SANDAG. *TransNet: TransNet Extension and Ordinance*. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=30&fuseaction=home.classhome> (accessed January – February 2010), 8.

¹⁷⁴ SANDAG. *Regional Comprehensive Plan for the San Diego Region*. July, 2004. Document PDF available on SANDAG Web site:

<http://www.sandag.org/index.asp?classid=12&fuseaction=home.classhome> (accessed January – February 2010), 47.

¹⁷⁵ SANDAG. *Regional Comprehensive Plan for the San Diego Region*. July, 2004. Document PDF available on SANDAG Web site:

<http://www.sandag.org/index.asp?classid=12&fuseaction=home.classhome> (accessed January – February 2010), 360.

Public Involvement

Public involvement was considered to be the foundation for the development of the RCP. The San Diego region's residents, elected officials, and local stakeholders were given opportunities to provide extensive input in the development process.

SANDAG established a Regional Planning Committee that consisted of local elected officials regionwide "to spearhead the preparation of the RCP, provide policy direction on key planning issues, and make recommendations to the SANDAG Board of Directors."¹⁷⁶ A Stakeholders Working Group of representatives from business, community, and social service organizations was established. This group worked with the Technical Working Group, which was comprised of planning directors from throughout the region. The role of the Stakeholders Working Group was to provide recommendations to the Regional Planning Committee on RCP issues. Both the Stakeholders and Technical Working Groups helped to draft chapters of the RCP.¹⁷⁷

Three rounds of public workshops were held throughout the region. Nearly 600 residents participated in the first round of workshops. A regional vision and set of core values for the San Diego region derived from the first round. The second round of public workshops focused on draft policies and actions for the RCP. The third round of workshops provided opportunity for public comment on the draft RCP and Environmental Impact Report. There also were advertisement and media relations conducted to inform stakeholders and interested residents through newsletters, workshop invitations, Web site updates, e-mail outreach, and presentations.¹⁷⁸

To engage citizen groups that traditionally have not been involved in the regional planning process, the community outreach effort was expanded through the distribution of mini-grants to five community-based organizations. This effort focused on increasing participation from minorities, low-income residents, and the disabled. The mini-grants were funded through an Environmental Justice and Social Equity grant from Caltrans and ranged from five to seven thousand dollars.¹⁷⁹

Although public involvement was important to the development of the RCP, a recent survey on collaborative regional planning in California by Juliann Allison and Jonathan Davison indicated that public knowledge and perception of these collaborative efforts was low. Less than 40% of San Diego residents who responded to the survey were familiar with the regional planning project in their region, and those who were familiar with the project remembered it less favorably.¹⁸⁰

Habitat Conservation as Land Use Policy

In 1991 the state enacted the Natural Community Conservation Planning Act (NCCP) to address the rapid urban development and diminishing open space taking place in Southern California at the time. This legislation allowed the preparation

¹⁷⁶ Ibid., 417.

¹⁷⁷ Ibid.

¹⁷⁸ Ibid., 418.

¹⁷⁹ Ibid., 421.

¹⁸⁰ Allison, Juliann and Jonathan Davison. "Collaborative Regional Planning in California: Potential Models for Sustainable Governance." *Policy Matters*. Spring 2008.

and adoption of two subregional plans in San Diego County.¹⁸¹ In southern San Diego County, the Multiple Species Conservation Program targets more than 170,000 acres for conservation, where 85 sensitive plants and animals will be protected. In northern San Diego County, the seven incorporated cities, working through SANDAG, make up the Multiple Habitat Conservation Program. More than 75 species are being evaluated for adequacy of conservation under the proposed 19,000-acre preserve system.¹⁸²

Habitat conservation has also served as an important element of land use policy through the TransNet ballot measure, which allocated \$850 million for environmental mitigation. This included \$200 million to acquire sites need to complete the region's habitat conservation plan.¹⁸³ When fully implemented, the habitat conservation plans and other efforts will have set aside over 300,000 acres of land. This has effectively created a greenbelt encompassing a major portion of the urbanized region.

Regional Transportation Planning

SANDAG's Regional Transportation Plan is called "2030 San Diego Regional Transportation Plan: Pathways for the Future." It is a \$57 billion plan which serves as a blueprint to address the challenges of mobility and access created by the region's growing population and employment. The document provides an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system in the San Diego region. The current RTP was approved by the Board of Directors in November of 2007.¹⁸⁴ It lists the region's highest priority transportation projects. Under Federal transportation law, the RTP uses a constrained budget, which means that the recommended projects are tied to actual funding expectations.¹⁸⁵

Transportation Funding

Public sector funding for transportation in the San Diego region is projected to total approximately \$41 billion over the 25 years from 2006 through 2030. Public taxes, including Federal and state gas taxes and state and local sales taxes, are expected to comprise the majority of these funds.¹⁸⁶ Figure 6 shows the division of total projected transportation revenues.

¹⁸¹ Leiter, Robert A. In press. "Planning and Policies for Sustainable Development in California and the San Diego Region." *Green Buildings and the Law*.

¹⁸² SANDAG, "Natural Community Conservation Planning Program." <http://www.sandag.org/index.asp?projectid=96&fuseaction=projects.detail> (accessed October 2010).

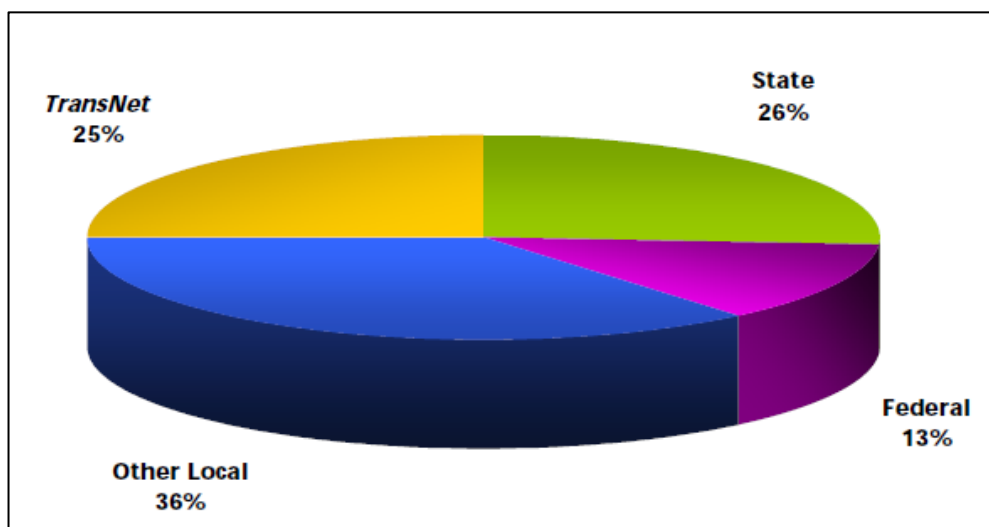
¹⁸³ Barbour, Elise and Michael Teitz. 2006. "Blueprint Planning in California: Forging Consensus on Metropolitan Growth and Development." Public Policy Institute of California, Occasional Paper. June 21, 2006.

¹⁸⁴ SANDAG, "Transportation: Comprehensive Transportation Projects." <http://www.sandag.org/index.asp?projectid=292&fuseaction=projects.detail> (accessed January – February 2010).

¹⁸⁵ Hill, Elizabeth. *SANDAG: An Assessment of Its role in the San Diego Region*. Legislative Analyst's Office. http://www.lao.ca.gov/2006/sandag/sandag_033006.pdf. March 2006, 35.

¹⁸⁶ SANDAG. *Alphabet Soup: A Primer on Transportation in the San Diego Region*. Document PDF available on SANDAG Web site:

Figure 6. Projected Transportation Revenues (\$41 Billion) San Diego Region: 2006 – 2030



Source: SANDAG. *Alphabet Soup: A Primer on Transportation in the San Diego Region*. Document PDF available on SANDAG Web site: http://www.sandag.org/uploads/publicationid/publicationid_1236_5646.pdf

In terms of expenditures, transit capital projects and operating costs account for approximately 32% of the \$41 billion total. Highway projects, including major capital, Managed Lanes/High-Occupancy Vehicle (HOV) facilities, and operations and maintenance, account for approximately 38% of the total. Local street and road projects are estimated to be 27%, and the final category of land use, systems management and demand management strategies, totals approximately three percent of the nearly \$41 billion program.¹⁸⁷

The passing of statewide Propositions 1A and 1B have also helped increase transportation funding in the San Diego Region. Proposition 1A “protects the region’s share of the state gasoline tax” which generates revenue for transportation programs and projects.¹⁸⁸ According to SANDAG, the passage of Proposition 1B “will provide nearly \$20 billion statewide to fund transportation projects — \$484 million of which will be injected into [the] region.”¹⁸⁹ SANDAG views these two propositions as integral revenue sources for highway projects, county roads, and local street repair.¹⁹⁰

TransNet is the half-cent sales tax for local transportation projects that was first approved by voters in 1988 when it was labeled Proposition A. This tax was designed to provide the revenue base to implement the San Diego region’s highest

http://www.sandag.org/uploads/publicationid/publicationid_1236_5646.pdf (accessed January – February 2010), 8.

¹⁸⁷ SANDAG. *Alphabet Soup: A Primer on Transportation in the San Diego Region*. Document PDF available on SANDAG Web site:

http://www.sandag.org/uploads/publicationid/publicationid_1236_5646.pdf (accessed January – February 2010), 8.

¹⁸⁸ SANDAG, “News: Propositions bring funding for regional improvements.”

<http://www.sandag.org/index.asp?newsid=438&fuseaction=news.detail> (accessed January – February 2010).

¹⁸⁹ *Ibid.*

¹⁹⁰ *Ibid.*

priority transportation projects.¹⁹¹ *TransNet* raised \$3.3 billion over its original 20 year time frame, added to and upgraded the region's highway network, extended trolley and commuter rail miles, expanded transit service, improved and maintained more than 800 local road projects, funded regional bicycle projects, and created walkable communities.

In 2004, *TransNet* was extended for another 40 years, from 2008 to 2048. The program is expected to raise about \$14 billion to help fund major highway expansion projects as well as state routes and numerous local road projects. As mentioned in the Specific Policies for Land Use and Transportation Integration section of this paper, the *TransNet* extension funds the innovative Smart Growth Incentive Program. *TransNet* is also funding light rail transit and bus rapid transit projects in the region, as well as major improvements to the area's bicycle network.¹⁹²

SANDAG has initiated an Early Action Program for *TransNet* infrastructure projects that are intended to provide congestion relief through construction on the region's top priority projects. This program was established at the time the extension was approved by voters. To accelerate the implementation of regionally significant projects, SANDAG developed the Plan of Finance (POF), which is the debt financing mechanism through which SANDAG plans to complete the EAP projects."¹⁹³

Transportation Improvement Program

SANDAG is required by state and Federal laws to develop and adopt a Regional Transportation Improvement Program (RTIP) no later than every four years. The RTIP is a multiyear program of proposed major highway, arterial, transit, and bikeway projects including the *TransNet* Program of Projects in the San Diego region. The 2010 RTIP covers Fiscal Years 2010-11 through 2014-15. The 2010 RTIP incrementally develops the 2030 Regional Transportation Plan (RTP). The current RTIP was approved by the Board of Directors in September 2010 and anticipates Federal approval in December 2010. The RTIP includes an Air Quality Conformity Analysis and the Air Quality redetermination to the 2030 Revenue Constrained RTP.¹⁹⁴ As the MPO of the San Diego Region, SANDAG is federally required to conform to the air quality requirements determined in the current State Implementation Plan, meaning that "transportation activities will not create new

¹⁹¹ SANDAG. *Proposition A: A San Diego Transportation Improvement Program*. July 1987. Document PDF available on SANDAG Web site:

http://www.sandag.org/uploads/publicationid/publicationid_1237_5667.pdf (accessed January – February 2010).

¹⁹² SANDAG. *TransNet Fact Sheet*. Document PDF available on SANDAG Web site: http://www.sandag.org/uploads/publicationid/publicationid_615_3566.pdf (accessed January – February 2010), 1.

¹⁹³ SANDAG. *Final 2006 Regional Transportation Improvement Program*. July, 2006. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=13&fuseaction=home.classhome> (accessed January – February 2010), 107.

¹⁹⁴ SANDAG, "SANDAG, "Transportation: Comprehensive Transportation Projects." <http://www.sandag.org/index.asp?projectid=321&fuseaction=projects.detail> (accessed January – February 2010).

air quality violations, worsen existing violations, or delay the attainment of the National Ambient Air Quality Standards (NAAQS).”¹⁹⁵

The process for developing the 2010 RTIP included several steps to involve the public, including participation on various SANDAG working groups, tribal governments, public comments at board and committee meetings, and public notices. Continuing the SANDAG outreach efforts, the public participation process includes:

- The Independent Taxpayers Oversight Committee (ITOC) tasked with oversight for projects funded through the *TransNet* program.
- The hosting of a Tribal Forum to solicit participation from the 17 tribal governments and the Reservation Transportation Authority in San Diego County to increase involvement in the RTIP programming process.¹⁹⁶
- Expansion of electronic notifications to citizen-involved working groups as well as the use of other media such as Facebook and Twitter to ensure maximum outreach.

Project Selection Process

The 2010 RTIP has specific evaluation criteria and rankings for prioritizing highway, high occupancy vehicle (HOV) connectors, freeway connectors, and transit projects included in the 2030 RTP. These criteria were part of the 2008 RTIP.

As the implementing document for transportation projects outlined in the 2030 RTP, the 2010 RTIP uses the project selection criteria identified in the RTP. TPEC revised the criteria to specifically address the goals of the 2030 RTP and the vision of the Regional Comprehensive Plan (RCP). The criteria across the four modal categories were simplified and standardized into a 100-point scoring system.¹⁹⁷ TPEC’s updated criteria were divided into three major categories: serves travel needs, develops network integration, and cost-effectiveness. Each category is allocated one third of the points and the specific criteria for each category are shown in Table 4.

¹⁹⁵ SANDAG. *Final 2008 Regional Transportation Improvement Program*. July, 2008. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=13&fuseaction=home.classhome> (accessed January – February 2010). 174.

¹⁹⁶ SANDAG. *Final 2006 Regional Transportation Improvement Program*. July, 2006. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=13&fuseaction=home.classhome> (accessed January – February 2010). 6.

¹⁹⁷ Ibid.

Table 4. Major Categories of 2030 RTP

Major Criteria Category	Individual Criteria Focus
Serves travel needs	projects that serve peak-period trips, goods movement, congested corridors
Develops network integration	projects that provide land use/transportation connectivity, serve smart growth areas, environmental impact mitigation
Cost-effectiveness	costs of project in relation to number of people moved or person hours saved

Source: SANDAG. *Final 2008 Regional Transportation Improvement Program*. July, 2008. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=13&fuseaction=home.classhome> (accessed January – February 2010), 230.

Evaluation of the Four Modal Categories

SANDAG’s 2008 RTIP evaluates transportation projects in the four modal categories: highway corridors, high occupancy vehicle connectors (HOVs), freeway connectors, and transit services. This evaluation focuses on the criteria related to the integration of land use and transportation.

HIGHWAY CORRIDORS

The highway corridor evaluation is based on criteria that “quantify project traffic usage, travel time savings, cost, critical linkages, safety, goods movement, employment, smart growth, carpool lane integration, transit integration, habitat preservation, and residential impacts.”¹⁹⁸ Highway projects are prioritized in order to emphasize the development of networks that integrate well with transit and arterial projects. Up to five points are awarded to projects that serve metropolitan centers, urban centers, or special use centers. Criteria that focus on the 2030 regional transportation goals of livability and accessibility comprise 15% of the total score; criteria related to developing network integration comprise 25% of the total; and criteria related to serving travel needs comprise 45% of weighting overall.¹⁹⁹

HIGH OCCUPANCY VEHICLE CONNECTORS

The high occupancy vehicle (HOV) connectors criteria are based on five individual criteria that evaluate the traffic levels of the connector, transit integration, habitat and residential impacts, and cost-effectiveness of each project.²⁰⁰ According to the

¹⁹⁸ SANDAG. *Final 2008 Regional Transportation Improvement Program*. July, 2008. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=13&fuseaction=home.classhome> (accessed January – February 2010). 231.

¹⁹⁹ SANDAG. *Final 2008 Regional Transportation Improvement Program*. July, 2008. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=13&fuseaction=home.classhome> (accessed January – February 2010). 236.

²⁰⁰ SANDAG. *Final 2008 Regional Transportation Improvement Program*. July, 2008. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=13&fuseaction=home.classhome> (accessed January – February 2010), 240.

2008 RTIP, these “HOV connectors will facilitate direct HOV to HOV access and allow for continuous movement on the HOV network from freeway to freeway.”²⁰¹

Among the five criteria used to evaluate HOV connectors, a maximum score of 20 points (out of 100) can be awarded to a project that serves regional or corridor transit routes.

FREEWAY CONNECTORS

The evaluation of freeway-to-freeway connectors uses seven criteria: accident rates, goods movement, mobility, congestion relief, transit integration, habitat and residential impact mitigation, and cost-effectiveness.²⁰² Serving travel needs and cost-effectiveness through improving safety and minimizing congestion is given 70% of the criteria weighting. Fifteen percent of the criteria are allocated to projects that serve regional or corridor transit routes.²⁰³

TRANSIT SERVICES

The transit services evaluation criteria are made up of eight criteria that meet the goals of the three major criteria categories. Thirty-five percent of the total score serves travel needs, 35% develops network integration, and 30% addresses cost-effectiveness.²⁰⁴

SUMMARY

Table 5 summarizes the percentage of points allotted for smart growth criteria across the four modal categories of the RTIP. Although smart growth is an important component, the RTIP gives more weight to projects that enhance mobility through congestion relief, meet high demands at peak periods, and are cost effective. In summary, the 2008 RTIP includes a range of criteria to support the integration of land use and transportation.

²⁰¹ Ibid.

²⁰² SANDAG. *Final 2008 Regional Transportation Improvement Program*. July, 2008. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=13&fuseaction=home.classhome> (accessed January – February 2010), 244.

²⁰³ SANDAG. *Final 2008 Regional Transportation Improvement Program*. July, 2008. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=13&fuseaction=home.classhome> (accessed January – February 2010), 248.

²⁰⁴ Ibid., 249.

Table 5: Summary of Smart Growth Related Criteria

% of Point Allocation	Modal Category	Criteria
25	Highway Corridors	Serves existing/planned and/or potential RCP Smart Growth Areas, Facilitates carpool and transit mobility, minimizes habitat and residential impacts
30	High Occupancy Vehicle Connectors	Serves regional and/or corridor transit routes, Minimizes habitat and residential impacts
5	Freeway Connectors	Serves regional and/or corridor transit routes, Minimizes habitat and residential impacts
35	Transit Services	Links high-frequency transit services, Serves RCP Smart Growth Areas

Source: SANDAG. *Final 2008 Regional Transportation Improvement Program*. July, 2008. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=13&fuseaction=home.classhome> (accessed January – February 2010), 236-253.

STIP Funding Process

The State Transportation Improvement Program (STIP) is the State’s spending plan for state and Federal funding. It is comprised of the Regional Improvement Program (RIP) and the Interregional Improvement Program (IIP). The STIP Fund Estimate, which includes the RIP “County Share” and IIP fund allocations, is developed by the California Transportation Commission (CTC). The fund estimate covers a five-year period and is updated every two years. By state requirement, projects funded by STIP are listed in the RTIP. The STIP consists of funds from the State Highway Account (SHA), which includes a mix of state and Federal transportation funds.²⁰⁵

The following is a breakdown of the state transportation funding process as described by the 2006 Regional Transportation Improvement Program:

²⁰⁵SANDAG. *Final 2006 Regional Transportation Improvement Program*. July, 2006. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=13&fuseaction=home.classhome> (accessed January – February 2010), 13.

- Approximately 70% of the State Highway Account is channeled to Non-STIP related projects. This includes the Caltrans State Highway Operation and Protection Program (SHOPP), which funds the preservation of bridges, roadways, and roadsides.
- The remaining funds are then divided between regional and statewide needs.
 - Nearly 75% of the STIP funds flow to the regions by formula, by which the regional planning agencies are charged with developing an expenditure plan for the funds. The overall 40% of the STIP funds must be allocated to the northern half of the state and 60 percent to the southern half. Project types include improvements to state highways, local roads, public transit, intercity rail, pedestrian and bicycle facilities, grade separations, transportation system management, transportation demand management, intermodal facilities, and safety.²⁰⁶
 - The remaining 25% of the funds flows through the IIP, which is a statewide competitive program. Sixty percent of these funds are directed to projects that improve interregional transportation. Forty percent of these funds are at the discretion of the CTC, subject to a north/south split. Eligible project types include intercity passenger rail, mass transit guideways, grade separations, and state highways.²⁰⁷

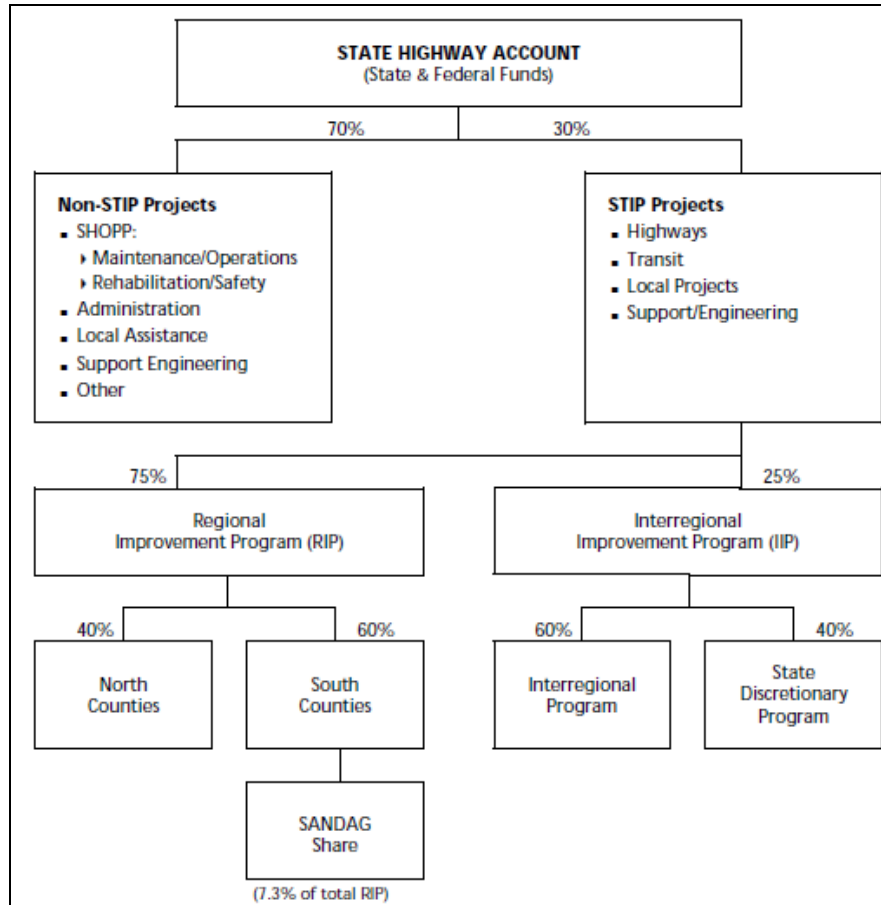
SANDAG determines which projects receive the RIP funding from the STIP. The projects are constrained to the funding amount specified in the STIP Fund Estimate and must meet approval from the CTC. Caltrans determines which projects receive funding from the IIP funding through STIP.²⁰⁸

²⁰⁶ Ibid., 14.

²⁰⁷ Ibid., 13.

²⁰⁸ SANDAG. *Final 2006 Regional Transportation Improvement Program*. July, 2006. Document PDF available on SANDAG Web site: <http://www.sandag.org/index.asp?classid=13&fuseaction=home.classhome> (accessed January – February 2010), 13.

Figure 8. The State Transportation Funding Allocation Process



Source: SANDAG. *Final 2006 Regional Transportation Improvement Program*. July, 2006. Document PDF available on SANDAG Web site:

<http://www.sandag.org/index.asp?classid=13&fuseaction=home.classhome> (accessed January – February 2010).

Conclusion

As SANDAG’s authority increases in the San Diego region, it must address several issues and trends. The agency projects that the region’s population will age and shift in its ethnic composition. Housing, which has been overwhelmingly single-family for decades, is expected to shift to multifamily in response to traffic congestion and the dearth of developable land. Transportation is dominated by car travel. SANDAG is developing long-range plans with the expectation that the region’s travel growth is expected to continue to outpace population growth and employment in the next 20 years.

SANDAG is currently developing its new long-range 2050 Regional Transportation Plan, and aims to introduce new projects to address transportation issues in the region. A plan to encourage more participation in the development of the Regional Transportation Plan and Regional Comprehensive Plan has recently been completed. Also, the Sustainable Communities Strategy is being developed to

comply with a recent California law that implements regional greenhouse gas emissions targets.

The agency's development of the Regional Comprehensive Plan is SANDAG's attempt to address land use and transportation integration. The plan's framework calls for collaboration with local governments who have authority over land use and attempts to achieve this integration with incentive programs. The plan has developed a "centers" strategy to promote smart growth in specific areas of the region. SANDAG has annual funding available for local jurisdictions that have projects that meet smart growth criteria.

The Regional Transportation Plan (RTP), the cornerstone of the agency's function as a Metropolitan Planning Organization, maps out specific responses to the region's concerns. This plan is able to map out projects over the next 20 years with confidence that they will be funded. Facing diminishing Federal investment for transportation funding, the San Diego region has secured revenue by leveraging a local sales tax and retaining the region's portion of the state gas tax.

The Regional Transportation Improvement Program (RTIP), the agency's mechanism for selecting projects listed in the RTP, has criteria that are moderately weighted towards the land use and transportation goals of the region. This strategy was brought to the forefront with the Regional Comprehensive Plan and is gaining momentum as SANDAG develops its 2050 Regional Transportation Plan.

DETAILED CASE STUDY: DRCOG

The Denver Regional Council of Governments (DRCOG) is a non-profit regional council and the metropolitan planning organization for the greater Denver region. This summary describes DRCOG's history, governance structure, and transportation and land use responsibilities.

MPO History and Context

The Denver Regional Council of Governments (DRCOG) was formed in 1955. A group of 39 elected officials, identifying themselves as the Inter-County Regional Planning Commission (ICRPC), met at the Denver Athletic Club, and in 1968 the group adopted the present day name of Denver Regional Council of Governments (DRCOG). DRCOG was one of the nation's first regional planning organizations.

One of DRCOG's first accomplishments was to successfully route Interstate-70 through the Denver region. In 1963, DRCOG signed of a Memorandum of Agreement (MOA) with the Colorado Department of Highways (CDOH) to better manage transportation in the Denver metropolitan region and to meet the new Federal criteria.²⁰⁹ With DRCOG's support, a Regional Transportation District (RTD) was formed in 1969, tasked with managing the region's transit system. DRCOG signed its first agreement with CDOH and RTD in 1971 to manage transportation throughout the region.

MPO Region and Structure

DRCOG's planning area (Figure 1) encompasses 2.7 million people in seven counties. Another 1.5 million people are expected to live in the region by 2035. DRCOG represents a population nearly five times that of the City of Denver.

²⁰⁹ *Shaping the Region with One Voice*, DRCOG, 2005, <http://www.drcog.org/documents/50th%20DRCOG%20history%20.pdf>

Figure 1. DRCOG Region

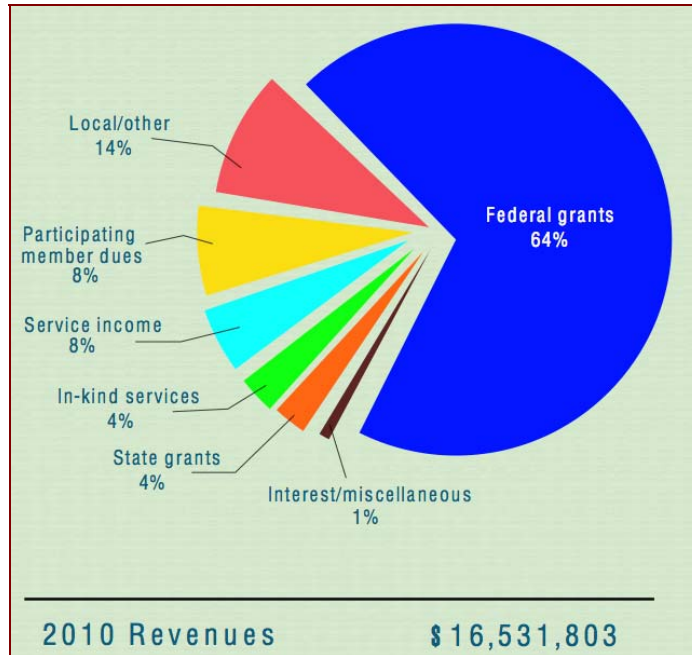


Source: InfoGraphics Lab, Department of Geography, University of Oregon

MPO Funding

DRCOG is a 501(c)(3) nonprofit corporation. The majority of DRCOG’s funding (64%) is sourced from the Federal government (Figure 2).

Figure 2. DRCOG Revenues by Source



Source: Board Resource Manual Section 1, DRCOG, 2009, p. 37, <http://www.drcog.org/documents/Mission%20and%20Vision,%20Procedures%20%20Operations.pdf>

Governance Structure

Steering DRCOG is its Board of Directors, which consists of 57 participating local governments. The Governor also appoints three nonvoting representatives to the Board of Directors. Two types of committees exist within DRCOG: standing and ad hoc. The political authority and criteria for membership of standing committees “come from the DRCOG Articles of Association, memoranda of agreement, intergovernmental agreements, Federal or state statutes, or Board authorization.” Ad hoc committees, on the other hand, are created to review specific issues within a specified timeframe.

Figure 3 shows the committee structure within DRCOG as well as all of the current standing committees within the organization. Two significant standing committees are the Regional Transportation Committee and the Metro Vision Issues Committee. Underneath the Regional Transportation Committee is another standing committee of particular interest: the Transportation Advisory Committee. These two committees address many of the transportation planning issues in the Denver region. The Metro Vision Issues Committee is also of particular interest, since the regional plan has wide-ranging implications on the coordination of land use and transportation planning in the Denver region.

Figure 3. DRCOG Committee Structure



Source: Board Resource Manual Section 1, p. 51

Transportation

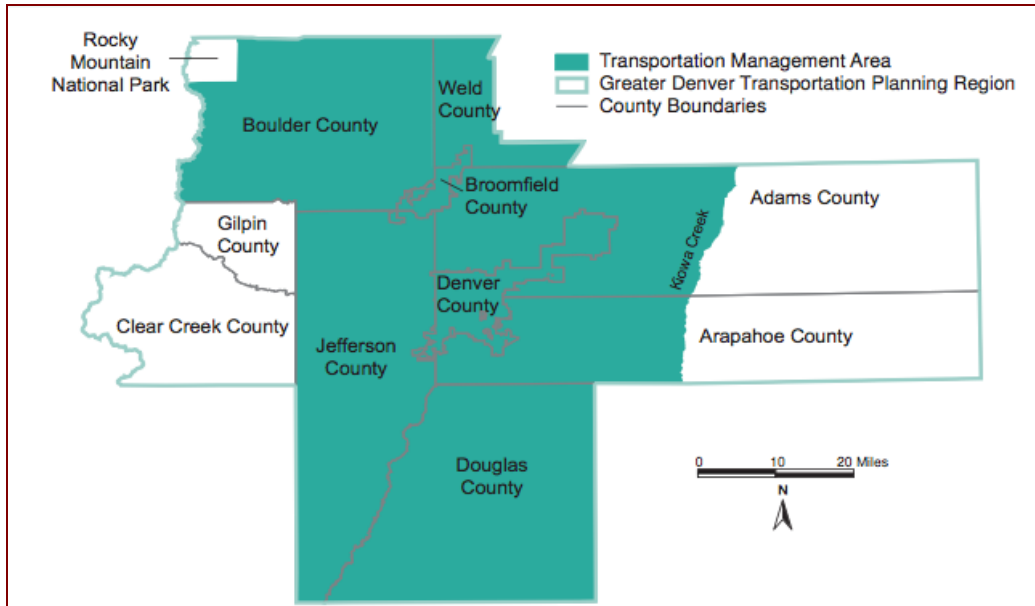
While DRCOG’s existence is rooted in regional land use planning, as an MPO one of DRCOG’s charges is to “plan, program, and coordinate Federal transportation funds.” DRCOG’s main tool for implementing its transportation goals is the 2035 Metro Vision Regional Transportation Plan (RTP), which is directly connected to the greater 2035 Metro Vision plan. Additional transportation-related planning includes bicycle and pedestrian planning. Current transportation programs include the Congestion Mitigation Program (CMP), Intelligent Transportation Systems (ITS), Transportation Improvement Program (TIP), Travel Demand Management (TDM), RideArrangers (a ground-level TDM program), and a Traffic Signal Systems Program.²¹⁰ Transportation planning within the Transportation Management Area (TMA) in the Denver region is guided by the Federal metropolitan planning rules.

Figure 4 shows the TMA that is covered by DRCOG. Hence, DRCOG has separate COG (planning area) and designated MPO boundaries. The most recent expansion of DRCOG’s MPO boundary was the incorporation of the southwest portion of Weld County in 2008.²¹¹ Figure 5 depicts DRCOG’s transportation planning committee structure.

²¹⁰ *Transportation*, DRCOG, 2010, <http://www.drcog.org/index.cfm?page=Transportation>

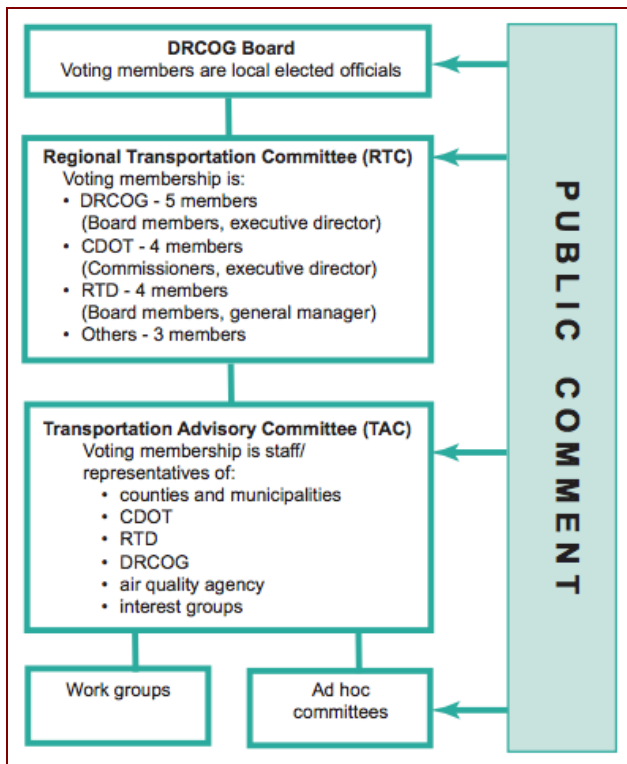
²¹¹ *Incorporation of Southwest Weld into Metro Vision 2035*, DRCOG, 2009, p. 1, http://www.drcog.org/documents/MV2035_SWWeld_Report_FinalAdopted_08.19.09.pdf

Figure 4. DRCOG Transportation Management Area



Source: Incorporation of Southwest Weld into Metro Vision 2035, DRCOG, 2009, p. 1, http://www.drcog.org/documents/MV2035_SWWeld_Report_FinalAdopted_08.19.09.pdf

Figure 5. DRCOG Transportation Planning Committee Structure



Source: Metro Vision 2035, DRCOG, 2007, p. 11, <http://www.drcog.org/documents/MetroVision2035FinalPlanIntro-Ch%202.pdf>

Land Use

DRCOG has authority only over transportation funding and has no real authority over land use other than its voluntary Urban Growth Boundary/Area (UGB/A) and the voluntary Mile High Compact group. The Metro Vision plan also lays out strategies to increase infill and density through urban centers, freestanding communities, transit corridors, and rural town centers. However, none of the specifications in the Metro Vision plans, UGB/A, and Mile High Compact polices are mandatory.

Metro Vision's goals and policies "aim to *influence* the direction, shape, size and other characteristics of the region's built environment."²¹² Land use planning occurs almost entirely at the local level in the Denver region.

Regional Land Use Planning

The Metro Vision is "the Denver region's plan for future growth, development, transportation, environmental quality and water quality management." The DRCOG Board of Directors adopted the current Metro Vision plan, Metro Vision 2035, in 2007.

Specific Policies for Land Use and Transportation Integration

Metro Vision 2035 outlines the formation of urban centers, rural town centers, and freestanding communities for the purpose of decreasing urban sprawl and increasing infill. Various transportation corridors are also identified. Through its transportation programs DRCOG exercises its greater authority on land use since TIPs must flow through MPOs in federally defined Transportation Management Areas (TMAs).

DRCOG also works collaboratively with local governments in developing Transit Oriented Development (TOD). The development of TODs goes hand-in-hand with the implementation of FasTracks throughout the region, which is a taxpayer-funded RTD program to rapidly increase the amount of transit services (light and commuter rail and bus rapid transit, or BRT) in the region. In addition, DRCOG serves as a source of information for local governments on TODs.²¹³

Local Government Plan Requirements

Colorado does not have any state-mandated municipal government planning requirements. The Mile High Compact is a voluntary agreement among regional cities and counties to manage growth by adhering to the Metro Vision. According to DRCOG, as of December 2010, 46 communities representing around 90% of the region's population have signed the agreement. The UGB/A, the Urban Growth Boundary/Areas, are also defined within the Metro Vision regional plan. As with many Urban Growth Areas, the UGB/A defines where future urban development should take place.

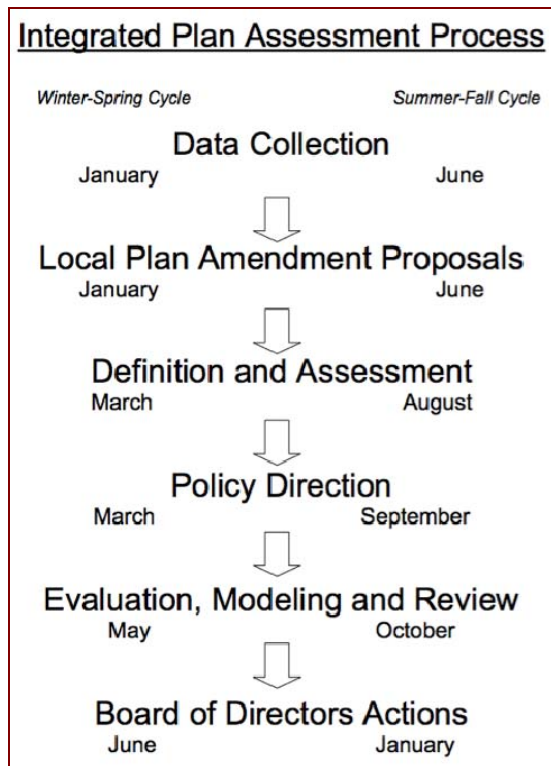
²¹² *Metro Vision 2035*, DRCOG, 2007, p. 11, <http://www.drcog.org/documents/MetroVision2035FinalPlanIntro-Ch%202.pdf>

²¹³ See *With One Voice*, p. 6.

Process for Regional Plan Amendments and Updates

Figure 6 outlines the Metro Vision plan assessment process, which follows a predefined cycle. The assessment process starts with data collection. Next, local plan amendment proposals are offered. A definition and assessment then leads to policy direction. Finally, evaluation, modeling, and review are done before the DRCOG Board of Directors makes final decisions. DRCOG is currently in the process of updating Metro Vision 2035, with the update scheduled for adoption in February of 2011.

Figure 6. Metro Vision Plan Assessment Process



Source: *Metro Vision Assessment Process*, DRCOG, 2007, p. 2,
http://www.drcog.org/documents/MVPA_updated.pdf

Regional Land Use Tools

Metro Vision 2035 specifies a number of land use tools and policies. These policies pertain to the following:²¹⁴

Growth Boundary/Area – The UGB/A shows where urban development will take place in the region over the next 25 years.

Growth Allocation – Growth forecasts are allocated to each community by the DRCOG Board based on historical growth. Each community determines the location of specific allocations.

²¹⁴ See Metro Vision 2035, pp. 12-14.

Flexibility – Communities have the flexibility to postpone committing their allocated urban growth area until specific development plans are in place. These communities are referred to as urban growth area (UGA) communities.

Compact Development – Metro Vision supports small lots sizes and multifamily housing to achieve a more compact development pattern, while still supporting traditional single-family detached homes.

Infill and Redevelopment – Metro Vision encourages local governments to use overlooked vacant parcels and underdeveloped parcels for infill and redevelopment.

Outlying Areas – growth will be strategically designated to conserve appropriate areas for urban development beyond 2035.

Infrastructure – Metro Vision seeks to direct future urban growth within the urban growth boundary/area into areas where infrastructure already exists. Regional transportation systems should be provided in a way that will most effectively encourage the desired future development.

Intergovernmental Coordination – Metro Vision encourages local governments to establish intergovernmental agreements to address planning and service delivery issues in areas of mutual interest.

Annexation – Metro Vision encourages the annexation of unincorporated areas within the UGB/A, consistent with local comprehensive plans and annexation procedures.

Regional Facilities – Facilities such as airports, solid waste disposal sites and major cultural facilities will be located to maximize their regional benefit and minimize their impact on existing and future development.

All of these policies and tools focus on managing growth at the regional level by using resources more efficiently, increasing urban density and promoting collaboration between local governments.

Metro Vision 2035 also identifies a number of land use focal points:²¹⁵

Large-Lot Development – establishes policies to address low-density, large-lot development activity occurring outside the UGB/A.

Urban Centers – identifies guidelines for about 85 high-density, mixed-use, pedestrian- and transit-oriented activity nodes, including:

- Mixed-Use Centers
- Activity Centers
- Regional Corridors

²¹⁵ Ibid, p. 6.

Freestanding Communities – focuses on four satellite communities beyond the larger urban area that have the potential to become self-sufficient and thereby reduce travel within the region.

Rural Town Centers – examines the role of smaller, outlying communities in the region’s rural areas.

Senior-Friendly Development – provides guidelines for meeting the housing, transportation, and service needs of the region’s older population.

These focal points are designed to better integrate land use and transportation to serve a variety of environmental and quality of life needs.

Regional Transportation Planning

The Unified Planning Work Program (UPWP) outlines “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.” CDOT also provides input on the UPWP in order to seamlessly integrate efforts at the regional level when time and funding exist. The typical process for developing or updating the Metro Vision Regional Transportation Plan (RTP) begins with three months of establishing the planning basis. Next, quantitative background research is conducted over a period of six months. Once that is complete, DRCOG works to demonstrate air quality standard conformity of the plan while preparing the draft RTP over another six months. The final six months are spent adopting the RTP. The public is involved in the entire 18 month long process.

Approval Process for Plan

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.” The FHWA/FTA then conducts its own review of the process every four years. DRCOG puts forth a draft certification to be reviewed by the DRCOG Board of Directors through the transportation committee process. While the draft certification is at the Board of Directors, public comment is received. The FHWA and FTA then review responses and issue one of the following actions:²¹⁶

- 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
- Withhold certification

Transportation Improvement Program

The TIP is an important tool for DRCOG in facilitating transportation and land use coordination. As the region’s MPO, DRCOG is required by the Federal government to identify and prioritize TIP projects for the region. DRCOG makes its selections

²¹⁶ See *Transportation Planning in the Denver Region*, p. 36.

based upon how well the proposed projects meet the goal's outlines within the Metro Vision 2035 regional plan and RTP.

DRCOG, RTD' and CDOT all have their own selection criteria for various projects for TIP funding. The three work together to synergize their project proposals to maximize the net social benefit. However, DRCOG maintains the authority of final selection of projects to receive TIP funding, as mandated by the Federal government.

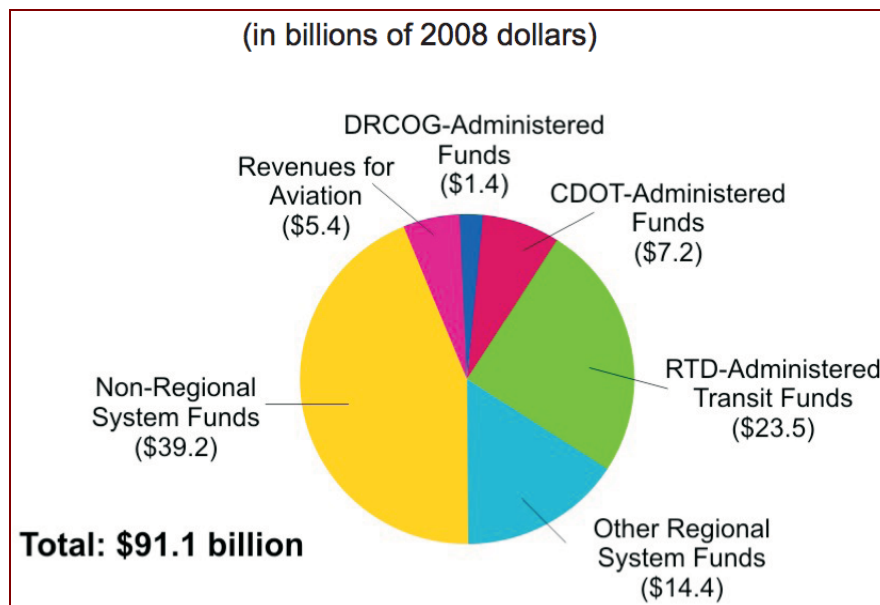
Regional Transportation Improvement Funding

Transportation improvement funding in the Denver region comes from a variety of sources and is channeled through a variety of organizations. TIP funding, on the other hand, is sourced through a few key Federal government channels, based on specific programs and legislation.

OVERVIEW OF FUNDING SOURCES AND ALLOCATION

As illustrated in Figure 7, DRCOG administers only a small part of the transportation funds available in the Denver region, at just over one percent of the total \$91 billion in funds shown in the long-range plan.

Figure 7. Denver Region Transportation Revenues, 2008-2035



Source: 2035 Metro Vision RTP, DRCOG, 2009, p.102,

http://www.drcog.org/documents/2035%20MVRTP_revisedMarch09.pdf

DRCOG's portion totals \$1.4 billion for the 28-year period from 2008-2035 (roughly \$50 million per year in current U.S. dollars). RTD transit funds and nonregional system funds make up the bulk of transportation funding in the region, with a combined total of roughly \$63 billion dollars. DRCOG funds projects through three discretionary Federal funding sources: the Congestion Mitigation and Air Quality

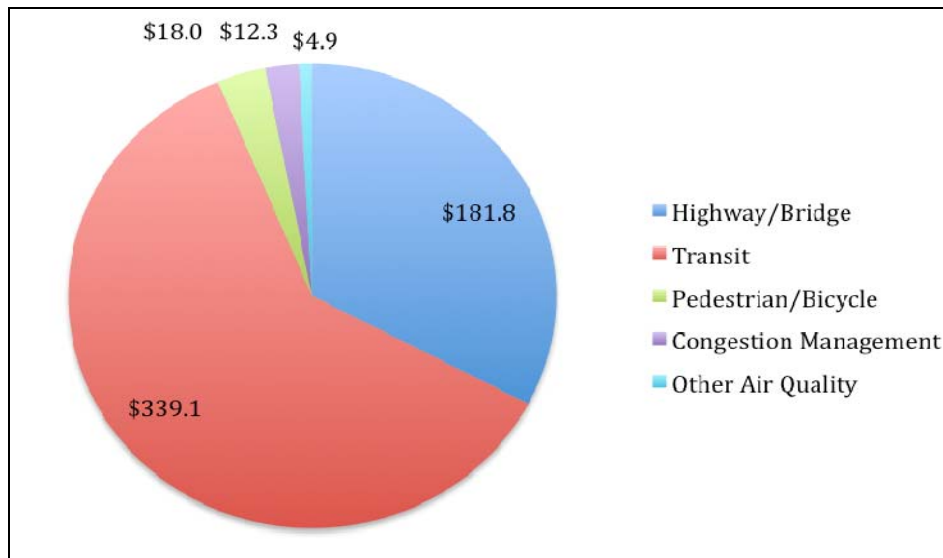
(CMAQ) Improvement Program,²¹⁷ the Surface Transportation Program (STP)–Metro, and the STP–Enhancement.²¹⁸ All three of these sources were either authorized or reauthorized under SAFETEA-LU. The combined total of these sources make up DRCOG’s \$1.4 billion in total revenues that it allocates to the Denver region through the TIP. STP-Metro and CMAQ were the largest administered revenue sources, respectively, and account for 55% of total administered revenues. The next largest administered revenue source stemmed from local matching funds for STP-Metro (29%).

FUNDS ALLOCATED FOR IMPROVEMENT PURPOSES

DRCOG’s TIP nominally covers a six-year period, but typically its projects are specifically identified only for the first four years. Each TIP includes projects that are rolled forward in addition to new projects.²¹⁹

Figure 8 shows the FY2009 federally obligated projects for the Denver region. The largest project during this period was the construction of the West Corridor light rail line, which equaled over 20% of the total funds for the year at \$114 million. Seventy-two percent of the total annual funds went towards only 12 of the 170 projects.

Figure 8. Denver Region Federally Obligated Project Summary, 2009



Source: Annual Listing of Federally Obligated Projects: FY2009, DRCOG, 2009, p.2
<http://www.drcog.org/documents/ALOP%20Report%20FY2009.pdf>

Figure 9 shows a breakdown of the fiscally constrained expenditures by system category from the 2035 Metro Vision RTP for years 2008-2035. Capital Improvements – Capacity Expansion received the largest portion of funds, at 45% of the total. Preservation and Maintenance received the second largest portion of funds at 24%, followed by Base Transit Service at 16%.

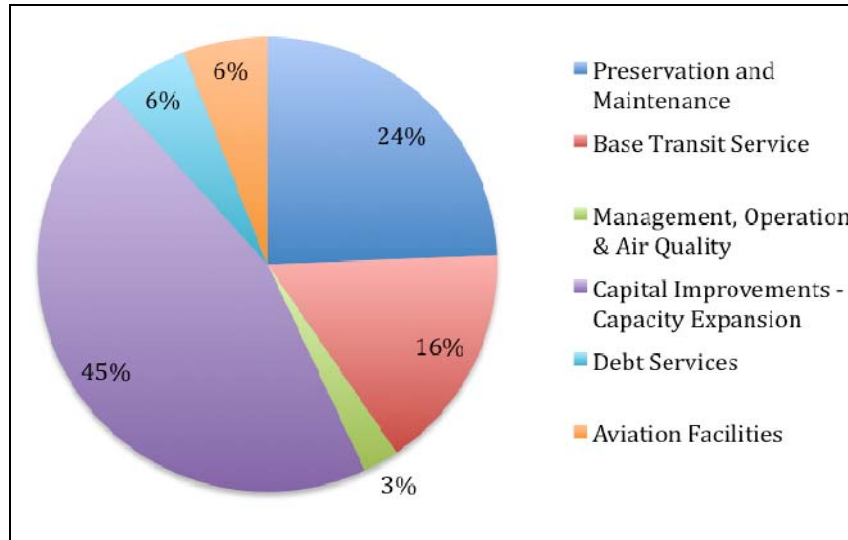
²¹⁷ Congestion Mitigation and Air Quality Improvement Program, USDOT FHA, 2009, <http://www.fhwa.dot.gov/environment/cmaqpgs/>

²¹⁸ Overview: Flexible Funding for Highway and Transit, USDOT FTA, 2010, http://www.fta.dot.gov/funding/grants/grants_financing_3786.html

²¹⁹ Ibid.

The FasTracks program, which was originally scheduled to be completed by 2016, will receive a total of \$6 billion out to 2035. While RTD is currently working on an updated plan for FasTracks, the \$6 billion would still complete FasTracks in the 2020 time horizon. The system, however, requires additional funds beyond the \$6 billion. If additional funds are not approved, the timeline for completion would be beyond 2040. New arterial, collector, and local roads will receive a substantial \$48 billion over the same period of time.

Figure 9. Metro Vision Fiscally Constrained Expenditures, 2008-2035



Source: DRCOG Metro Vision RTP, p. 106.

TIP Process and Funding

This section discusses the process of selecting projects for funding through DRCOG. From start to finish, the TIP process lasts for 15 months. The first three months are spent developing or adopting policy for TIP preparation, which takes six months to complete. At month three, four different processes begin: (1) RTD project selection, (2) CDOT project selection, (3) financial plan preparation, and (4) public involvement, all of which last for varying durations. Between months six and nine, the applications for TIP projects are submitted to DRCOG by potential sponsors. Between months nine and twelve, three new procedures occur: (1) DRCOG application evaluation with its Transportation Advisory Committee and Metro Vision Issues Committee, (2) preparation of the draft TIP, that includes the projects proposed by RTD and CDOT, and (3) demonstration of the plan’s air quality standard conformity. Finally, during months twelve through fifteen, the TIP adoption process takes place, which includes formal public hearing, and the TIP is finalized.²²⁰

DRCOG’s TIP covers a six-year window of time, slightly longer than the federally mandated four years. The first four years of the TIP contain committed projects. The following two years are limited to carryover projects from the previous four years. DRCOG states that “typically, the first years of funding will include: (1) the

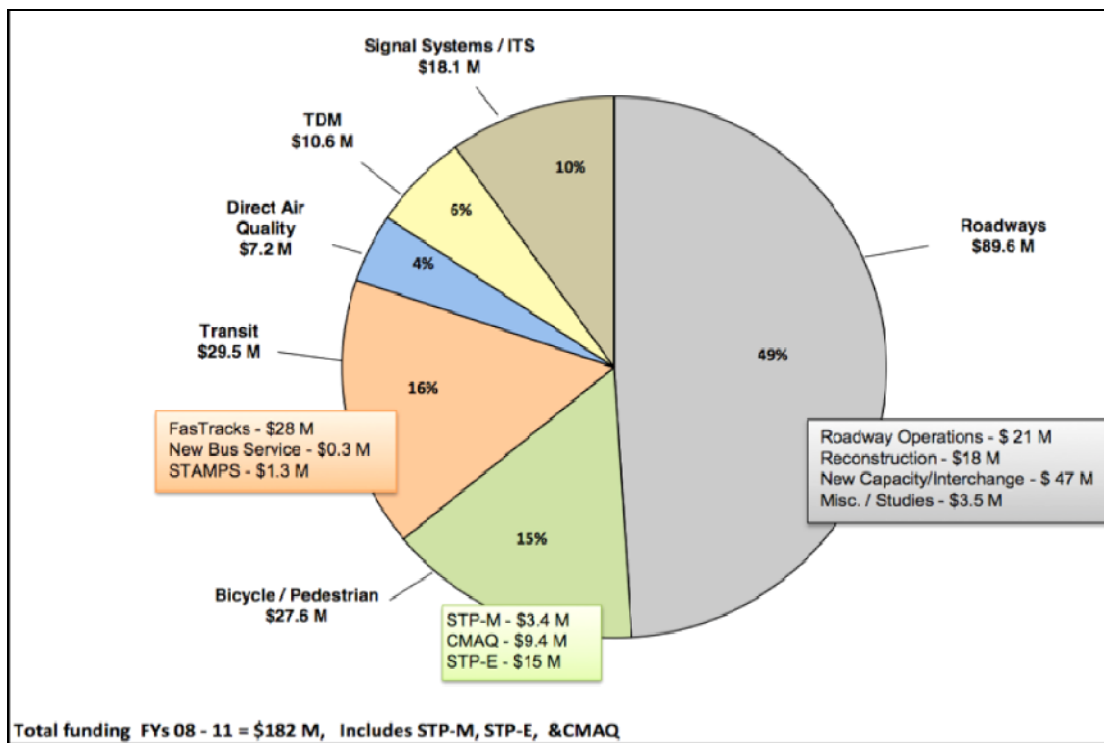
²²⁰ See *Transportation Planning in the Denver Region*, p. 30.

environmental process, (2) right-of-way (ROW) acquisition, and (3) design (including approval by CDOT, where required). The final year(s) typically fund construction.”²²¹

In FY2009, the TIP funds were obligated based upon a number of specific categories (see figure 10). Only the CMAQ, STP-Enhancement, STP-Metro, and TCSP funding types allow funding for improvements in land use and transportation coordination. The vast majority of funding is directed towards transit and highway/bridge projects.

Figure 10 shows that funding to roadways (\$90 million) from FY2008 through FY2011 accounted for 49% of the total allocation in the TIP. The next largest allocation went to transit, which was almost entirely dedicated to the FasTracks program to rapidly expand transit service in the region. The third largest allocation went toward bicycle and pedestrian transportation projects, with most funds coming from the STP-Enhancement. The remaining three categories, signal systems, TDM, and direct air quality, account for 20% of the total TIP funding allocation.

Figure 10. TIP Allocation by Project Category, 2008-2013



Source: 2035 Metro Vision RTP, p.106.

TIP Criteria

Each of the three major agencies utilizes its own process to select projects with the funds it controls within the TIP area. The four means by which the three agencies

²²¹ Ibid, p. 2.

increase synergies in project selection include: (1) utilizing “strategic corridors” as the unifying theme, (2) participating in each other’s meetings on project selection, (3) gaining concurrence of DRCOG project selections with RTD and CDOT, and (4) holding interagency reviews on draft TIP project lists.²²²

CDOT selects projects using a variety of revenue sources. These projects “include primary roadway and bridge construction, and operation and maintenance activities.” The projects RTD selects are for “regional transit construction and operations and maintenance.”

DRCOG selects projects to receive STP-Metro, STP-Enhancement, and CMAQ funding. The different types of entities eligible to apply for TIP funding in the Denver region are: municipalities, counties, regional agencies (such as RTD, the Regional Air Quality Council and DRCOG), and State agencies (such as CDOT, the Colorado Department of Public Health and the Environment, and others). Additionally, the TIP must carry out the State Implementation Plan (SIP) Transportation Control Measure (TCMs) to meet air quality requirements as per Metro Vision RTP findings.²²³

DRCOG-selected projects that involve state highways require CDOT concurrence; projects that involve transit require RTD concurrence. The number of new funding requests that can be put forth by municipalities and counties depends on the population or employment (P/E) size of the locality.

The first phase of project selection entails selecting new projects by way of ranked lists on point scales, to a maximum of 75% of the total not-yet-programmed (NYP) funds. DRCOG creates targets for the levels of funding, based on the needs of the *2035 Metro Vision RTP*. However, the projects must score a minimum of 50 points on the scale to be selected, even given the funding targets. These targets are outlined in Figure 11.

²²² *Policy on Transportation Improvement Program Preparation*, DRCOG, 2006, pp. 1-6.
<http://www.drcog.org/documents/20072012TIPPolicyAmendedFinal0106.pdf>

²²³ *Ibid*, pp. 6-7.

Figure 11. DRCOG TIP Phase One Project Selection Funding Targets

Funding targets for first phase selection by funding category (75% of not-yet-programmed funding)	
STP-Metro	
Roadway Capacity Projects , includes roadway widening, new roadways, new interchanges, interchange reconstruction, Bus/HOV/BRT lane (see text)	60%
Roadway Operational Improvements	20%
Roadway Reconstruction	20%
Studies , includes capacity project and operational improvement studies	0%
CMAQ	
Air Quality Improvement Projects	70%
Studies for station area planning activities	20%
New bus service	10%
Non-FasTracks Transit Passenger Facilities	0%
STP-Enhancement	
Bicycle/Pedestrian Projects	100%
Other Enhancement Projects	0%

Source: Policy on Transportation Improvement Program Preparation, DRCOG, 2006

The second phase of selection is more qualitative rather than quantitative in nature. This phase of selection covers the remaining 25% of NYP funds and is based upon the following criteria:²²⁴

- Financial equity of project awards at the county level (computed by DRCOG staff with population, VMT and auto-related sales tax contribution levels identified as surrogates for revenue)
- Potential cost savings from merging projects
- Projects in strategic corridors
- Project readiness for construction
- Projects in very small communities

In particular, the one element here that pertains to land use and transportation coordination is the award of projects based upon the criteria of strategic corridors, which are shown in Figure 12. In order to make it to the second phase of selection, the project (except for those in very small communities) must score at least 50 points in the first phase criteria.²²⁵

DRCOG's *Policy on TIP Preparation* document identifies eight Metro Vision implementation factors by which sponsors can be awarded one point. These eight factors are as follows:²²⁶

- Preserves open space
- Demonstrates progress in developing an urban center or freestanding community town center
- Increases population density
- Establishes an urban reserve planning area
- Adopts senior-friendly development policies
- Establishes a stormwater utility or equivalent level of commitment

²²⁴ Ibid, p. 19.

²²⁵ Ibid.

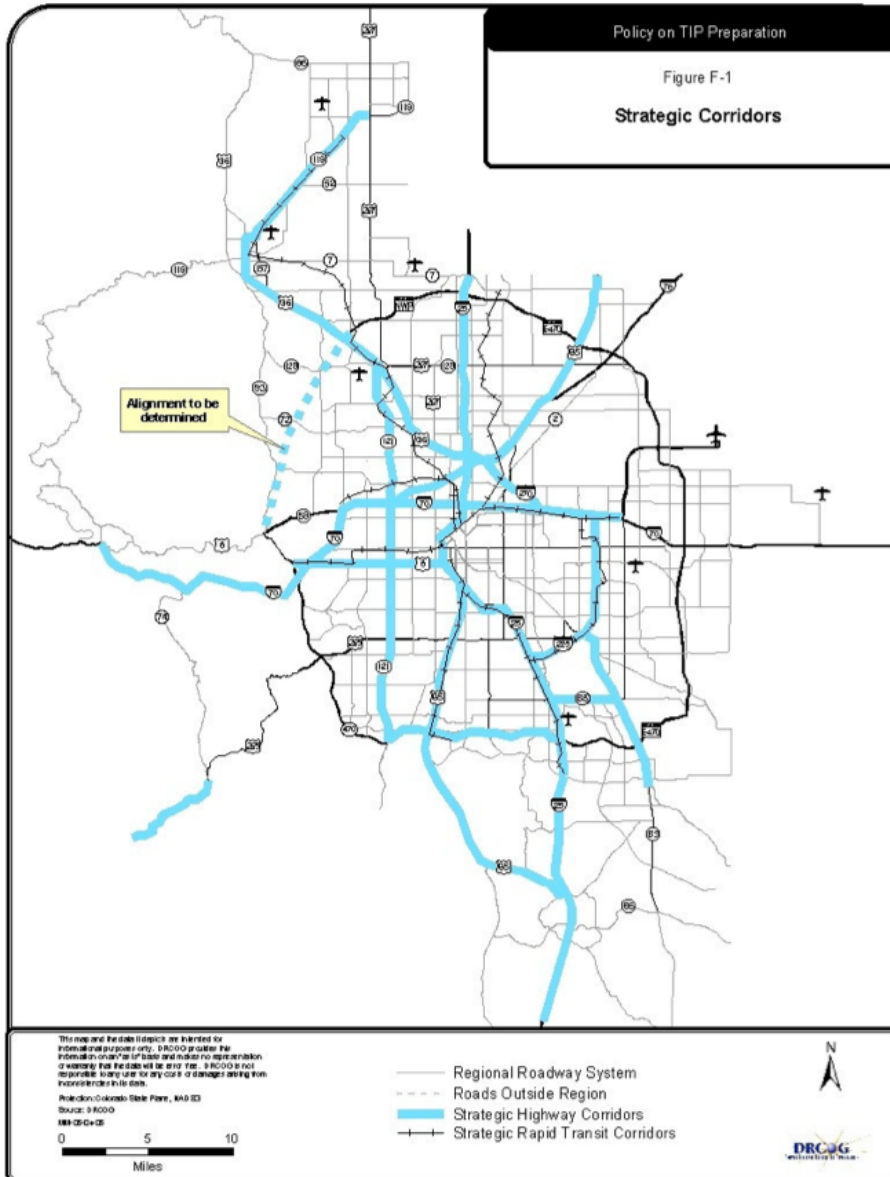
²²⁶ Ibid, p. 85.

- Implements alternative mode plans
- Signs the Mile High Compact

In addition, two factors worth up to four points each at the sponsor level include:

- PM10 conformity commitment for communities that were asked to make a conformity commitment (an air quality standard related to coarse particulate matter)
- Current practices for communities that were not asked to make a PM10 conformity commitment
- A maximum of 9 project-level Metro Vision Implementation points are available: a maximum of 6 for location in specific types of urban centers, and a maximum of 3 related to location within the urban growth boundary/area.

Figure 12. DRCOG Strategic Corridors



Source: Policy on Transportation Improvement Program Preparation, DRCOG, 2006.

RESEARCH STUDY DOCUMENTS

Main Report:

Margerum, Richard D., Susan Brody, Robert Parker, and Gail McEwen. 2011. Regional Transportation and Land Use Decision Making in Metropolitan Regions: Findings from Four Case Studies.

Appendix 1

Margerum, Richard D., Susan Brody, Robert Parker, and Gail McEwen. 2011. Regional Transportation and Land Use Decision Making. Appendix 1: Detailed Research Findings.

Appendix 2

Margerum, Richard D., Susan Brody, Robert Parker, and Gail McEwen. 2011. Regional Transportation and Land Use Decision Making. Appendix 2: Detailed Case Study Summaries.

Appendix 3

Margerum, Richard D., Susan Brody, Robert Parker, and Gail McEwen. 2011. Regional Transportation and Land Use Decision Making. Appendix 3: Forum Proceedings.