



Regional Comprehensive Plan

for the
San Diego
Region



Final
July 2004



Our vision. Our future.
THE REGIONAL COMPREHENSIVE PLAN



REGIONAL COMPREHENSIVE PLAN

Our vision. Our future.
THE REGIONAL COMPREHENSIVE PLAN

APPROVED BY THE SANDAG BOARD OF DIRECTORS
ON JULY 23, 2004
BY RESOLUTION NO. 2005-01



www.sandag.org/rcp

Visit SANDAG's Web site to stay up to date on the latest news about the Regional Comprehensive Plan (RCP) for the San Diego region.



401 B Street, Suite 800 • San Diego, CA 92101-4231 • (619) 699-1900

BOARD OF DIRECTORS



The 18 cities and county government are SANDAG serving as the forum for regional decision-making. The Association builds consensus, makes strategic plans, obtains and allocates resources, and provides information on a broad range of topics pertinent to the region's quality of life.

CHAIR: Hon. Mickey Cafagna

VICE CHAIR: Hon. Mary Sessom

EXECUTIVE DIRECTOR: Gary L. Gallegos

CITY OF CARLSBAD

Hon. Ramona Finnila, Mayor Pro Tem
(A) Hon. Bud Lewis, Mayor
(A) Hon. Matt Hall, Councilmember

CITY OF CHULA VISTA

Hon. Steve Padilla, Mayor
(A) Hon. Patty Davis, Councilmember
(A) Hon. Jerry Rindone, Councilmember

CITY OF CORONADO

Hon. Phil Monroe, Mayor Pro Tem
(A) Hon. Frank Tierney, Councilmember

CITY OF DEL MAR

Hon. Crystal Crawford, Councilmember
(A) Hon. Richard Earnest, Mayor
(A) Hon. David Druker, Councilmember

CITY OF EL CAJON

Hon. Mark Lewis, Mayor
(A) Hon. Gary Kendrick, Mayor Pro Tem

CITY OF ENCINITAS

Hon. Christy Guerin, Councilmember
(A) Hon. Maggie Houlihan, Mayor

CITY OF ESCONDIDO

Hon. Lori Holt Pfeiler, Mayor
(A) Hon. Ed Gallo, Councilmember
(A) Hon. Ron Newman, Councilmember

CITY OF IMPERIAL BEACH

Hon. Patricia McCoy, Mayor Pro Tem
(A) Hon. Diane Rose, Mayor
(A) Hon. Mayda Winter, Councilmember

CITY OF LA MESA

Hon. Barry Jantz, Councilmember
(A) Hon. David Allan, Councilmember
(A) Hon. Ernie Ewin, Vice Mayor

CITY OF LEMON GROVE

Hon. Mary Sessom, Mayor
(A) Hon. Jill Greer, Mayor Pro Tem
(A) Hon. Jerry Jones, Councilmember

CITY OF NATIONAL CITY

Hon. Ron Morrison, Councilmember
(A) Hon. Frank Parra, Deputy Mayor

CITY OF OCEANSIDE

Hon. Jack Feller, Councilmember
(A) Hon. Terry Johnson, Mayor

CITY OF POWAY

Hon. Mickey Cafagna, Mayor
(A) Hon. Don Higginson, Deputy Mayor
(A) Hon. Robert Emery, Councilmember

CITY OF SAN DIEGO

Hon. Dick Murphy, Mayor
Hon. Jim Madaffer, Councilmember
(A) Hon. Scott Peters, Councilmember

CITY OF SAN MARCOS

Hon. Corky Smith, Mayor
(A) Hon. Pia Harris-Ebert, Councilmember

CITY OF SANTEE

Hon. Hal Ryan, Councilmember
(A) Hon. Randy Voepel, Mayor
(A) Hon. Jack Dale, Councilmember

CITY OF SOLANA BEACH

Hon. Joe Kellejian, Mayor
(A) Hon. David Powell, Councilmember

CITY OF VISTA

Hon. Morris Vance, Mayor
(A) Hon. Judy Ritter, Councilmember
(A) Hon. Bob Campbell, Councilmember

COUNTY OF SAN DIEGO

Hon. Dianne Jacob, Chairwoman
(A) Hon. Greg Cox, Supervisor

CALIFORNIA DEPARTMENT OF TRANSPORTATION

(Advisory Member)
Jeff Morales, Director
(A) Pedro Orso-Delegado, District 11 Director

METROPOLITAN TRANSIT SYSTEM

(Advisory Member)
Leon Williams, Chairman
(A) Hon. Jerry Rindone, Vice Chairman
(A) Hon. Bob Emery, Board Member

NORTH SAN DIEGO COUNTY TRANSIT DEVELOPMENT BOARD

(Advisory Member)
Hon. Judy Ritter, Chair
(A) Hon. Tom Golich, Board Member
(A) Hon. Ed Gallo, Board Member

IMPERIAL COUNTY

(Advisory Member)
Hon. Victor Carrillo, Supervisor
(A) Hon. David Ouzan, Mayor

U.S. DEPARTMENT OF DEFENSE

(Advisory Member)
CAPT Christopher Schanze, USN, CEC
Commander, Southwest Division
Naval Facilities Engineering Command
(A) CAPT Richard Gamble, USN, CEC

SAN DIEGO UNIFIED PORT DISTRICT

(Advisory Member)
Jess Van Deventer, Commissioner
(A) Michael Bixler, Commissioner
(A) Peter Q. Davis, Commissioner

SAN DIEGO COUNTY WATER AUTHORITY

(Advisory Member)
Hon. Bud Lewis, Director
(A) Bernie Rhinerson, Director

BAJA CALIFORNIA/MEXICO

(Advisory Member)
Hon. Luis Cabrera Cuaron
Consul General of Mexico

ACKNOWLEDGEMENTS

Many individuals aided in the preparation of the Regional Comprehensive Plan (RCP). In particular, the sustained participation and involvement of the members of the Regional Planning Committee, and the Regional Planning Technical and Stakeholders Working Groups are acknowledged.

REGIONAL PLANNING COMMITTEE

Local elected officials and advisory members from 2002 - 2004

Voting Members and Alternates

Chair: Hon. Lori Holt Pfeiler, Mayor, City of Escondido, representing North County Inland
Vice-Chair: Hon. Patty Davis, Councilmember, City of Chula Vista, representing South County
Hon. Jack Feller, Councilmember, City of Oceanside, representing North County Coastal
Hon. Jill Greer, Councilmember, City of Lemon Grove, representing East County
Hon. Matt Hall, Councilmember, City of Carlsbad, representing North County Coastal
Hon. Maggie Houlihan, Mayor, City of Encinitas, representing North County Coastal
Hon. Bill Horn, Supervisor, County of San Diego
Hon. Barry Jantz, Councilmember, City of La Mesa, representing East County
Hon. Jerry Jones, Councilmember, City of Lemon Grove, representing East County
Hon. Jim Madaffer, Councilmember, City of San Diego
Hon. Patricia McCoy, Councilmember, City of Imperial Beach, representing South County
Hon. Scott Peters, Councilmember, City of San Diego
Hon. Judy Ritter, Councilmember, City of Vista, representing North County Inland
Hon. Ron Roberts, Supervisor, County of San Diego
Hon. Pam Slater-Price, Supervisor, County of San Diego

Advisory Members

Hon. James Bond, San Diego County Water Authority
Hon. David Druker, Hon. Tom Golich, Hon. Pia Harris Ebert, North San Diego County Transit District (NCTD)
Hon. Jess Van Deventer, Bill Chopyk, and William Briggs, San Diego Unified Port District
Hon. Leon Williams and Hon. Bob Emery, Metropolitan Transit System (MTS)
Susanah Aguilera, U.S. Department of Defense
Carol Bonomo and Lynne Baker, Regional Planning Stakeholders Working Group (SWG)
Gail Goldberg, Regional Planning Technical Working Group (TWG)
Pedro Orso-Delgado, Gene Pound, and Bill Figge, California Department of Transportation (Caltrans)

REGIONAL PLANNING TECHNICAL WORKING GROUP (TWG)

Planning and Community Development Directors and their representatives

Chair: Gail Goldberg, City of San Diego
Vice-Chair: Niall Fritz, City of Poway
Dennis Turner, City of Carlsbad
Jim Sandoval, Ed Batchelder, and Mark Stephens, City of Chula Vista
Ed Kleeman, City of Coronado
Linda Niles and Mary Joe Wilson, City of Del Mar
Jim Griffin, City of El Cajon
Patrick Murphy, City of Encinitas
Charles Grimm and Barbara Redlitz, City of Escondido
Greg Wade, City of Imperial Beach
Dave Witt and Rachel Hurst, City of La Mesa
Robert Larkins, City of Lemon Grove
Roger Post, City of National City
Gerald Gilbert, City of Oceanside
Colleen Clementson and Paul Fiske, City of San Diego
Jerry Backoff, City of San Marcos
Doug Williford and Melanie Kush, City of Santee
Steven Apple, City of Solana Beach
Robin Putman and Patrick Richardson, City of Vista
Gary Pryor and Joan Vokac, County of San Diego
Andy Hamilton, Air Pollution Control District
Dana Frieauf, San Diego County Water Authority
Robert Barry, Local Agency Formation Commission
Kimberly Weinstein, Caltrans
Stefan Marks, North County Transit District
Bill Chopyk, San Diego Unified Port District

REGIONAL PLANNING STAKEHOLDERS WORKING GROUP (SWG)

Chair: Hon. Patty Davis, Councilmember, City of Chula Vista
Vice-Chair: Carol Bonomo, Cal State San Marcos, SANDAG's I-15 Technical Working Group
Janet Anderson, Sierra Club, Desert Protective Council
Lynne Baker, Endangered Habitats League, Housing Action Network
Brad Barnum, Associated General Contractors, San Diego Regional Chamber of Commerce
Claire Carpenter, The El Cajon Collaborative, Cajon Valley Education Foundation,
East County Chamber of Commerce
Susan Carter-Robert, All Congregations Together
Carolyn Chase, San Diego Coalition for Transportation Choices, San Diego Earthworks
Rose Davis, Indian Voices, Native American Advisory Board, Council of American Indian Organizations
Paula Forbis, Environmental Health Coalition

SWG Continued

David Gatzke, Alliance for Habitat Conservation

Jaime Gonzalez-Luna, Maquiladora Association, Tijuana Economic Development Council

Marla Hollander, Leadership for Active Living, San Diego State University (SDSU)

Dan Hom, Asian Business Council, Chula Vista Planning Commission

Marco LiMandri, New City America, Inc.

Julianne Nygaard, Citizen, Former City of Carlsbad Councilmember,
Former Chair of North County Transit District (NCTD)

Keith Pezzoli, University of California San Diego (UCSD), Regional Workbench Consortium

Ramona Salisbury, League of Women Voters, San Dieguito River Park Citizens Advisory Committee

Tom Scott, San Diego Housing Federation, San Diego Housing Coalition

Deanna Spehn, San Diego County Taxpayers Association, Quality of Life Coalition,
San Diego Dialogue, The Nature Conservancy

Michael Stepner, San Diego Regional Economic Development Corporation, American Institute of Architects,
Citizens Coordinate for Century 3 (C-3), San Diego Council of Design Professionals

David Stepp, San Diego County Farm Bureau

Harriet Stockwell, East County Economic Development Council, El Cajon Women's Club,
Former El Cajon Councilmember and SANDAG Chair

Wallace Tucker, Fallbrook Land Conservancy, San Diego Land Conservancy Coalition,
San Luis Rey Watershed Council

Dutch Van Dierendonck, Ramona Community Planning Group, Past Participation in San Diego County's
General Plan 2020 Steering Committee

COMMUNITY BASED ORGANIZATIONS

Able-Disabled Advocacy (A-DA)

All Congregations Together (ACT)

Barrio Station

National Association for the Advancement of Colored People (NAACP) North San Diego County

Union of Pan Asian Communities (UPAC)

SANDAG STAFF

Gary Gallegos, Executive Director

Eric Pahlke, Chief Deputy Executive Director

Tom Larwin, Chief Deputy Executive Director

Bob Parrott, Deputy Executive Director¹

Debra Greenfield, General Counsel¹

Jack Limber, General Counsel

Julie Wiley, Deputy General Counsel

Bob Leiter, Director of Land Use and Transportation Planning

¹ Retired

SANDAG Staff Continued

Jeff Tayman, Director of Technical Services
Jack Boda, Director of Mobility Management and Project Implementation
Garry Bonelli, Communications Director
Mike McLaughlin, Division Director of Land Use and Environment*
Toni Bates, Division Director of Transportation
Cindy Burke, Division Director of Criminal Justice
Marney Cox, Chief Economist
Carolina Gregor, RCP Project Manager
Rob Rundle, Principal Regional Planner and EIR Project Manager
Kim Kawada, Principal Regional Planner
Mike Hix, Principal Transportation Planner
Dave Schumacher, Principal Transportation Planner
Hector Vanegas, Special Projects Director
Susan Baldwin, Senior Regional Planner
Sue Carnevale, Senior Regional Planner
Conan Cheung, Senior Transportation Planner
Janet Fairbanks, Senior Regional Planner
Paul Kavanaugh, Senior Regional Planner
Jeff Martin, Senior Regional Planner
Steve Sachs, Senior Regional Planner*
Ed Schafer, Senior Regional Planner
Nan Valerio, Senior Regional Planner
Stephan Vance, Senior Regional Planner
Elisa Arias, Senior Transportation Planner
John Hofmockel, Senior Research Analyst
Gina Misch, Senior Research Technician
Anne Steinberger, Communications Coordinator
Troy Anderson, Senior Public Information Officer
Laura Chalkley, Senior Public Information Officer
Jane Clough-Riquelme, Associate Regional Planner
Rebecca Davis, Associate Regional Planner
Matthew Eary, Associate Economic Analyst
Beth Jarosz, Associate Research Analyst
Paul Hardwick, Associate GIS Analyst
Melyssa Guerry, Associate GIS Technician
Brian Sheehan, Assistant Regional Planner
Shelby Tucker, Assistant Regional Planner
Rosalind Lates, Economic Research Assistant

* Retired

SANDAG Staff Continued

Robert Barry, Regional Planning Intern
Patrick Carter, Source Point Intern
Jennifer Cordeau, Regional Planning Intern
Alex Hidalgo, Borders Planning Intern
Alejandra Romero, Borders Planning Intern
Gulsum Rustemoglu, Regional Planning Intern
Arturo Salazar, Regional Planning Intern
Danny Serrano, Regional Planning Intern
Pam Albers, Communications Design Supervisor
Laura Mays, Communications Designer
Tom Neel, Communications Designer
Lisa Starace, Communications Design Intern
Doree Henry, Executive Assistant
Deborah Gunn, Executive Assistant
Joy De Korte, Document Processing Specialist
Lori Greenberg, Document Processing Specialist
Phillip Johnston, Office Services Specialist
Mark Polinsky, Office Services Specialist
Jessie Davis, Office Services Specialist
Nathan Kirk, Office Services Specialist
Garret McLaughlin, Office Services Specialist

CONSULTANTS

Leslie Wade, Wade Communications, Inc.
Joanna Salazar, Consultant
Greg Brooks, Jane Mobley Associates
Chuck Anders, Strategic Initiatives
Jun Onaka, Onaka Planning and Economics
P&D Consultants

INFRASTRUCTURE PROVIDERS (FOR ASSISTANCE WITH THE IRIS)

Transportation:

San Diego County Regional Airport Authority
San Diego Unified Port District
Metropolitan Transit System
North San Diego County Transit Development Board
California Department of Transportation (Caltrans)

Water:

Olivenhain Municipal Water District
San Diego County Water Authority

Infrastructure Providers (for assistance with the IRIS) Continued:

Sweetwater Authority
Vallecitos Water District
Vista Irrigation District

Wastewater:

City of San Diego Metropolitan Wastewater Department

Storm Water:

County of San Diego – Department of Public Works

Solid Waste:

County of San Diego – Department of Public Works

Energy:

San Diego Gas and Electric
San Diego Regional Energy Office
Utilities' Consumers Action Network (UCAN)

Education:

Grossmont – Cuyamaca Community College District
San Diego County Office of Education
San Diego Miramar College
Southwestern Community College District
University of California, San Diego – Government and Community Relations

Parks & Open Space:

City of Carlsbad – Parks and Recreation Department
City of Encinitas – Parks and Recreation Department
City of Lemon Grove – Parks and Recreation Department
City of Poway – Development Services
City of San Diego– Parks and Recreation Department
City of San Diego – Multiple Species Conservation Program (MSCP)
City of Santee – Development Services
County of San Diego

General:

San Diego Local Agency Formation Commission (LAFCO)

Special acknowledgements to the California Department of Transportation (Caltrans) and the U.S. Fish & Wildlife Service for providing grant funding for the preparation of the RCP. Special recognition also to members of SANDAG's Borders Committee, I-15 Interregional Partnership Policy Committee, Transportation Committee, Regional Housing Task Force, and Cities/County Transportation Advisory Committee for their participation and assistance.

TABLE OF CONTENTS

| CHAPTER | PAGE |
|---|------|
| EXECUTIVE SUMMARY | |
| A Regional Framework for Local Action | 1 |
| A Shared Vision of the Future | 2 |
| Our Current Path | 2 |
| A Better Approach to Planning..... | 4 |
| Urban Form: Where and How Should the Region Grow | 6 |
| Transportation: Moving People and Goods | 9 |
| Housing: Providing Homes for All Residents | 10 |
| Healthy Environment: Enhancing our Natural Habitats, Air, Water, and Beaches | 11 |
| Economic Prosperity: Creating Opportunities for an Improvement Standard of Living..... | 12 |
| Public Facilities: Strengthening the Social and Physical Infrastructure of our Communities..... | 13 |
| Borders: Forging a Better Future with our Neighbors..... | 14 |
| Social Equity and Environmental Justice Assessment: Fair Planning and Development for all Communities..... | 15 |
| Integrated Regional Infrastructure Strategy: Ensuring the Foundation of our Vision for the Future | 16 |
| Measuring our Progress | 18 |
| Translating Vision into Action..... | 18 |
| Conclusion: Moving Forward, Together | 20 |
| | |
| 1. INTRODUCTION – WHAT IS THE REGIONAL COMPREHENSIVE PLAN? | |
| What is the RCP? | 21 |
| Why is the RCP Important? | 22 |
| Who Prepared the RCP and How Was it Funded? | 26 |
| How the RCP is Structured | 28 |
| Where Does the RCP Lead US? | 28 |

| CHAPTER | PAGE |
|---|-------------|
| 2. OUR REGIONAL VISION & CORE VALUES – DEFINING WHERE WE WANT TO GO | |
| Our Regional Vision | 31 |
| Envisioning Our Future | 31 |
| Back to the Present | 34 |
| Our Regional Core Values | 35 |
| Meeting our Future Needs Through Sustainability and Smart Growth | 36 |
| 3. OVERVIEW OF THE SAN DIEGO REGION – CURRENT CONDITIONS AND FUTURE TRENDS | |
| Current Conditions | 39 |
| Future Trends | 40 |
| Policy Implications | 45 |
| Conclusion | 46 |
| 4. REGIONAL PLANNING & POLICY FRAMEWORK – A PREFERRED APPROACH FOR OUR REGIONAL GROWTH | |
| Existing Regional Plans and Programs | 47 |
| Existing Local Plans and Programs | 47 |
| Growth Projections | 48 |
| The Preferred Planning Concept | 51 |
| Conclusion | 55 |
| 4A. URBAN FORM – WHERE AND HOW SHOULD THE REGION GROW? | |
| Introduction | 57 |
| Existing Setting | 57 |
| Existing Plans and Programs | 62 |
| Key Issues | 66 |
| Coordinating Transportation and Land Use | 73 |
| Providing Incentives for Smart Growth | 89 |
| Potential Funding Sources for Smart Growth Incentives | 91 |
| Local Incentives for Smart Growth | 93 |
| Overall Principles for Developing Smart Growth Incentives | 94 |
| Next Steps | 95 |
| Goals, Policy Objectives, and Recommended Actions | 96 |
| Conclusion | 97 |

| CHAPTER | PAGE |
|--|-------------|
| 4B. TRANSPORTATION – MOVING PEOPLE AND GOODS | |
| Introduction | 99 |
| Existing Setting | 100 |
| Existing Plans and Programs | 102 |
| Key Issues | 114 |
| Goals, Policy Objectives, and Recommended Actions | 120 |
| Conclusion..... | 122 |
| | |
| 4C. HOUSING – PROVIDING HOMES FOR ALL RESIDENTS | |
| Introduction | 125 |
| Existing Setting | 126 |
| Existing Plans and Programs | 128 |
| Key Issues | 133 |
| Goals, Policy Objectives, and Recommended Actions | 142 |
| Conclusion..... | 144 |
| | |
| 4D. HEALTHY ENVIRONMENT – ENHANCING OUR NATURAL HABITATS, AIR, WATER, AND BEACHES | |
| Introduction | 145 |
| <i>Natural Habitats</i> | 146 |
| Existing Setting..... | 146 |
| Existing Plans and Programs | 149 |
| Key Issues..... | 151 |
| Natural Habitats Policy Objectives and Recommended Actions..... | 153 |
| <i>Water Quality</i> | 154 |
| Existing Setting..... | 154 |
| Existing Plans and Programs | 165 |
| Key Issues..... | 167 |
| Water Quality Policy Objectives and Recommended Actions | 171 |
| <i>Shoreline Preservation</i> | 173 |
| Existing Setting..... | 173 |
| Existing Plans and Programs | 174 |
| Key Issues..... | 175 |
| Shoreline Preservation Policy Objectives and Recommended Actions | 175 |

| CHAPTER | PAGE |
|--|-------------|
| (Chapter 4D Continued) | |
| <i>Air Quality</i> | 176 |
| Existing Setting..... | 176 |
| Existing Plans and Programs | 181 |
| Key Issues..... | 181 |
| Air Quality Policy Objectives and Recommended Actions | 182 |
| Conclusion..... | 183 |
| | |
| 4E. ECONOMIC PROSPERITY – CREATING OPPORTUNITIES FOR AN IMPROVING STANDARD OF LIVING | |
| Introduction..... | 185 |
| Existing Setting | 186 |
| Existing Plans and Programs | 192 |
| Key Issues | 193 |
| Actions to Ensure Economic Prosperity..... | 204 |
| Goals, Policy Objectives, and Recommended Actions | 204 |
| Conclusion..... | 205 |
| | |
| 4F. PUBLIC FACILITIES – STRENGTHENING THE SOCIAL AND PHYSICAL INFRASTRUCTURE OF OUR COMMUNITIES | |
| Introduction..... | 207 |
| <i>Water Supply</i> | 208 |
| Existing Setting..... | 208 |
| Existing Plans and Programs | 213 |
| Key Issues..... | 214 |
| Water Supply Policy Objectives and Recommended Actions..... | 216 |
| <i>Energy</i> | 217 |
| Existing Setting..... | 217 |
| Existing Plans and Programs | 218 |
| Key Issues..... | 220 |
| Energy Policy Objectives and Recommended Actions | 221 |
| <i>Waste Management</i> | 221 |
| Existing Setting..... | 221 |
| Existing Plans and Programs | 225 |
| Key Issues..... | 226 |
| Waste Management Policy Objectives and Recommended Actions | 229 |

| CHAPTER | PAGE |
|--|-------------|
| (Chapter 4F Continued) | |
| <i>Parks, Libraries, Police, Fire, and Hospitals</i> | 230 |
| <i>Education</i> | 230 |
| <i>Conclusion</i> | 231 |
| | |
| 5. BORDERS – FORGING A BETTER FUTURE WITH OUR NEIGHBORS | |
| Introduction | 233 |
| Existing Setting | 235 |
| Existing Plans and Programs | 238 |
| Key Issues | 240 |
| <i>Access to Jobs and Housing</i> | 240 |
| Jobs/Housing Goals, Policy Objectives, and Recommended Actions | 243 |
| <i>Transportation</i> | 246 |
| Transportation Goals, Policy Objectives, and Recommended Actions | 256 |
| <i>Energy and Water Supply</i> | 257 |
| Energy and Water Supply Goals, Policy Objectives, and Recommended Actions..... | 263 |
| <i>Environment</i> | 265 |
| Environment Goals, Policy Objectives, and Recommended Actions | 271 |
| <i>Economic Development</i> | 272 |
| Economic Development Goals, Policy Objectives, and Recommended Actions | 276 |
| <i>Homeland Security</i> | 277 |
| Homeland Security Goals, Policy Objectives, and Recommended Actions..... | 280 |
| <i>Conclusion</i> | 281 |
| | |
| 6. SOCIAL EQUITY & ENVIRONMENTAL JUSTICE ASSESSMENT – FAIR PLANNING AND DEVELOPMENT FOR ALL COMMUNITIES | |
| Introduction | 283 |
| Diversity in the San Diego Region..... | 286 |
| Equity Conditions in the San Diego Region | 289 |
| Analysis of Social Equity/Environmental Justice in the RCP..... | 295 |
| <i>Urban Form</i> | 296 |
| Urban Form Goals, Policy Objectives, and Recommended Actions..... | 297 |
| <i>Transportation</i> | 298 |
| Transportation Policy Objectives and Recommended Actions..... | 299 |

| CHAPTER | PAGE |
|---|-------------|
| (Chapter 6 Continued) | |
| <i>Housing</i> | 299 |
| Housing Goals, Policy Objectives, and Recommended Actions | 300 |
| <i>Healthy Environment</i> | 301 |
| Healthy Environment Recommended Actions | 302 |
| <i>Economic Prosperity</i> | 302 |
| Economic Prosperity Goals, Policy Objectives, and Recommended Actions | 302 |
| <i>Public Facilities</i> | 303 |
| Public Facilities Recommended Actions | 303 |
| Next Steps for Promoting Regional Social Equity and Environmental Justice | 304 |
| Conclusion | 305 |
| | |
| 7. INTEGRATED REGIONAL INFRASTRUCTURE STRATEGY (IRIS) – ENSURING THE FOUNDATION OF OUR VISION FOR THE FUTURE | |
| Introduction | 307 |
| Integrated Regional Infrastructure Strategy | 311 |
| Infrastructure Needs and Expenditures | 323 |
| Goals, Policy Objectives, and Recommended Actions | 343 |
| Conclusion | 347 |
| | |
| 8. PERFORMANCE MONITORING– MEASURING OUR PROGRESS | |
| Introduction | 349 |
| Developing Indicators | 349 |
| Baseline Report and Targets | 353 |
| Conclusion | 353 |
| | |
| 9. IMPLEMENTATION– TRANSLATING VISION INTO ACTION | |
| Introduction | 355 |
| Collaboration | 356 |
| Incentives | 360 |
| Other Key Components of RCP Implementation | 362 |
| Strategic Initiatives | 364 |
| Next Steps and Topics to Consider in Future Updates to the RCP | 383 |

| CHAPTER | PAGE |
|--|--|
| APPENDIX 1: RCP GLOSSARY OF TERMS | 395 |
| APPENDIX 2: RCP ACRONYMS AND ABBREVIATIONS | 411 |
| APPENDIX 3: PUBLIC INVOLVEMENT AND OUTREACH | 417 |
| APPENDIX 4: INTEGRATED REGIONAL INFRASTRUCTURE STRATEGY (IRIS) | www.sandag.org |

LIST OF TABLES

| CHAPTER | PAGE |
|---|-------------|
| 1. INTRODUCTION | |
| 2. OUR REGIONAL VISION AND CORE VALUES | |
| 3. OVERVIEW OF THE SAN DIEGO REGION | |
| Table 3.1 – Regional Growth, 1970-2030 | 41 |
| Table 3.2 – 2000 to 2030 Population Increase by Age Ranges | 44 |
| 4. REGIONAL PLANNING AND POLICY FRAMEWORK | |
| Table 4.1 – Percent Reduction of Traffic Impacts Compared to Current Plans..... | 50 |
| 4A. URBAN FORM | |
| Table 4A.1 – Change in Land Use Acreage, 1990-2003 | 61 |
| Table 4A.2 – Smart Growth Area Classifications..... | 81 |
| 4B. TRANSPORTATION | |
| 4C. HOUSING | |
| 4D. HEALTHY ENVIRONMENT | |
| Table 4D.1 – Land Use Acres by Watershed for Watersheds Entirely Within the San Diego Region | 162 |
| Table 4D.2 – Planned Land Use of Vacant/Undeveloped Land for Watersheds Entirely Within the San Diego Region | 164 |
| Table 4D.3 – 2000 and 2030 Population in Watersheds Entirely Within the San Diego Region | 165 |
| Table 4D.4 – San Diego Air Basin: Air Quality Designations | 180 |
| 4E. ECONOMIC PROSPERITY | |
| Table 4E.1 – Real Per Capita Income U.S., California, & San Diego (1999-2001)..... | 187 |

| CHAPTER | PAGE |
|--|-------------|
| (Chapter 4E Continued) | |
| Table 4E.2 – Regional Industry Cluster Employment Change, San Diego Region (1990-2000)..... | 190 |
| Table 4E.3 – Regional Industry Cluster Average Wage San Diego Region (2000) | 191 |
| 4F. PUBLIC FACILITIES | |
| Table 4F.1 – San Diego County Rate of Disposal (Millions of Tons) | 223 |
| 5. BORDERS | |
| 6. SOCIAL EQUITY & ENVIRONMENTAL JUSTICE ASSESSMENT | |
| Table 6.1 – 2000 Race and Hispanic Origin in the San Diego Region | 287 |
| Table 6.2 – 1999 Income Levels in the San Diego Region | 287 |
| Table 6.3 – 1999 Household Income in the San Diego Region..... | 288 |
| Table 6.4 – 1990-2000 Change in the Household Income..... | 288 |
| 7. INTEGRATED REGIONAL INFRASTRUCTURE STRATEGY (IRIS) | |
| Table 7.1 – Sources of Existing or New Revenues for Infrastructure | 322 |
| Table 7.2 – Share of Population Increase..... | 327 |
| Table 7.3 – Operating and Maintenance Budgets, Seven Infrastructure Areas, San Diego Region, FY 2002-03 | 328 |
| Table 7.4 – Capital Improvement Programs, Seven of Eight Infrastructure Areas, San Diego Region, FY 2003-07 | 330 |
| 8. PERFORMANCE MONITORING | |
| Table 8.1 – Annual Indicators for Monitoring the Regional Comprehensive Plan | 351 |
| Table 8.2 – Proposed Periodic Indicators for Monitoring the Regional Comprehensive Plan..... | 352 |
| 9. IMPLEMENTATION | |
| Table 9.1 – Guidelines for Strengthening the Local/Regional Plan Connection..... | 384 |
| Table 9.2 – Elements of Coordinated Transportation/Land Use Studies..... | 391 |

LIST OF FIGURES

| CHAPTER | PAGE |
|---|------|
| 1. INTRODUCTION | |
| Figure 1.1 – The San Diego Region and Neighboring Areas..... | 22 |
| Figure 1.2 – Major Uses for the RCP..... | 24 |
| Figure 1.3 – Vacant Developable Residential Land Planned for One Unit Per Acre or More as of April 1, 2000 | 25 |
| 2. OUR REGIONAL VISION AND CORE VALUES | |
| 3. OVERVIEW OF THE SAN DIEGO REGION | |
| Figure 3.1 – Southern California/Northern Baja California Annual Average Growth Rates, 1990-2000 | 42 |
| Figure 3.2 – The Region’s Growth is Slowing | 43 |
| Figure 3.3 – The Region’s Ethnic Composition is Changing | 43 |
| Figure 3.4 – The Proportion of Multifamily Units Will Increase Over Time | 44 |
| 4. REGIONAL PLANNING AND POLICY FRAMEWORK | |
| Figure 4.1 – RCP Planning Framework..... | 48 |
| Figure 4.2 – Alternative Future Land Use Scenarios: Future Land Consumption in Acres Under Existing Plans vs. Three Smart Growth Alternatives..... | 49 |
| Figure 4.3 – Linking Transportation and Land Use Plans | 51 |
| Figure 4.4 – Using Land Use and Transportation Plans to Guide Other Plans | 52 |
| Figure 4.5 – Proposed Evaluation Process | 53 |
| Figure 4.6 – Subregional Land Use and Transportation Planning and Implementation | 54 |
| 4A. URBAN FORM | |
| Figure 4A.1 – Generalized Land Use Patterns in the San Diego Region | 59 |
| Figure 4A.2 – 2030 Employment Densities | 75 |
| Figure 4A.3 – 2030 Population Densities..... | 77 |
| Figure 4A.4 – Smart Growth Areas for the San Diego Region..... | 79 |
| Figure 4A.5 – Principles for Developing Criteria for Smart Growth Incentives | 94 |

| CHAPTER | PAGE |
|--|-------------|
| 4B. TRANSPORTATION | |
| Figure 4B.1 – Commuting to Work – 1990 vs. 2000 Census | 100 |
| Figure 4B.2 – Growth in Vehicle Miles Traveled, Population, & Employment..... | 101 |
| Figure 4B.3 – Average Daily Trips by Hour and Trip Purpose | 101 |
| Figure 4B.4 – 2030 MOBILITY Network | 103 |
| Figure 4B.5 – Regionally Significant Arterial Network | 111 |
| Figure 4B.6 – Proposed Evaluation Process | 118 |
| 4C. HOUSING | |
| Figure 4C.1 – Housing Type, San Diego Region, 2003..... | 126 |
| Figure 4C.2 – Housing Costs and Household Income, San Diego Region, 1990-2003..... | 127 |
| Figure 4C.3 – Increase in Housing Units and Population, San Diego Region, 1970-2000 | 134 |
| Figure 4C.4 – Housing Units Added, San Diego Region, 1980-2003..... | 134 |
| Figure 4C.5 – Planned Densities for Remaining Vacant Residential Land in Cities, 2002 | 135 |
| 4D. HEALTHY ENVIRONMENT | |
| Figure 4D.1 – Generalized Vegetation, 1995..... | 147 |
| Figure 4D.2 – Habitat Preserve Planning Areas | 150 |
| Figure 4D.3 – San Diego Region 303 (d) Impaired Waters | 157 |
| Figure 4D.4 – Hydrologic Cycle | 159 |
| Figure 4D.5 – Watersheds in the San Diego Hydrologic Region | 160 |
| Figure 4D.6 – Changes in California Watershed Hydrology Resulting from Urbanization | 161 |
| Figure 4D.7 – Smog-Forming Pollutants: 2001 Emissions Sources..... | 177 |
| Figure 4D.8 – Growth in Vehicle Miles Traveled, Population, & Employment | 178 |
| Figure 4D.9 – San Diego Region Trends in Emissions of Reaction Organic Gases (ROG) | 178 |
| Figure 4D.10 – San Diego Region Trends in Emissions of Oxides of Nitrogen (NOx) | 179 |
| 4E. ECONOMIC PROSPERITY | |
| Figure 4E.1 – San Diego Region’s Standard of Living Index of Real Per Capita Income in the U.S., California, & San Diego (1980-2000)..... | 187 |

| CHAPTER | PAGE |
|--|-------------|
| 4F. PUBLIC FACILITIES | |
| Figure 4F.1 – SDCWA Service Area with Agency Boundaries | 209 |
| Figure 4F.2 – Regional Historic and Projected Normal Water Demands..... | 210 |
| Figure 4F.3 – Metropolitan Water District Service Area Including San Diego County Water Authority | 211 |
| Figure 4F.4 – Major Water Conveyance Facilities Serving San Diego County..... | 212 |
| Figure 4F.5 – Meeting the Region’s Water Needs in the Year 2020..... | 213 |
| Figure 4F.6 – Conservation Savings | 215 |
| Figure 4F.7 – General Landfill Locations in San Diego County | 222 |
| Figure 4F.8 – San Diego County Annual Rate of Disposal Projection (Based on Annual Permitted Disposal Tons) | 224 |
| Figure 4F.9 – San Diego County Annual Rate of Disposal Projection Diversion Options (Based on Annual Permitted Disposal Tons) | 227 |
| 5. BORDERS | |
| Figure 5.1 – The San Diego Region, Sovereign Indian Nations, and Neighboring Areas..... | 234 |
| Figure 5.2 – Sovereign Indian Nations – San Diego Region | 235 |
| Figure 5.3 – Southern California/Northern Baja California Annual Average Growth Rates, 1990-2000 | 237 |
| Figure 5.4 – U.S-Mexico Truck Trade Through California- Baja California Ports of Entry | 248 |
| Figure 5.5 – Multi-Modal Issues: Rail Freight, Maritime, and Airports | 250 |
| Figure 5.6 – Watersheds in the San Diego Hydrologic Region..... | 256 |
| Figure 5.7 – Number of People Employed in Baja California - 2004 | 273 |
| Figure 5.8 – Number of Maquiladoras in Baja California - 2004 | 274 |
| 6. SOCIAL EQUITY & ENVIRONMENTAL JUSTICE ASSESSMENT | |
| Figure 6.1 – San Diego Region Minority and Low Income Populations..... | 291 |
| 7. INTEGRATED REGIONAL INFRASTRUCTURE STRATEGY (IRIS) | |
| Figure 7.1 – Making Investments that Support our Vision | 308 |
| Figure 7.2 – Integrated Regional Infrastructure Strategy Process..... | 311 |
| Figure 7.3 – Strengthening the Land Use and Transportation Connection | 311 |
| Figure 7.4 – Proposed Evaluation Process..... | 312 |

| CHAPTER | PAGE |
|--|-------------|
| (Chapter 7 Continued) | |
| Figure 7.5 – Linking Transportation and Land Use Plans | 313 |
| Figure 7.6 – Linking Infrastructure Investments to Transportation and Land Use..... | 313 |
| Figure 7.7 – Distribution of Population Growth in the San Diego Region..... | 325 |
| Figure 7.8 – Operating and Maintenance Expenditure, by Infrastructure Area, FY 2002-03..... | 329 |
| Figure 7.9 – Capital Improvement Programs, by Infrastructure Area, FY 2003 | 331 |
| Figure 7.10 – All Infrastructure Systems Distribution of Subregional CIP Expenditures FY 2003..... | 333 |
| Figure 7.11 – Projected Population Growth and Demand for Infrastructure Services..... | 340 |
| | |
| 8. PERFORMANCE MONITORING | |
| | |
| 9. IMPLEMENTATION | |
| Figure 9.1 – Iterative Planning Process..... | 356 |
| Figure 9.2 – Guidelines for Strengthening the Local/Regional Connection..... | 357 |
| Figure 9.3 – Subregional Land Use and Transportation Planning and Implementation Framework..... | 358 |
| Figure 9.4 – Priorities for Developing Future Subregional Plans..... | 359 |
| Figure 9.5 – Example of Relationship Between Goals, Strategic Initiatives, Performance Indicators, and Targets..... | 365 |
| Figure 9.6 – Strategic Initiatives..... | 366 |

REGIONAL COMPREHENSIVE PLAN

Executive Summary

President Abraham Lincoln said, “You cannot escape the responsibility of tomorrow by evading it today.” As citizens of the greater San Diego region, we all share the responsibility for tomorrow. But what should that tomorrow look like? Many would say: less traffic, more home ownership, great schools, convenient transit, more and better paying jobs, clean air and water, pristine open space, and a higher standard of living.



These are lofty goals that will require bold actions and serious commitment to upholding effective public policies, adjusting our course where needed, and taking risks in the creation of new programs. The rewards of such efforts can be great. A regional approach, made possible through local commitment and actions, will make a significant difference in our quality of life for generations to come.

A REGIONAL FRAMEWORK FOR LOCAL ACTION

The Regional Comprehensive Plan (RCP) is the strategic planning framework for the San Diego region. It creates a regional vision. It provides a broad context in which local and regional decisions can be made that foster a healthy environment, a vibrant economy, and a high quality of life for all residents. It balances regional population, housing, and employment growth with habitat preservation, agriculture, open space, and infrastructure needs. It moves us toward a sustainable future — a future with more choices and opportunities for all residents.



True to its name, the RCP is comprehensive in its scope. It looks beyond our borders and considers the planning and growth underway in Imperial, Orange, and Riverside Counties as well as in Baja California, Mexico. It sheds new light on equity — and inequities — in our planning processes by asking: do all communities have access to the region’s resources and do all residents have an equal opportunity to participate in the process?

Today, each city and community in the region makes its own decisions regarding land use. The RCP looks at these individual decisions as a whole; assesses their collective impacts; and examines cumulative development trends well into the future. The RCP builds upon the best elements of our existing local general plans and regional infrastructure plans and provides a blueprint for where and how we want to grow. Perhaps more importantly, the RCP identifies challenges that we face as a region and offers guidance toward making better choices, both individually and together, providing an alternative to where we could end up if we continue with business as usual.

A SHARED VISION OF THE FUTURE

The RCP was crafted by citizens and representatives from the region's 18 cities and county government, working together as the San Diego Association of Governments (SANDAG). The plan was founded on the ideas of thousands of people including residents, business owners, and local public officials. Together, they endorsed the following vision statement for the RCP:

"To preserve and enhance the San Diego region's unique features – its vibrant and culturally-diverse communities, its beaches, deserts, mountains, lagoons, bluffs, and canyons, and its international setting – and promote sustainability, economic prosperity, and an outstanding quality of life for everyone."



Citizens also helped articulate a series of Core Values, referenced throughout the RCP, which are the foundation for its policies and recommended actions. The policy recommendations are heavily shaped by principles of "sustainability" and "smart growth."

Sustainability means meeting our current economic, environmental, and community needs while also ensuring that we aren't jeopardizing the ability of future generations to do the same. Sustainability also means making a regional commitment to the "Three Es:" *economy, environment, and equity* — advancing a prosperous *economy*, supporting a healthy *environment*, and promoting social *equity*.

Smart growth means developing the region in a way that creates communities with more housing and transportation choices, better access to jobs, more public spaces, and more open space preservation. Smart growth more closely links jobs and housing, provides more urban public facilities such as parks and police stations, makes our neighborhoods more walkable, and places more jobs and housing near transit. It reduces land consumption in our rural and agricultural areas, and spurs reinvestment in our existing communities.

More and more, local officials are incorporating these principles of smart growth and sustainability into their general plans and policy documents. That's good news, because our quality of life tomorrow will be determined, in large measure, by the extent to which we implement these concepts today.

OUR CURRENT PATH

The San Diego region has changed dramatically during the last hundred years. Our regional population today of three million is roughly equal to the population of the entire state of California a century ago. The region's growth has fluctuated during economic cycles, but increased the most rapidly in the last 30 years. This is illustrated by the fact that 62 percent of the homes in the region were built after 1970.



As the number of folks has increased, the face of our population has changed, as well. Today our regional population is older and much more ethnically diverse. Consequently, the way we live is changing. Empty nesters are trading large homes in the suburbs for condominiums in vibrant urban neighborhoods. More households are made up of single parents with children. Different lifestyles demand different housing solutions.

SANDAG projections indicate that our regional population will increase by approximately one million people between 2000 and 2030. Although our actual rate of growth is slowing, and that trend will continue over the next several decades, we face the challenge of providing housing for a growing and diverse population at the same time the region is beginning to run out of open land for new development. Under current plans and policies, more than 90 percent of our remaining vacant land designated for housing is planned for densities of less than one home per acre, and most is in the rural back country areas dependent upon scarce groundwater supplies. And of the remaining vacant land planned for housing in the 18 incorporated cities, only about seven percent is planned for multifamily housing.

When taken together, the current land use plans of the 19 local jurisdictions do not accommodate the amount of growth anticipated in our region. SANDAG's population forecast, which reflects the current adopted local land use plans in the region, projects that while population will increase by 37 percent by 2030, housing will grow by just 30 percent. The forecast shows that if local plans are not changed, demand for housing will continue to outpace the supply, just as it does today.

As a result, home prices will continue to skyrocket, forcing many to abandon their dreams of home ownership or move to neighboring areas with less expensive housing costs. These people, who teach our children, police our neighborhoods, and bag our groceries, often become long-distance commuters, and with few transit options, our freeways become more and more congested. The result for our region will be an ongoing housing crisis and worsening traffic.

***Future Outcomes
If Local Plans Are Left Unchanged***

- § **Reduced open space.** Current plans would consume far more land than a smart growth development pattern, which would emphasize more redevelopment and infill in existing urbanized areas near transit and activity centers such as downtowns and shopping areas, and more mixed use and compact development in currently-vacant areas that are planned for residential uses.
- § **More expensive housing and fewer types of housing choices.** On average, current densities in the cities and urbanized unincorporated areas are relatively low, and planned densities on currently-vacant land are even lower. This pattern limits our ability to address our projected housing needs, pushes up housing costs, and can result in more people sharing the same house due to high home prices and rents.
- § **Imbalance between housing and jobs.** Jobs are a key driver of population growth. Current local general plans allow for more growth in jobs than housing. Additionally, local plans largely separate residential areas from job centers, which increase traffic.
- § **Environmental degradation.** An imbalance between jobs and housing leads to more and longer commutes, and increased energy consumption. It also affects development patterns within our watersheds which increases urban runoff, and in turn, affects the quality of both our drinking water and our water bodies, such as lakes, streams, bays, and the ocean.

A BETTER APPROACH TO PLANNING

The Regional Comprehensive Plan establishes a new approach to planning in the San Diego region. This approach is based upon:

- § A **planning framework** that parallels those used by cities and counties in preparing their general plans, and thereby strengthens the coordination of local and regional plans and programs; and
- § A **policy approach** that focuses on connecting local and regional transportation and land use plans, and creating incentives that encourage “smart growth” planning and actions.

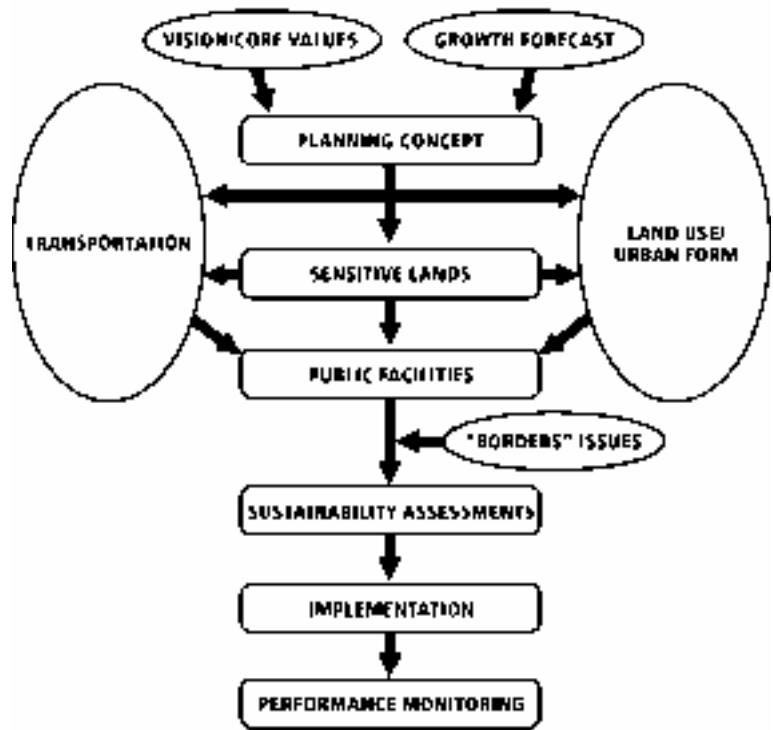
The Preferred Planning Concept

To remedy our housing and transportation challenges, and to help preserve more open space that would otherwise be developed, the San Diego region needs new planning approaches based on shared goals and objectives. Therefore, the RCP calls for a preferred planning concept that focuses on:

1. Improving connections between land use and transportation plans using smart growth principles;
2. Using land use and transportation plans to guide decisions regarding environmental and public facility investments; and
3. Focusing on collaboration and incentives to achieve regional goals and objectives.

As stated above, the first major emphasis of the RCP is on *improving connections between land use and transportation*. In this vein, a key recommendation of the RCP is to identify Smart Growth Opportunity Areas — areas where compact, mixed use, pedestrian-oriented development either exists now, is currently planned, or has the potential for future incorporation into local land use plans — and place a higher priority on directing transportation facility improvements and other infrastructure resources toward those areas.

RCP PLANNING FRAMEWORK



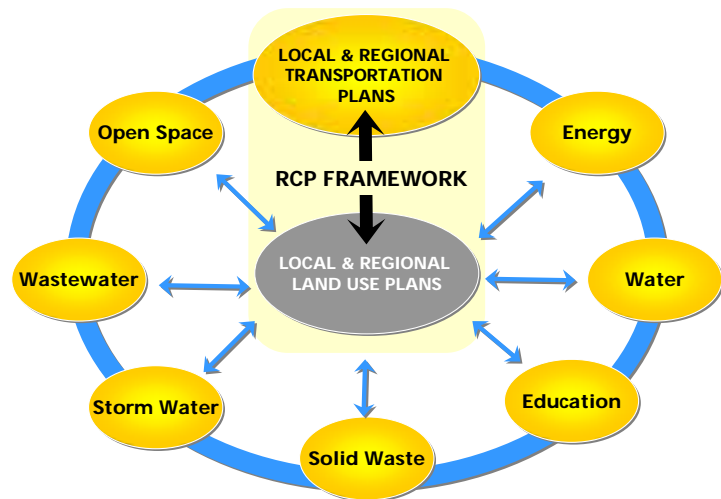
LINKING TRANSPORTATION AND LAND USE PLANS



When it comes to transportation funding and smart growth, the RCP directs SANDAG to put its money where its mouth is — to use regional transportation funding as an incentive for local agencies and service providers to make land use decisions and infrastructure investments that support smart growth.

The second emphasis area is on *using land use and transportation to guide other plans*. The designation of specific Smart Growth Opportunity Areas in the RCP will provide guidance to local governments, property owners, and service providers as to where smart growth development should occur from a regional perspective. It will focus attention on these areas as local jurisdictions update their general plans and redevelopment plans, and service providers update their facility master plans. By coordinating our planning in this manner, we will ensure that public and private investment in local and regional infrastructure is implemented in an efficient and sustainable manner.

USING LAND USE AND TRANSPORTATION PLANS TO GUIDE OTHER PLANS



The RCP implementation approach, which focuses on *collaboration* and *incentives*, springs from the local level to a regional framework, and calls for:

- € Updating SANDAG’s transportation project evaluation criteria to better reflect the transportation and land use objectives of the RCP;
- € Providing funding and other incentives for smart growth development in key areas throughout the region; and
- € Placing a greater emphasis on subregional planning and implementation programs.

HOW THE RCP IS ORGANIZED

The various chapters of the RCP address each of the major elements of planning for our region: urban form, transportation, housing, healthy environment, economic prosperity, public facilities, and borders issues. Each chapter begins with a vision for the San Diego region in 2030 and includes a description of existing conditions, existing plans and programs, an analysis of key issues, and recommended goals, policy objectives, and actions.

These chapters, along with the RCP’s Integrated Regional Infrastructure Strategy (IRIS), a regional smart growth investment and financing strategy, form the core of the Regional Comprehensive Plan.

URBAN FORM: WHERE AND HOW SHOULD THE REGION GROW



Where should we provide places in our region for people to live, work, shop, and play as our population continues to grow? How should we design our communities so that they provide us with a high quality of life? Will the impacts of future growth overwhelm the natural beauty of our environment?

Previous studies have demonstrated that the way land has been developed in the region during the past half century cannot be sustained as the region continues to grow.

Dispersed, low density housing separated from auto-oriented commercial development pushes urban development into areas better suited for rural land uses and regional open space.

As homes and jobs are more dispersed and trips become longer, it is more difficult to travel any other way but in a car. Alternatives like transit and carpooling work best where urban land uses are focused along corridors conveniently close to transit stations or park and ride lots. Bicycling and walking are practical alternatives only when the distances are relatively short between shops, jobs, school, or services, or when they can be easily combined with transit.

While a significant number of the region's population will continue to live in traditional suburban residential communities, more choices in both housing type and location are necessary to meet our mobility and housing needs. A better mix of jobs and housing, and better access to jobs are needed at both the regional and interregional levels. In particular, we need to reduce the number of lengthy commute trips across the region and across our borders every day.

Designing Livable Places

A strong sense of community identity in a vibrant and diverse urban landscape is the hallmark of livable places. While there is no simple formula for good urban design, a number of important design elements make a community work. Good design reflects the unique character of the community. It enhances the identity of the community by improving existing public facilities and providing high quality design in new facilities. It takes advantage of the region's remarkable climate by creating efficient, ecologically-friendly buildings, and encourages an active, healthy lifestyle. Over-dependence on the automobile results in communities that are dominated by the infrastructure necessary to accommodate the car. Healthy communities support a variety of transportation choices. How we design our transportation facilities plays a key role in determining the scale, walkability, and ultimately, the livability of our communities.



Coordinating Transportation and Land Use

SANDAG uses land use and urban design factors in its funding criteria for highways, transit, and regional arterials. The RCP strengthens that approach by including a process for identifying "Smart Growth Opportunity Areas," and the use of transportation infrastructure funding to encourage development in these areas.

The first step toward focusing SANDAG's infrastructure investments in support of smart growth is to identify the location of existing and potential smart growth areas. Because the San Diego region is so diverse, the character of smart growth opportunity areas will vary depending on the particular setting. Smart growth in downtown San Diego is different from that in downtown Escondido, which in turn is different from that in Ramona. Smart growth areas should reflect and enhance the special and unique features of our neighborhoods. And, although it is not a "one size fits all" approach, some general principles apply.

Under adopted SANDAG principles, smart growth areas are pedestrian-friendly activity centers that are connected to other activity centers by transit or could be in the future. The RCP identifies seven smart growth categories in the San Diego region:

- § Metropolitan Center
- § Urban Center
- § Town Center
- § Community Center
- § Transit Corridor
- § Special Use Center
- § Rural Community



Some communities already demonstrate many smart growth principles, while others need changes to general plans and zoning ordinances, as well as infrastructure improvements, to realize their potential.

Of particular importance is the kind of public transit service provided in each type of smart growth area. Public transit needs to be coordinated with land uses because the two depend on one another. Rural communities represent a unique type of smart growth. Because they are remote from the urbanized areas of the region, transit generally cannot play as significant a role in meeting their travel needs. Nevertheless, rural communities can contribute to the region's urban form goals because they can provide a focal point for commercial and civic uses that can serve surrounding rural areas. Additionally, they can focus development closer to the village core, helping relieve pressure for development in outlying areas and preserve open space.

The seven categories provide a basis for identifying Smart Growth Opportunity Areas throughout the region. Through a collaborative process, SANDAG and the local agencies will designate these areas on a Smart Growth Concept Map. The concept map will be used as a planning tool to communicate with local jurisdictions and infrastructure providers about where smart growth will happen.

Providing Incentives for Smart Growth



The RCP proposes several new funding strategies to help guide the region's urban form and provide incentives to implement Smart Growth Opportunity Areas. The planning concepts, funding strategies, and development priorities proposed in the RCP in many ways revolutionize today's planning processes.

Regional Transportation Network Priorities Based on Smart Growth.

As the region's primary agency responsible for transportation funding, SANDAG has the greatest opportunity to provide incentives for smart growth development. Decisions regarding priorities for future regional transit, arterial, and highway corridor projects should be based, in part, on how well local communities have planned for smart growth land uses that increase mobility.

Direct Financial Incentives for Smart Growth. Smart growth development, particularly in redeveloping areas, can require significant upfront investments in infrastructure other than regional transportation facilities. In response to this need, the Smart Growth Incentive Program recommended in *MOBILITY 2030*, the adopted Regional Transportation Plan, serves as a five-year, \$25 million pilot program to help local agencies fund the planning and infrastructure necessary to develop communities that meet the region's urban form goals. The program will invest in those areas of the region where local jurisdictions make clear commitments to implement the RCP's smart growth principles as reflected in existing or revised land use plans, and ultimately measured by actual on-the-ground projects.



Establishing an ongoing incentive program will require a long-term funding source like the Smart Growth Incentive Program included in the *TransNet Extension* ordinance, a proposed 40-year extension to the existing ½-cent sales tax that funds a wide range of transportation projects in the region.



Local Incentives for Smart Growth. The RCP encourages local jurisdictions to provide other incentives, such as permit streamlining, reduced parking standards, flexibility for mixed use development, increased densities, and fee reductions that promote redevelopment, infill development, and

affordable housing development, particularly in Smart Growth Opportunity Areas. The RCP calls for rewarding local jurisdictions that provide smart growth incentives with higher priority for receiving regional incentives.

TRANSPORTATION: MOVING PEOPLE AND GOODS

Our current regional transportation system will not meet the needs of a growing and mobile population.

Land use decisions and development patterns affect the region's transportation systems and the travel choices people make. The location of where homes and businesses are built and the intensity of these land uses directly affect local roads and transit services as well as freeway and rail efficiency. Too often, local land use decisions do not include transit needs with the typical road improvements required of new development.



It's time for a change.



MOBILITY 2030, SANDAG's regional transportation plan, serves as the primary transportation element of the RCP, and helps position the region to achieve smarter, more sustainable growth.

But the implementation of *MOBILITY 2030* requires local and regional land use agencies to work together to create more mixed use neighborhood and community centers that encourage transportation choices to reach jobs and services, including walking, bicycling, transit, and carpooling.

MOBILITY 2030 plays a key role in implementing the RCP. During the next three decades, SANDAG is expected to allocate more than \$42 billion of transportation investments. The RCP calls upon SANDAG to update the Regional Transportation Plan and related programming documents in a way that maximizes opportunities for local jurisdictions to implement smart growth. At the same time, it calls for SANDAG to do its part by ensuring that the design and implementation of its regional transportation facilities support local smart growth.

Within this context, the Transportation chapter includes a variety of recommended actions to improve our mobility network, not the least of which is securing needed funding. It also calls for increasing the use of Transportation Demand Management programs, preparing new subregional transportation and land use studies, identifying priority transportation corridors for investment, incorporating pedestrian and bicycle access into urban design and development plans, and finalizing a regional airport solution with strong, multi-modal access. *MOBILITY 2030* and the RCP go hand in hand, with updates to one setting the stage for updates and improvements to the other.

HOUSING: PROVIDING HOMES FOR ALL RESIDENTS



The San Diego region is in the midst of a housing crisis. Our region is regularly ranked as one of the areas with the highest priced and least affordable housing in the nation. The costs of renting or owning a home have risen dramatically during the past ten years.

Where and how housing is built are two of the most important decisions jurisdictions can make in shaping our region's future.

Currently, the San Diego region is not planning for or building the amount or type of housing necessary to meet the existing and future needs of its growing population or to accommodate its changing demographics. Adding to the lack of housing capacity is the fact that not all of the planned land supply and densities reflected in existing plans are likely to be developed due to a variety of factors including owners unwilling to sell, community opposition, environmental constraints, and lack of infrastructure or funding for infrastructure.

In addition to our future housing need, the region also has an existing unmet housing need. We have not been building enough housing to keep up with our population and job growth, and the housing we have been building is largely unaffordable to lower income households. This existing shortage forces many families, especially lower income families, to spend more than they can afford on housing, live in overcrowded or substandard housing, and/or move to and commute from neighboring regions.



The region is beginning to address its housing needs by implementing smart growth projects. Smart growth development is underway in communities throughout the region with small lot single family homes, townhomes, condominiums, and apartments offering homeownership or rental opportunities for residents close to shopping, schools, services, and planned transit. Additionally, older shopping centers, business complexes, and blighted areas are being redeveloped into attractive mixed use and housing projects. But much stronger commitments to smart growth, redevelopment, and infill are needed throughout the region.

While smart growth discussions often focus on redevelopment and infill in our existing urban areas, it is important to note there are also opportunities for smart growth development on our remaining vacant land. New suburban communities can be built so that they are more compact, walkable, and transit-accessible. By rezoning certain vacant land at higher densities, land can be used more efficiently, making it easier to include affordable and mixed use housing in new developments, while also preserving open space.

The RCP calls for a number of coordinated actions to give the region's residents more housing choices – more apartments, condominiums, and single family homes in all price ranges, affordable to persons of all income levels, and accessible to persons of all abilities. The RCP advocates for locating additional housing choices in our urban communities close to jobs and transit to help

conserve our open space and rural areas, reinvigorate our existing neighborhoods, and lessen projected levels of interregional commuting.

The Housing chapter recommends the use of tools such as incentives, infill development, rezoning, rehabilitation, sustainable or “green” building techniques, inclusionary housing measures, rental assistance, replacement housing, and expedited permit processing to increase and diversify our region’s housing supply and to achieve smarter growth. It also calls for regional transportation incentives to be directed to local jurisdictions that provide affordable housing and other housing choices in smart growth opportunity areas.

**HEALTHY ENVIRONMENT:
ENHANCING OUR NATURAL HABITATS, AIR, WATER, AND BEACHES**

San Diegans share a strong attachment to our regional landscape. When asked what they like most about San Diego, natives and newcomers alike consistently cite the enviable climate, beaches, bays, urban canyons, local mountains, and deserts.



To protect these special places and foster a healthy environment, the region must protect key open spaces and sensitive habitat areas, ensure that the air and water are clean, and restore eroding beaches.

To balance the need for development and sensitive lands conservation, our local jurisdictions have adopted regional habitat conservation plans and subarea plans. These play an important role in defining areas where development is appropriate. Also important to our healthy environment is urban ecology: those natural areas that remain in or around urbanized areas.

Clean air and water, viable natural habitats, and a well-managed shoreline are critical components to the health and well being of our residents. They also are critical to the overall economic prosperity of our region.

A number of activities in recent years have cleaned up our water, improved our air quality, and preserved open space. However, much more needs to be done. Sewage spills still occur, polluted runoff still flows into the ocean, and our open space is threatened. As a region, we must increase our commitment to improving these resources. Just like urban infrastructure, our natural resources require funding as well as a commitment from residents, and local, state, and federal agencies.



The Healthy Environment chapter identifies funding opportunities, details actions, and outlines how agencies and communities can work together to preserve and improve the environment. Among many recommendations, the plan calls for linking habitat corridors within San Diego County with

surrounding counties and Mexico to create interregional and international preserve systems; securing a reliable funding source to ensure development and implementation of comprehensive regional storm water plans and programs; and preparing and implementing habitat conservation plans for nearshore areas.

ECONOMIC PROSPERITY: CREATING OPPORTUNITIES FOR AN IMPROVING STANDARD OF LIVING



Our economy functions within a regional and global economic setting. The San Diego-Baja California binational region faces increasing domestic and global competition. Many people are aware of globalization; however, few understand that regionalization or the increasing importance of regional economies is the other side of the coin. In economic terms, our region is directly connected to the greater Los Angeles area and Baja California, Mexico, which are our

gateways to the domestic and international marketplaces. Access to international markets is critical for the economic prosperity of the region. To the south, we depend on Baja California for an important part of our labor pool. Southwestern Riverside County also is becoming an increasingly important source of labor and an alternative housing choice for many.

Our region and its workforce are ideally situated to benefit from this economic landscape. One way to increase the region's competitiveness is to encourage collaborative efforts by private-sector organizations and government agencies responsible for maintaining and improving the region's access to domestic and international markets.

The adopted SANDAG Regional Economic Prosperity Strategy serves as the primary economic element of the Regional Comprehensive Plan. The Strategy's recommended actions call for infrastructure investment and public policy support in key areas to strengthen the region's economic foundation. The Strategy makes the connections among a strong economy and sufficient land for jobs and housing, a superior infrastructure system to support business and industry, and an education system that prepares residents to succeed in the workforce.

The Regional Economic Prosperity Strategy calls for retaining and expanding local businesses, creating more well-paying jobs, and preparing our residents to fill these jobs. The primary goal is to increase, through these jobs, personal income, and thus raise the standard of living for all of the region's residents. Rising incomes are part of the solution to making housing more affordable.

Other actions outlined in the Economic Prosperity chapter include attracting venture capital to retain and attract industries that will produce more high-quality jobs in the region; providing infrastructure that enables emerging technologies and existing businesses that provide high-quality jobs to flourish; and implementing a consensus-based state-local fiscal reform proposal that provides financial incentives to local jurisdictions to increase the supply and affordability of housing and helps achieve the smart growth goals of the RCP.

PUBLIC FACILITIES: STRENGTHENING THE SOCIAL AND PHYSICAL INFRASTRUCTURE OF OUR COMMUNITIES

Most of us give little thought to the origins of the water that flows from our faucets, or to the final destination of the trash that disappears from our curbsides. Similarly, many of us are not very familiar with how our schools, parks, libraries, hospitals, and police stations are provided; yet, we consider these public facilities essential to the quality of our daily lives.



A sometimes complicated mix of public agencies and funding sources are responsible for our public facilities and services. Residents require reliable supplies of water and energy, opportunities to reuse and recycle materials, and sufficient disposal options for waste. Therefore, it is imperative that these agencies coordinate efforts, achieve greater efficiencies, and have the resources necessary to provide public facilities that meet our current and future needs.

As a region, we can make more efficient use of finite resources. We can do this by locating public facilities where they will most effectively provide access and availability of needed services and protect public health and safety. At the same time, we need to ensure that lower income and minority communities are not disproportionately affected in a negative manner.

The RCP focuses on a number of key issues that relate to improving our public facilities infrastructure: meeting our regional water demand; diversifying our water sources; stabilizing the cost of energy; upgrading aging energy infrastructure; and dealing with dwindling landfill space.

The Public Facilities chapter calls for new policies and programs that, among many things, maximize water resources through diversification strategies such as transfer agreements, water recycling and reclamation, seawater desalination, and sustainable groundwater development; promote the local production of energy to reduce our dependence on imported energy; and encourage incentives for composting, recycling, and household hazardous waste collection programs.

The overall goal of the chapter is to ensure that the region provides public facilities that meet our current and future needs in a timely, efficient, and sustainable manner. Although the Public Facilities chapter primarily focuses on water supply, energy, and waste management, it also calls for the enhancement of important assets such as parks, libraries, police, fire, hospitals, and schools.

BORDERS: FORGING A BETTER FUTURE WITH OUR NEIGHBORS

The RCP strives to create a regional community where San Diego County, our 18 local cities, three neighboring counties, 17 tribal governments, and northern Baja California, Mexico mutually benefit from our varied resources and international location.



To achieve that goal, the RCP calls for the coordination of shared infrastructure, efficient transportation systems, integrated environmental planning, and economic development with all of our regional neighbors. It recognizes that our region is a unique and dynamic place to live — one that embraces cultural diversity, promotes interregional understanding, and benefits from our varied history and experience.

Improving Access to Jobs and Housing

One of SANDAG's most active programs is the state-funded I-15 Interregional Partnership, a voluntary partnership between elected officials representing communities along Interstate 15. Three regional government agencies, including SANDAG, the Southern California Association of Governments, and the Western Riverside Council of Governments, are working together to address the inaccessibility between jobs and housing that has caused increasing traffic congestion between San Diego and Riverside Counties. It has been a successful, ongoing collaborative effort. SANDAG is now considering a similar effort with Imperial County.

Along our international border, although struggling to meet its own demand for housing units, Tijuana is beginning to see San Diegans buying homes and crossing daily to work in San Diego. We must address both the issues of San Diegans migrating southward for affordable housing and the northward migration of Mexicans in search of work along the border. Similar to the partnership created with southwestern Riverside County, the RCP calls for developing a partnership with authorities in Mexico to address the issues surrounding jobs/housing accessibility in the binational region.

Enhancing Transportation Systems and Trade Routes

As growth continues in this region and the surrounding areas, maintaining major transportation systems will be an even greater challenge. Agencies must work together to provide reliable and efficient transportation systems associated with interregional commuting corridors, key trade corridors, tribal reservations, and ports of entry. The Borders chapter recognizes that the San Diego region needs support from its northern and eastern neighbors to acquire funding for trade corridor infrastructure in the international border zone.

Energy, Water Supply, and the Environment

Water, energy, and the environment are other key areas that span our regional, international, and intergovernmental borders. Policies and infrastructure are needed to meet binational, tribal reservation, and interregional long-term energy and water needs in a fiscally and environmentally sound manner. Maintaining habitat corridors, and improving air and water quality will contribute to a healthy binational and interregional environment.



Specifically, the Borders chapter calls for increasing the use of renewable energy resources throughout the binational and interregional region; coordinating long-term water planning with surrounding counties, Mexico, and tribal governments; and establishing a cross-border cooperative effort to protect border communities from potentially harmful environmental impacts of projects on either side of the U.S.-Mexico border.

Economic Development



Interregional partnerships can contribute significantly to the success of the Regional Economic Prosperity Strategy and position the greater binational and interregional area as a strong competitor in the global marketplace. Specific actions called for in the Borders chapter include supporting the I-15 Interregional Partnership's economic development strategies; enacting policies and measures that promote economic development along the border in Mexico, such as the Maquiladora Program; and establishing a forum for increased communication with tribal governments regarding economic development.

Homeland Security

In the aftermath of the terrorist attacks of September 11, 2001, homeland security presents an increased challenge for our international border region. Local, state, and federal officials from both countries have been charged with keeping the nation secure while protecting the quality of life in the greater border region. European countries provide helpful models for maintaining security and fluidity in border areas. The Borders chapter outlines how improvements can be made to binational ports of entry through the application of new technologies and increased involvement of local agencies.

SOCIAL EQUITY AND ENVIRONMENTAL JUSTICE ASSESSMENT: FAIR PLANNING AND DEVELOPMENT FOR ALL COMMUNITIES

Social equity and environmental justice considerations in the RCP focus on the goal that in the future, *all* communities should thrive as the region grows. Many communities have traditionally been left behind or excluded from the planning and development process, including low income and minority communities, persons with disabilities, and seniors.

Ensuring social equity does not necessarily guarantee equality — but it does mean giving every community an equal voice and opportunity. Social equity is providing all residents with access to affordable and safe housing, quality jobs, adequate infrastructure, and quality education. It means providing the opportunity for children and families of all races, abilities, and income levels to live in the best possible environment.



Environmental justice is an important component of social equity, and means that everyone, regardless of race, culture, or income, enjoys the same degree of protection from environmental and health hazards, and equal access to the decision-making process.

The Social Equity and Environmental Justice chapter analyzes equity issues in the RCP, much like an environmental impact report, but with an emphasis on social impacts. We know from experience that regions grow healthier when all communities are strong, which is why social equity is one of the three “E”s of sustainability (equity, environment, and economy). Without it, the region cannot have true prosperity.

Equity considerations are especially important when discussing urban form (where and how our region grows). In the discussions of where the region should grow, the focus is often on the environmental consequences of development patterns, such as increased traffic, air pollution, loss of open space, and energy consumption. However, development patterns also have social and economic consequences. They can accelerate the decline of urban infrastructure, concentrate poverty in urban areas, create a spatial mismatch between urban workers and suburban job centers, and negatively affect public health.

The RCP identifies four key steps that must be taken to promote social equity and environmental justice in the San Diego region:

- § Expand public involvement;
- § Expand current analysis efforts to assess existing social equity and environmental justice conditions in the region;
- § Evaluate future plans, programs, and projects; and
- § Monitor the performance of the RCP.

Monitoring performance on a regional basis, identifying shortfalls, making improvements, and increasing access to the region’s resources and decision-making processes will result in a better quality of life for all residents.

INTEGRATED REGIONAL INFRASTRUCTURE STRATEGY: ENSURING THE FOUNDATION OF OUR VISION FOR THE FUTURE

Demand for infrastructure is driven by population growth. How well the region responds to the challenges of our population growth will define our quality of life for decades to come. In drafting the RCP and its Integrated Regional Infrastructure Strategy (IRIS), SANDAG is developing a blueprint to help achieve the goal of responding to population growth and creating a sustainable region.

The IRIS outlines a forward-looking investment and financing strategy that will help the San Diego region meet its collective infrastructure needs. All infrastructure needs cannot be met immediately. Timing is the key to ensuring the adequacy of infrastructure services and funding. The IRIS recommends a phased approach. If our local and regional expenditures are working together toward a long-term goal, then we are making progress toward addressing our needs in an efficient and focused manner.

The IRIS focuses on eight important infrastructure areas:

- § Transportation (including regional airport, maritime port, transit, highways, and international ports of entry)
- § Water supply and delivery system
- § Wastewater (sewage collection, treatment and discharge system)
- § Storm water management
- § Solid waste collection, recycling, and disposal
- § Energy supply and delivery system
- § Education (including elementary and secondary schools, community colleges, and universities)
- § Parks and open space (including parks and recreation, shoreline preservation, and habitat preservation)

Over time, when the RCP goals and objectives are implemented, an increasing proportion of our region's growth will occur as redevelopment and urban infill. To adequately prepare for this change, the urban form and design goals in the RCP need to be universally embraced to help ensure that infrastructure is in place prior to or concurrent with the land use decisions that implement the urban form goals.



Today, however, most infrastructure planning is done without a framework that would coordinate long-term visionary planning with short-term capital expenditures. Integration of long range planning with current expenditures should be the standard practice.

For example, implementation of the RTP requires an extension of the *TransNet* ½-cent sales tax program, and meeting the energy, water, and solid waste needs of the region will require additional levels of recycling and conservation beyond what occurs today. If these assumptions do not occur as hoped, the implementation of the strategic planning and capital budgeting may fail.

The IRIS recommends the following actions to help align our infrastructure plans and investments with our RCP goals and objectives:

1. Local jurisdictions, acting individually and collectively through SANDAG, should use funding for transportation projects to provide incentives for changes in land use to achieve the urban form and design goals of the RCP. This action provides a link to other infrastructure providers.

2. Infrastructure service providers should develop and implement strategic plans to bridge annual expenditures of a capital improvement program to long-term goals of a facilities master plan. The facility master plans of each infrastructure provider should be linked to each other and the RCP.

3. Local jurisdictions and service providers should formally establish procedures and mechanisms, such as memorandums of understanding (MOUs) or compacts, to coordinate planning and investment in regional infrastructure facilities to support the RCP.



As the San Diego region continues to change, we must regularly assess the ability of our infrastructure to keep pace and to maintain our quality of life.

MEASURING OUR PROGRESS

How will we track our progress? In many cases, the RCP calls for major changes in the current ways of doing business, looking out 30 years and beyond. Many of the actions and paradigm shifts discussed in the plan may take years to develop, fund, and implement. Some short-term impacts are likely to be subtle. Some will be more noticeable. Over time, however, smart decisions and the cumulative effects of our actions will result in the future that the plan envisions.



The Performance Monitoring chapter contains a set of annual performance indicators to monitor the region's progress toward achieving the goals and objectives of the RCP. It also includes periodic indicators — indicators that may not be available on an annual basis but can provide relevant information for assessing the region's quality of life.

In the fall of 2004, a baseline monitoring report will be published to create a benchmark by which to measure future performance. Specific targets to be used as performance measures will be developed after the publication of the baseline monitoring report. Where possible, both a short-range target — probably five years — and a year 2030 target will be developed for each indicator. The baseline monitoring report will serve as a starting point, and subsequent annual reports will describe further progress.

TRANSLATING VISION INTO ACTION

The Implementation chapter focuses on two fundamental themes: collaboration and incentives. Building upon these themes, the heart of the chapter is a collection of "Strategic Initiatives" — an initial work program that organizes and prioritizes the recommended actions and concepts in each chapter of the RCP.

The RCP was not designed as a regulatory plan, but rather as a guidance plan. As such, the preferred implementation approach is that local and regional agencies incorporate the recommended policy objectives and actions into their local and regional plans as they update those plans. Updates to local and general plans will then be reflected in SANDAG's regional growth forecast, the Regional Comprehensive Plan, and the Regional Transportation Plan. In other words, the implementation of the RCP will be a dynamic and iterative process.



The *collaborative* aspect of the implementation strategy includes:

- € Strengthening the connection between local and regional land use and transportation plans;
- € Creating subregional planning programs;
- € Encouraging private sector participation; and
- € Developing compacts or agreements between agencies within and across our borders.

The *incentives* aspect of the implementation strategy focuses on strengthening the link between smart growth land uses and transportation investments. Because SANDAG is the transportation planning and implementation agency for the San Diego region, the RCP calls for using regional transportation funds, in conjunction with local land use incentives, as catalysts to encourage smart growth development in key locations throughout the region. The application of incentives will take place under a three-pronged approach: developing a Smart Growth Concept Map that will serve as a planning tool to communicate where smart growth will happen; developing the smart growth incentive program and applying those incentives toward Smart Growth Opportunity Areas; and assembling an urban design "best practices" manual focused on smart growth development principles for use by local and regional agencies.

Other key implementation components of the RCP important across all areas of the plan are: public participation, social equity and environmental justice, intergovernmental review, performance monitoring, and analytical tools.

The RCP is unique in that it advocates for a collaborative, incentive-based, bottom-up approach to implementation. The plan will only succeed with strong partnerships that include local governments, public agencies at all levels, community interest groups, the private sector, and the public; and proposed timeframes in which to achieve the plan's recommended actions.

**CONCLUSION:
MOVING FORWARD, TOGETHER**



What does the RCP mean to you and me? On a more personal level, it will help us to breathe easier by promoting cleaner air. It may not be able to reduce traffic in the short run, but it will give us more ways to avoid it over the long haul by providing other travel options. It will give us more housing styles to choose from. It will give us more opportunities to live and work in the same neighborhood. By saving more land for habitat, the RCP will help us leave a greater legacy by safeguarding the future for our children and grandchildren.

Better connecting our land use and transportation plans is critical for our region to grow in a smarter, more sustainable way. The RCP provides a blueprint for coordinating transportation and other regional infrastructure investments, and directing these investments into Smart Growth Opportunity Areas identified in collaboration with local jurisdictions.

The Regional Comprehensive Plan will function as a “living” document, evolving over time as specific policies and programs are advanced. It will be updated every few years to reflect the region's accomplishments, add new topics that weren't included in this initial RCP, and address the region's changing needs.

Now and in the future, SANDAG welcomes your ideas into this dynamic and vital process.



INTRODUCTION

What is the Regional Comprehensive Plan?

Over the next 30 years, San Diego County is expected to grow by more than one million people, bringing the total population to almost four million. Many of these people will be our children and grandchildren. Where will they live? Where will they work? And what will the region around them be like?



The region's 19 local governments, working under the umbrella of the San Diego Association of Governments (SANDAG), have developed a plan to address our region's projected population growth. The goal is to ensure a high quality of life for ourselves and our future generations — to work toward a society that has resolved its housing shortage, transportation problems, and energy issues, and provides healthy, desirable environments for people and nature. Sounds like a fictional utopia? No. This blueprint for our region's future is called the Regional Comprehensive Plan.

WHAT IS THE RCP?

The Regional Comprehensive Plan (RCP) is the long-term planning framework for the San Diego region. It lays out a regional vision. It provides a broad context in which local and regional decisions can be made that foster a healthy environment, a thriving economy, and a high quality of life for all residents. It balances regional population, housing, and employment growth with habitat preservation, agriculture, open space, and infrastructure needs. It moves us toward a sustainable future — a future with more choices and opportunities for all residents of the region.



The RCP is not merely a compilation of local and regional plans. It recognizes that each jurisdiction in the region makes its own decisions regarding land use, and then builds upon the best elements of our existing local plans and regional infrastructure plans to provide a regional blueprint for where and how we want to grow. It identifies challenges that we face as a region, and provides a more sustainable alternative to where we could end up if we continue with business as usual.

Most important, the RCP acknowledges that cooperation and consensus-building among all jurisdictions and stakeholders are key to realizing our shared vision of the future. The RCP springs from our neighborhoods and communities. It is based on a bottom-up approach with a regional framework that will strengthen local plans. It is not about consistency and conformity, but about strengthening the connections between land use and transportation, linking local and regional plans, and providing needed infrastructure.

WHY IS THE RCP IMPORTANT?

Our Unique Setting



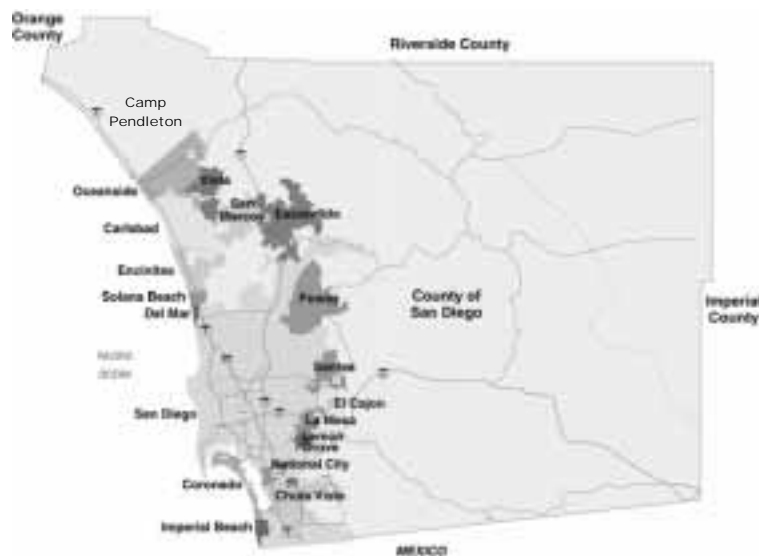
The San Diego region spans more than 4,200 square miles in the southwest corner of the continental United States. Geographically, our western boundary is the Pacific Ocean. Mexico lies just to the south. Camp Pendleton to the north separates us from Orange County and Los Angeles, and we share a border with fast-growing Riverside County. The agriculturally-based Imperial County flanks our eastern border (Figure 1.1).

Politically, the San Diego region consists of 18 cities and the County of San Diego. Our region also contains 17 sovereign tribal governments, administering 18 Native American reservations, the largest number of reservations in any county in the continental United States.

The San Diego region strives to balance both its economy and its ecology. While our region is well-known for our high-technology job base, it is also recognized for our pioneering habitat conservation efforts that protect our native plant and animal species. We have one of the most biodiverse regions in the world and, for that reason, have been identified as a major "hot spot" for biodiversity and species endangerment.

The region possesses a unique and varied landscape. Within a one-hour drive of the center of the region are mountains, deserts, mesas, canyons, river valleys, lakes, bays, and the ocean. It is a major tourist destination thanks to our mild climate and miles of breathtaking coastline. A bustling and diverse international border with Mexico also helps attract tourism, new residents, and new businesses every year.

FIGURE 1.1—THE SAN DIEGO REGION AND NEIGHBORING AREAS



The Challenges We Face Today

In recent decades, the region has struggled with worsening traffic congestion. Resolving this problem requires a comprehensive approach. Given existing land patterns and increasing cost constraints, simply building more freeways won't solve our traffic congestion problems.



One obstacle to crafting effective solutions lies in the existing structure of our governments; most land use plans for future development patterns are developed by local governments, while most transportation planning is done regionally by SANDAG and the California Department of Transportation (Caltrans).

The region needs to view both new development and new transportation systems in the same light to ensure that our housing and travel needs are met and our transportation investment decisions are smart ones. How and where the region grows plays a major role in resolving many problems beyond traffic congestion, including rising housing prices, loss of open space, and ever-lengthening commutes.



The demand for housing has outpaced the region's supply, creating higher home prices, low rental vacancy rates, and more crowded homes. When our children grow up, it is likely they won't be able to afford to live on their own in this region. Over time, high home costs will drive many middle and lower income residents like school teachers, firefighters, caregivers, and service workers out of the

region. Simply put, the region will suffer without a long-term solution to skyrocketing housing costs.

Fiscal and political realities provide formidable impediments to the production of new homes, but geography is also a major factor. Our region is simply running out of undeveloped land for large-scale residential development. Although the region is large — almost the size of Connecticut — much of it is unsuitable to build upon. Topography, water supply, public ownership, and endangered plants and animals mean that most new development will occur in the western third of the region. The mountains and deserts to the east are too far from jobs, schools, and services, and in many instances, are ecologically fragile.



Of our remaining vacant land currently designated in local plans for new housing, less than ten percent (about 38,000 acres) is planned at densities equal to or greater than one dwelling unit per acre. Figure 1.3 depicts these areas, of which many are already in the process of being developed. The areas shown on the map are generally small and difficult to see on a map of this scale, illustrating the fact that very little vacant land planned for urban densities remains in the region.

This means that redevelopment and residential infill will play increasingly critical roles in providing future housing opportunities.

As a region, we should provide enough homes to meet the demand created by projected job and population growth. The RCP recognizes that local land use plans, if left unchanged, do not provide enough capacity to meet the region's projected housing needs over time. If housing capacities in key locations of our more urbanized areas are not increased, more San Diego workers will live in surrounding areas including Riverside and Imperial Counties and Baja California. The result for our region will be a continued housing crisis and worsening traffic.

Therefore, the RCP calls for the San Diego region to take more responsibility for its own housing needs and create additional housing and mixed use capacity in appropriate locations.

The major challenges before us, then, are how to intelligently use the small amount of remaining undeveloped land designated for residential development, how to protect our natural environment, how to maximize urban redevelopment and infill opportunities, and how to coordinate these revitalization efforts with our current and future transportation networks, maximizing mobility within our region.

FIGURE 1.2—MAJOR USES FOR THE RCP
A major goal of the RCP is to strengthen the connections between land use and transportation planning and local and regional planning.

- § **Identifying a preferred direction for regional growth.** Through the RCP, our region collectively determines where future growth should be encouraged and where it should be avoided. The RCP identifies smart growth opportunity areas and provides a policy framework for prioritizing infrastructure investments in those areas.
- § **Strengthening the connection between land use and transportation decisions.** Most land use decisions are made locally, while most transportation decisions are made regionally. The RCP provides a framework to better integrate land use and transportation decisions.
- § **Connecting local general plans and regional infrastructure plans.** The RCP serves as a framework for local jurisdictions as they implement their general plans, and for infrastructure service providers as they prepare and update their facility master plans. SANDAG does not have land use or regulatory authority and does not issue permits. However, through the RCP, the regional leadership has agreed to an incentive-based framework for achieving a regional vision.
- § **Supporting smart growth with regional transportation dollars.** SANDAG is responsible for programming federal, state, and local transportation funds in the San Diego region. SANDAG will provide funding incentives to communities that have or are willing to adopt land use plans that support smart growth. The current regional transportation plan, *MOBILITY 2030*, takes a first step toward our efforts to grow in a smarter, more sustainable way, but the RCP moves us even further in that direction.
- § **Achieving more sustainable development for future generations.** The RCP embraces the concept of sustainability, which means making land use decisions and infrastructure investments that are good for the environment, the economy, and all people.
- § **Providing a proactive approach to issues of fairness and equity.** Our region is becoming more ethnically diverse and, as the Baby Boom generation ages, collectively older. The RCP evaluates our policies for fairness - to ensure they do not disproportionately affect minority and low income communities in a negative manner. It also promotes the inclusion of a diverse mix of people in our local and regional planning processes.
- § **Cooperating with our neighbors within and outside our region.** The RCP highlights issues that should be addressed cooperatively by SANDAG, the region's 19 local jurisdictions and tribal governments, our neighboring counties and cities, and Mexico.
- § **Monitoring our progress.** SANDAG and member agencies will use performance measures to track progress made toward achieving the RCP goals.
- § **Helping to meet state government goals.** Caltrans has been a major underwriter of the RCP, in hopes that better, long-term planning and coordination in the San Diego region will improve the region's transportation system. The RCP can help achieve state goals such as less traffic congestion, more transportation alternatives for our increasingly diverse population, greater economic prosperity, more effective use of our energy and fuel, increased public involvement in transportation planning, and a healthier environment.

FIGURE 1.3—VACANT DEVELOPABLE RESIDENTIAL LAND PLANNED FOR ONE UNIT PER ACRE OR MORE AS OF APRIL 1, 2000



Source: SANDAG 2030 Final Forecast Land Use Inputs

Planning for Smarter Growth

The key to making the most of our limited supply of suitable land without creating greater congestion, commute times, and air pollution is a planning concept called “smart growth.”

Smart growth means developing the region in a way that creates communities with more housing and transportation choices, better access to jobs, more public spaces, and more open space preservation. Smart growth more closely links jobs and housing, provides more urban public facilities like parks and police stations, makes our neighborhoods more walkable, and places more jobs and housing near transit. It reduces land consumption in our rural and agricultural areas and spurs reinvestment in our existing communities.

Smart growth also means planning for and implementing more sustainable land use patterns on our remaining, vacant developable land as well as facilitating redevelopment and infill in areas with opportunities for change. It means retaining most of our existing communities and neighborhoods,

Defining Smart Growth

Smart growth is a compact, efficient, and environmentally-sensitive pattern of development that provides people with additional travel, housing, and employment choices by focusing future growth away from rural areas and closer to existing and planned job centers and public facilities, while preserving open space and natural resources and making more efficient use of existing urban infrastructure.

while pursuing land use changes in areas that can benefit from additional infrastructure investments. This results in more housing and lifestyle choices for our residents as our region grows and our population ages.

Moving in the Right Direction



Many local governments currently are updating their general plans, and many others will begin this process during the next few years. This represents a tremendous opportunity to incorporate smart growth principles into local planning frameworks. In fact, many local jurisdictions are already doing just that.

Smart growth is being planned and implemented today in our region in the form of new infill development, redevelopment efforts, transit-oriented development, and efforts to locate housing near jobs. In addition, many cities and the County have adopted landmark habitat conservation programs.

Regionally, transit and transportation planning have been consolidated under one roof – at SANDAG. SANDAG works in close collaboration with Caltrans and, increasingly, with Mexico, our neighboring counties, and the tribal governments of the region to coordinate on transportation planning issues, as well as land use and environmental planning matters.

The RCP will build upon these steps and provide transportation funding incentives to local jurisdictions and agencies to support their efforts.

WHO PREPARED THE RCP AND HOW WAS IT FUNDED?

Thousands of people helped prepare the Regional Comprehensive Plan, from residents who participated at local public workshops to business leaders, environmentalists, housing advocates, educational leaders, civic organizations, farming interests, design professionals, health advocates, planning directors, public works directors, city managers, community based organizations, local and state-elected officials, and representatives from state agencies, federal agencies, neighboring counties, and Mexico.



SANDAG's Role

The preparation of the RCP took place under the umbrella of the San Diego Association of Governments (SANDAG), the region's transportation and planning agency. Its members are the 18 incorporated cities and the County of San Diego.

One of SANDAG's most important roles is implementing a \$42 billion regional transportation plan for freeways, major arterials, buses, trolleys, pedestrian and bicycle facilities, and trains. SANDAG

works with the 19 local governments and the California Department of Transportation (Caltrans) to ensure coordination between local general plans and the regional transportation network. As the region builds more housing and job centers, we need to make sure that transportation keeps pace with demand, particularly in smart growth opportunity areas.



In early 2002, the SANDAG Board of Directors called for the preparation of the Regional Comprehensive Plan. At that time, SANDAG received a Caltrans grant to help prepare the plan. The RCP effort was spearheaded by SANDAG's Regional Planning Committee, which consists of local elected officials representing the San Diego region. The committee also includes a number of advisory members, including Caltrans, the San Diego Unified Port District, the U.S. Department of

Defense, local transit agencies, the San Diego County Water Authority, as well as representatives from two SANDAG working groups: the Regional Planning Technical Working Group (TWG), made up of the region's planning and community development directors, and the Regional Planning Stakeholders Working Group (SWG), composed of community stakeholders from throughout the region.

SANDAG's Borders Committee, Transportation Committee, Regional Housing Task Force, and public works directors also provided valuable input on key parts of the RCP.



Enabling Legislation

In September 2003, the Governor of the State of California signed AB 361 (Kehoe) into law, setting forth parameters for the preparation of a regional comprehensive plan. The law specifies that in allocating transportation resources, SANDAG must consider the extent to which each jurisdiction's general plan implements land use policies recommended in the RCP. The law also specifies that the public must be provided with opportunities to participate in decisions affecting the region's future quality of life.

Broad Public Involvement

More than 40 workshops and forums were held in cities around the region to gain input from residents on the vision, core values, goals, policy objectives, and actions of the RCP. Initial efforts enlisted participation from residents and stakeholders to help craft the vision and core values. Feedback and comments from workshops, presentations, and public meetings were used to develop the policy objectives and actions, and to refine the content in the plan.



As part of the public involvement effort, a number of community-based organizations, representing a diverse range of ethnicities, income levels, and age ranges throughout the region, received grants from SANDAG to perform outreach in their communities on RCP issues. These community-based

organizations helped identify issues of importance in their communities that SANDAG would not have been able to identify on its own. Residents' ideas from the workshops and forums have been incorporated throughout the RCP.

HOW THE RCP IS STRUCTURED

The Regional Comprehensive Plan contains a detailed analysis of existing conditions in the region, as well as goals, policy objectives, and recommended actions to achieve our shared vision.

The initial chapters outline the vision and core values established by residents and policymakers, and describe population forecasts and the challenges ahead.

Chapter 4 is the "heart" of the plan as it introduces the key planning and policy framework of the RCP: intergovernmental collaboration and incentives for smart growth. Chapters 4A – 4F serve as the "elements" of the plan, delving deeply into specific issues that define our quality of life: urban form, transportation, housing, the environment, the economy, and public facilities.

Chapter 5 recognizes that this region has unique opportunities to collaborate with our neighboring counties, Mexico, and the tribal governments within our region. Chapter 6 addresses issues that are gaining a louder voice in contemporary land use planning: social equity and environmental justice. Chapter 7 provides the foundation for the future growth of the region in the comprehensive Integrated Regional Infrastructure Strategy.

The concluding chapters of the RCP are where the action is. Chapter 8 includes a framework for benchmarking and measuring our progress over time. And, finally, Chapter 9 includes a list of "Strategic Initiatives," an initial RCP work program that pulls together specific actions from each of the chapters and organizes them strategically, identifying the lead agencies and other participating entities responsible for implementation, and the expected timeframes for completion.

Together, these chapters form a landmark document — the Regional Comprehensive Plan for the San Diego Region — a blueprint for achieving the kind of change we need to sustain our region for the future.

WHERE DOES THE RCP LEAD US?

Our local elected officials, working together as SANDAG, recognize that our region will reap several benefits from achieving consensus on a long-term regional plan, including an enhanced quality of life in the near-term, 30 years from now, and beyond. A long-term regional plan also will help our region achieve greater sustainability, as reflected by a stronger balance among economic prosperity, environmental health, and social equity; and to secure additional funding for programs and infrastructure networks critical to the region.



What does the RCP mean to you and me? On a more personal level, it will help us to breathe easier by promoting cleaner air. It may not be able to reduce traffic in the short run, but it will

give us more ways to avoid it by providing other travel options. It will give us more housing styles to choose from. It could allow us to live and work in the same neighborhood. By saving more land for habitat, the RCP will help us leave a greater legacy by safeguarding the future for our children and grandchildren.

The Regional Comprehensive Plan, although comprehensive as the title indicates, does not address all issues raised by residents and agencies during the course of its preparation. This initial RCP serves as a starting point for comprehensive planning for the San Diego region. As described in the Implementation chapter, SANDAG and its partners will focus on implementing the RCP, monitoring progress toward achieving our goals, and laying the foundation for addressing additional topics in the first RCP update. The first update is anticipated within the next three to five years, in conjunction with regular updates to the Regional Transportation Plan. SANDAG also will work with the regional infrastructure providers to ensure that new public facilities and infrastructure networks are built concurrently with development, which will move us closer, over time, toward achieving our shared vision for the region.

OUR REGIONAL VISION & CORE VALUES

Defining Where We Want to Go

"What do we want our region to be like in 2030?" That was the question SANDAG posed to the citizens of the San Diego region. Hundreds of people — concerned residents, stakeholders, business and education leaders, planning directors, and local elected officials — responded to this question at the first round of public workshops on the Regional Comprehensive Plan (RCP). Their responses shaped the RCP's regional Vision and Core Values, and helped paint a picture of what our future could be like 30 years from now and beyond.

OUR REGIONAL VISION

"To preserve and enhance the San Diego region's unique features – its vibrant and culturally-diverse communities, its beaches, deserts, mountains, lagoons, bluffs, and canyons, and its international setting – and promote sustainability, economic prosperity, and an outstanding quality of life for everyone."



ENVISIONING OUR FUTURE

Only time will tell if the RCP will result in a better tomorrow. If we imagine the future, what would we want to see? How would things be different? Here's a snapshot of how the San Diego region could look in 2030 based upon ideals and core values communicated by residents throughout the region...

2030 VISION

A Vision of San Diego in 2030

Our Environment... *Our region has retained its natural beauty. We now have healthy and vibrant communities as well as well-preserved open space, agricultural lands, and rural areas. We have permanently preserved open space corridors that run from Orange and Riverside Counties to Mexico and from the Pacific Ocean to the Imperial Valley, which all residents of the region enjoy. This interregional and international preserve system protects native plants and animals that were once on the verge of extinction. Urban canyons, parks, and public spaces in our cities reflect the native habitats of the area. Native birds frequent local parks and our own backyards.*

Our coastal environment, including reefs and kelp beds, continue to flourish. The coastline is restored to its natural condition, providing productive habitats for sea life and enhancing the region as a tourist destination with the best beaches on the West Coast. Our wide, sandy beaches help minimize damage from storms, while providing wonderful recreational opportunities for residents and visitors.

Our Economy... *Our region is economically diverse. We have an educated and well-trained workforce, an innovative business culture, and excellent universities. Our transportation, water, and energy infrastructure systems serve the needs of the greater region while meeting the demands of the modern global marketplace.*

We embrace our economic and social diversity. A majority of our residents have gainful employment with improved purchasing power and increasing economic prosperity. These attributes place our region among the most competitive in the world and have contributed to a significantly higher and sustainable standard of living for all our residents. Environmentally-friendly and sustainable business practices have become a hallmark of the region.

Our Housing and Neighborhoods... *Housing prices are within reach of much of our population, including our children, our grandchildren, and our parents, meaning fewer of them are forced to move out of the area to afford housing or retire. We have a variety of housing types for a variety of lifestyles and family structures – many of them near places where we work, shop, and play. They are connected to attractive, efficient, and well-integrated transit stations. Many of our communities, particularly those along major transit corridors, are more compact, yet they don't feel crowded thanks to good urban design and landscaping. People enjoy living in multifamily and mixed use neighborhoods within an easy stroll of retail stores, parks, playgrounds, childcare, healthcare, restaurants, movie theatres, museums, vocational schools, and other recreational services and activities. Our historic main streets are vibrant. Our rural communities have grown, but retain their small-town, country charm.*

Our homes are built or retrofitted with environmentally-friendly materials and universal design features, resulting in greater energy and water efficiency and significantly easier access for our aging and differently-abled population. Our homes are also energy-efficient and our yards are attractively landscaped with less-thirsty native plants. We are socially connected and more civically engaged, and as a result, have sound strategies for funding our schools, libraries, and other public services. Our neighborhoods are beautifully landscaped with native trees and flowers. Our streets are walkable and wheelchair accessible, and they're safer to cross. We regularly walk and ride our bikes, and this increased physical activity makes us healthier.

2030 VISION

Our Transportation Systems... We have many convenient transportation choices. Fast, frequent, and reliable public transit services interconnect our communities, and our major transit centers are integrated with housing, retail shops, food courts, shade-covered benches, and well-maintained restrooms. More of our residents who have cars opt to leave them at home and families need fewer cars per household. Overall, it's easier and more convenient to get around by walking, biking, and using transit. As a result, many children walk or bike to school, as we used to do when we were younger.

Many of our existing regional freeways, highways, and major roadways have been expanded and include an extensive managed lane network for transit and carpools. These systems are linked to the international airport, ensuring effective access to world markets. Roads, rails, and vehicles are better managed with technology, which increases public safety. In-road sensors and cameras help detect traffic incidents and slowing. Automated systems notify traffic-response teams in real-time and electronically adjust ramp meters and traffic signals to moderate traffic flow.

Despite nearly three decades of population and employment growth, the average commute time is less than 30 minutes, and traffic congestion in key corridors has improved. By better linking transportation and land use decisions in the past, more people now live close to their jobs and leave their cars at home. As a result, more people have additional leisure time and less travel-related stress.

Our Relationships with Regional Neighbors... The greater Southern California-Baja California region boasts a seamless network that connects our economies, infrastructure, transportation, environment, and tourism industries. Major achievements have been made in cross-border infrastructure investment. Our air, land, and sea ports are served by extensive highway and rail transportation networks geared toward moving freight and goods north and south, east and west.

We work closely with Mexico and our surrounding neighbors to maintain a healthy environment, and both sides of the international border are recognized throughout the world for clean air and water and thriving ecosystems. We have established linkages and common land management practices along our borders. Most of our workers live here in San Diego County. However, those who travel to and from neighboring counties and Mexico have a number of commuting choices, including high-speed rail, better trolleys, buses, and train-like services, and carpools and vanpools. Our international border is more transparent as many are in Europe, and border-crossings are fast and safe.

Our Energy Supply... The region has a reliable and diversified energy supply and has reduced its dependence upon outside sources. Local supplies satisfy a greater proportion of the region's demand. Energy sources, including solar, wind, and geothermal power, are clean, efficiently produced, plentiful, and reasonably-priced. We also draw energy from converted organic materials, landfills, and water sources. Our utility lines are underground, making our neighborhood skylines more attractive.

Our Water Supply... The region is more self-sufficient with regard to water. Water is valued as a precious resource. Conservation is practiced in our homes, gardens, businesses, farms, and ranches; and made easier with new and improved technologies. We have a diversified water supply with a broad range of water resources including seawater desalination, water transfers, water recycling, reclamation, and sustainable groundwater supplies. We are less dependent on water imports, and our region's water conveyance systems are flexible and reliable.

2030 VISION

Our Water Quality... We now have a greater awareness about the overall health of our watersheds: how our streams, lakes, and rivers are connected to groundwater, lagoons, and the ocean. Our water bodies are safe for plants, animals, and people. Pollution no longer closes beaches. Groundwater supplies, now free of pollutants, help us meet the region's water demands.

Our Air Quality... The air we breathe is clean. We enjoy exercising and playing outdoors. We drive less frequently, taking advantage of convenient transportation options such as transit, bicycling, and walking. Our cars and trucks are more fuel-efficient and use cleaner-burning fuels, and we have increased numbers of electric vehicles and those that run on alternative fuels. Industrial plants continue to upgrade pollution-control equipment and curb emissions. Residential neighborhoods are free of potentially harmful industries. We now lead the country in exemplary compliance of all state and federal clean air standards, and as a result, see fewer people with respiratory disease.

Our Waste Management Systems... Educational and public awareness campaigns that focused on reducing waste, increasing recycling, and promoting composting, have been so effective that our region is closer to achieving a zero-waste philosophy than any other metropolitan area in the United States. Composting has become a common practice for reducing green waste. We make regular use of new technologies that convert organic materials into energy, ethanol, solvents, and other products. We properly treat and dispose of hazardous wastes, protecting our streams and land from contamination and meeting the needs of our local industries. More construction and demolition debris is recycled, sparing the need for new landfills.

Our Educational System... The region's K-12 school system has the resources to provide well-trained teachers, deliver education programs that meet the needs of learners at all skill levels, and parents and families are committed partners in the education process. The region has a highly educated and well-trained workforce and all segments of society are able to participate in our economic prosperity. Our workforce is capable of adapting to the ever-changing needs of modern industry. Local businesses work closely with schools to develop programs that fit their needs.

Our Quality of Life... While the number of people in our region has grown, we have improved our quality of life. Our neighborhoods are safe, and residents can walk to quality schools and well-maintained parks. Sidewalks, buildings, and recreational facilities are accessible and barrier-free. We have strengthened collaborations between governments and stakeholders within our region and with surrounding areas. All voices are heard in the decision-making process. We are spending taxpayers' money more effectively through an improved infrastructure investment decision-making process, and local governments have enough money to fund important community services. We are now stronger as an international and interregional metropolis than we were as separate communities, and we have achieved a balance between economic prosperity, environmental health, and social equity.

BACK TO THE PRESENT

Sounds like a wonderful future, doesn't it? This vision was built upon the core values that were developed through extensive public outreach. Our core values reflect aspects of our future that people living and working in San Diego in 2003 would like to preserve or enhance. The core values serve not only as the launching pad for the envisioning scenario above, but also as a guide in formulating the goals, policy objectives, and actions included in the RCP chapters.

OUR REGIONAL CORE VALUES

*What Do We Value?****Urban Form***

- § Livable, walkable, safe, and healthy neighborhoods that include a mix of housing, parks, schools, jobs, health care facilities, child care facilities, and shopping.
- § Redevelopment and infill in urban areas along transit corridors, to promote sustainable growth.
- § A variety of housing and transportation choices at various price ranges.
- § Preserved and maintained open spaces, rural communities, and agricultural areas.
- § Accessibility and a barrier-free physical environment for all.

Transportation

- § A transportation system that better links jobs, homes, and major activity centers; enables more people to walk, bike, and use transit; efficiently transports goods; and provides effective transportation options for people of all ages and abilities.

Housing

- § More apartments, condominiums, mixed-use housing, and single family homes in all price ranges; and closer to jobs, transit, shopping, and recreation centers.

Environment

- § A sustainable region with healthy ecosystems and environmentally friendly development.
- § Clean water, air, soils, water bodies, and coastlines; and healthy beaches.
- § Protected open space and habitat conservation systems, and preserved natural topography.

Economic Prosperity

- § A balanced variety of jobs with competitive wages.
- § Education and training opportunities for the local workforce to meet the demand for these jobs, helping to ensure a rising standard of living.

Public Facilities

- § Infrastructure systems that work for all residents in the region.
- § Energy self-sufficiency.
- § A diverse water supply that meets the region's needs, respects the environment, and emphasizes conservation and efficiency.
- § Access to healthcare and social services.
- § Good, safe schools for our children that provide a quality education and serve as focal points for our neighborhoods.

Binational and Interregional Coordination

- § The uniqueness of the region as an international border community, embracing ethnic and cultural diversity and promoting a wide variety of cultural resources.
- § Cooperative planning and coordination among local jurisdictions within the region, and with our local school districts, our Native American tribal governments, our neighboring counties, Mexico, and our military communities.

Effective and Responsible Planning and Implementation

- § Broader public participation in the planning process and allocation of resources.
- § A fiscal structure that provides an equitable distribution of burdens and benefits, promotes efficient resource use, and provides clear incentives for achieving plan goals.

MEETING OUR FUTURE NEEDS THROUGH SUSTAINABILITY AND SMART GROWTH

The regional vision and core values describe a future San Diego we would all be proud to call home. But, how do we get there? How do we ensure that we meet the needs of today, while also guaranteeing that the region will provide for our children and our grandchildren?

To answer these questions, the RCP calls for the application of principles of “sustainability” and “smart growth.”

Sustainability

Sustainability means simultaneously meeting our current economic, environmental, and community needs, while also ensuring that we aren’t jeopardizing the ability of future generations to meet their needs.

Sustainability is often discussed in terms of the “Three Es:” Economy, Environment, and Equity. For the San Diego region, the Three Es represent:

- § A Prosperous **Economy**: Ensuring a rising standard of living for all of our residents;
- § A Healthy **Environment**: Creating a region with clean air and water, pristine sandy beaches, and protected open spaces and natural systems; and
- § Social **Equity**: Ensuring that all communities are treated fairly and are given equal opportunities to participate in the planning process. Included within this is another important E, Environmental Justice: Ensuring that plans, policies, and actions do not disproportionately affect low income and minority communities in a negative manner.

Together, they are like three legs in a stool — lacking just one leg means the stool will not stand. Emphasizing one over the other puts us on uneven ground.

Defining Smart Growth

Smart growth is a compact, efficient, and environmentally-sensitive pattern of development that provides people with additional travel, housing, and employment choices by focusing future growth away from rural areas and closer to existing and planned job centers and public facilities, while preserving open space and natural resources and making more efficient use of existing urban infrastructure.

Smart Growth Principles

Land Use and Urban Design. Reduce land consumption by focusing future growth in the cities and in the appropriate unincorporated suburban communities and village centers through new development, redevelopment, and infill, emphasizing pedestrian friendly design and mixed use development.

Travel Choices. Provide people with additional travel choices (walking, biking, rail, bus, and automobile).

Jobs/Housing Mix. Locate housing near or within major employment areas and provide employment opportunities near major housing areas.

Housing Choices. Provide, in each community, a variety of housing types for residents of all incomes.

Infrastructure Capacity and Location. Provide adequate infrastructure in designated smart growth opportunity areas.

Environment. Protect open space and habitat areas. When constructing residential, commercial, or industrial areas, or building transportation systems, provide environmentally sensitive development that conserves water and energy, protects water quality, promotes the use of alternative energy sources, protects sensitive plants and habitats, and restores natural open spaces through the use of native plants.

Smart Growth

Smart growth means developing the region in a way that creates communities with more housing and transportation choices, better access to jobs, more public spaces, and more open space preservation. Smart growth more closely links jobs and housing, provides more urban public facilities like parks and police stations, makes our neighborhoods more walkable, and places more jobs and housing near transit. It reduces land consumption in our rural and agricultural areas and spurs reinvestment in our existing communities. Together, sustainability and smart growth form the philosophical foundation of the Regional Comprehensive Plan.

OVERVIEW OF THE SAN DIEGO REGION

Current Conditions and Future Trends

Why do we need a Regional Comprehensive Plan? Let's examine the facts. It helps to look at some objective statistical information that puts our past, present, and future into perspective. This chapter provides data that gives us a picture of where we've come from, where we are today, and where we are headed under our current plans and policies. It provides insight into what's working, what isn't, and what we can do to change our future for the better.



CURRENT CONDITIONS

At the beginning of 2004, the San Diego region had a total population of just over three million people, an increase of more than 200,000 people (7.2 percent) over the 2000 Census. The total number of housing units rose just 4.9 percent during the same period. This imbalance in the growth rates of population and housing units accounted for a slight increase in the number of persons per household.

People and Housing Facts

The 2000 Census painted an interesting picture of the region:

- § Our median age is 33.2 years – about 10 percent younger than the nation as a whole.
- § Twenty-six percent of our residents are under the age of 18; 11 percent are 65 and older.
- § We are ethnically diverse: Just over half of us are non-Hispanic White.
- § Thirty-three percent of residents over the age of five speak a language other than English at home.
- § We are educated: 65 percent of residents age 25 or older have at least some college education, and 30 percent have a bachelor's degree or higher.
- § Eighteen percent of people age five and over have a disability.
- § Median annual household income is over \$47,000, compared to the national figure of \$42,000; however, 13 percent of our residents live in poverty.
- § Our housing stock is relatively new: 62 percent of the region's homes were built after 1970.
- § Our housing stock is 60 percent single family, 35 percent multifamily, and five percent mobile homes.
- § Fifty-five percent of households are owner-occupied, 45 percent are renter-occupied.
- § The number of people commuting into the region from Riverside County tripled between 1990 and 2000.

Land Facts

In addition to Census data, SANDAG maintains a wealth of land use information on the region. Here are a few highlights:

- § The region comprises over 2.7 million acres of land (more than 4,200 square miles) – almost the size of the state of Connecticut.
- § About 55 percent of our total land area is not available for public development, including public lands, dedicated parks and open space, and land constrained for environmental reasons. Another five percent is dedicated to military use.
- § So far, more than 190,000 acres have been identified as habitat set-aside. Over time, this figure could double.
- § There are more than 8,500 miles of roads in the region, which cover more than 85,000 acres of land.
- § There are 18 Indian reservations in the region; more than any other county in the nation, totaling almost 130,000 acres.
- § More than 90 percent of our remaining vacant land designated for residential development is planned for densities of less than one home per acre, and most is in the rural back country areas dependent upon scarce ground water supplies.
- § Of the remaining vacant land designated for residential development in the 18 incorporated cities, only about seven percent is planned for multifamily densities.
- § About three-fourths of future residential development in the region will occur on vacant land, and one-fourth will take place as redevelopment or infill.

FUTURE TRENDS

The San Diego region will continue to grow over the next 30 years, but at a slower pace than in previous decades. SANDAG's 2030 Final Forecast projects that between 2000 and 2030 the region will add about one million more people, over 300,000 new homes,¹ and more than 400,000 new jobs (Table 3.1).

¹ The 314,000 new homes projected in the forecast will consume almost all of the remaining housing unit capacity of the region under current local land use plans. Capacity estimates for the 18 cities are a joint effort of SANDAG and the local planning staffs. Together, the staffs review detailed, large-scale maps of existing land use, planned land use, and potential areas of redevelopment (change of use) or infill development (intensification of the existing use). The planners indicate where within each planned density range development typically occurs, which often differs between vacant land and redeveloped land. Edits are made to SANDAG's GIS databases, and a new map and capacity estimate are produced. This process is reiterated with each city until they are satisfied that the estimate is reasonable and realistic. For the unincorporated area, SANDAG used the GP2020 population targets (in effect, a predetermined capacity), and the December 2002 Working Copy land use map for distribution. A more detailed explanation of this process is provided in the document *Final 2030 Forecast Process and Model Documentation*, available on the SANDAG Web site (www.sandag.org).

TABLE 3.1—REGIONAL GROWTH, 1970-2030

| | 1970 CENSUS | 2000 CENSUS | 2030 FORECAST | NUM. INCREASE | | PCT. INCREASE | |
|--------------------------|----------------|----------------|------------------|---------------|-----------|---------------|---------|
| | | | | '70-'00 | '00-'30 | '70-'00 | '00-'30 |
| PEOPLE | 1,357,900 | 2,813,800 | 3,855,100 | 1,455,900 | 1,041,300 | 107% | 37% |
| HOMES | 450,800 | 1,040,100 | 1,354,100 | 589,300 | 314,000 | 131% | 30% |
| JOBS ¹ | 566,900 | 1,384,700 | 1,824,000 | 817,800 | 439,300 | 144% | 32% |

¹ Includes uniformed military.

Sources: US Census Bureau; SANDAG

In each category, substantially less growth is projected than what we experienced between 1970 and 2000. This forecast is based on economic and demographic factors that are influenced by the currently adopted land use plans and policies of the 18 cities, and the most recent information from the County of San Diego's general plan update (GP2020) for the unincorporated area. It also assumes that current trends related to high housing costs, low vacancy rates, increasing household sizes, and increasing interregional commuting will continue. No assumptions were made regarding how the general and community plans might change or evolve over time in response to the growth.

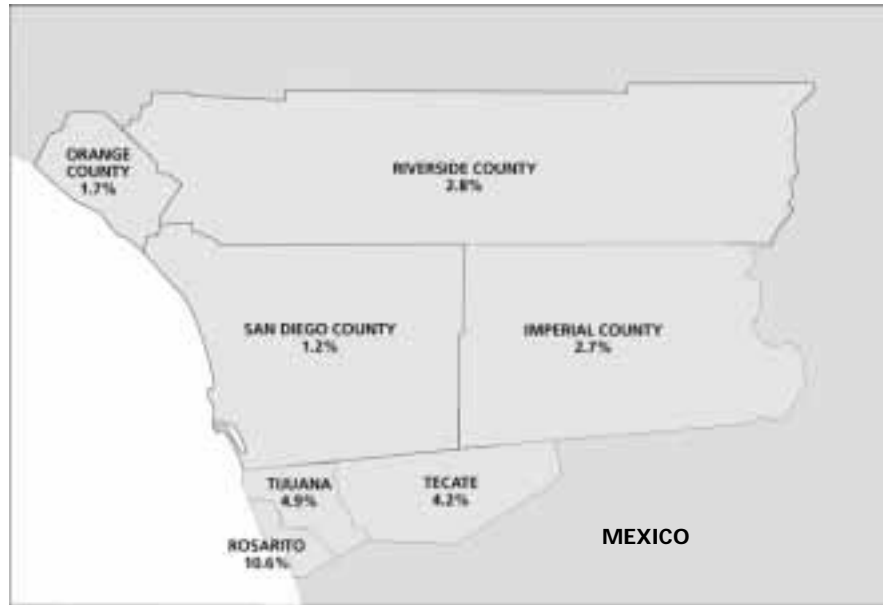
In short, our population is expected to grow more slowly than in the past and more slowly when compared to our neighboring regions. And unlike the 1970 to 2000 period, the majority of the newcomers will be our residents' children and grandchildren, rather than people who move to the region from other parts of the nation or the world.

Population Trends

During the late 1980s, the San Diego region was adding as many as 90,000 persons per year — an annual growth rate of three percent. Since the recession ended in the mid-1990s, population growth in the region has averaged about 50,000 annually. That's equivalent to adding a city the size of Poway each year.

Our growth rate, however, is slowing and that trend will continue. By the mid-2020s, our growth rate will fall below the national rate of about one percent. The primary drivers of this trend are declining fertility rates and the aging and eventual dying of the disproportionately large baby boom generation. Currently, Riverside County, Imperial County, Orange County, Tijuana, Rosarito, and Tecate are all growing faster than we are, as illustrated in Figure 3.1.

**FIGURE 3.1—SOUTHERN CALIFORNIA/ NORTHERN BAJA CALIFORNIA
ANNUAL AVERAGE GROWTH RATES, 1990-2000**



Sources: U.S. Census Bureau; Instituto Municipal de Planeación (IMPlan).

The population grows two ways: natural increase (births minus deaths), and net migration (people who move here minus those who move away).

Migration can be domestic or foreign. The federal government controls legal foreign immigration, which has remained fairly constant over the past decade. It accounts for about one-third of our growth in a typical year, and we expect no major change in immigration levels in the foreseeable future. It is important to note that while illegal immigration is presumed to be prevalent in this region, its true magnitude is simply unknown. Estimates of the number of undocumented migrants residing here vary widely, due to a lack of hard data. Therefore, no attempt is made to specifically forecast their future numbers.

Historically, domestic migration (people moving to and from other parts of the state or the nation) has fluctuated each year, usually based on the condition of the local economy. However, about two-thirds of our growth between now and 2030 will be the result of natural increase. Note that natural increase includes children born here to people who themselves were born here, as well as children born here to people who moved here 10 years ago, and those born here to people who will move here 10 years from now.

Figure 3.2 compares the region's historic and future growth rates to those of the nation.²

² The historical rates in this figure fluctuate more than the forecasted rates because they reflect what actually happened in the past, including any extraordinary circumstances such as the unusually serious recession of the early 1990s. Forecasts do not predict such extremes, unless there is reason to. SANDAG's forecasts reflect a more normal business cycle, and by definition do not include unforeseen or unexpected events.

FIGURE 3.2—THE REGION’S GROWTH IS SLOWING



Sources: U.S. Census Bureau; SANDAG 2030 Final Forecast

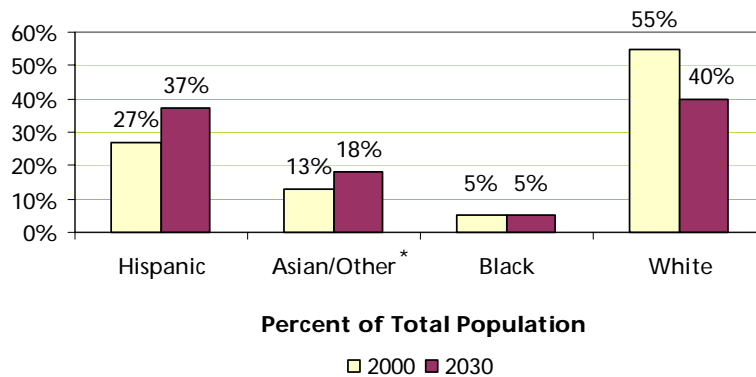
The main reason our growth rate is slowing is a decline in fertility rates (the average number of children born to each woman). Recent data show that this is occurring across most ethnic groups, and that the sharpest drop is among Hispanics. In fact, the Hispanic fertility rate today is as low as what the 2020 Regional Growth Forecast had projected for the year 2020.

Demographic Trends

As the region grows, some basic demographic characteristics of the population will change. As a group, we will become both older and more ethnically diverse. The region as a whole is expected to grow by 37 percent by 2030 and some ethnic groups will almost double in size during that period.

Figure 3.3 shows the forecasted changes by ethnic group between 2000 and 2030. In the near future, probably around 2006, there will be no ethnic majority in the region. Statewide, that is true today. The 2000 Census found that just 47 percent of Californians are non-Hispanic Whites.

FIGURE 3.3—THE REGION’S ETHNIC COMPOSITION IS CHANGING



* Other includes Native American, Native Hawaiian, Other Pacific Islander, and Two or More Races

Sources: U.S. Census Bureau; SANDAG 2030 Final Forecast

In addition to ethnic changes, our region also is aging. Almost 30 percent of the region’s population is composed of Baby Boomers, the huge group of people born between 1946 and 1964. Their presence will increase the median age in the region from today’s 33.2 years to 37 years in 2030. By 2030, the number of people age 65 and older will have increased by 128 percent (Table 3.2). Fully 19 percent of the region’s population will be in that age group then, which is a higher percentage than exists today in the state of Florida.

TABLE 3.2—2000 to 2030 POPULATION INCREASE BY AGE RANGES

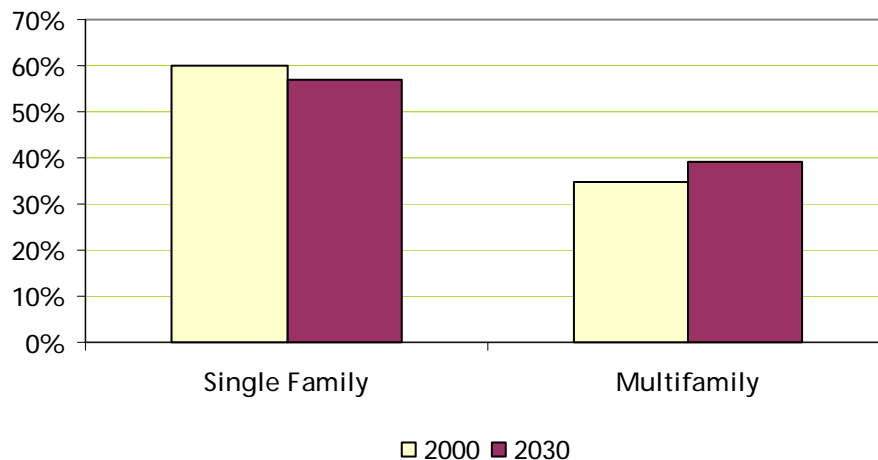
| AGE RANGE | INCREASE |
|-----------|----------|
| 0 – 17 | 13% |
| 18 – 65 | 29% |
| 65+ | 128% |

Source: SANDAG 2030 Final Forecast

Housing Trends

As a region, we tend to live in detached houses rather than apartments or condominiums. Currently, about 61 percent of the region’s housing stock is single family units, and about 35 percent is multifamily (the rest are mostly mobile homes). The scarcity of vacant, useable single family land, combined with increasing congestion on our roads and highways, will lead to a shift in housing characteristics in the future. Projections suggest that more than half of the 314,000 units expected to be built in the region by 2030 will be multifamily, including low-rise, high-rise, attached town homes, and mixed use projects. Even with this trend, multifamily homes will still comprise less than 40 percent of the region’s housing units in 2030.

FIGURE 3.4—THE PROPORTION OF MULTIFAMILY UNITS WILL INCREASE OVER TIME



Sources: U.S. Census Bureau; SANDAG 2030 Final Forecast

If we continue to build homes at a slower pace than we add people, interregional commuting will increase. Over the 30-year period, it is estimated that 93,000 households would, in effect, be “exported” to Riverside County, Baja California, or even Imperial County unless there are significant changes to today’s land use plans. Long-distance commuting, both interregional and from within the region, puts a tremendous strain on our roads, freeways, infrastructure, and personal lives. While some amount of interregional commuting will always occur, providing additional housing capacity in key locations within the more urbanized areas of the region could assist in reducing the projected increases in interregional commuting and provide more housing and transportation choices to our residents.

POLICY IMPLICATIONS

When taken together, the current land use plans of the 19 local jurisdictions do not accommodate the amount of growth anticipated in our region. Even taking into account areas with the potential for infill residential redevelopment, more land for homes and apartments needs to be designated in the plans. The 2030 Final Forecast, which reflects the current adopted local land use plans in the region, projects that while population will increase by 37 percent over the forecast period, housing will grow by just 30 percent. The forecast shows that if local plans are not changed, demand for housing will continue to outpace the supply, just as it does today.

This imbalance will result in the worsening of four trends we see in the region today: high housing costs, low vacancy rates, more persons per household (“doubling up”), and an increase in long-distance interregional commuting by the region’s employees who seek less expensive housing in Riverside County, Baja California, and even Imperial County. Census data from 1990 and 2000 indicate that the number of people commuting from Riverside County almost tripled in the last decade. And a more recent survey found the flow of interregional commuters to be increasing steadily.

Is the answer to institute policies that intentionally slow growth? In 2001, SANDAG produced a study entitled *An Analysis of Growth Slowing Policies for the San Diego Region*. Its purpose was to look at the potential impacts of public policies designed to slow population growth in the region. One of the scenarios tested was a housing-cap policy that would reduce the supply of new housing by 40 percent from the amount projected to be built between 2000 and 2020. Rather than a corresponding 40 percent reduction in future population, the scenario projected the region would see only an eight percent drop by 2020. Most people would simply adapt to the situation, primarily through larger households (more persons per household) and more interregional commuting.

The same type of outcome resulted when we simulated reducing future job growth by 40 percent. People and businesses adapted, and the effect on population growth was minimal. However, in both cases, the impacts on social equity were decidedly negative. The less-affluent bear a disproportionate share of the pain that results from inadequate job and housing opportunities.

Remember, the 2030 Final Forecast is not a prescription for the future. It simply portrays the likely outcomes if we continue operating under our current plans and policies.

CONCLUSION

Population growth in the region will continue over the next 30 years, but at a much slower pace than the previous three decades. About two-thirds of our growth will be the result of natural increase: children born to people living here at the time. Our population as a whole will become both more ethnically diverse and older.

The 2030 Final Forecast portrays the likely outcomes if we continue operating under our current plans and policies. Housing will remain expensive, vacancy rates will remain low, household sizes will increase, and there will be more long-distance interregional commuting. As a region, we can choose another path— one that provides more housing located close to jobs for our region's expected population growth and lessens the associated transportation impacts. The Regional Comprehensive Plan provides a compass that can guide us toward a better future. It provides a framework to manage our expected population growth in a way that preserves and enhances our quality of life by promoting more and better-connected housing, transportation, and employment choices for our increasingly-diverse and aging population.

REGIONAL PLANNING & POLICY FRAMEWORK

A Preferred Approach for our Regional Growth

Regional Comprehensive Plan (RCP) establishes a new approach to planning in the San Diego region. This approach is based upon:

- § A **planning framework** that parallels the framework used by cities and counties in preparing their general plans, and thereby strengthens the relationship between local and regional plans and programs; and
- § A **policy framework** that focuses on connecting local and regional transportation and land use plans, and creating incentives that promote “smart growth” planning and implementation throughout the region.

The RCP goes further than ever before to foster collaboration between government jurisdictions at the local and regional level. It ensures that local governments maintain local land use control, yet it calls for local land use plans to be considered for their regional impacts. It creates a new framework for inter-agency coordination including increasing subregional collaboration (e.g. adjacent cities working together to plan a shared roadway).

Importantly, it ties transportation funding to smart growth planning in our urban, suburban, and rural communities. The Regional Planning and Policy Framework outlines how SANDAG intends to better link transportation and land use planning and create other incentives to achieve the RCP’s smart growth objectives.

EXISTING REGIONAL PLANS AND PROGRAMS

Over the years, SANDAG and other governmental agencies have adopted a number of regional plans and programs. These plans and programs address a wide range of issues such as housing, economic development, transportation, air and water quality, habitat conservation, water supply, waste management, population growth, and growth management.



Each of these existing regional plans and programs is interrelated in terms of its planning goals, growth assumptions, policy approach, and performance monitoring approach; however, to date, there has been no overall framework for coordinating these plans, or for monitoring their overall effectiveness in meeting regional quality of life goals.

EXISTING LOCAL PLANS AND PROGRAMS

In addition to regional plans and programs, the County of San Diego and the region’s eighteen cities each have an adopted general plan, made up of a number of mandatory and optional elements, including Land Use, Circulation (Transportation), Housing, Public Facilities, Environmental

Management (Open Space, Conservation, Safety, Scenic Highways), and Economic Development. State law specifically provides local jurisdictions with the authority to make land use decisions in accordance with their general plans.

Some of these general plans also serve as the basis for “Local Coastal Programs,” pursuant to the State Coastal Act, for jurisdictions located within the state’s Coastal Zone. Regarding habitat preservation, many local jurisdictions have prepared and adopted “Habitat Conservation Subarea Plans,” which implement the regional habitat conservation plans. Finally, many local service providers, such as the County of San Diego, local cities, school districts, water districts, sanitation districts, and the like, have developed facility and service master plans that provide guidance in the development and operation of services for those entities.

Currently no overall framework exists for coordinating these plans with each other, or with related regional plans and programs. The Regional Comprehensive Plan provides a new planning framework for the San Diego region – one which pulls together the various local and regional plans from throughout the region, in a structure much like that of local general plans, and establishes a coordinated regional planning document that serves as an organizing framework and guidance document for the myriad existing plans in the region (Figure 4.1).

GROWTH PROJECTIONS

The need for a comprehensive regional planning and policy framework is made evident not only by incompatibilities between existing local and regional planning documents and land uses, but also by the fact that current plans, if left unchanged, will not accommodate projected population growth and housing needs over time.

Under current plans and policies, the region is expected to grow by one million people, 314,000 new homes, and 439,000 new jobs between 2000 and 2030. Current projections show that unless we increase housing capacities in key locations within our more urbanized areas beyond what is called for in existing plans and policies, there will be more pressure to develop in the more rural areas of our region. That, in turn, will lead to continued loss of agricultural land, open space, and natural habitat. Additionally, more housing (approximately 93,000 housing units) will be “exported” out of the San Diego region — primarily to Riverside and Imperial Counties and northern Baja California, contributing to higher housing prices and increasing traffic problems.

Also, because each general plan is specific to a single jurisdiction, land uses may conflict between cities and may be completely disconnected from the regional transportation network. For example,

Future Outcomes If Local Plans Are Left Unchanged

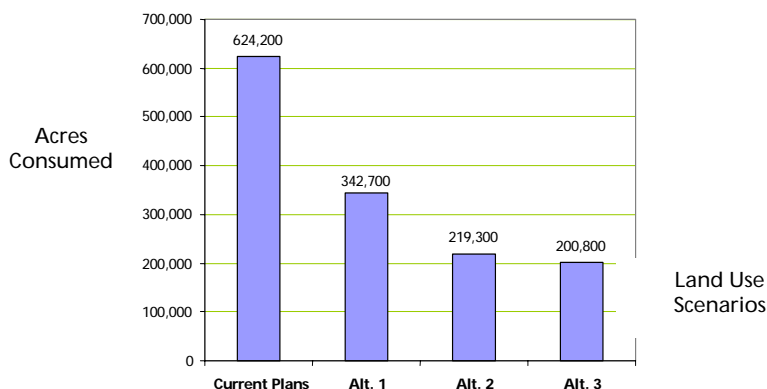
- § **Reduced open space.** Current plans would consume far more land than a smart growth development pattern, which would emphasize more redevelopment and infill in existing urbanized areas near transit and activity centers such as downtowns and shopping areas, and more mixed use and compact development in currently-vacant areas that are planned for residential uses.
- § **More expensive housing and fewer types of housing choices.** On average, current densities in the cities and urbanized unincorporated areas are relatively low, and planned densities on currently-vacant land are even lower. This pattern limits our ability to address our projected housing needs, pushes up housing costs, and can result in more persons sharing the same house due to high home prices and rents.
- § **Imbalance between housing and jobs.** Jobs are a key driver of population growth. Current local general plans allow for more growth in jobs than housing. Additionally, local plans largely separate residential areas from job centers, which increases traffic.
- § **Environmental degradation.** An imbalance between jobs and housing leads to more and longer commutes, and increased energy consumption. It also affects development patterns within our watersheds, which increases urban runoff and in turn affects the quality of both our drinking water and our water bodies, such as lakes, streams, bays, and the ocean.

one city could designate an area for housing, while another has set aside land right next door for manufacturing or industrial uses; or significant housing densities could be planned in rural areas with two-lane roads and little to no access to transit services.

SANDAG has twice studied alternative future land use scenarios, using computer models to compare the future outcomes to what is likely to happen under current general plans.

The first analysis was done in 1998 in preparation for the 2020 Cities/County Growth Forecast. It compared the existing plans to three progressively more ambitious smart growth land use alternatives. One of the most dramatic differences was in land consumption. As seen in Figure 4.2, the current plans have the potential to consume up to three times as much land as the smart growth alternatives.¹ That translates roughly into twice the land area of the City of San Diego, or from another perspective, the equivalent land area of 15 cities the size of Oceanside.

**FIGURE 4.2—ALTERNATIVE FUTURE LAND USE SCENARIOS:
FUTURE LAND CONSUMPTION IN ACRES UNDER EXISTING PLANS
VS. THREE SMART GROWTH ALTERNATIVES**



¹ 2020 Cities/County Forecast Land Use Alternatives (1998): *Alternative 1*: Assumed increasing residential and employment densities around a 1,000-foot radius of existing and planned transit stops. *Alternative 2*: Same as Alternative 1, plus all future residential development throughout the jurisdictions at the top ends of their density ranges. *Alternative 3*: Same as Alternative 2, but included caps on future development in the unincorporated areas based on the County of San Diego's GP 2020 plan update population targets at that time.

In addition to the decreased land consumption, the smart growth alternatives were found to provide many transportation-related improvements in comparison to current plans. Table 4.1 below summarizes how the alternatives proposed above would result in reduced traffic impacts.

TABLE 4.1—PERCENT REDUCTION OF TRAFFIC IMPACTS COMPARED TO CURRENT PLANS

| TRANSPORTATION CATEGORY | ALT 1 | ALT 2 | ALT 3 |
|----------------------------------|--------------|--------------|--------------|
| Miles of Congestion on Arterials | -71% | -71% | -69% |
| Miles of Congestion on Freeways | -14% | -17% | -18% |
| Vehicle Miles Traveled | -13% | -14% | -13% |
| Vehicle Hours Traveled | -21% | -22% | -22% |
| Average Trip Length in Time | -20% | -22% | -20% |
| Average Trip Length in Distance | -13% | -14% | -12% |
| Total Costs of Travel and Fuel | -19% | -20% | -19% |
| Total Air Pollutants | -11% | -11% | -11% |

Source: 2020 Cities/County Forecast Land Use Alternatives Report, November 1998

All together, about 30 land use and transportation measures were examined, including those shown in Table 4.1. In nearly every case, smart growth proved beneficial and regional mobility was improved. By reducing land consumption, the impacts on the environment, particularly in existing rural areas, were greatly reduced. The one significant area in which smart growth assumptions did not yield positive results was in relation to increased localized traffic area impacts in areas of significant intensification. However, localized traffic impacts can often be reduced with the implementation of improved transit service, and parking and design treatments (described in the Urban Form and Transportation chapters).

In 2002 a similar analysis was performed in preparation for the 2030 Preliminary Forecast and the 2030 Regional Transportation Plan. Again, the future impacts of a smart growth land use alternative were tested against the current plans. One difference from the 1998 study was that this time, the jurisdictions provided guidance by identifying specific areas where they felt smart growth could be most feasibly implemented. As a result, fewer smart growth sites were used in the 2002 analysis than in 1998, and the quantitative benefits of the outcome measures were reduced proportionally.

The lesson from both studies is clear: a little smart growth helps improve our quality of life a little, and a lot of smart growth helps more. That's why the preferred planning concept for the RCP focuses on the connection between transportation and land uses, using smart growth principles.

THE PREFERRED PLANNING CONCEPT

The RCP defines a shared vision of the future and lays a foundation to achieve that future by:

- § Improving connections between land use and transportation plans using smart growth principles;
- § Using land use and transportation plans to guide decisions regarding environmental and public facility investments; and
- § Focusing on collaboration and incentives to achieve regional goals and objectives.

The remainder of this section expands upon these three fundamental strategies, which serve as the preferred approach for our regional growth.

Connecting our Transportation and Land Use Plans

The RCP contains policy objectives and actions aimed at improving transportation and land use coordination. It also identifies potential smart growth opportunity areas where transportation and other infrastructure resources should be directed.

Smart Growth Opportunity Areas

A key recommendation of the RCP is to identify Smart Growth Opportunity Areas – areas where compact, higher density, mixed use, pedestrian-oriented development either exists now, is currently planned, or has the potential for future incorporation into local land use plans – and place a higher priority on directing transportation facility improvements and other infrastructure resources toward those areas.



The Urban Form chapter includes a matrix that identifies the characteristics of existing, planned, and potential smart growth opportunity areas for seven distinct categories, ranging from the metropolitan center to town centers to rural communities.

The matrix will serve as a guide in developing a concept map that shows actual smart growth opportunity areas throughout the region. The concept map will be used as a planning tool to communicate with local jurisdictions and infrastructure providers about where smart growth will happen, and will serve as the foundation for showing eligible locations for certain smart growth incentives.

The regional transit network included in *MOBILITY 2030* was used as a starting point in identifying the characteristics of smart growth opportunity areas because, from a mobility standpoint, it makes sense to couple higher land use intensities with regional transportation investments, particularly those related to transit stations and services. The Urban Form chapter discusses the smart growth opportunity areas and the framework for smart growth incentives in more detail.

FIGURE 4.3—LINKING TRANSPORTATION AND LAND USE PLANS



Using Land Use and Transportation Plans to Guide Other Plans

The designation of specific smart growth opportunity areas in the RCP will provide guidance to local governments, property owners, and service providers as to where smart growth development should occur from a regional perspective, and will focus attention on these areas as local jurisdictions update their general plans and redevelopment plans, and service providers update their facility master plans. By coordinating our planning in this manner, we will ensure that public and private investment in local and regional infrastructure is implemented in an efficient and sustainable manner (see the IRIS and Implementation chapters for more detail).

Implementation through Collaboration and Incentives

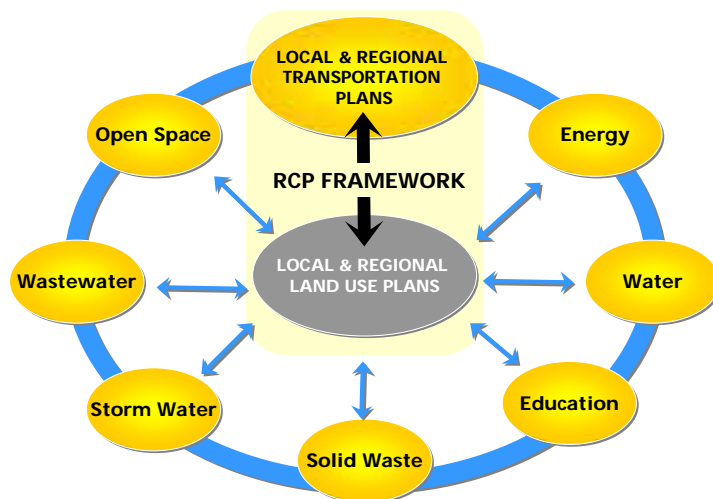
A major focus of the implementation program of the RCP is to strengthen the connection between local and regional land use and transportation plans through *collaboration* and *incentives*. The RCP is not based upon a “top down” approach of consistency and conformity. Instead, it is a collaborative planning approach that builds up from the local level into a regional framework, relying on incentives to achieve the goals and actions recommended in the chapters.

Specific actions related to transportation and land use coordination are described briefly below, and in more detail in upcoming chapters.

Transportation Project Evaluation and Prioritization

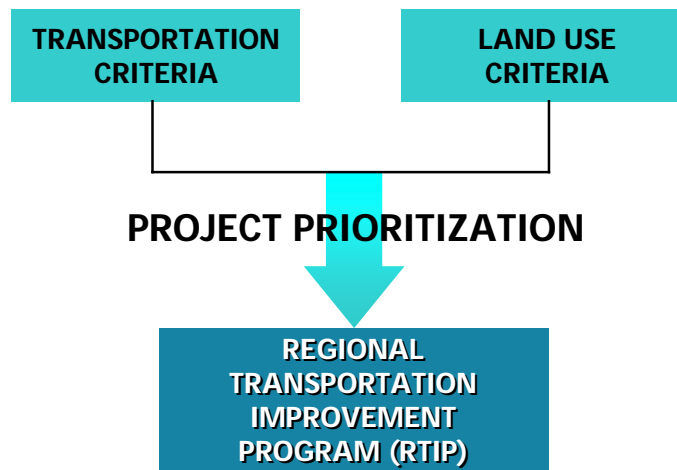
MOBILITY 2030, the Regional Transportation Plan, is the adopted long-range transportation planning document. It is used as the basis for funding decisions made through the Regional Transportation Improvement Program (RTIP), the five-year capital improvement program for transportation projects that is updated by SANDAG every two years. The currently adopted RTIP covers the period from fiscal years 2003 to 2007, and reflects the region’s priorities for short-range transportation system improvements.

FIGURE 4.4—USING LAND USE AND TRANSPORTATION PLANS TO GUIDE OTHER PLANS



In the most recent update of the RTIP, projects were evaluated on the basis of four complex sets of criteria, designed primarily to meet transportation objectives. Prior to the 2006 RTIP update,² SANDAG will work with its member agencies and other stakeholders to revise its transportation project evaluation criteria into a simpler set of criteria that will better reflect the smart growth objectives of the RCP, while at the same time recognizing that transportation investments must also address important needs such as public safety, congestion relief, regional connectivity, and the like (see the Transportation chapter for more detail). This approach builds upon and strengthens the relationship between local land use plans and regional funding for transportation improvements, as initiated in *MOBILITY 2030*.

FIGURE 4.5—PROPOSED EVALUATION PROCESS



As listed below, the RCP sets forth themes in seven major areas to use as a starting point in developing an updated set of transportation project evaluation criteria for future updates of the Regional Transportation Improvement Program:

1. Implement the adopted Regional Transportation Plan "2030 Mobility Network"³ in an efficient and cost-effective manner;
2. Enhance transportation systems by improving connectivity between interrelated modes of transportation;
3. Provide adequate funding to meet both the capital, and operational and maintenance needs of our transportation systems;
4. Facilitate coordination through subregional planning among jurisdictions where proposed regional transportation and commuter transit service corridors cross jurisdictional boundaries;
5. Consider regional and local mobility objectives in planning and approving new land uses;
6. Design development to reduce auto dependency and improve the walking environment through safe and pleasant streetscapes; and
7. Align the timing of related transportation and land use development.

For each of these seven areas, policy objectives and actions have been included in the individual chapters of the RCP.

Smart Growth Incentives

² Due to the state budget crisis in 2004 and the lack of a new multi-year federal transportation reauthorization bill, no new funding was available in the 2004 RTIP cycle (covering fiscal years 2005 to 2009). The transportation evaluation criteria would be revised prior to the 2006 RTIP funding cycle (covering fiscal years 2007 to 2011), when new transportation funding is anticipated.

³ The "2030 Mobility Network" is the regional highway, transit, and arterial network in the *MOBILITY 2030* Regional Transportation Plan, which completes the missing links in the freeway system and provides a system of connected and free-flowing managed/high occupancy vehicle lanes integrated with new or improved high-quality transit services.

Successful implementation of the Regional Comprehensive Plan will require incentives for smart growth development. As discussed in the Urban Form chapter, there are a number of different approaches to providing such incentives. At the broadest level, because the RCP calls for SANDAG to coordinate its transportation investments with local land use decisions, many of the transportation funds that SANDAG allocates can provide incentives for smart growth development. Decisions regarding priorities for future regional transit, arterial, and highway corridor projects should be based, in part, on how well local communities have planned for smart growth land uses that facilitate a wide set of transportation choices that, in turn, increase mobility.

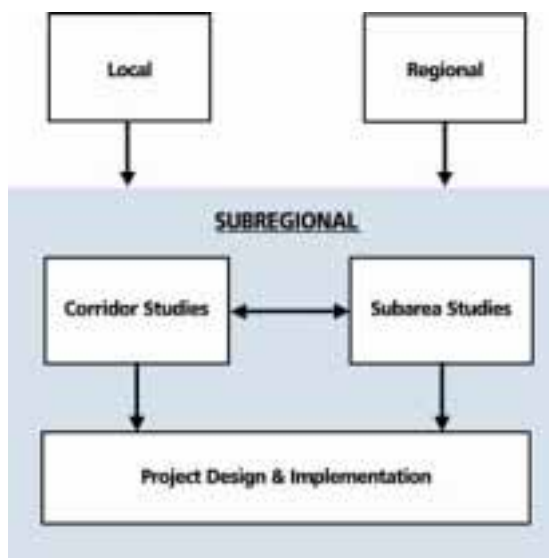
Additionally, as local jurisdictions implement smart growth projects, there is growing recognition that investments in infrastructure other than regional transportation facilities are needed. While funding for smart growth is available from a number of sources, including state agencies, federal agencies, and private foundations, *MOBILITY 2030* includes a \$25 million, five-year, pilot incentive program to encourage land use decisions that support smart growth principles. This program, further discussed in the Urban Form chapter, will be used specifically to fund planning and infrastructure that supports smart growth development projects.

The RCP also recognizes that local jurisdictions can also play a significant role with regard to the provision of incentives. Local jurisdictions can promote development in smart growth opportunity areas by offering incentives such as priorities for infrastructure improvements, fee reductions, priority processing of development plans, and others, thereby maximizing local and regional investments in key areas. The Urban Form chapter describes potential funding sources for smart growth incentives and outlines overall principles for developing criteria for applying the incentives.

Subregional Planning and Implementation Programs

While the initial steps outlined above will help improve coordination of local and regional plans, many of the coordination issues cross jurisdictions, and require further refinements to planning concepts contained in *MOBILITY 2030* and the RCP. For example, many of the proposed regional and commuter transit service corridors cross jurisdictional boundaries. The exact alignment of future corridors and station locations need to be refined in order to make the systems work most effectively from both a transportation and land use perspective.

FIGURE 4.6—SUBREGIONAL LAND USE AND TRANSPORTATION PLANNING AND IMPLEMENTATION



In order to address these issues more effectively in the future, greater emphasis will be placed on the preparation of subregional transportation and land use studies and implementation programs (Figure 4.6). These studies will focus on particular subregional areas where transportation and land use issues cross jurisdictional boundaries and where subregional evaluation and planning strategies could lead to more effective solutions. In some cases, these subregional studies will not only include areas within the jurisdiction of the County and its cities, but neighboring counties and Baja California, Mexico, which must be considered to develop workable solutions. Compacts or agreements among the participants in subregional planning programs may be developed to provide a structure for their implementation.

Other strategies for implementing the preferred concept of the RCP are detailed in the Implementation chapter, including guidelines for strengthening the local/regional planning connections, improvement of analytical tools and traffic forecasting modeling capabilities, and performance monitoring programs.

CONCLUSION

By focusing the Regional Comprehensive Plan on the coordination of transportation and land use plans at the local and regional levels, accompanied by a greater emphasis on subregional planning and implementation programs, the region will be able to address many of its pressing problems: traffic congestion, housing affordability, protection of sensitive habitats, and strengthening our economy, while ensuring equity in planning and development.

In addition, by pursuing the preferred planning approach outlined in this chapter, local jurisdictions and regional service providers can efficiently plan for the expansion of their facilities and services and accommodate growth in a more cost-effective and sustainable manner.

The following chapters address each of the major elements of planning for our region: urban form, transportation, housing, healthy environment, economic prosperity, public facilities, and borders issues. Each chapter begins with a vision of our region in 2030 in relation to that topic, and includes a description of existing conditions, an overview of existing plans and programs, an analysis of key issues, and recommended goals, policy objectives, and actions. Taken together, these chapters, along with the Integrated Regional Infrastructure Strategy (IRIS), form the core of the Regional Comprehensive Plan.

URBAN FORM

Where and How Should the Region Grow?

2030 VISION

Our homes are connected to attractive, efficient, and well-integrated transit stations. Many of our communities, particularly those along major transit corridors, are more compact, yet they don't feel crowded thanks to good urban design and landscaping. People enjoy living in multifamily and mixed use neighborhoods within an easy stroll of retail stores, parks, playgrounds, childcare, healthcare, restaurants, movie theatres, museums, vocational schools, and other recreational services and activities. Our historic main streets are vibrant. Our rural communities have grown but retain their small-town, country charm.

We are socially connected and more civically engaged and, as a result, have sound strategies for funding our schools, libraries, and other public services. Our neighborhoods are beautifully landscaped with native trees and flowers. Our streets are walkable and wheelchair accessible, and they're safer to cross. We regularly walk and ride our bikes, and this increased physical activity makes us healthier.

INTRODUCTION

This chapter of the Regional Comprehensive Plan examines the building blocks of urban development: where it should go, and what it should look like. It attempts to answer the questions: Where should we provide places in our region for people to live, work, shop, and play as our population continues to grow? How should we design our communities so that they provide us with a high quality of life? Will the impacts of future growth overwhelm the natural blessings of our environment?

The answers depend upon where and how we accommodate our future growth.

The form of future development is a critical component of the Regional Comprehensive Plan (RCP). Central among the plan's core values is creating attractive, sustainable communities within the region's existing urbanized areas. Urban design matters at a regional scale and at a personal scale. Our land use and design decisions determine how well our communities serve us in our daily lives, including the quality of our travel choices and our personal safety. That's why the RCP encourages urban development with an appropriate mix of uses designed to create safe and healthy communities.

EXISTING SETTING

The San Diego region's urban form is defined by its physical features and its distinct communities. Canyons, river valleys, and coastal estuaries frame cities and towns and provide natural boundaries. Other community boundaries have been man-made.

The original railroads, the first streetcar network, and the regional freeway system were catalysts for the spread of urbanization. They were also important factors in determining the region's urban form. Cities and towns first developed along early railroads and spread out into suburban neighborhoods along streetcar lines. By the second half of the 20th century, urban development began to reflect the emergence of the automobile as the primary means of travel. With the car's speed and flexibility, and the desire to separate residential development from smokestack industries, development spread out over the land. This led to the creation of separate and distinct areas for living, working, shopping, and industrial development.

Today, adopted plans and policies influence development and conservation patterns in the region. These plans and policies include:

- § **Land Use Plans.** Out of a total 2.7 million acres in the region, almost 500,000 acres currently are developed, and another 1.5 million acres are constrained from development by topography or because the land is held as open space or in some other public use such as military that prohibits development. Most of the remaining approximately 700,000 acres is designated in the local plans for residential use of less than one housing unit per acre.
- § **Habitat Conservation Plans.** Regional open space plans, including the Multiple Species Conservation Program (MSCP) and the Multiple Habitat Conservation Program (MHCP), currently protect approximately 190,000 acres from development. The County of San Diego plans to add approximately 130,000 acres of unincorporated land to the regional preserve system.
- § **Water Supply.** The San Diego County Water Authority has established a boundary around the urbanized area (see Figure 4A.1); residential densities beyond that will be substantially reduced under the County of San Diego's proposed General Plan 2020 (GP2020) update. Development outside this boundary is generally restricted by the limited supply of local water, though some development is planned beyond the boundary in the East Otay area.

The widespread presence of military installations in the San Diego region has also influenced the course of urban development. In particular, Camp Pendleton has created a significant buffer between North County communities and the urbanized areas of southern Orange County. Miramar Marine Air Station also has had an impact, creating an area of open space around the air station in the middle of the City of San Diego. Recent state legislation requires the federal Department of Defense to coordinate with local and state government to ensure that military bases and their associated needs are taken into account as general plans are updated, and to require early notification to military agencies about projects within two miles of military installations, training routes, and special use airspace areas.

These natural features, plans, and policies have begun to constrain urban development in the region. Table 4A.1 shows how development occurred within those constraints between 1990 and 2003.

FIGURE 4A.1—GENERALIZED LAND USE PATTERNS IN THE SAN DIEGO REGION

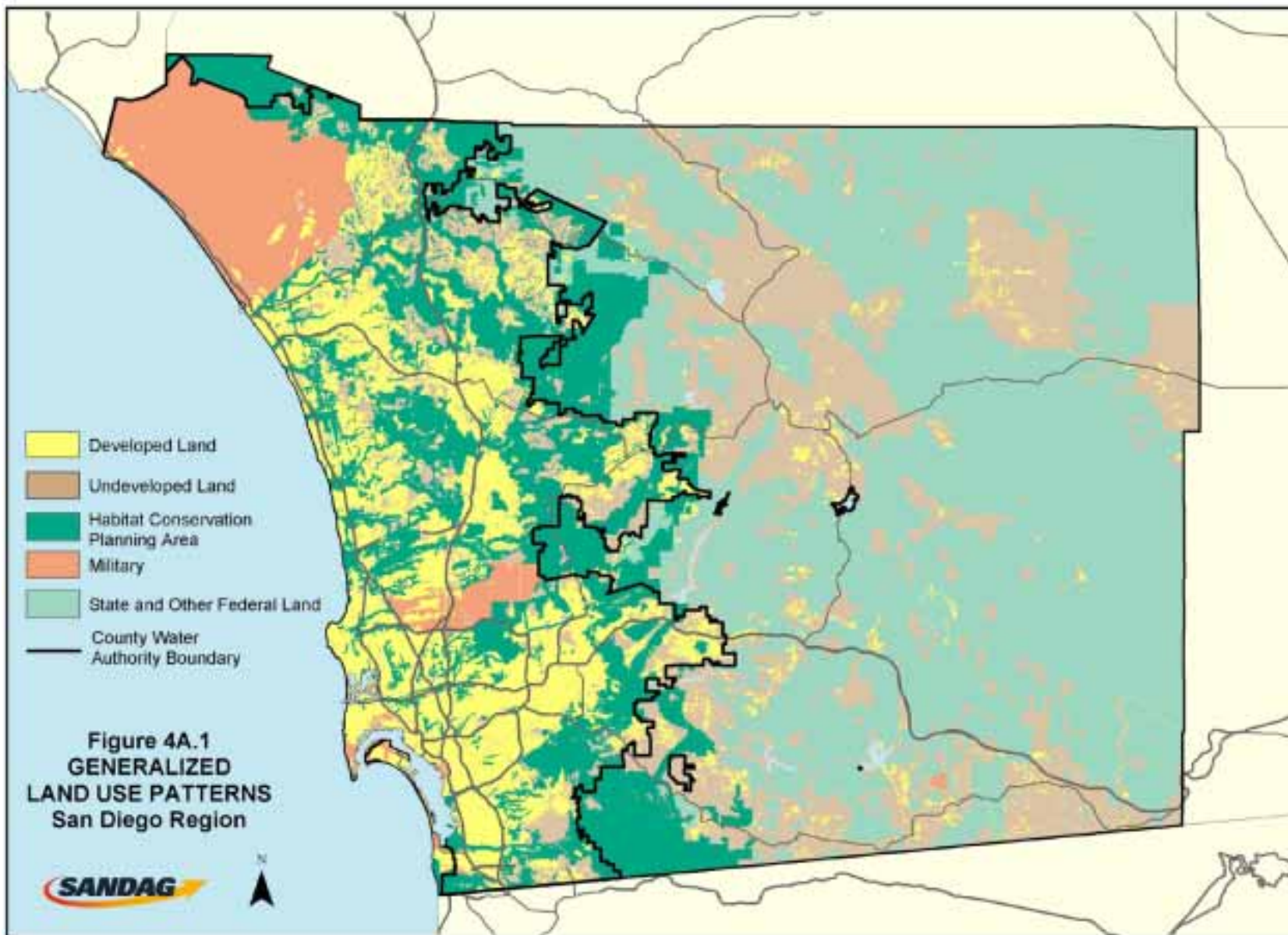


TABLE 4A.1—CHANGE IN LAND USE ACREAGE, 1990-2003

| LAND USE | 1990 | 2003 | CHANGE NUM. | PCT. |
|--|------------------|------------------|----------------|------|
| <i>Residential Uses</i> | | | | |
| Spaced Residential (less than 1 unit per acre) | 83,984 | 104,950 | 20,966 | 25% |
| Single Family | 108,100 | 122,615 | 14,515 | 13% |
| Multifamily | 19,792 | 22,718 | 2,926 | 15% |
| Mobile Homes | 5,828 | 5,797 | -31 | -1% |
| <i>Total Residential</i> | 217,704 | 256,080 | 38,376 | 18% |
| <i>Employment-related Uses</i> | | | | |
| Shopping Centers | 2,292 | 3,493 | 1,201 | 52% |
| Commercial & Office | 10,865 | 12,485 | 1,620 | 15% |
| Heavy & Extractive Industry | 5,738 | 4,926 | -812 | -14% |
| Light Industry | 10,078 | 14,195 | 4,117 | 41% |
| Education, Institutions | 16,298 | 19,086 | 2,788 | 17% |
| Commercial Recreation | 24,128 | 31,812 | 7,684 | 32% |
| <i>Total Employment-Related</i> | 69,399 | 85,997 | 16,598 | 24% |
| <i>Other Uses</i> | | | | |
| Transportation, Communication, Utilities | 97,250 | 103,079 | 5,829 | 6% |
| Military | 133,411 | 133,139 | -272 | 0% |
| Parks, Open Space, Preserves and National Forests* | 900,649 | 1,196,691 | 296,042 | 33% |
| Unused Land and Agriculture** | 1,280,440 | 923,867 | -356,573 | -28% |
| Water | 28,400 | 28,400 | 0 | 0% |
| <i>Total Other</i> | 2,440,150 | 2,385,176 | -54,974 | -2% |
| Regional Total | 2,727,253 | 2,727,253 | | |

* 2003 figure includes approx. 179,000 acres of Bureau of Land Management land incorporated into the habitat preserve system.

** Much of this land is fully constrained from development due to ownership or environmental reasons.

Source: SANDAG Land Information System, 1990 and 2003

The most significant change in land uses has been the dedication of land for parks and open space such as the 179,000 acres of Bureau of Land Management land which has been incorporated into the habitat preserve system. Where new development has occurred, the largest land consumers have been single family and rural residential development, though employment-related uses grew at a faster rate. In particular, the 52 percent increase in land for shopping centers reflects the fiscal incentives for cities to approve sales tax-generating retail development.

EXISTING PLANS AND PROGRAMS

Land use decision-making occurs through local general plan and zoning processes, which determine the type, location, and density of future development. However, because these land use decisions have significant impacts at the regional level, growth and land use have come to the forefront of the region's policy agenda.



Evolution of Regional Plans and Policies

A consensus on urban form is emerging from a long-running discussion in the region. In 1974, nationally-respected planners Kevin Lynch and Donald Appleyard submitted a report to the City of San Diego called "Temporary Paradise?" It articulated a regional vision that recommended preserving open space and significant natural features such as the region's river valleys and canyons. It proposed urban design principles appropriate to the region's terrain and climate, and it focused urban growth in walkable communities developed within and around existing urban development.

The concepts in this treatise have been a part of the regional growth debate ever since. They gained new focus in 1988, when voters countywide approved Proposition C, the Regional Planning and Growth Control Measure. This measure was a response to region-wide concerns about the effects of continued growth on our quality of life. It directed SANDAG to undertake the planning process that led to the creation of the 1993 Regional Growth Management Strategy (RGMS), the predecessor to the RCP.

The RGMS analyses suggested that, collectively, local general plans within the region would not provide enough residential land to meet the needs of the region's future population, though the plans all had shorter horizon years than the RGMS. In addition, the RGMS showed that continuing existing land use policies would worsen rising housing costs, inefficient land development practices, loss of open space and habitat, and traffic congestion.

In 1995, SANDAG responded by adopting the Land Use Distribution Element of the Regional Growth Management Strategy. It recommended changes to land use and density that would lead to a better balance between jobs and housing, improved mobility, less traffic congestion, and significantly less land consumption. The element recommended that each jurisdiction place its highest densities within walking distance of transit stations, along bus corridors, and within traditional town centers. It also encouraged mixed use development and mixed housing types, especially in transit station areas and community centers, and the incorporation of residential uses within large employment areas.

When SANDAG projected the effects of this new land use strategy, it found that the region's housing needs could be met while consuming substantially less land. Additional benefits included less agricultural land converted to rural residential use, and reduced traffic congestion and commute times. The analysis showed that these benefits could be achieved without drastically changing existing urban development patterns across the region. While the report assumed relatively dense development along the regional transit network, density changes for the overall region were within the ranges allowable under existing general plans.

The Land Use Distribution Element served as the springboard for other regional approaches to urban form issues. SANDAG's REGION2020 Smart Growth Principles, the second phase of the Regional Growth Management Strategy, introduced new planning principles based on the concept of "smart growth" (see the Vision and Core Values chapter, for a definition of "smart growth"). SANDAG later fostered consensus on a Regional Transit Vision (RTV) in 2001 to significantly increase the role of public transportation and took steps to implement that vision in *MOBILITY 2030*, the Regional Transportation Plan, adopted in 2003.

Current Local Planning Efforts

Several local jurisdictions, including the County of San Diego and the cities of Chula Vista and San Diego, are now updating their general plans. These plans will have significant impacts on future development in the region because the County has the largest land area, and San Diego and Chula Vista have the largest populations of the incorporated cities. All three plans support locating future development near town centers and existing and planned urban infrastructure.

- § **County of San Diego.** The County's multi-year general plan update is called General Plan 2020. According to the plan's draft goals and policies, it proposes to preserve rural unincorporated lands by locating much of its future development near town centers and existing infrastructure, such as roads and water service.
- § **City of San Diego.** The City of San Diego has adopted the "City of Villages Strategy" as the preferred template to guide its current general plan update. This strategy envisions walkable communities focused near existing and future transit services. To the extent that the necessary infrastructure can be provided, growth would be focused in areas of redevelopment and infill such as aging shopping centers and strip malls. The city has selected five pilot villages for implementation.
- § **City of Chula Vista.** Chula Vista's draft general plan update takes two approaches to accommodating future growth. In several older areas west of Interstate 805, the plan proposes infill development and redevelopment zones. In the newer, eastern portion of the city, it proposes focusing development in master planned communities designed to support regional transit service, such as bus rapid transit.

In its recently adopted general plan, the City of Santee also plans to make better use of land within its town center area by promoting development of a well-balanced and functional mix of uses on under-developed land in the heart of the city.

At the regional level, the Regional Transit Vision supports these planning efforts through the extensive expansion of the regional transit network. This expanded transit network is an essential ingredient in the strategy to provide more transportation options in the urbanized area as it absorbs more of the region's growth.

Transit-Oriented Development Projects

In addition to regional and local plans, cooperative efforts between private developers and transit operators (called joint developments) are helping to shape the region's urban form. These projects integrate public transportation into a community by developing housing and retail around transit

stations. Both the Metropolitan Transit System and North County Transit District, working with local jurisdictions, have active joint-development programs. The most advanced projects in the planning or development stages include:

- § **Rio Vista Trolley Station.** The Promenade at Rio Vista, now under construction along the San Diego Trolley Blue Line in Mission Valley, is one of the better examples of a high-density, mixed use project oriented around regional transit service. The Promenade includes 970 apartments with commercial development, all within a three-block walk of the trolley station.



- § **Morena/Linda Vista Trolley Station.** Located at the southwest corner of Linda Vista, this project on the San Diego Trolley Blue Line is planned to include 161 apartments and 18,000 square feet of retail space on a 5.7-acre parcel. The development will have a density of 28 dwelling units per acre.

- § **E Street Trolley Station.** This project on the Blue Line includes redevelopment of the transit station parking lot and adjacent land owned by the City of Chula Vista. Early project plans envision approximately 175 for-sale dwelling units, 175 rental units, a business hotel, several restaurants and retail uses, and a multi-story parking garage for transit users, residents, and shoppers. Residential density for the project is planned at about 30 dwelling units per acre.

- § **Solana Beach Coaster and Amtrak Station.** This project, at the fifth-busiest station along Amtrak's Pacific Surfliner Corridor, is planned to include a mix of commercial and residential development on the existing station parking lot. Residential densities are proposed at approximately 50 units per residential acre on the station site, and up to 20 units per acre for sites in the vicinity of the station.



- § **Grossmont Trolley Station.** The Metropolitan Transit System (MTS) is negotiating with a private developer over how this 7.5-acre site will be developed. The concept plan for the project includes higher density residential development with at least a 15 percent affordable housing component. The project is also likely to include local-serving commercial uses, as well as improved access to the adjacent regional shopping center.

- § **Otay Ranch.** While not a joint development project, this developing 5,300 acre community of over 18,000 housing units was planned to support future regional transit service. Right-of-way has been reserved for a future rail or bus guideway, and the villages within the ranch were designed around community commercial centers with higher densities that will support future transit stations.

Transit-oriented development is not new to the region. The Uptown District in the Hillcrest community of the City of San Diego has been in existence for more than a dozen years. This redevelopment project has become a national model for mixed use, transit-oriented development. While not on a rail corridor, it is served by the region's highest level of bus service. The Uptown District combines apartments and condominiums with local serving commercial development, including a pedestrian-oriented shopping center with underground parking for the supermarket.

Urban Design Programs in the San Diego Region

The design of the urban environment can have as much impact on the region's quality of life as the way we distribute land uses. Over the past decade, local and regional agencies have produced several documents on urban design that have helped define the important elements of good design.

The City of San Diego's *Transit-Oriented Development Design Guidelines*, adopted in 1992, provide detailed guidance on design factors that support public transit. These guidelines have been incorporated into community plans as they are updated and have been used in project design and review. San Diego has used the guidelines to develop new regulations in its Land Development Code to define urban village overlay zones, establish parking reductions in mixed use projects, transit-oriented areas, small lot residential zones, and commercial/mixed use zones.

In 1993, what was then the Metropolitan Transit Development Board produced *Designing for Transit*. This document specifies appropriate design elements for everything from bus stops to transit-supportive land uses. It also specifies minimum densities required to support various levels of transit service that are similar to those used in the definitions of "smart growth opportunity areas" discussed later in this chapter.

The Air Pollution Control District published *Tools for Reducing Vehicle Trips through Land Use Design* in 1998. This document provides excellent guidance on how urban design and land use decisions can support alternative modes of transportation and reduce air pollution.

In 2002, SANDAG adopted *Planning and Designing for Pedestrians, Model Guidelines for the San Diego Region*, which addresses street and sidewalk design, site design, and the impacts of land use on walkability. Several cities are exploring ways to use the guidelines to revise their street design standards.

Additionally, as SANDAG was developing *Planning and Designing for Pedestrians*, the City of San Diego adopted a revised street design manual. The focus of the update was to ensure that city street design would support the City of Villages' vision for a more walkable and livable city. By balancing the needs of bicyclists, pedestrians, and transit vehicles with those of motorists, the manual takes a multimodal approach to street design. It includes provisions for such elements as street trees, traffic calming, and pedestrian-scale street lighting. The manual's discussion of pedestrian design incorporates many of the principles of SANDAG's *Planning and Designing for Pedestrians*.



KEY ISSUES

Distribution of Land Uses to Meet Regional Planning Objectives

How land uses are distributed across the region has a wide-ranging impact on quality of life in the region. It affects how we travel and how long it takes to reach our destination. It affects the quality of our environment, our ability to meet the region's housing needs, and the character of our communities.

Preserving and enhancing the quality of life in the region requires coordination of land use and infrastructure investment decisions to make the most efficient use of our limited resources.

The Regional Growth Management Strategy demonstrated that the way land has been developed in the region over the past half century cannot be sustained as the region continues to grow. Dispersed, low-density housing separated from auto-oriented commercial development pushes urban development into areas better suited for rural land uses and regional open space. While this land use pattern will continue to be part of the region's urban form in the future, it makes it more costly to provide public services like transit, water, sewer, fire, and police protection. In addition, the preponderance of low density, single family housing development is providing neither the quantity nor the variety of housing stock necessary to meet the housing needs of the region's growing workforce. This is forcing a growing number of families to go outside the region to find housing. The resulting growth in interregional commuting is an extreme example of the impact of current land use trends on the region (see the Housing, Borders, and Transportation chapters for more detailed discussions of this topic).

Land Use and Mobility

Separation of land uses (e.g. when jobs are far from housing) and low density development inevitably lead to longer trip distances. As discussed in the Transportation chapter of the RCP, these are among the most important reasons vehicle miles traveled are increasing faster than the region's population. This, in turn, is putting demands on the road network that are increasingly difficult to meet, and is reducing the benefits anticipated from cleaner vehicles. As trips become longer and more dispersed, travel becomes more difficult by any means other than the private automobile. Alternatives like transit and carpooling work best where travel is focused along corridors with concentrations of trip origins and destinations along the way. Bicycling and walking are practical alternatives only when trips are relatively short, or when they can be easily combined with transit.

Of particular importance is the relationship between jobs and housing. Currently, much of the workday traffic flows from residential communities to employment centers in the morning, then back in the evening. This creates a demand for transportation resources that is concentrated over limited time periods and specific directions of travel. Meeting that demand requires providing more transportation facilities and related resources than are required during the rest of the day — a costly way to do business. A better distribution and mix of jobs and housing would result in a more evenly distributed demand for transportation resources. Moreover, the average length of commute trips could be reduced. Related resources like parking could be shared, and thus better utilized, as well.

While a significant portion of the region's population will continue to live in traditional suburban residential communities, the region will need to provide more choices in both housing type and location to meet our mobility and housing needs. More entry-level housing is needed as first time home buyers enter the housing market, and smaller, lower-maintenance housing will be needed for our growing population of seniors living without children.

A better mix of jobs and housing and better accessibility to jobs are needed at both the regional and interregional levels. In particular, we need to reduce the numbers of lengthy commute trips across our borders everyday. At the regional level, the objective should be to achieve a better distribution of jobs and housing within subareas of the region. These are complex relationships that involve not just the quantity of jobs and housing within an area, but also the relationship between the cost of housing and income levels, and the quality of the access between home and work. The RCP promotes coordinated subregional planning as a way to accomplish this goal effectively and equitably. (See the Transportation and Implementation chapters for additional discussion of this issue.)

Preserving Open Space

The Healthy Environment chapter discusses the importance of preserving open space in the region. How that open space is preserved as the region continues to grow is, in large part, a question of urban form. The locations and densities of our communities determine how much land will be consumed in housing the region's future population. The RCP addresses this issue by encouraging infill and redevelopment, and by promoting more compact development patterns where new communities are built. By clustering housing around compact, walkable town centers, new development on vacant land can preserve more open space for habitat and recreation.

Changes in development patterns need not be large to have an impact on the amount of land consumed. Current planned residential development in the incorporated areas of the region averages four dwelling units per acre of developable land. Increasing that development intensity to just five dwelling units per acre could save 18 percent for open space. Proportionately larger savings could be made by increasing the dwelling units per acre.

Providing Infrastructure to Support Smart Growth

Bringing jobs and housing together creates a more consistently-active urban landscape that is better able to support a variety of commercial uses. This kind of development pattern provides opportunities to establish more compact, mixed use communities and helps to accommodate growth in currently urbanized areas. However, this pattern may also put a larger burden on existing infrastructure, much of which already is overtaxed or in need of upgrading. While good urban design can mitigate some of these impacts, intensifying the use of urban areas will necessarily require an investment in additional infrastructure improvements.

Compatibility of Land Uses

While there are many benefits to mixed use development, not all land uses are appropriate in residential neighborhoods. Existing planning practice may have gone too far in isolating residential development, but in some older parts of the region, housing is too close to industrial uses with potentially negative environmental impacts. Some modern industries like electronics and

biotechnology also need to be sited in areas where their operations and potential expansion will not be constrained by nearby housing.

Transportation routes through residential neighborhoods can have negative impacts due to vehicle emissions, noise, and reduced pedestrian safety. Major regional transportation facilities, like freeways, are inappropriate in residential neighborhoods without extensive mitigation, as was required for SR-15 through the Mid City area of San Diego. Often, incompatible land uses disproportionately affect low-income and minority communities, raising what are now called “environmental justice” issues.

With these constraints in mind, local jurisdictions should look for locations where a mix of residential and employment uses is appropriate. “Transition zones” that contain less polluting land uses like commercial or retail can serve as buffers between residential and industrial areas to shield residents from potential impacts. Open spaces or greenbelts can also serve as buffers.



“Compare & Contrast”



Designing Livable Places

- | ELEMENTS OF HUMAN-SCALE DESIGN |
|---|
| § Orientating building entrances to the sidewalk |
| § Creating a transition from the public to the private realm by providing porches on residences or storefront windows on commercial buildings |
| § Commercial or other public uses on the ground floor in multistory buildings |
| § Streets no wider than necessary to handle normal peak traffic flow of cars |
| § Where pedestrian volumes are heavy, sidewalks and crosswalks with equal or higher consideration as streets |
| § Adequate sidewalk width that includes a buffer zone between the walkway and the street |
| § Street trees |
| § Seating and pedestrian-scale lighting |
| § Public art, high-quality design materials, and other design amenities to enhance the pedestrian realm |

A strong sense of community identity in a vibrant and diverse urban landscape is the hallmark of great urban places. While there is no simple formula for good urban design, a number of important design elements make a community work. Good design reflects the unique character of the community. It enhances the identity of the community by improving existing public facilities and providing high quality design in new facilities. It takes advantage of the region’s remarkable climate by creating efficient, ecologically friendly buildings, and encourages an active, healthy lifestyle. Over-dependence on the automobile results in communities that are dominated by the infrastructure necessary to accommodate the car. Healthy communities support a variety of transportation choices.

How these elements are applied may vary from place to place, but each should be a part of the planning and development process. The following discussion identifies basic elements of good urban design and planning practice.

Public Participation and Education

Proposals to increase density and the intensity of use in an area often meet with resistance from the community due to concerns about loss of community character; increased traffic; impacts on schools, parks and libraries; and strained police and fire services. Addressing these concerns is essential if the objectives of creating a more compact urban form are to be realized. Public participation provides an opportunity for residents to identify what they value most about their communities and how to preserve it. It also is an opportunity to provide information to the community about how appropriate increases in development provide an opportunity for improvements by increasing walkability, providing better public spaces, and reducing dependence on automobile travel. Listening to the community has been part of the RCP development process, and such listening will need to continue after the plan is adopted and implementation begins.

Quality Design



The quality of a neighborhood's design can be the difference between a sense of overcrowding and a feeling of vibrancy. The best urban places are often the most intensely developed. What sets the good apart from the bad is the quality of building architecture and the way public spaces like parks and streets are designed and maintained. When community design is oriented around automobile access, so much space is devoted to driving and parking that the landscape becomes barren. We lose the details in design that are necessary to create a sense of place. Quality design does

not necessarily mean higher project costs. Rather, it involves designing buildings that are in proportion with the community and that enhance the intimacy of the pedestrian environment. Open spaces such as plazas, courtyards, and squares, as well as the building facades that give shape to the space of the street, require careful design and attention to detail.

Walkability and Human-Scale Communities

Many of the best urban places are those we experience on foot. The Uptown District, the La Jolla shopping district, Orange Avenue in Coronado, and downtown Carlsbad are a few local examples of walkable communities. The growth in neighborhood Main Street associations reflects the desire to preserve and revitalize historic, walkable downtowns. Local efforts to revitalize downtown shopping areas are currently underway in Oceanside, Encinitas, Escondido, El Cajon, La Mesa, Vista, North Park, Ocean Beach, the San Diego State University area, and downtown San Diego. Chula Vista and National City are developing plans for revitalizing their downtowns, as well. Beyond town centers, safe and pleasant walking environments are necessary to support access to schools, parks, neighborhood commercial areas, and public transit service.



How we design our transportation facilities plays a key role in determining the scale and walkability of communities. Automobiles require a significant amount of room to operate and to store, relative

to the number of people transported. Providing this space, whether in the form of wide streets or expansive parking lots, degrades the walkability of the neighborhood. While good auto access is important to most communities, street design should balance the needs of motorists, pedestrians, and bicyclists. Parking should not be the dominant feature of the landscape, and public transit facilities must be centrally located and easily reached on foot.

Another important factor in creating walkable communities is controlling the speed of traffic. Vehicle speed is a critical factor in pedestrian safety because, as vehicle speeds increase, collision avoidance and a pedestrian's chances of surviving a collision decrease significantly. The demand for traffic calming measures, particularly in residential neighborhoods, is increasing. Private sector traffic engineers have responded by developing a broad array of effective traffic calming techniques. Some of these devices, like traffic circles, modern roundabouts, landscaped medians and curb extensions, can also provide opportunities for neighborhood beautification by incorporating landscaping.

Preserving Community Character

Communities in the San Diego region vary significantly in size and character. They range from downtown San Diego, where a growing residential population is creating a true 24-hour live/work/play environment, to rural villages like Julian in the unincorporated East County. In a region the size of San Diego, this diversity is an asset worth preserving.

Good urban design must respond to its particular setting, preserving what is good about a place and transforming what is objectionable. The height of buildings and the width of streets and sidewalks are just two examples of design elements that will vary depending on the locale. Even within communities, design must be sensitive to its context so that the transitions from town center to residential neighborhood are seamless and unobtrusive.



Mixed Land Uses and Street Networks



Good urban design at the community level is characterized by an appropriate mix of land uses and a street network that allows easy access to community services by a variety of modes. Local-serving retail and public services such as schools, parks, and libraries should be accessible by foot or bicycle, as well as by automobile and transit. Where the natural terrain allows, the street network should be relatively dense and interconnected to provide a variety of routes through the community. In this way, no one street is

over burdened with traffic. Streets should be designed for vehicle speeds appropriate to their environment. Where wide, busy streets or the steep terrain make pedestrian or bicycle access difficult, separate trails or bikeways should be provided. Communities like this are beginning to be developed in the region. Otay Ranch, San Elijo Hills, and Black Mountain Ranch, have been designed

from the start with local commercial districts, neighborhood parks, interconnected street networks and trails, as well as access for transit.

Redevelopment, Infill, and Parking

Opportunities to redirect growth into urbanized areas will occur as our neighborhoods age. Local jurisdictions should use these opportunities to reshape existing communities into more walkable, transit supportive neighborhoods. In traditional suburban communities, auto dependence is a fact of life. Street design and commercial site development reflect this by providing wide streets and large amounts of parking that often require shoppers to get back in their cars to go from one shop to the next. When redevelopment occurs, commercial sites can be re-oriented to begin creating places that encourage people to move about on foot. Initially, significant demand for parking may remain, but SANDAG data¹ suggests that walkable, mixed use areas may generate fewer auto trips. Through careful planning and analysis, sites can be redesigned to gracefully convert into pedestrian-oriented places.

A first step is to establish shared parking where shoppers can park once, then walk between shops. Community parking structures are another way to meet the demand for parking and still make land available for additional development. Another option is adding residential uses to commercial sites. With mixed use development, retailers gain the benefit of additional customers without the need to provide additional parking. Parking structures are the most expensive form of parking to build, with construction costs as high as \$18,000 per space, not including land costs, but they sometimes are the only way to accommodate access by car in a compact urban setting. To make sense, parking structures should be integrated into sites that serve multiple uses to maximize their use. Private investment can often provide the parking as part of a development project, but the developer must be permitted a project of sufficient intensity to justify the cost of the parking structure. Housing developments of at least 40 dwelling units per acre are usually required in these cases.

Healthy Communities



Healthy communities are a matter of effective land use distribution, good design, and responsible management of the urban environment. The Centers for Disease Control and Prevention has identified community design as a major contributor to the threefold increase in obesity in the United States over the last 20 years. Healthy communities address this issue by supporting an active lifestyle through zoning that puts commercial and community services within walking and bicycling distances of most residents, and by providing safe, attractive places to walk or ride a bike. Designing for

healthy communities also means separating incompatible land uses and providing transition zones and buffers between urban, industrial, and rural lands.

Accessibility

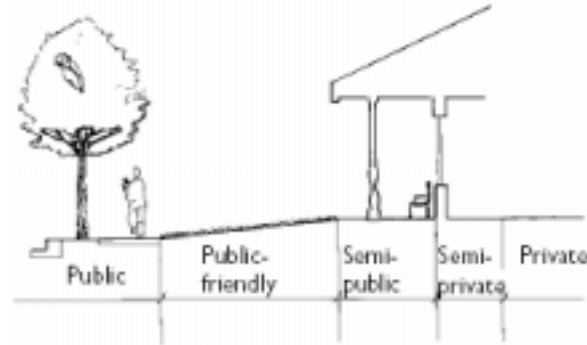
Every project should be designed to provide access to all people, regardless of their abilities. Universal design, the practice of designing products and environments so all people can use them

¹ See *Traffic Generators for the San Diego Region*, data for mixed use sites, SANDAG, 2002

without the need for adaptation or specialized design, should be employed. Good urban design also considers the access needs of everyone, regardless of their mode of travel. According to the 2000 U.S. Census, youth, seniors, and persons with disabilities constitute over 30 percent of our region's population. Many in this portion of the population often rely on walking, bicycling, or public transit for independence.

Public Safety

Good urban design must create a sense of safety in the neighborhood. The law enforcement community has established design principles that complement and help implement smart growth. These principles are known as "Crime Prevention Through Environmental Design"² (CPTED).² CPTED increases public safety by promoting design concepts like natural surveillance. This concept includes design features such as exterior lighting, and windows and porches that face the street to enhance visibility and detect intruders.



Design can also create a sense of territoriality or community ownership that deters outsiders from entering private space. Physical features and other devices create a perception of risk to offenders and also guide legitimate users through the environment safely. Access can be controlled by purposefully placing design features such as entrances, exits, fencing, landscaping, and lighting to decrease opportunities for crime.

Landscape maintenance and adequate lighting prevent unintended screening by eliminating landscape overgrowth to improve visibility. A well-maintained development ensures that measures employed for surveillance, territoriality, and access control continue to work effectively. Good design can improve the safety of public spaces like streets, as well. Attractive, functional places to walk bring the public out onto the street and help foster a sense of community ownership that encourages citizens to look after their public places.

Good community design also should facilitate fire protection, through means such as establishing fuel management zones. In more urbanized areas, good access for emergency vehicles is important, but fire safety personnel have been at odds with advocates for more walkable communities over the issue of street width. Narrower streets, especially at intersections, are generally safer for pedestrians, but they can slow access for large fire engines. Street trees, which enhance the pedestrian environment, can also pose a challenge to fire fighting. Local jurisdictions have begun to address these issues, but the search for creative solutions will need to continue. An interconnected street network and shorter blocks provide alternative routes in case a primary fire response route is blocked. Careful attention to the design of intersections is also required to ensure that fire trucks can enter a street. At the same time, fire departments should look for solutions through the deployment of emergency response equipment that fits within the existing urban form. The need for fire protection should be balanced with the need for pedestrian safety and the needs of the natural environment.

² Jeffery, C. Ray, 1977, *Crime Prevention Through Environmental Design*. Beverly Hills, CA: Sage Publications

COORDINATING TRANSPORTATION AND LAND USE

Responding to the issues discussed above will require better coordination between the way land is used and transportation is provided. Our ability to increase roadway capacity is limited by financial, environmental, and community constraints. The region's long-range transportation plan, *MOBILITY 2030*, therefore takes a multimodal approach to meeting future mobility needs. To be effective, this strategy will require an urban form that supports all modes of travel.

The Regional Planning and Policy Framework of the RCP and the plan's Integrated Regional Infrastructure Strategy (IRIS) advocate more than simply meeting regional mobility objectives. They specify that SANDAG's transportation funds should also provide incentives for local agencies to make land use decisions that support the RCP's urban form goals. In fact, SANDAG already has been using land use and urban design factors in its funding criteria for highways, transit, and regional arterials. These are based on policy direction from the 1995 Land Use Distribution Element of the Regional Growth Management Strategy and the smart growth policies adopted in our REGION2020 plan. The RCP establishes a planning and policy framework to strengthen that approach. This framework includes the identification of smart growth opportunity areas and the use of transportation infrastructure funding to encourage higher intensity development in these areas.



Determining Smart Growth Opportunity Areas

Under SANDAG's adopted smart growth principles, smart growth opportunity areas are places that accommodate, or have the potential to accommodate, higher residential and/or employment densities. They are pedestrian-friendly activity centers that are connected to other activity centers by transit or could be in the future.

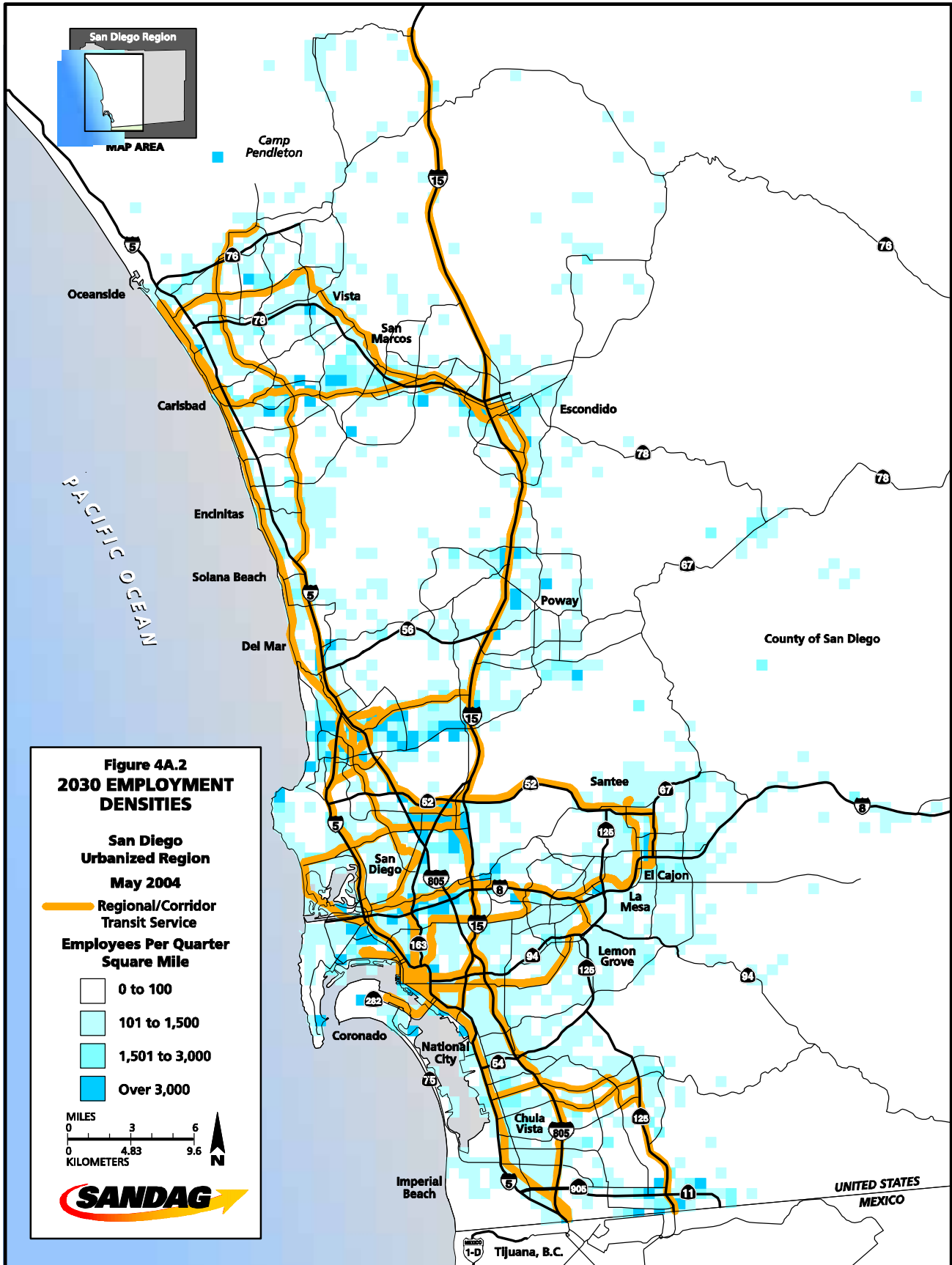


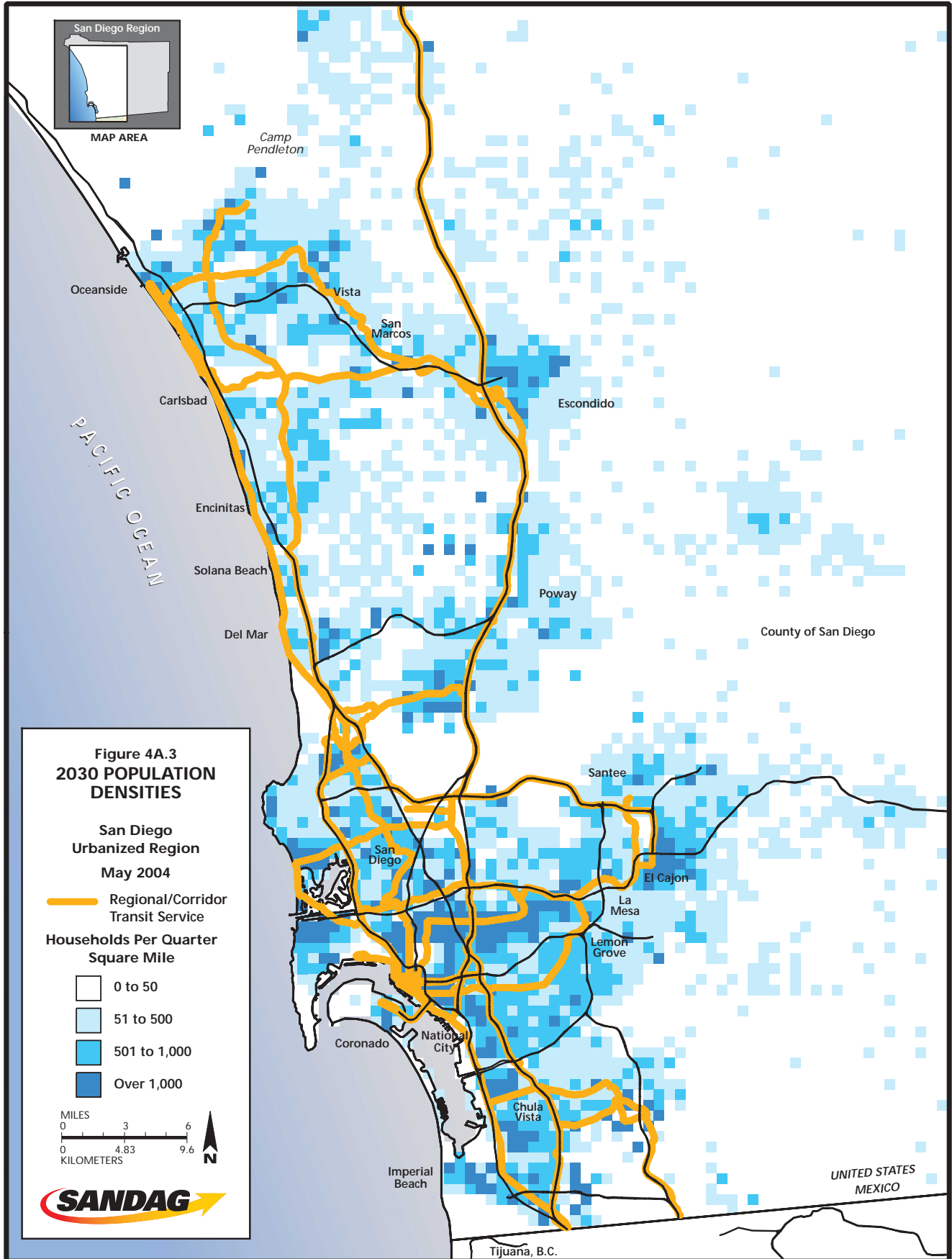
Throughout the region, development consistent with these principles is already occurring in both new projects and through redevelopment. Current plans indicate that about three-fourths of future residential development will occur on vacant land, and one fourth will take place as redevelopment or infill. While it is generally assumed that smart growth principles will be applied to redevelopment and infill areas, smart growth principles should also be applied to the currently vacant areas that are planned for residential development.

The region already has some good examples of smart growth planning in both developing and redevelopment areas. Otay Ranch in the City of Chula Vista has been planned to include higher density village centers along right-of-way reserved for future regional transit service. Pacific Highlands Ranch in the City of San Diego is being developed to include a mixed use community core with commercial and office uses, and multifamily housing, in a setting that encourages access by walking. Downtown San Diego is experiencing a boom in residential development that

compliments its existing large employment base and reinforces its status as the region's primary metropolitan center and transit hub. The Uptown District in Hillcrest is a model of mixed use development at urban-scale density. Residential and mixed use development has occurred in the downtowns of La Mesa and Oceanside adjacent to regional transit service. Higher density development also has been proposed for downtown Escondido, in San Marcos along the future Sprinter rail line, and in Solana Beach at the Coaster commuter rail station.

The first step toward focusing SANDAG's infrastructure investments in support of smart growth is to identify the location of existing and potential smart growth opportunity areas. The potential for smart growth opportunity areas around the region can be seen by overlaying the regional transit network identified in *MOBILITY 2030* onto employment and population densities forecasted for the year 2030 as shown in Figures 4A.2 and 4A.3. At a regional scale, these figures show that the regional transit network has indeed been planned to serve future development. However, identifying and establishing effective smart growth areas, and further strengthening the connections between local land uses and regional transportation networks, will require attention to the street-level land use and design details that make urban places work.



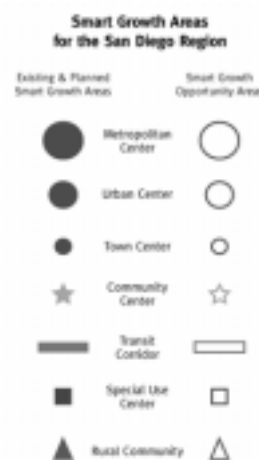


General principles of design and form apply to any smart growth area, but because the San Diego region is so diverse, the character of smart growth opportunity areas will vary depending on the particular setting. Smart growth in downtown San Diego is different from smart growth in downtown Escondido, which in turn is different from smart growth in Ramona. Physical or regulatory constraints also will influence how smart growth is manifested. Development regulations in the coastal zone limit building heights in many cases to a maximum of 30 feet. Because of this restriction, smart growth opportunities in a coastal city like Solana Beach, for example, will necessarily differ from those in an inland city like Lemon Grove. The amount of vacant land and land available for redevelopment also will vary from one community to the next, as will the extent to which existing development conforms to smart growth design principles.

Smart Growth Area Classifications

Smart growth areas in the San Diego region can be divided into seven categories, as shown in Table 4A.2 and Figure 4A.4. Each category can be described in terms of its general land use characteristics, the intensity of its development, and the kinds of transportation services necessary to serve its travel needs. Of particular importance is the kind of public transit service provided in each smart growth area type (with the possible exception of the Rural Community). The type and level of public transit needs to be coordinated with the land use type because the two depend on one another. More intensely developed smart growth areas require a higher level of public transit service to meet the area’s mobility needs, and higher levels of transit investment need the intensity of development to ensure the maximum number of potential riders.

**FIGURE 4A.4—
SMART GROWTH AREAS
FOR THE SAN DIEGO REGION**



Five of the seven smart growth opportunity areas -- Metropolitan Center, Urban Center, Town Center, Community Center, and Special Use Center -- are focused around regional transit stations where the desired land use characteristics should be within walking distance (¼-mile) of the station. The sixth category, the Transit Corridor, is more linear in form, with development distributed along a corridor within a block or two of the local bus service it supports. The final category, Rural Community, is unique in that it is not dependent on public transit. Rather it contributes to the region’s smart growth goals primarily by focusing development in and around established villages, thereby taking development pressure off of the rural backcountry.

The matrix of smart growth area characteristics includes a set of overarching urban design principles that apply to all smart growth area types, though the transit-related features would not be a significant factor in the Rural Communities. These design principles ensure that as smart growth develops in a particular area, its design features will create an attractive, human-scale community that supports a variety of travel modes.

The characteristics of smart growth areas included in the matrix describe a balance between transportation and land use intensities that may or may not exist under existing conditions or within current plans. Where that balance does not currently exist, the matrix serves as a guide for planners and policymakers as they update local and regional plans, and as projects are approved.

As specific smart growth opportunity areas are studied, and as subarea and corridor studies are completed, new opportunities for smart growth development may be identified that could require changes to local general plans, or to the Regional Transportation Plan. Because of this, the list of smart growth opportunity areas should not be considered static.

The matrix also identifies specific communities within the region that typify the characteristics of each smart growth opportunity area category, or that could if developed as planned. These examples were identified in cooperation with the planning staffs of local agencies, and are meant only to serve as examples of areas that might be designated as existing, planned, or potential smart growth opportunity areas. Final designation of smart growth areas will take place after the adoption of the RCP through a collaborative process that will include local planning and policymakers as well as stakeholders.

Rural Communities represent a unique type of smart growth. Because they are remote from the urbanized portion of the region, public transportation generally cannot play a significant role in meeting their travel needs. Nevertheless, rural communities can have smart growth characteristics, and contribute to the region's smart growth development goals because they can provide for a small-scale concentration of development in a walkable, mixed use setting that allows village residents and visitors to travel around the village core on foot or by bicycle. They can provide a focal point for commercial and civic uses that can serve surrounding rural areas. Additionally, if the villages can accommodate moderately higher densities and focus development closer to the village core, they help relieve pressure for development in outlying areas. The County of San Diego's draft GP2020 encourages this kind of development by proposing a rural village limit line that would contain all but very low density development in rural areas.

With adoption of the final RCP, the matrix of smart growth area classifications will provide a basis for identifying specific areas throughout the region where existing or planned development reflects the characteristics of one of the smart growth opportunity area types. In addition, local jurisdictions will be encouraged to identify locations where smart growth development would be desirable, and could occur if existing plans are modified to allow it. These areas will be classified as Smart Growth Opportunity Areas (SGOAs).


Smart Growth Concept Map


Through a collaborative process, SANDAG and the local agencies will designate these areas on a Smart Growth Concept Map. The concept map will be used as a planning tool to communicate with local jurisdictions and infrastructure providers about where smart growth will happen.


Initially, the concept map will be used in updates of the Regional Transportation Plan (RTP) where it would help in the prioritization of transportation infrastructure investments and deployment of transit services to support smart growth development. The RTP development process would, in turn, identify needed refinements to the concept map, creating a dynamic process where transportation and land use planning adjust to each other over time. As a result, in addition to serving as a planning tool, the concept map will serve as the foundation for showing eligible locations for certain smart growth incentives. Ultimately, the concept map should also inform the decision-making processes of other infrastructure and service providers, enabling them to make better investment decisions while helping the region achieve its smart growth development goals.


TABLE 4A.2—SMART GROWTH AREA CLASSIFICATIONS


| SMART GROWTH DESIGN PRINCIPLES |
|--|
| <p>The following design principles apply to all categories and are critical to the success of smart growth.</p> <ul style="list-style-type: none"> § Human-scale built environment that creates uniqueness and identity § Vertically and horizontally mixed use development, with vertical mixed use located near transit stations § Robust transportation choices that compliment the intensity of development within the Smart Growth Opportunity Area (SGOA) <ul style="list-style-type: none"> ○ Strong pedestrian orientation: network of streets & pedestrian paths, narrower street scales, special designs to facilitate pedestrian crossings at intersections, and the walker having precedence ○ Bike access/locker facilities and park-n-ride facilities woven in the human-scale design ○ Transit station(s) located centrally within main activity area(s); transit user amenities located adjacent to stations (e.g. child care facilities, coffee bars, dry cleaning drop-off) § Nearby recreational facilities and public plazas |


| CATEGORY/ LAND USE TYPE CHARACTERISTICS | LAND USE INTENSITY TARGETS | TRANSPORTATION SYSTEM CHARACTERISTICS | PUBLIC TRANSIT SERVICE CHARACTERISTICS | EXAMPLES |
|---|--|---|---|--|
| <p>Metropolitan Center</p> <ul style="list-style-type: none"> § Draws from throughout the region § Metropolitan center has several SGOA designations § Regional commercial/ retail center § Regional civic/cultural center  <p style="text-align: center;"><i>Downtown San Diego</i></p> | <ul style="list-style-type: none"> § Desired Building Types: Mid- to high-rise residential and office/ commercial § 75+ dwelling unit/ average net residential acre within ¼ mile radius of transit station § 80+ employees/average net acre within ¼ mile of transit station | <ul style="list-style-type: none"> § Access from several freeways with multiple access points § Hub transit system § Regional hub for numerous local, corridor, regional transit lines § Shuttle services and pedestrian orientation for internal trips | <ul style="list-style-type: none"> § Served by numerous corridor/ regional/local services § Very high frequency service (less than 15 minute) throughout the day on all corridor/ regional services § High frequency service (15 minute) all day on most local services § Multiple station locations, with several key transfer points § Internal shuttle system | <ul style="list-style-type: none"> § Downtown San Diego |


| CATEGORY/ LAND USE TYPE CHARACTERISTICS | LAND USE INTENSITY TARGETS | TRANSPORTATION SYSTEM CHARACTERISTICS | PUBLIC TRANSIT SERVICE CHARACTERISTICS | EXAMPLES |
|--|--|---|--|--|
| <p>Urban Center</p> <ul style="list-style-type: none"> § Employment draws from throughout region, while other uses draw mainly from subregional area § Urban centers likely located within larger area that has several SGOA designations § Mixed use employment § Civic/cultural facilities  <p style="text-align: center;"><i>University City</i></p> | <ul style="list-style-type: none"> § Desired Building Types: Mid-to high-rise residential and office/ commercial § 40-75+ dwelling unit/average net acre residential within ¼ mile radius of transit station § 25+ dwelling unit/ acre for mixed use sites within ¼ mile radius of transit station § 50+ employees per net acre within ¼ mile of transit station | <ul style="list-style-type: none"> § Freeway connections with multiple access points § Served by several corridor/ regional transit lines and several local services § Possible shuttle routes for internal trips § Minimal park-and-ride facilities; access should be handled by internal shuttle system | <ul style="list-style-type: none"> § Served by several corridor/ regional lines and several local services § High to very high frequency service (less than 15 minute peak) on all corridor/regional services § High frequency throughout the day on all lines ≠ Key transit center, along with multiple smaller station locations ≠ Possible internal shuttle system | <p>Existing and Planned:</p> <ul style="list-style-type: none"> § Rio Vista (Mission Valley) (San Diego) § Little Italy (San Diego) § Costa Verde (University City) (San Diego) § The Boulevard Marketplace Pilot Village (San Diego) § Morena Linda Vista (San Diego) § East Urban Center (Chula Vista) |

| CATEGORY/ LAND USE TYPE CHARACTERISTICS | LAND USE INTENSITY TARGETS | TRANSPORTATION SYSTEM CHARACTERISTICS | PUBLIC TRANSIT SERVICE CHARACTERISTICS | EXAMPLES |
|---|---|--|--|---|
| <p>Town Center</p> <ul style="list-style-type: none"> § Draws mainly from immediate subregional area § Residential and office/ commercial, including mixed use § Civic/cultural facilities  <p style="text-align: center;"><i>Hillcrest</i></p> | <ul style="list-style-type: none"> ∅ Desired Building Types: Low- to mid-rise ∅ 20-45+ dwelling unit/average net acre within ¼ mile radius of transit station or connecting transit service ∅ 30-50 employees/ average net acre within ¼ mile of transit station or connecting transit service | <ul style="list-style-type: none"> § Served by one or more corridor/ regional transit line and several local services § May also be served by regional arterials | <ul style="list-style-type: none"> § Served by 1 to 2 corridor or regional lines, or less than 5 minute shuttle distance from corridor/regional station, and multiple local services § Very high frequency service (less than 15 minute peak) on corridor/regional service or connecting shuttle § High frequency throughout the day on most lines § Multiple station locations, some with central access/transfer point § Shared-use parking or dedicated park-and-ride facilities for regional transit services | <p>Existing and Planned:</p> <ul style="list-style-type: none"> § Downtown Oceanside § Downtown Escondido § Downtown La Mesa § Downtown El Cajon § Downtown Chula Vista § La Jolla (San Diego) § Village Center Pilot Village (Euclid/Market, San Diego) § Hillcrest (San Diego) § Heart of the City (San Marcos) § Vista Village Transit Center § Santee Town Center <p>Potential SGOA:</p> <ul style="list-style-type: none"> § Grantville Trolley Station (SD) § San Marcos Creek Specific Plan |

| CATEGORY/ LAND USE TYPE CHARACTERISTICS | LAND USE INTENSITY TARGETS | TRANSPORTATION SYSTEM CHARACTERISTICS | PUBLIC TRANSIT SERVICE CHARACTERISTICS | EXAMPLES |
|--|--|---|---|---|
| <p>Community Center</p> <ul style="list-style-type: none"> § Draws from nearby community/ neighborhoods § Residential and commercial, including mixed use § Possible community-serving civic uses  <p><i>Otay Ranch Heritage Village</i></p> | <ul style="list-style-type: none"> § Desired Building Types: Low- to mid-rise § 20-45+ dwelling unit/average net acre within ¼ mile of transit station | <ul style="list-style-type: none"> § Served by at least one corridor or regional transit line § Served by arterials and/ or collector streets | <ul style="list-style-type: none"> § Served by at least one corridor/ regional service § High frequency service (15 minute in peak hours) on corridor/ regional services § Moderate to high frequency throughout the day § One or more on-street stations | <p>Existing and Planned:</p> <ul style="list-style-type: none"> § Otay Ranch Villages (Chula Vista) § Mercado (Barrio Logan, San Diego) § Mira Mesa Market Center (San Diego) § Pacific Highlands Ranch (San Diego) § Downtown Lemon Grove § Downtown Coronado § San Elijo/La Costa Meadows Community Center (San Marcos) § Palm Avenue (Imperial Beach) <p>Potential SGOAs:</p> <ul style="list-style-type: none"> § Solana Beach/ NCTD Mixed Use Site § North County Metro (Buena Creek Sprinter Station Area, County of San Diego) |

| CATEGORY/ LAND USE TYPE CHARACTERISTICS | LAND USE INTENSITY TARGETS | TRANSPORTATION SYSTEM CHARACTERISTICS | PUBLIC TRANSIT SERVICE CHARACTERISTICS | EXAMPLES |
|--|--|--|---|---|
| <p>Transit Corridor</p> <ul style="list-style-type: none"> § Draws mainly from several nearby communities § Residential and office/ commercial, including mixed use § Linear size with length extending from less than one mile long, and width extending 1 to 2 blocks outward from corridor  <p><i>University Avenue in City Heights</i></p> | <ul style="list-style-type: none"> § Desired Building Types: Variety of low-, mid-, and high-rise § 25-75+ dwelling unit/ average net acre along transit corridor and within ¼ mile of transit stations § Employment: Commercial and retail supportive uses | <ul style="list-style-type: none"> § Located along a major arterial § Served by a corridor or regional service, or local services with less than 10 minutes travel time to corridor/ regional line station § Small shared-use park-and-ride facilities possible | <ul style="list-style-type: none"> § Generally served by a corridor/ regional line and local services § High frequency service (15 minute in peak hours) on corridor/ regional and/or local services § Multiple station locations, with one or more on-street transfer locations with intersecting services. | <p>Existing and Planned:</p> <ul style="list-style-type: none"> § El Cajon Blvd and University Avenue (Mid-City) (San Diego) § Washington Ave (Mission Hills) § University Avenue (La Mesa) § South Santa Fe Transit Corridor (Vista) <p>Potential SGOA:</p> <ul style="list-style-type: none"> § El Camino Real (Encinitas) |

| <p>CATEGORY/ LAND USE TYPE CHARACTERISTICS</p> | <p>LAND USE INTENSITY TARGETS</p> | <p>TRANSPORTATION SYSTEM CHARACTERISTICS</p> | <p>PUBLIC TRANSIT SERVICE CHARACTERISTICS</p> | <p>EXAMPLES</p> |
|--|--|---|--|---|
| <p>Special Use Center</p> <ul style="list-style-type: none"> § Employment draws from throughout region, with other uses being community serving § Special use centers may be located within larger area that has several SGOA designations § Dominated by one non-residential land use § Retail support services § Potential residential element  <p><i>Proposed Paseo at San Diego State</i></p> | <ul style="list-style-type: none"> § Desired Building Types: Variety of low-, mid-, and high-rise § 45+ employees/ average net acre within ¼ mile of transit station § Optional residential: 50+ dwelling units/ average net residential acre | <ul style="list-style-type: none"> § Nearby freeway access § Served by one or more corridor/ regional lines and local services § May be served by shuttle service for internal trips | <ul style="list-style-type: none"> § Generally served by one or more corridor/ regional line and local services § High to very high frequency service (15 minute or better in peak) on corridor/ regional services § Moderate to high frequency throughout the day § Multiple station locations, with possible central access/transfer point | <p>Existing and Planned:</p> <ul style="list-style-type: none"> § Grossmont Center/ Hospital/ Trolley Station (La Mesa) § The Paseo at SDSU (San Diego) § Chula Vista Bayfront § Palomar College (San Marcos) § Cal State San Marcos <p>Potential SGOAs:</p> <ul style="list-style-type: none"> § Ocean Ranch / Rancho Del Oro Industrial Complex (Oceanside) § Vista County Courthouse Area |

| CATEGORY/ LAND USE TYPE CHARACTERISTICS | LAND USE INTENSITY TARGETS | TRANSPORTATION SYSTEM CHARACTERISTICS | PUBLIC TRANSIT SERVICE CHARACTERISTICS | EXAMPLES |
|---|--|---|---|---|
| <p>Rural Community</p> <ul style="list-style-type: none"> § Distinct communities that include Rural Villages defined by a village limit line with concentrated areas of residential and commercial development § Draws from nearby rural areas § Includes semi-rural and rural areas outside the village limit line  <p><i>Main Street Ramona</i></p> | <ul style="list-style-type: none"> § Within Village Cores, 10.9-24+ dwelling units/ acre (higher densities permitted for senior housing) § Desired Building Types: Low-rise employment and residential | <ul style="list-style-type: none"> § Concentrated local road network within village, with regional connection to urban areas § Bicycle and pedestrian-friendly street design in Village Core § Could include park-n-ride facilities near major road or transit corridors § Possible local transit service or central access point for possible corridor/ regional peak transit line | <ul style="list-style-type: none"> § Village Cores should include or allow for bus stops and an expansion of bus service in higher density areas § Served by one or more local services with moderate frequencies throughout the day § Possible peak period corridor/ regional service with transit stations located within village core | <p>Existing, Planned, and Potential SGOAs:</p> <ul style="list-style-type: none"> § Ramona § Fallbrook § Alpine § Lakeside § Valley Center |

NOTES:

Potential Smart Growth Opportunity Areas (SGOAs):

Areas discussed at local and regional meetings with local planning directors that are not currently included in existing plans and policies, but may offer the potential for additional smart growth

Computing Land Use Intensity Measurements per Net Acre:

Residential: Total dwelling units divided by built or planned residential acreage net of public right-of-way

Employment: Total employees divided by built or planned office, commercial, and retail acreage net of public right-of-way

Mixed Use: Total dwelling units divided by built or planned residential acreage net of public right-of-way and any other non-residential uses (e.g., commercial, retail, etc.)

Land Use Building Type Definitions:

Low Rise = 2-3 stories

Mid-Rise = 4-6 stories

High Rise = 7+ stories

NOTES CONTINUED:**Public Transit Service Characteristics:**

Public transit service characteristics for Smart Growth Opportunity Areas apply to both existing and planned regional transit services as described in the Regional Transportation Plan.

Shuttle services (Green Car) – Designed for short-distance trips in neighborhood/employment areas, and feeder access to/from corridor and regional services

Local services (Blue Car) – Designed for shorter-distance trips with frequent stops (e.g. current local bus services)

Corridor services (Red Car) – Designed for medium distance trips with station spacing about every mile on average (e.g. trolley services, future arterial based bus rapid transit (BRT) routes)

Regional services (Yellow Car) – Designed for longer distance trips with stations spacing every 4-5 miles on average (e.g. Coaster, future freeway-based BRT routes)

Examples of Smart Growth Opportunity Areas:

Examples of existing, planned, or potential Smart Growth Opportunity Areas are provided to illustrate the scale and character of the different smart growth area types. Actual Smart Growth Opportunity Areas will be identified in the first implementation phase of the RCP when the Smart Growth Area Concept Map is developed in consultation with local jurisdictions.

Rural Communities

For additional detail, see the County of San Diego's General Plan 2020.

PROVIDING INCENTIVES FOR SMART GROWTH

Successful implementation of the Regional Comprehensive Plan will require incentives for smart growth development that meets the goals and policies of the RCP. There are a number of different approaches to providing such incentives.

Regional Transportation Network Funding Based on Smart Growth

Because the RCP calls for SANDAG to coordinate its transportation investments with local land use decisions, many of the transportation funds that SANDAG allocates can provide incentives for smart growth development. How this strategy is implemented will be determined as SANDAG updates its transportation project prioritization process in the first phase of RCP implementation and subsequent Regional Transportation Plan updates.

Decisions regarding priorities for future regional transit, arterial, and highway corridor projects should be based, in part, on how well local communities have planned for smart growth land uses that facilitate a robust set of transportation choices that, in turn, increase mobility. These decisions, including, for example, investments in enhanced transit services and stations, and roadway improvements serving rural villages, should be based in part on how well smart growth opportunity areas incorporate the smart growth principles contained in the RCP. Smart growth principles will be incorporated into a revised set of criteria that will be used for prioritizing transportation projects (see discussion in Chapter 4B, "Transportation Priorities and Smart Growth").

Direct Financial Incentives for Smart Growth Development



There is growing recognition that smart growth development, particularly in redeveloping areas, can require significant up-front investments in infrastructure other than regional transportation facilities. To meet these needs, the Regional Transportation Plan recommends that a "Smart Growth Incentive Program" (SGIP) be established, starting with a 5-year, \$25 million pilot incentive program. Identifying funding for this program has been delayed pending the adoption of a federal transportation funding reauthorization, but the program should begin in FY 2005. Establishing an on-going Smart Growth Incentive Program will require a long-term funding source like the Smart Growth Incentive Fund proposed for the *TransNet Extension*, a proposed 40-year extension to the existing ½-cent sales tax that funds a wide range of transportation projects in the region.

A wide variety of project types could be funded through the SGIP. The potential project types identified below are based on research on similar programs developed in other regions, including the existing Transportation for Livable Communities program in the Bay Area, the proposed projects in the Sacramento area Metropolitan Transportation Plan, and in Portland, Oregon.

Potential Smart Growth Incentive Fund Project Types

Community Design Planning

The key to implementing successful Smart Growth Opportunity Areas (SGOAs) is the application of good urban design principles that reflect the values and character of the individual communities. Successful community planning and development can ensure that public areas are attractive and inviting places that are well-integrated with the surrounding communities. The SGIP can provide funding support to jurisdictions that have identified a need to amend their codes or develop specific plans to reflect smart growth urban design principles.

Community-based planning studies help develop community support for smart growth urban design principles and for specific area plans in SGOAs. The studies also could identify the improvements necessary for a community to ensure that:

- § SGOAs provide a healthy set of transportation choices that increase mobility;
- § Transit stations and surrounding areas are attractive and transit-friendly; and
- § SGOAs are walkable places.

These improvements could then be the basis for future SGIP grant applications for capital projects. It is recommended that SANDAG staff participate directly in these planning studies to provide technical assistance, and to ensure that project goals are met. Local planning grants typically would include extensive community outreach and visioning, concept plans and drawings, construction cost estimates, and implementation plans.

Transportation Enhancements within Smart Growth Opportunity Areas

The SGIP could support capital projects that enhance the connections between the transportation/transit network and smart growth opportunity areas. Typical projects would include small-scale transportation improvements that enhance local communities and town centers through improved bicycle and pedestrian circulation, traffic calming, and transit station area enhancements such as shelters and benches. Transit stations on regional transit routes would be developed by SANDAG as part of the regional transit project, but would be coordinated with local improvement plans.

Streetscape and Public Plaza Enhancements

Civic plazas and other public places that improve the walkability and the human scale of the SGOA could be funded under the program. Projects could include providing street trees and other landscaping, public art, and the provision of public seating. Projects outside what is conventionally considered the public right of way would be beyond the scope of what is supported by most traditional transportation funding sources, and would require innovative funding strategies.



Public Parking

With enhanced transportation choices, including walkability and increased public transit services, the demand for parking can be reduced, but parking will remain a significant cost of development. The walkability of smart growth areas can be improved when parking is centralized in community parking structures, particularly as part of a mixed use project. Commercial development and affordable housing opportunities can also be encouraged if on-site parking requirements can be reduced. Providing structured public parking can require a significant investment, and may not be an eligible cost under some transportation funding programs, but SANDAG should investigate potential strategies to fund community parking projects.

Housing Incentives

Increased housing density near major transit hubs produces numerous regional benefits in the form of more housing choices, increased mobility, increased transit ridership, reduced auto dependency, and less land consumption. Providing affordable housing also helps meet regional goals for increasing housing for lower income communities. A housing incentive program may be appropriate to consider in the SGIP in the San Diego region if a feasible array of programs could be established.



Transit Oriented Development (TOD) Investment Programs



A funding program could be established to stimulate private investment in high-density, pedestrian-friendly commercial and residential projects near transit stations. Through a series of cooperative agreements, this program could be used to fund site acquisition. Station area properties could be acquired, planned, re-parceled, and sold with conditions to private developers for constructing transit-oriented development. In many cases the land value could be reduced via public agency acquisition and conveyance

to a developer to cover the extraordinary development costs required to construct a TOD project, especially where affordable housing is included. In such cases, a "highest and best transit use" appraisal could be used to establish the sale price of the property.

POTENTIAL FUNDING SOURCES FOR SMART GROWTH INCENTIVES

A variety of funding sources are available to SANDAG and local agencies to provide incentives for smart growth, including federal transportation funds and, potentially, *TransNet* local transportation sales tax revenue. State transportation funding programs that are not administered by SANDAG could be used by local jurisdictions to provide smart growth incentives, and a variety of non-transportation state and federal funding programs also are available to local jurisdictions.

Whether or not SANDAG administers these funding sources, they all have some potential for as incentives for smart growth. Once the Smart Growth Concept Map is developed, SANDAG can modify its existing transportation project prioritization criteria to encourage projects in smart growth opportunity areas. Other fund administering agencies could do the same where existing policies support better connections between transportation and land use decisions.

Federal Transportation Programs

Most funding programs administered by the Federal Highway Administration could be used for projects that support smart growth. Surface Transportation Program (STP) funds may be used to support highway, public transit, or bicycle and pedestrian projects. The Transportation Enhancement Activities (TEA) program is a subcategory of the STP program established to fund non-traditional transportation related projects. Among the types of projects eligible under this program are bicycle and pedestrian facilities, preservation of historic structures related to the transportation network, and landscaping and highway beautification. SANDAG has previously used the TEA program to support TOD projects. The Congestion Mitigation and Air Quality (CMAQ) program sets aside funding specifically for projects that reduce air pollution or congestion, and cannot be used to construct roadways for use by single occupant vehicles. SANDAG could dedicate a portion of these funds to the Smart Growth Incentive Program.

TransNet

Ultimately, SANDAG anticipates funding the SGIP from the Smart Growth Incentive Program that is a component of the draft ordinance for the extension of the *TransNet* local transportation sales tax. Assuming the *TransNet Extension* is approved by the voters in November 2004, this program would take effect in 2009. The ordinance sets aside two percent of the *TransNet* revenues for the Smart Growth Incentive Program, which would generate approximately \$280 million (in 2002 dollars) over the 40-years the sales tax extension would be collected.

The draft ordinance specifies that the program would provide funding for "a broad array of transportation-related infrastructure improvements that will assist local agencies in better integrating transportation and land use, such as enhancements to streets and public places, funding of infrastructure needed to support development in smart growth opportunity areas consistent with the Regional Comprehensive Plan, and community planning efforts related to smart growth and improved land use/transportation coordination." It also specifies that funds will be allocated on a regional competitive grant basis, and that the funds should be used to match federal, state, local, and private funding to maximize the number of improvements to be implemented.

The Local Streets and Roads program in the *TransNet Extension* also permits local jurisdictions to use their formula funds for projects that would support smart growth development. Among the eligible uses for these funds are community infrastructure improvements to support smart growth development, capital improvements needed to facilitate transit services and facilities, and operating support for local shuttle and circulator routes and other services.

Because the *TransNet Extension* would be a local source of funds administered by SANDAG, it would allow considerable flexibility with regard to how the funding could be used. However, because the new *TransNet* ordinance would not go into effect until 2009, other funding sources need to be identified if the Smart Growth Incentive Program is to begin in the near term.

Transportation Development Act (TDA) Funds

The TDA is a state sales tax supported program administered locally by SANDAG. Each year, SANDAG allocates two percent of the TDA funds for bicycle and pedestrian projects. The projects are selected based on an array of criteria that include the amount of population and employment that the project would serve. Once the Smart Growth Concept Map is developed, these criteria could be modified to encourage projects in Smart Growth Opportunity Areas.

State Transportation Grant Programs

The State of California offers grants under several programs that, if awarded to local jurisdictions, could be applied to smart growth opportunity areas. These programs include Safe Routes to School, the Bicycle Transportation Account, Community Based Transportation Planning Demonstration Grant Program, and the Environmental Enhancement and Mitigation Program.

Non-Transportation Funding Sources

A wide array of non-transportation funding sources could be used to support smart growth. These typically are competitive grant programs that are administered by state or federal agencies. The State Department of Housing and Community Development (HCD) offers several programs to assist with the provision of housing. The Department of Parks and Recreation offers grant programs for habitat conservation and recreational facilities. At the federal level, the Department of Housing and Urban Development, U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, and the Economic Development Administration administer grant programs to support community development, housing, habitat protection, and economic development.

LOCAL INCENTIVES FOR SMART GROWTH

In addition to developing a regional smart growth incentive program based on the approach outlined above, local jurisdictions should consider providing local incentives to promote smart growth. For example, the City of San Diego has included local incentives in its "Pilot Village Program." Similarly, the City of Encinitas provides incentives for mixed use development and parking reductions in appropriate locations. As another example, the City of Oceanside allows mixed use development as a conditional use in its commercial zones. This allows the flexibility to establish mixed use developments in areas that otherwise would be restricted to commercial use.

Local incentives could include: capital improvement program (CIP) priority treatment, fee reductions for zoning, subdivision, and site plan applications, and water and wastewater capital recovery fees, particularly within the Smart Growth Opportunity Areas and local redevelopment areas. Local jurisdictions could also expedite project approvals in SGOAs, and could apply other incentives such as reduced parking requirements, density bonuses, and others.

OVERALL PRINCIPLES FOR DEVELOPING SMART GROWTH INCENTIVES

Following adoption of the RCP, SANDAG will work with local agencies and stakeholders to identify areas where its transportation funding decisions could provide stronger support for smart growth development. The following principles should be used in developing criteria for applying these smart growth incentives to implement the Regional Comprehensive Plan.

FIGURE 4A.5—PRINCIPLES FOR DEVELOPING CRITERIA FOR SMART GROWTH INCENTIVES

1. **Regional Funding for Transportation Investments that Support Smart Growth.** In its development of the Regional Transportation Plan (RTP) and programming of transportation projects, SANDAG should ensure that its decisions regarding key regional transportation corridor investments give a higher priority to the implementation of smart growth by local jurisdictions in "smart growth opportunity areas," with a particular focus on opportunities for housing affordable to all income levels. Additionally, SANDAG should ensure that the design and implementation of its regional transportation facilities supports smart growth development by local jurisdictions.
2. **Regional Funding for Smart Growth Infrastructure and Planning.**
 - a. **Infrastructure Improvements.** SANDAG should provide direct financial incentives to local communities for needed infrastructure improvements in smart growth opportunity areas. Improvements funded under such a program might include transit access improvements, community parking, bicycle and pedestrian circulation improvements, traffic calming, streetscape improvements, transit-related roadway improvements, and others. The program should use a variety of available funding sources.

Demonstration Projects. SANDAG should initially focus on public infrastructure improvements for "ready-to-go" projects that will demonstrate smart growth principles and serve as a catalyst for additional smart growth development in key locations.
 - b. **Planning.** SANDAG should provide technical assistance and/or planning grants to local jurisdictions to implement regional smart growth goals and policy objectives through local plans and regulations. Assistance could support preparation of general plan amendments, community plans, specific plans, and development regulations that facilitate smart growth development.
3. **Local Incentives for Smart Growth.** Local jurisdictions should provide incentives for appropriate development in smart growth opportunity areas, such as priorities for infrastructure improvements, fee reductions, priority processing of development plans, and others. SANDAG should give priority in its funding decisions to jurisdictions that are providing local smart growth incentives.
4. **Funding for Other Smart Growth Activities.** SANDAG should work with other agencies (e.g., California Department of Housing and Community Development (HCD), U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service, and private foundations) to coordinate the development of programs that provide incentives for other types of smart growth activities, such as affordable housing production, habitat protection, and the like.

NEXT STEPS

Implementation of the urban form components of the RCP will be an on-going, collaborative process, involving local and regional planners, community leaders, and other stakeholders. Initially, it will focus on three primary tasks:

- § **Development of a Smart Growth Area Concept Map.** SANDAG will work with local jurisdictions to identify and map the seven types of smart growth opportunity areas around the region. These smart growth opportunity areas will include places where existing development reflects the smart growth characteristics described in Table 4A.2 and where planned land uses will allow smart growth development to occur. They will also include areas where existing plans do not currently provide for smart growth development, but where local jurisdictions identify a potential for smart growth in the future if appropriate changes are made to the local plan. Such areas might exist, for example, where regional transit services are planned, and the potential for redevelopment would provide an opportunity to reshape the community. Such opportunities will be identified in consultation with local jurisdictions, and through subregional planning studies that coordinate regional and local planning efforts. The map would then serve as input to the next update of the Regional Transportation Plan, to help strengthen the link between local land use plans and regional transportation plans. The map would also serve as the foundation for showing eligible locations for smart growth incentive funds, as well as establishing where SANDAG should prioritize infrastructure investments and deploy transit services to support smart growth development.
- § **Development of Smart Growth Incentives.** Working with local jurisdictions and stakeholders, SANDAG will use the principles described in Figure 4A.6 to develop the Smart Growth Incentive Program called for in *MOBILITY 2030*, and anticipated in the extension of the *TransNet* local transportation sales tax. Program development will include determining the specific types of projects to support, the project selection process, and program administrative requirements. In addition, SANDAG will continue to refine the process it uses to prioritize transportation project funding to ensure that that process supports smart growth development to an appropriate extent.
- § **Development of Urban Design Guidelines.** SANDAG can assist local agencies with the development of their smart growth opportunity areas by assembling a manual of urban design best practices focused on smart growth development principles.

The Regional Planning and Policy Framework of the RCP will help local agencies to implement smart growth at the community level by identifying specific Smart Growth Opportunity Areas and creating meaningful incentives for smart growth. By rewarding higher-density, mixed use development in key locations with priority transportation funds, the region can reduce the footprint of development on our rural landscape and create more livable and sustainable communities throughout the region.

GOALS, POLICY OBJECTIVES, AND RECOMMENDED ACTIONS

Goals

1. Focus future population and job growth away from rural areas and closer to existing and planned job centers and public facilities to preserve open space and to make more efficient use of existing urban infrastructure.
2. Create safe, healthy, walkable, and vibrant communities that are designed and built accessible to people of all abilities.
3. Integrate the development of land use and transportation, recognizing their interdependence.

Policy Objectives

1. Preserve the positive aspects and unique sense of place of existing communities, while allowing flexibility for change.
2. Protect agricultural areas, natural systems, high-value habitat areas (as reflected in adopted habitat plans), and other open-space areas that define the character of our communities.
3. Place high priority on public facility investments that support compact, mixed use, accessible, walkable neighborhoods that are conveniently located to transit.
4. Improve existing public facilities in smart growth areas to mitigate the impact of higher intensities of use.
5. Facilitate redevelopment and infill development.
6. Protect public health and safety by avoiding and/or mitigating incompatible land uses.

Recommended Actions

Planning, Design, and Coordination Actions

1. In conjunction with the smart growth area classification matrix, identify locations where smart growth development should occur and designate them on a Smart Growth Opportunity Area Concept Map.
2. Develop a process to plan, promote, and monitor a better mix of jobs and housing at the subregional level.
3. Implement development projects and plans that:
 - Š Provide a more diverse mix of housing types, jobs, services, and recreational land uses with good access for pedestrians and people with disabilities.

- Š Preserve our natural resources.
 - Š Avoid and mitigate incompatible land uses, for example, by establishing buffers or transition zones between housing and industrial uses or major transportation corridors that could pose health risks.
4. Examine and, if appropriate, amend existing guidelines regarding traffic impacts and parking standards to reflect the potential reduction in trip generation rates from smart growth development, redevelopment, and transportation demand management programs.

Program and Project Development and Implementation Actions

1. Develop an urban design best practices manual as a tool for local agencies, which addresses walkability, compatibility with public transportation, crime prevention, universal design, and accessibility, as well as other urban design issues.
2. Institute an education and outreach program to help local agencies develop community consensus on urban design that supports smart growth.

Funding

1. Using the smart growth incentive principles, prioritize transportation infrastructure funding and other public facility investments in areas that support smart growth development and smart growth opportunities, as identified by the Smart Growth Opportunity Area Concept Map.
2. Develop and implement the Smart Growth Incentive Program established in *MOBILITY 2030*.
3. Promote public and private investments in redevelopment and infill areas through the Smart Growth Incentive Program and other funding programs.

CONCLUSION

As our region's population continues to grow, our future will depend on where and how we accommodate that growth. To preserve the region's quality of life, we must make better use of the available land and existing infrastructure, and we must take care to ensure that future development enhances life in our cities, towns, and backcountry.

To meet this challenge, the RCP brings into focus urban form and urban design principles that have been emerging in local and regional plans and design standards for some time. It provides a framework for ensuring our transportation and land use plans and development decisions work together to help us create healthy, sustainable communities that will support the diverse character of the region's urban and natural landscapes.

TRANSPORTATION

Moving People and Goods

2030 VISION

We have many convenient transportation choices. Fast, frequent, and reliable public transit services interconnect our communities, and our major transit centers are integrated with housing, retail shops, food courts, shade-covered benches, and well-maintained restrooms. More of our residents who have cars opt to leave them at home and families need fewer cars per household. Overall, it's easier and more convenient to get around by walking, biking, and using transit. As a result, many children walk or bike to school, as we used to do when we were younger.

Many of our existing regional freeways, highways, and major roadways have been expanded and include an extensive managed lane network for transit and carpools. These systems are linked to the international airport, ensuring effective access to world markets. Roads, rails, and vehicles are better managed with technology, which increases public safety. In-road sensors and cameras help detect traffic incidents and slowing. Automated systems notify traffic-response teams in real-time and electronically adjust ramp meters and traffic signals to moderate traffic flow.

Despite nearly three decades of population and employment growth, the average commute time is less than 30 minutes, and traffic congestion in key corridors has improved. By better linking transportation and land use decisions in the past, more people now live close to their jobs and leave their cars at home. As a result, more people have additional leisure time and less travel-related stress.

INTRODUCTION

There was a time when rush hour was just that — an hour in the morning and an hour in the evening. Today, rush hour lasts at least two to three times as long. Frustrated commuters are spending more time than ever in their cars or on buses — time that erodes the quality of their lives, decreases their productivity, and pumps more pollutants into the air.

That's just one reason why transportation plays a pivotal role in the Regional Comprehensive Plan. This initial RCP focuses on the relationship — or lack thereof — between regional transportation plans and local land use plans and policies. Planning and building great places to live, work, and play is only half the job. We need to think about how we get to and from those places; how we can do it smarter, faster and easier, and in a way that will foster future growth and prosperity in the region.



This chapter of the RCP seeks to develop a transportation system that better connects our communities and efficiently moves both people and goods.

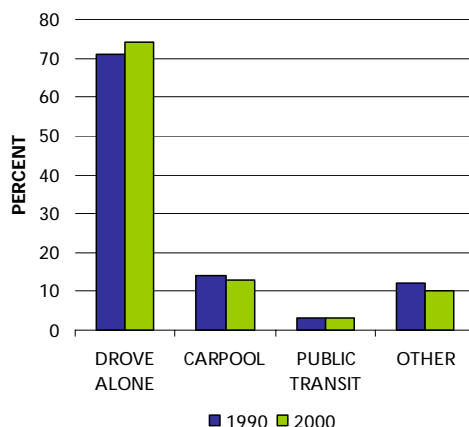
EXISTING SETTING

It’s a fact of life in modern society: people are traveling more. Like most major metropolitan areas in the nation, the San Diego region has not been able to keep pace with the public’s demand for daily travel. Growth in travel consistently has outpaced growth in population and employment over the past two decades, and this trend is projected to continue through 2030. Roads and freeways are clogged. In fact, many of the region’s major transportation facilities are operating at or beyond their capacity.

The increasing amount of travel and its consequences depend on many factors, including who lives where (residential locations), who works where (employment locations), and what’s built where (land uses). Our lifestyles and the state of the economy also play key roles.

Between 1990 and 2000, the percentage of San Diego region residents who drove alone to work increased, while commuting by carpool, transit, and all other modes decreased or stayed the same (see Figure 4B.1). This increase in solo commuting can be attributed, in part — to the continuing increase in two-worker households — which in turn, has increased the need for car trips. It is also a function of the fact that more households can afford to own two or more cars. The availability of plentiful, low-cost parking also has played a factor. And, of course, cultural factors play a part — Californians have always cherished the status, independence, and convenience associated with car ownership.

FIGURE 4B.1—COMMUTING TO WORK – 1990 vs. 2000 CENSUS



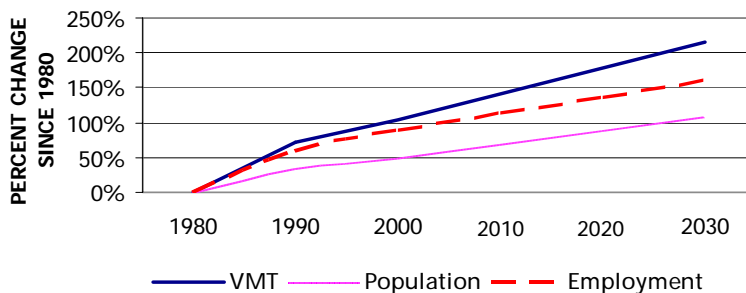
Sources: SANDAG, U.S. Census, 1990 and 2000

In 1990, people living in the region made 13 million trips a day by car, truck, bus, and train. Today, we make an estimated 15 million daily trips. That number is expected to reach more than 20 million daily trips by 2030.

Figure 4B.2 compares the percentage change since 1980 in travel (measured in vehicle miles traveled, or VMT), population, and employment. Growth in travel consistently has outpaced growth

in population and employment over the past two decades. This trend is projected to continue through 2030. Potential factors affecting growth in VMT include the shift to solo commuting and demographic and economic factors, such as increases in two-worker households and household vehicle ownership. The completion of critical links and the widening of roadways in our regional transportation system post-1980 also are likely factors influencing VMT growth.

FIGURE 4B.2—GROWTH IN VEHICLE MILES TRAVELED, POPULATION, & EMPLOYMENT

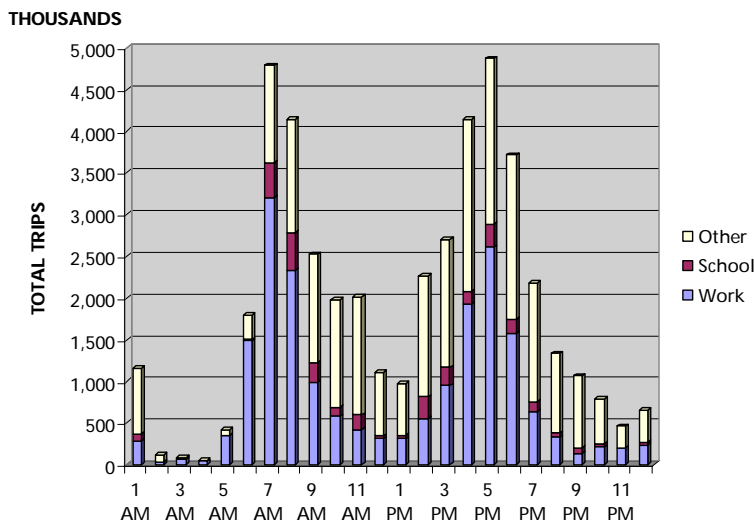


Source: SANDAG, 2030 Regional Transportation Plan, 2003

Of all trips taken by all transportation modes, the average length is five miles. Most of the highway travel — 73 percent — is non-work related. Work travel comprises 27 percent. Work trips tend to be longer than non-work trips. Today’s average work trip length is 10.5 miles, compared to 4.5 miles for the non-work trip.

Figure 4B.3 shows average daily trips by hour of the day and trip purpose. Work trips make up the largest portion of travel demand during the morning and afternoon peak periods, although there are large shares of other trips (e.g., shopping, recreation, etc.), particularly in the afternoon hours. Morning trips tend to be commuter trips, going directly from home to work. Evening trips involve a greater variety of origins and destinations, causing the evening peak period to spread out over a longer period of time. School trips constitute the smallest shares throughout the day.

FIGURE 4B.3—AVERAGE DAILY TRIPS BY HOUR AND TRIP PURPOSE



Source: SANDAG, 2030 Regional Transportation Plan, 2003

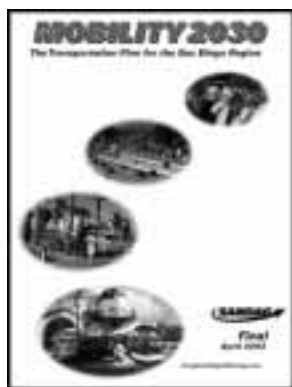
Peak travel demand during short periods of the day — such as rush hours — strains the regional transportation system. But during off-peak times, there's more than enough capacity on our roads. As bad as it seems here, traffic congestion in the San Diego region is slightly better than in other metropolitan areas around the country. A recent nationwide study found that the typical traveler in the San Diego region experienced an average of 25 hours of traffic delays in 2001, compared to an annual average of 26 hours of traffic delays among the country's top 75 metropolitan areas.¹

The average commute time in the region grew by only three minutes between 1990 and 2000, indicating that people make personal adjustments and change their departures to keep commute times reasonable. But the result is a peak period that lasts longer every morning and afternoon. To prevent our traffic congestion problems from worsening, we must reduce travel demand and provide attractive and convenient alternatives to solo commuting, especially during peak travel periods. We must also find ways to adequately fund all of our needed transportation improvements.

EXISTING PLANS AND PROGRAMS

Here's what *is* being done to address our regional transportation needs.

Regional Transportation Plan



In March 2003, the SANDAG Board of Directors approved *MOBILITY 2030* — the Regional Transportation Plan (RTP). *MOBILITY 2030* is the blueprint to address the challenges of getting around; challenges made harder by our region's growth. This \$42 billion plan covers public policies, strategies, and investments to maintain, manage, and improve the regional transportation system through the year 2030.

MOBILITY 2030 was developed around four main components: Land Use, Systems Development, Systems Management, and Demand Management. Each component has a unique, yet interdependent, role in improving mobility.

MOBILITY 2030 includes new and better connections to more efficiently move people on buses, trolleys, trains, and cars. The plan encourages smart growth urban design to promote pedestrian movements as well. The plan also gives new meaning to the term "information superhighway," taking advantage of technological advances that provide drivers and transit riders with real-time travel conditions during rush hours when most of our traffic congestion occurs. When implemented, the Mobility Network improvements (Figure 4B.4) will transform the region's highway and roads network into a robust system with more carpool lanes and buses integrated with new high-quality regional transit services. The plan includes a flexible roadway system, which can be used by transit and high occupancy vehicles (HOVs), to improve the movement of people and goods through the region.

¹ Texas Transportation Institute, 2003 Urban Mobility Study



Since much of rush hour demand is driven by the need to commute to and from work and school, *MOBILITY 2030* completes and upgrades our existing highway network. The plan also looks at incentives that will make it more desirable to ride transit, carpool, or vanpool during peak hours, or bike or walk to work or school. In our fast-paced world, saving time is a real and powerful incentive for encouraging these more sustainable travel choices.

MOBILITY 2030 serves as the transportation component of the RCP and supports the RCP's vision to promote smarter, more sustainable growth. Implementation of *MOBILITY 2030* requires regional transportation planners and local land use planners to work together.

Central to resolving our transportation dilemma is addressing our region's affordable housing crisis, building new communities, and rebuilding older ones around mixes of land use, public transit, walking, and biking, and providing other needed infrastructure to support smart growth development.

Transportation investments can be particularly important to low income communities. While most people still use the automobile to reach a job site, the availability of good transportation choices, such as affordable public transit, can mean the difference between employment and unemployment for many hovering on the fringes of poverty. Transportation investments create more opportunities for low income workers, and also make under-served communities more attractive to outside investment and growth.

The Regional Transportation Plan is updated every three years. The vision, goals, policy objectives, and actions developed with this first Regional Comprehensive Plan will drive the next update of *MOBILITY 2030* in 2006, setting the stage for future transportation decisions.

Key components in *MOBILITY 2030* and other planning efforts include the Regional Transit Vision, the Short-Range Transit Plan, the Congestion Management Program, and the Regional Transportation Improvement Program, discussed below.

Regional Transit Vision

MOBILITY 2030 envisions better trolley and bus service through the Regional Transit Vision (RTV). The RTV's goal is to make public transit competitive with solo driving during peak periods. It envisions a network of convenient, reliable, fast, and safe transit services that crisscross the region, providing commuters with more options.

Our local jurisdictions will play a significant role in creating communities that support the RTV.

MOBILITY 2030 recognizes that transit improvements need to be focused in areas with compatible land uses that support an efficient transit system. The Urban Form chapter expands on this close relationship. Transit is not for every area and every trip.



Two key concepts of the RTV are:

- § Integrating transit into our more populous urban communities, and
- § Surrounding transit with supportive land uses.

Bus and trolley stations could serve as hubs not only for transit, but shopping, employment and recreation, as well. Local jurisdictions should plan for a dynamic mix of land uses near transit including homes, offices, and retail. These mixed use neighborhood and community centers of moderate to higher densities will encourage walking and bicycling to jobs and services, as well as to transit. The result will be shorter trips overall, with a higher proportion of them made within the neighborhood.

The cleanest technology available for our transit systems should be pursued as more people live and play near transit stations and corridors.

Additionally, particular attention should be paid to urban form. Local jurisdictions should strive to create pleasant, tree-lined sidewalks; design standards that emphasize the human scale; and streets that encourage slower, smooth flowing vehicular traffic. To help make this happen, SANDAG in June 2002 adopted model pedestrian design guidelines that can be incorporated into local land use and transportation policy documents, ordinances, regulations, and street-design guidelines.²

Supportive transit services also must provide circulator services within these communities and connect them to our larger employment centers and schools. Such transit-oriented land uses are critical to improving livability and maximizing the number of people with access to transit.

As part of *MOBILITY 2030*, the region's cities and the County of San Diego identified a number of potential neighborhood and community centers that were incorporated into the *MOBILITY 2030* land use assumptions, although more land needs to be set aside for this type of development. Redevelopment and infill of existing urban areas also must occur to realize the RTV's potential.

Preliminary analyses indicate that while local smart growth commitments used in *MOBILITY 2030* result in fairly minimal impacts on the region's overall transportation system performance in the near-term, they are clearly a step in the right direction. Adding more such land use over time is expected to improve future performance of the transportation system.

MOBILITY 2030 identifies current and potential users of transit. Regional transit is important to many seniors and persons with disabilities. Approximately 14 percent of the San Diego region's population is age 60 and older. Based on national surveys, about 18 percent of our population has a disability affecting their life

activities. Most seniors and persons with disabilities drive or ride in private cars or vans, but many others need specialized transportation. These needs are met by transit and paratransit services, mostly in the urbanized areas of the region. All public transit vehicles are accessible to persons using



² Source: *Planning and Designing for Pedestrians - Model Guidelines for the San Diego Region*; SANDAG, June 2002.

wheelchairs. Many buses have either a “kneeling” feature, where the bus can be lowered closer to the curb so that a special-needs person can board more easily, or are “low floor” so the passenger has one or no steps to climb to enter. The Coaster commuter rail cars are “low floor,” and new trolleys will be easier to board.

Curb-to-curb paratransit or van shuttles are available for people with disabilities who can't use public transit. Federal law and other regulations govern who can use this service and how often. In addition to public transit services, many nonprofit social and health agencies provide limited transportation for their clients.

The RTV also promotes priority measures that will allow transit to bypass congested roadways and intersections. These could include traffic signals that allow buses to go first, dedicated transit lanes, or grade-separated intersections that use overpasses or underpasses to eliminate traffic conflicts at intersections.

SANDAG and its transportation partners are evaluating several potential venues to showcase the RTV's high-quality transit services. Demonstrating these showcase services within the next few years will give people a firsthand look at a new kind of vehicle, a new kind of station, new sources for transit information, and a new way of providing public transit services.

Short-Range Transit Plan

While it is important to develop new transit services to support the region's growth, it is equally important to maintain and optimize the existing system to improve the quality of service for current riders. We are faced with hard decisions on how best to balance the vision of transit in the future with the fiscal and operational realities of today.

The Short-Range Transit Plan (SRTP) lays out a strategy for balancing the short-term needs associated with managing existing transit services, while beginning to implement the long-term regional transit vision identified in *MOBILITY 2030*. As such, the SRTP provides a framework for transit system development over the next five years.



SANDAG is now responsible for transit planning, programming, and construction in the region. In February 2004, SANDAG adopted the first consolidated SRTP for the San Diego region, detailing planned transit service improvements for fiscal years 2004 to 2008. The new SRTP provides an opportunity for consolidated transit planning throughout the region, reflecting the goals and direction for service development as described in *MOBILITY 2030*.

The SRTP serves five primary purposes. The plan:

- § Outlines the goals and objectives for transit service planning and development, based on the Regional Transit Vision;
- § Provides an evaluation of current and future travel demand and the existing transit system, and identifies deficiencies and gaps in service;
- § Identifies transit service, program, and policy changes to address identified travel demand, deficiencies, and gaps in service;
- § Provides guidance in the preparation of SANDAG's Regional Transportation Improvement Program, as well as state and federal grant applications; and
- § Coordinates and guides the Transportation Development Act (TDA) claims approval process and the Metropolitan Transit System (MTS) and North San Diego County Transit Development Board (NCTD) budget development processes.

The SRTP supports the vision of *MOBILITY 2030* by providing a short-term (five-year) plan for transit system adjustments and enhancements. As a revenue-constrained plan, the SRTP recommends specific service, operational, and capital improvements that balance the goals of maintaining a productive and cost-effective transit system with implementing enhancements envisioned in *MOBILITY 2030*. The short-term nature of the SRTP allows SANDAG the opportunity to annually adjust investment priorities between service maintenance and enhancements based on system monitoring, available funding, and operational constraints.

Congestion Management Program

In 1990, California voters approved Proposition 111, which increased the state sales tax to fund road and transit improvements. The measure also required urban areas to prepare and regularly update traffic Congestion Management Programs (CMP). SANDAG is the designated Congestion Management Agency (CMA) for the San Diego region and must update the CMP every two years. The SANDAG Board of Directors adopted the most recent update, the 2002 CMP, in January 2003.

The CMP takes the temperature of our regional transportation system, develops programs to address traffic congestion, and better integrates transportation and land use planning. The CMP focuses on two main activities: (1) addressing existing congestion through regular roadway monitoring and figuring out ways to streamline traffic flow, and (2) identifying and mitigating future congestion resulting from new development. SANDAG, Caltrans, and the local jurisdictions implement the CMP through the following:



- § **Deficiency Plans** - Through regular roadway monitoring, we can identify congestion “hot spots” where delays and travel speeds are below the required CMP standards. Working together, SANDAG, Caltrans, and local jurisdictions are responsible for adopting deficiency plans

that address existing congestion. These plans identify the causes of congestion, potential solutions, and establish funding mechanisms for improvements that help manage congestion.

- § **Enhanced CEQA Review** - The CMP recognizes that local land use decisions may contribute to traffic congestion. To address future congestion, local jurisdictions must take their review processes a step further, conducting enhanced California Environmental Quality Act (CEQA) review for large development projects (generating 2,400 or more average daily trips or 200 or more peak period trips). In these cases, local agencies must look at the potential problems on a regional level and find ways to minimize them, to the extent feasible.

The 2002 CMP proposals go well beyond standard road improvements. They emphasize a wide range of non-traditional strategies that focus on near-term, low-cost efforts, such as transportation demand management (rideshare programs, transit pass subsidies, flexible work hours, telecommuting, etc.), transportation system management (signal synchronization, peak period parking restrictions, bicycle paths, etc.), and project design guidelines to encourage walking, bicycling, ridesharing, and transit use. Many of these strategies are already employed by local jurisdictions to help reduce the local impacts of new development projects. These strategies, if used consistently and effectively, can help local jurisdictions better address new development impacts at the onset, reducing the need for more capital-intensive regional solutions in the future.

Additional research for the CMP has developed three new tools: a Congestion Mitigation Strategies Toolbox, a Model Trip Reduction Program, and Supplemental Traffic Impact Study Guidelines. The Toolbox contains 40 strategies to increase the system's capacity, or its efficiency, encourage alternative travel modes, shift trips out of the peak period, or reduce vehicle trips. The Trip Reduction Ordinance (TRO) is a voluntary travel demand management program that does what its name suggests. The Traffic Impact Study (TIS) Guidelines provide new information for assessing the true traffic impact of developments that encourage walk, bike, and transit trips. Jurisdictions can use these three tools to accurately address and alleviate traffic impacts.

The RCP encourages a mix of land uses and more concentrated housing, offices, and retail around transit stations. These may result in more traffic in certain areas and some localized congestion. But the payoff is on the regional level. It can reduce congestion levels overall, make more efficient use of transportation infrastructure investments, and significantly decrease overall land consumption. The new CMP tools can help local agencies lessen the potential localized problems associated with smart growth. In addition, local jurisdictions can adopt alternative CMP standards for areas designated "infill opportunity zones." To qualify, these areas must be zoned for compact residential or mixed use commercial development and located within one-third mile of existing or future transit stations.

Regional Transportation Improvement Program

Integral to the development of the region's long-range transportation plan is the Regional Transportation Improvement Program (RTIP), which the SANDAG Board of Directors updates every two years. The RTIP prioritizes projects included in the region's overall strategy for improving mobility, while reducing transportation-related air pollution. The RTIP incrementally implements the vision laid out in the Regional Transportation Plan (RTP). Accordingly, the RTIP is required by federal and state law to be consistent with the RTP.

The 2002 RTIP is a \$4.4 billion, five-year improvement program of major regional transit, highway, arterial, and non-motorized projects being developed in the San Diego region from Fiscal Year 2003 to Fiscal Year 2007. Funding for the transportation projects in the RTIP comes from federal, state, and local revenue sources, including *TransNet*, the local transportation sales tax program.

Future biennial RTIP updates will provide the opportunity to prioritize transportation improvements that are consistent with the long-range goals and policy objectives of the RCP. The RCP identifies several areas in the region where smart growth opportunities exist for jobs, housing, or both. RTP projects in corridors that serve these areas could receive higher priority for RTIP funds.

Local Circulation Elements

Every city and the County has a circulation element in its general plan designed to meet the needs of anticipated development as laid out by that jurisdiction. These circulation elements address the needs of each jurisdiction, from local roads in neighborhoods to major arterials with thousands of cars a day. Some of these arterials provide critical links to the highway network and serve as alternative or parallel routes to the highways; examples are Palomar Airport Road, Mira Mesa Boulevard, and Friars Road. While all levels of the transportation system — interregional, regional, and local — are considered important, *MOBILITY 2030* identified certain arterial facilities as part of a system referred to as the Regionally Significant Transportation Network.

Completing the arterial component of the Regionally Significant Transportation Network (Figure 4B.5) is a priority in *MOBILITY 2030*. In addition to major transit and highway improvements, the plan sets aside \$500 million in regional transportation dollars to widen and extend regionally significant arterials. To accomplish the plan's goal to improve public transit services, new regional arterials and improvements to existing regional arterials will need to accommodate efficient transit operations.

Local jurisdictions also are expected to provide matching dollars for the regional funding. The County and the region's 18 cities are responsible for improving regional roadways and local streets to meet their residents' needs and offset or lessen the effects of local developments. *MOBILITY 2030* funds projects that enhance capacity and also coordinates traffic signals and monitors traffic levels and speeds. It also provides money for transit priority measures, and management systems needs to optimize the arterial network and integrate arterial operations with other modes.



Regional Airport Planning

The San Diego County Regional Airport Authority (Airport Authority) is the operator of San Diego International Airport (SDIA), the one major full-service commercial airport in the region. The Airport Authority also is responsible for airport planning in the region.

The Authority reviews proposed development near all of the airports in the County, ensuring compatibility with commercial and general aviation operations. The Airport Authority will adopt the first regional Comprehensive Land Use Plan (CLUP) by June 2005, covering all the airports in San Diego County. The Authority also is working to site a new regional airport facility. SDIA cannot meet the projected demand for passenger and air cargo services, even with the additional runway included in the maximum expansion scenario considered in the Airport Master Plan. Therefore, alternative sites and options both within and outside of San Diego County are being explored.

Until the airport siting study is completed, *MOBILITY 2030* assumes that SDIA will continue to serve as the region's primary commercial airport. The Airport Authority is required to place a measure on the ballot no later than November 2006 recommending an airport site or proposal. Any recommended location for a new regional commercial airport will be incorporated into future updates of the RTP and RCP.

Potential High Speed Rail



The state legislature created the California High-Speed Rail Authority in 1996 to plan, construct, operate, and finance a statewide, intercity high speed passenger rail system that would augment the state's existing commuter and intercity rail services. The Authority has developed plans for a 700-mile system between Sacramento and San Diego that consists of five corridors connecting the major metropolitan areas of the state.

The proposed high speed rail system would connect to the San Diego region through two potential corridors, the Inland Corridor and the Coastal Corridor. The Inland Corridor would provide high speed rail service, stretching from Los Angeles through the Riverside and Temecula areas to downtown San Diego via Interstate 15. The existing rail services along the Coastal Corridor, stretching from Los Angeles through Orange County to San Diego, would be upgraded to a feeder service to the high speed rail connection in Orange County or Los Angeles. The environmental and engineering feasibility of these two routes is now being studied. The San Diego Regional High Speed Rail Task Force, appointed by the SANDAG Board of Directors, is monitoring this work and will continue to advise the SANDAG Board of Directors on the high speed rail plans as they develop. Future RTPs will incorporate the proposed high speed rail system, once the California High-Speed Rail Authority finalizes proposed alignments, time frames, and other project specifics for service in the San Diego region.

Maritime Shipping

The region enjoys broad access to coastal waters that provide opportunities for maritime commerce, navigation, fisheries and recreation. The Port of San Diego oversees and plans for development of

these activities within San Diego Bay and the surrounding tidelands. The 10th Avenue Marine Terminal in San Diego and the National City Marine Terminal at 24th Street conduct maritime commerce on San Diego Bay.

Together, the two marine terminals handle approximately 2.1 million tons of cargo annually.³ Built in the 1950s, the 10th Avenue Marine Terminal is San Diego's general cargo terminal. It supports cool/frozen storage, break bulk, dry/liquid bulk, and small container operations. National City is the primary port of entry for automobiles and trucks, which are prepped for distribution to dealerships by rail and truck throughout the United States. Recent terminal improvements, including rail infrastructure, have resulted in more than a 50 percent increase of Port maritime revenues. Lumber is another important commodity handled at the National City Marine Terminal, which is transported by barge and break bulk ships from the Pacific Northwest.

Near-term infrastructure improvements, such as lengthening wharf areas and improving food-handling capacity, are planned for both marine terminals to increase their efficiency. The Port of San Diego's master and strategic plans include developing the 10th Avenue terminal incrementally into a container terminal, including the development of a multi-purpose cargo terminal; continued development of the National City terminal for automobile and lumber storage and distribution; and development of alternative railroad service for intermodal cargo users.

Improved ground access into both marine terminals was recently evaluated with proposed improvements incorporated into *MOBILITY 2030*. Efficient intermodal operations are dependent on more direct access between the freeway and the terminals, while minimizing local impacts.

Interregional and International Planning

Regional transportation facilities and services connect to larger transportation systems beyond the San Diego region's boundaries (freeways and rail networks in other parts of the state and nation and in Baja California, Mexico). Interregional and international commuting has increased in the last several years, and these trends are recognized in the 2030 Final Forecast.

Interregional Partnerships

Agencies in this region and neighboring ones are exploring ways to coordinate planning strategies across our borders. Through the I-15 Interregional Partnership (IRP), local elected officials from SANDAG, the Western Riverside Council of Governments, and the Southern California Association of Governments are identifying short- and long-term solutions related to jobs/housing inaccessibility and traffic congestion along the north I-15 corridor. SANDAG also has plans for similar interregional partnerships with Orange and Imperial Counties to address interregional issues of mutual concern. Several of these solutions are explored more fully in the Borders and Housing chapters of the RCP.

Binational Transportation

To accommodate the dynamic border transportation system, *MOBILITY 2030* includes major projects to improve access to international border crossings, expand freight rail service and intermodal connections, and coordinate commercial vehicle crossings. Collectively, these projects will modernize and transform transportation infrastructure along the U.S./Mexico border from San Diego/Tijuana

³ Port of San Diego, *Maritime Master Plan* (1999) and *2002-2006 Compass Strategic Plan* (2002)

east to Arizona/Sonora. They are essential components in realizing our shared regional economic potential with Mexico. The Bi-State Transportation Technical Advisory Committee (BTTAC) meets regularly to coordinate transportation plans and projects that affect the international border. Participants from both sides of the border include state transportation planning departments, regional planning agencies (i.e., SANDAG, the Southern California Association of Governments, the Imperial Valley Association of Governments), and border cities and counties.

Tribal Governments

The San Diego region is home to 18 reservations represented by 17 tribal governments.⁴ Transportation is key among the many planning issues facing these reservations. Gaming-related and other types of development has led to rapid economic growth for many tribes. It also has led to increases in traffic, jobs-housing accessibility issues, and the need for additional resources such as water and energy. To address these issues, local governments and SANDAG are working to increase communications with tribal governments (see Chapter 5, Borders, for a more detailed discussion).

KEY ISSUES

Implementing the 2030 Mobility Network

Traffic congestion is among the most tangible and frustrating quality of life issues facing the San Diego region. Dramatic increases in motorized travel, combined with limited financial capacity to improve roads and build more transit, have resulted in severe congestion on many of our major roadways during rush hours. Besides simply being annoying, this hampers our region's productivity and long-term economic prosperity.

If traffic congestion were an easy problem to solve, every region would have open roads where the traffic flows freely. But of course it's not that simple. In addition to changing the way we plan for and build homes, offices, and retail uses, the solution requires a combination of key transportation infrastructure investments, such as added lanes, HOV lanes and expanded bus, train, and trolley service. There must also be efforts to reduce peak period travel and better manage the efficiency of our transportation systems.



The "2030 Mobility Network" that is laid out in our Regional Transportation Plan, *MOBILITY 2030*, will provide the infrastructure necessary to meet our overall mobility needs into the future. Implementation of the network improvements in a cost-effective and efficient manner is an important part of our overall effort to improve mobility in this region.

⁴ While each Reservation has its own government, Barona and Viejas also jointly administer one Reservation, Capitan Grande.

Improving Connectivity

Many of us have experienced examples of inefficient transportation systems: a car or bus that must use the freeway because a local connecting street hasn't been built yet; a local commuter shuttle that only greets half the trains that pull into the station; or a commuter train that has plenty of eager riders but inadequate parking at suburban stations. All of these are examples of poor connections or facilities that discourage would-be users of transit or encourage out-of-direction trips on the highway network. The transportation system can be enhanced greatly when multimodal centers are fully functional and directly connected to other modal hubs.

Transportation Funding

The funding of necessary improvements to our existing regional transportation system is a major challenge. *MOBILITY 2030* is based on a "Reasonably Expected Revenue" financing option, a \$42 billion Regional Mobility Network that includes highways, regional arterials, and regional transit service, as well as transportation systems and transportation demand management programs. More than half of the future expenditures identified in the RTP (\$22 billion) are earmarked for capital expenditures. The remainder (\$20 billion) is for operating and maintenance costs.

The RTP funding option assumes current sources and levels of federal, state, and local transportation revenue, as well as additional revenue from three primary sources: an extension of the *TransNet* half-cent local sales tax, higher levels of state and federal discretionary funds, and increases in state and federal gasoline taxes based on historical trends. These three additional revenue sources account for \$12 billion of the \$42 billion plan. Other potential funding sources, such as development impact fees, user fees, and private investments, could augment traditional revenues available for transportation projects, programs, and services.

If these revenue sources do not become available, and if other funding sources for construction and operation of transportation facilities are not developed, the region's transportation system will not be able to meet desired operational standards. An alternative \$30 billion financing option, the "Revenue Constrained Scenario," was developed as part of *MOBILITY 2030* to depict a lower-level of transportation infrastructure and service investments given revenue constraints.

Coordination Among Agencies

Many of the transportation planning and development issues facing this region cut across the boundaries of individual jurisdictions and agencies. With the increasingly complex network of highway, arterial, and transit facilities, it is becoming more important to bring together tribal governments, neighboring jurisdictions, transportation agencies, and the private sector to plan, develop, and finance facilities that cross jurisdictional boundaries. In order to facilitate this kind of coordination, a systematic approach to subregional transportation planning and implementation within the region will be developed and implemented. Subregional planning (discussed in further detail in Chapter 9 – Implementation) can address transportation and land use issues at either the corridor level or for smaller subareas of the region.

The Land Use-Transportation Connection

The regional transportation system and the housing and employment needs of a growing and mobile population are increasingly interrelated. Land use decisions and development patterns affect our transportation systems and the travel choices we make. Where we choose to build homes and businesses, and the intensity of these land uses, directly affect local roads and trolley/bus services, as well as freeway and rail efficiency.

Lower density development that expands beyond existing developed areas makes it harder to get around the region and forces more people to rely on their cars. This impedes our ability to provide effective public transit, ridesharing, biking, and walking opportunities. Transit improvements in particular need to be focused in areas with compatible land uses that support an efficient transit system. The Urban Form chapter of the RCP identifies a number of ways that communities can plan for smart growth that will actually improve the efficiency of our regional transportation system, based on both the *distribution* of land uses, and *urban design* that reduces auto dependency.

Timing Transportation Projects and New Development

In addition to the importance of coordinating the distribution and design of urban land uses, aligning the timing of transportation projects and related land use development also is critical to meeting our mobility objectives. In many cases, long-term transportation solutions will resolve congestion problems; however, if these solutions are delayed due to funding problems or other constraints, the impact of development on existing transportation facilities can lead to increased congestion in the short-term. Therefore, it is important to better coordinate the timing of transportation projects with the phasing of related urban development.

To achieve better timing, some local jurisdictions have established maximum development thresholds that cannot be exceeded until new regional and/or local transportation facilities are in place. Advancing important regional transportation projects through innovative financing techniques (such as bonding used to advance the I-15 Managed Lanes project) also may allow the region to better coordinate the phasing of transportation projects and development. In addition, the RCP subregional planning and implementation process (discussed further in Chapter 9, Implementation) could be used to identify priorities for transportation project implementation in conjunction with the phasing of related developments.

Transportation Priorities and Smart Growth

One of the most powerful incentives to implement smart growth may rest in SANDAG's responsibility for regional transportation programming decisions. As the Metropolitan Planning Organization, Regional Transportation Planning Agency, and Regional Transportation Commission, SANDAG is responsible for major federal, state, and local transportation (*TransNet*) funding decisions in the San Diego region.

During periodic updates of its Regional Transportation Improvement Program, SANDAG currently uses an adopted set of "Transportation Project Evaluation Criteria" to decide how expenditures for major highway, transit, and regional arterial system projects should be prioritized. As part of the preparation of the RCP, an ad hoc committee that included several of the region's planning directors, public works directors, and members of the Regional Planning Stakeholders Working

Group, recommended that the following themes, drawn from key policy themes in the RCP, be considered in the next update of SANDAG's transportation project evaluation criteria:

1. Implement the adopted Regional Transportation Plan "2030 Mobility Network" in an efficient and cost-effective manner.
 - § Project is cost-effective
 - § Project results in improved mobility
 - § Project results in improved system efficiency
 - § Project results in improved mode choice
 - § Project improves safety (auto, pedestrian, bike, etc.) and allows safe crossings

2. Enhance transportation systems by improving connectivity between interrelated modes of transportation.
 - § Project provides a critical link for transportation network
 - § Project provides necessary connections between regional corridors
 - § Project results in improved connectivity between transit station and other modes
 - § Project is compatible with the regional system effectiveness goals
 - § Project minimizes impacts to community in terms of access, safety, noise, air quality, etc.

3. Provide adequate funding to meet both the capital and operational and maintenance needs of our transportation systems.
 - § Degree to which the net impacts of new development and redevelopment on project have been mitigated through impact fees or other means
 - § Level at which local agencies are leveraging/contributing funding toward project
 - § Project has viable plan for funding operations and maintenance

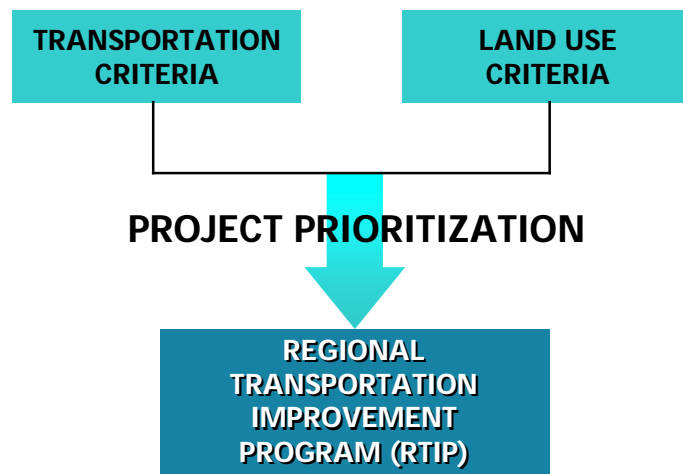
4. Facilitate coordination through subregional planning among jurisdictions where proposed regional transportation and commuter transit service corridors cross jurisdictional boundaries.
 - § Project has been incorporated into a subregional transportation/land use plan, and participating agencies have committed to planning and financing strategies contained in that plan

5. Consider regional and local mobility objectives in planning and approving new land uses.
 - § Level at which existing and future development in smart growth opportunity areas served by the project is consistent with RCP policy objectives related to land use distribution and intensity, housing, and other land use considerations
 - § Project is consistent with applicable habitat conservation plans
 - § Project is consistent with CMP deficiency plans

- 6. Design development to reduce auto dependency and improve the walking environment through safe and pleasant streetscapes.
 - § Degree to which development in smart growth opportunity areas served by the project is consistent with urban design and policy objectives in the RCP and related guidelines
- 7. Align the timing of related transportation and land use development.
 - § Development served by the project is being phased by the local jurisdiction in order to ensure that mobility standards are maintained, or at least not worsened
 - § Degree to which project is “expandable” or “upgradeable”
 - § Degree to which land use decisions are matched to transportation investments

By including criteria that address these themes, SANDAG can create significant incentives for local jurisdictions to plan for smart growth within their communities, while at the same time recognizing that transportation investments must also address other important needs such as congestion relief, public safety, regional connectivity, and the like. The themes described above should be used as a starting point in developing an updated set of transportation project evaluation criteria which would be used in future updates of the Regional Transportation Improvement Program.

FIGURE 4B.6—PROPOSED EVALUATION PROCESS



Ensuring Economic Prosperity

The transportation network is the lifeline of commerce, and that lifeline is slowly being strangled by growing congestion. Regional surface streets, freeways and rail systems connect to larger transportation systems beyond the San Diego region’s boundaries. Investments in airports, marine terminals, and international ports of entry contribute to the overall regional economy and support the movement of goods throughout the region.

Through the RCP and existing and future transportation plans and programs, we need to prioritize transportation system investments and develop flexible and well-integrated transportation systems that move both people and goods. As transportation projects are developed that improve access to truck transfer centers and facilities, they need to be sensitive to the impacts on adjacent communities — especially where there are residential land uses.

Potential Replacement Airport Site



Recent studies have shown that the San Diego International Airport can't meet the region's long-term needs for air passenger and air cargo demands. As the San Diego County Regional Airport Authority studies potential solutions and other airport sites both within and outside of San Diego County, ground access and the impacts on existing and planned land uses will be two of the many important issues to consider. Detailed environmental studies will be required if a new site is recommended, and impacts to future RTPs and the RCP

could be significant. Convenient highway and transit access is a top priority of any major airport. If a new site is selected, the loss of the land uses under the footprint of the airport as well as the changes to adjacent land uses should be analyzed in relation to RCP objectives.

Effects of Transportation Services and Projects on Low Income Communities

Level of service is not the only concern when analyzing the effects of transportation service and projects on low income and minority communities. SANDAG's next update to *MOBILITY 2030* will need to reflect this issue. For instance, how we site transportation infrastructure, such as roads, railroads, or airports, needs to be analyzed to ensure that it is not disproportionately affecting low income and minority communities. Negative impacts could include, but are not limited to, increased air pollution, noise pollution, and neighborhood traffic.

We need to ensure that transit is not out of reach for low income residents (see Chapter 6, Social Equity and Environmental Justice Assessment). The cost of transportation options is important to low income communities. The region could invest substantially in improved road or transit access to low income communities, but if people who live there can't afford the cost of using these services, then the investment makes little sense.

Access to Transit Services

As comprehensive as the public transit and paratransit services are, their service areas are limited to the more dense urban areas of the region. Many persons in newly developed communities and in more suburban and rural areas, where housing may be cheaper, have extremely limited, if any, public transportation. Even if transit exists nearby, geography or even a lack of sidewalks prohibit some seniors and people with disabilities from using it.



Simply put, public transit can sometimes be a hassle. When bus schedules are poorly timed, riders can miss transfers between routes, causing lengthy trips. Many bus stops do not have benches or shelters from weather. Buses usually run only every half hour or hour, making for a lengthy and tiring trip. Many do not know how to use the transit system and there is very limited education for new users.

Paratransit services are in high demand, particularly for seniors and the disabled, and appointments can be difficult to schedule, especially in the morning and afternoon hours. The certification process to establish eligibility for the (ADA) paratransit service is lengthy and complicated. Most persons using public transit (outside the express rush hour routes) are low income and have few other choices for transportation. A sustainable investment in public transportation is critical for the well being of many people in the region.

GOALS, POLICY OBJECTIVES, AND RECOMMENDED ACTIONS

Goal

1. Develop a flexible, sustainable, and well-integrated transportation system that focuses on moving people and goods – not just vehicles.

Policy Objectives

1. Implement the *2030 MOBILITY* Network in an efficient and cost-effective manner.
2. Provide a wide range of convenient, efficient, and safe travel choices.
3. Reduce traffic congestion on freeways and arterials.
4. Develop a network of fast, convenient, high-quality transit services that are competitive with the cost and time to drive alone during peak periods.
5. Improve service levels and the quality of transit service.
6. Create more walkable and bicycle-friendly communities consistent with good urban design concepts.
7. Give priority to serving regional roadway and transit investments in smart growth opportunity areas while recognizing the need for transportation improvements elsewhere in the region.
8. Provide improved access to goods movement centers and intermodal facilities to promote economic prosperity.
9. Improve the connectivity of different transportation modes where it will result in better overall mobility.
10. Ensure adequate funding to cover the capital, operational, and maintenance costs of the regional transportation system.
11. Provide equitable and accessible transportation services for all residents, regardless of income, age, or ability.
12. Ensure that the benefits and potential burdens of transportation projects are equitable.

Recommended Actions**Planning, Design, and Coordination**

1. Update the Regional Transportation Plan, incorporating major RCP concepts.
2. Develop a process to prepare subregional transportation studies and implementation programs focused on subregional areas where transportation and land use issues cross jurisdictional boundaries.
3. Identify priority corridors and phase highway, arterial, and transit improvements to meet those priorities, while synchronizing transportation improvements with local land use development.
4. Complete necessary transportation networks (including the high-occupancy vehicle/managed lane system) with missing links, provide parallel routes where appropriate, and preserve corridors for future transportation projects.
5. Ensure that appropriate transportation projects routinely accommodate or provide for pedestrian and bicycle access in their design.
6. Enhance pedestrian and bike connections to transit stations.
7. Identify modal connection points and related transportation improvement requirements.
8. Ensure that transit is accessible, available, and within the financial reach of as many residents as possible.
9. Design new transportation projects in such a way that they do not result in disproportionate health-related and environmental impacts on any community.
10. Develop a regional airport solution that meets long-term demand for passenger and freight air travel.
11. Ensure good multimodal access to the new regional airport and/or the reconfigured San Diego International Airport.
12. Improve access to goods movement centers and intermodal facilities while minimizing the impacts to surrounding neighborhoods.
13. Ensure that the development review process addresses the transit planning needs both within and adjacent to proposed developments.
14. Take actions to support the California High-Speed Rail Authority in its efforts to bring high speed interregional passenger rail service to San Diego County.

15. Ensure that the environmental review of large development projects includes consideration of applicable policy objectives contained in the RCP, Congestion Management Program (CMP), and the RTP.

Program and Project Development and Implementation

1. Increase the use of Transportation Demand Management (TDM) programs that encourage alternatives to driving alone during peak periods, such as carpooling, vanpooling, telecommuting, and flexible work hours.
2. Efficiently manage the regional transportation system through programs such as ramp metering, movable barriers, interconnected traffic management systems, priority signalization, and real-time traveler information.
3. Develop and implement integrated programs for areas served by transit that facilitate and encourage transit use including car sharing, shuttle service, bike lockers, and other programs.
4. Develop and implement programs such as paratransit that improve transportation options for seniors and persons with disabilities.
5. Ensure that the Short-Range Transit Plan and the network and service priorities established through the subregional studies and implementation programs are coordinated and consistent with each other.

Funding

1. Secure funding for implementation of transportation projects included in the 2030 Mobility Network and future updates.
2. Develop Transportation Project Evaluation Criteria based on the preliminary criteria themes in the RCP in order to prioritize transportation funding and transit service in areas where smart growth development has already occurred or is planned.
3. Research the use of fees, exactions, or other means to mitigate the net impact of new development or redevelopment on regional transportation facilities.
4. Pursue financing opportunities such as user fees, congestion pricing, and private investments to help pay for needed transportation improvements.

CONCLUSION

Developing a transportation system that better connects our communities and efficiently moves both people and goods is vital to our quality of life as well as to our region's economic prosperity. Transportation plays a fundamental role in achieving the broad goals of the Regional Comprehensive Plan.

This first RCP focuses on improving the relationship between regional transportation plans and local land use plans and policies. By using transportation investments as an incentive to promote better land use planning and policymaking, we hope to affect the way in which are region grows. Planning and building great places to live, work, and play is only half the job. We need to think about how we get to and from those places; how we can do it smarter, faster and easier, and in a way that will foster future growth, sustainability, and prosperity in the region.

HOUSING

Providing Homes for all Residents

2030 VISION

Housing prices are within reach of much of our population, including our children, our grandchildren, and our parents, meaning fewer of them are forced to move out of the area to afford housing or retire. We have a variety of housing types for a variety of lifestyles and family structures — many of them near places where we work, shop, and play.

Our homes are built or retrofitted with environmentally-friendly materials and universal design features, resulting in greater energy and water efficiency and significantly easier access for our aging and differently-abled population. Our homes are also energy-efficient and our yards are attractively landscaped with less-thirsty native plants.

INTRODUCTION

Housing is one of the major issues facing the San Diego region today. It represents our residents' largest expense, and, for many of the 56 percent of those who own their own home, their largest source of equity. Housing can provide stability to our neighborhoods, communities, and families. It is vital to our economy. It is directly linked to traffic congestion, the length of our commutes, and the quality of our environment.

Unfortunately, the San Diego region is in the midst of a housing crisis. The costs of renting or owning a home have risen dramatically during the past ten years. In fact, our region is regularly ranked as one of the top ten areas with the highest priced and least affordable housing in the nation.

A core value of the Regional Comprehensive Plan is to provide more housing choices — more apartments, condominiums, and single family homes in all price ranges. These homes need to be affordable to persons of all income levels, and accessible to persons of all ages and abilities. They need to be located in our urban communities close to jobs and transit to help conserve our open space and rural areas, reinvigorate our existing neighborhoods, and lessen long commutes.

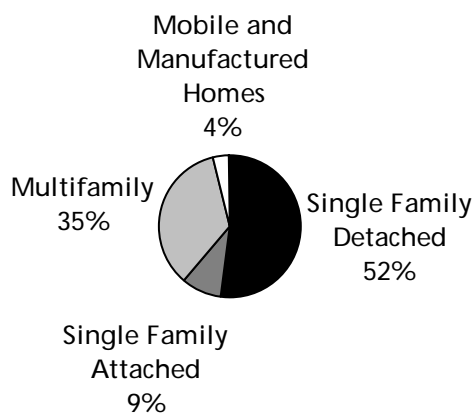
How much housing we build, what type of housing we build, and where we build it are some of the most important decisions we can make in shaping our region's future.



EXISTING SETTING

There are about 1,077,000 housing units in the San Diego region. While the types of homes vary, the majority (61 percent) are single family homes, as shown in Figure 4C.1. Of these, far more are single family detached homes (85 percent) than single family attached (like townhomes and condominiums at 15 percent). Multifamily homes make up 35 percent of the region's housing stock, and mobile homes, manufactured homes, and trailers make up only four percent.

**FIGURE 4C.1—HOUSING TYPE,
SAN DIEGO REGION, 2003**



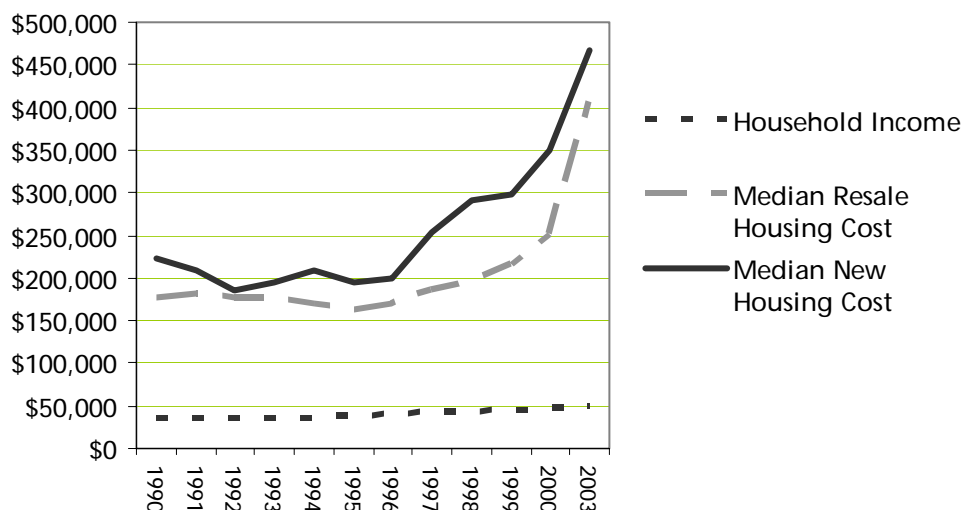
Source: SANDAG

As of July 2003, the median cost for a new home in the San Diego region was \$466,000, almost eight times the region's 2003 median income for a family of four; and the median cost for resale homes was \$405,000 (July 2003) — a 16 percent increase from July 2002. Condominium prices also have escalated rapidly, with a July 2003 median resale price of \$281,000 — a 15 percent increase from July 2002 and more than four times the median income. As of February 2004, only 15 percent of households in the San Diego region would have been able to afford a median priced home.¹

The cost of homes in the region has increased dramatically over the last decade, especially when compared to household income (see Figure 4C.2). These high costs have led to low homeownership rates. In 2002, the region's home ownership rate was 59 percent, compared to 68 percent nationwide.

¹ *Source: California Association of Realtors, Housing Affordability Index, April 2004*

FIGURE 4C.2—HOUSING COSTS AND HOUSEHOLD INCOME, SAN DIEGO REGION, 1990-2003



Source: DataQuick, SANDAG

Rental housing costs also are high. In an annual survey of rental costs entitled "Out of Reach," the National Low Income Housing Coalition ranked the San Diego region as the 11th costliest rental housing market in the United States — up from 12th the year before. In 1999, the region ranked 40th.

These high housing costs can be directly linked to a lack of housing supply in the region. Simply put, the region is not building enough homes to keep up with its population and job growth. In situations of high demand and low supply, costs rise. To a homeowner, the market may seem ideal, as their housing values rapidly increase. However, the tight housing market results in many consequences that the region must address.

Lower income² families are especially hard hit. These families, who make up about 39 percent of San Diego's residents, are often forced to live in overcrowded and/or substandard units, and often pay excessive amounts of their income toward housing costs. For some extremely low income San Diego residents, housing is entirely out of reach. The Regional Task Force on the Homeless estimates that there are over 15,000 homeless persons in the San Diego region. Of these, an estimated 8,000 are urban homeless, and 7,000 are rural homeless including farm workers. Over a quarter of the urban homeless are families with children. Many of these families work in the region, but are unable to afford the high housing costs. All of these residents need quality, affordable housing.³

² Lower income includes extremely low, very low, and low income households. Extremely low income households earn less than 30 percent of the Area Median Income (A.M.I.) for San Diego region, which was \$63,400 in 2004. For a family of four, this would be about \$20,550 or less. Very Low income households earn between 30 and 50 percent of A.M.I. For a family of four, this would be between about \$20,550 and \$34,250. Low income households earn between 50 and 80 percent of A.M.I. For a family of four, this would be about \$34,250 to \$54,800. For more information on income limits, see Chapter 6, Social Equity and Environmental Justice Assessment.

³ Affordable housing is typically defined as housing where the resident pays no more than 30 percent of their income toward housing costs.

Moderate income⁴ families also are feeling the crunch. While rental housing may be within reach, homeownership often seems like an impossible dream. To afford housing, many workers are moving far from their jobs in search of less expensive homes, often outside the County or across the international border. Recent surveys have found that 29,000 western Riverside residents commute into San Diego County for work, and workers are even beginning to move as far away as Imperial County to find homes they can afford. An estimated 40,000 workers cross the border from Mexico each day for San Diego region jobs—many are citizens of the U.S. This imbalance between jobs and housing is leading to a tremendous strain on our roads, freeways, infrastructure, and environment, as well as a strain on the quality of life for those commuters.

EXISTING PLANS AND PROGRAMS

A number of federal, state, regional, and local plans and programs guide housing development and assist in meeting the San Diego region's housing needs. These programs influence housing policies as well as providing funds for lower and moderate income housing.

Housing Elements

The housing element is the primary local guide to housing development and housing programs. Each jurisdiction in the State of California must adopt a general plan to guide its development, and the housing element is one of its required components. The primary goal of the housing element is to ensure that local jurisdictions plan for and meet the existing and projected housing needs of all economic segments of the community. The housing element requires jurisdictions to plan for a variety of housing types and densities. The state, SANDAG, and local jurisdictions all have a role in the housing element process.

The State's Role

The State Department of Housing and Community Development (HCD) reviews housing elements to ensure their consistency with state law. The housing element is the only element of the general plan that is subject to review by the State because the legislature has declared that housing, specifically the provision of housing for all segments of the community, is not merely a local issue, but a matter of statewide concern.

In addition to reviewing housing elements for compliance with state law, the State plays an essential role in guiding local jurisdiction housing plans. The State works with regional councils of governments (like SANDAG) to determine each region's share of the State's housing need. In the San Diego region, the overall regionwide housing need for the five-year housing element cycle is based on projections from the State Department of Finance and SANDAG's Regional Growth Forecast, and on assumptions about projected household formation rates, vacancy rates, household size, and demolitions. This number represents the amount of new housing units for which the region will need to plan during the housing element cycle.

⁴ Moderate income households earn between 80 and 120 percent of the Area Median Income (A.M.I.). For a family of four, that would be between about \$50,700 to \$77,160. For more information on income limits, see Chapter 6, Social Equity and Environmental Justice Assessment.

SANDAG's Role

After the State and SANDAG agree on the overall housing need number for the San Diego region, SANDAG, in cooperation with the local jurisdictions, allocates the region's housing needs to each jurisdiction in four income categories: very low, low, moderate, and above moderate. This process is known as the Regional Housing Needs Assessment (RHNA), and the goals are referred to as either the RHNA goals or the "regional share" goals. The allocation takes into account factors such as market demand for housing, employment opportunities, the availability of suitable sites and public facilities, commuting patterns, type and tenure of housing need, and others. The allocation also seeks to reduce the concentration of lower income households in cities and counties that already have disproportionately high amounts of lower income households. SANDAG also prepares a Regional Housing Needs report that provides local jurisdictions with population, employment, and housing data for use in preparing the housing elements of their general plans.

Local Governments' Role

Once they have been allocated their regional share goals, each local jurisdiction prepares its own housing element. A key component of this process is the identification of adequate sites by local jurisdictions to plan for their share of the region's housing needs in all four income categories. To address their needs for very low and low income housing, jurisdictions must demonstrate that they have an adequate supply of land zoned for higher density housing (approximately 15-25 dwelling units per acre). If they cannot, then jurisdictions must rezone land to provide for more capacity, usually by converting non-residential land to residential use, or by increasing the allowable densities on existing residential land. Although zoning land for higher density development does not guarantee the construction of housing that is affordable to low and moderate income families, without such higher density zoning, the opportunity to use subsidies and implement affordable housing programs for such families would not exist.

In addition, jurisdictions must complete three major parts of the housing element:

- § An assessment of housing needs and an inventory of resources and constraints relevant to the meeting of these needs;
- § A statement of the community's goals, quantified objectives, and policies relative to the maintenance, preservation, improvement, and development of housing; and
- § A program that sets forth a five-year schedule of actions to implement the policies and achieve the objectives of the housing element. These actions can include land use and development controls; appropriate federal, state, and local subsidy and financing programs; and redevelopment agency set-aside funds, if applicable.

Once HCD finds the housing element in compliance with state law, and the local jurisdiction adopts the housing element as part of their general plan, jurisdictions are required to provide an annual report to the state legislature, the Office of Planning and Research (OPR), and HCD on the status of the plan and progress in its implementation, including the progress in meeting its share of regional housing needs and local efforts to remove governmental constraints to the maintenance, improvement, and development of housing. However, very few jurisdictions currently comply with this requirement, and it is not enforced by HCD.

Self-Certification

As discussed above, all housing elements generally are required to be submitted to the California Department of Housing and Community Development to determine their compliance with state law. However, in 1995, SANDAG sponsored state legislation (AB 1715) to create a pilot program for jurisdictions in the San Diego region to “self-certify” their housing elements. This program eliminates the need for a finding of compliance by the State if the jurisdictions meet certain criteria, the most important of which are preparing a housing element that complies with State law and providing a certain number of affordable housing opportunities for low, very low, and extremely low income households. These affordable housing goals can be met in a number of ways, including new construction, acquisition/rehabilitation, and homebuyer and rental assistance. The goal of this program is to provide incentives to jurisdictions to produce housing.

Additionally, there are a number of current efforts to implement a statewide “performance-based” certification program. The details of the proposed programs vary, but all are based upon the principle of providing incentives to local jurisdictions that are working toward meeting their housing needs.

Housing Element Reform

Housing element law often is criticized as being too complicated (especially the regional housing needs assessment process), too focused on planning rather than production, and for lacking enforcement mechanisms or “teeth” to ensure that the plans and programs included in the housing element are actually carried out. In response, in 2003, the state Department of Housing and Community Development (HCD) convened a Housing Element Working Group to evaluate and identify consensus areas for reform of California’s housing element law. SANDAG is participating in this working group. Working Group members were selected from among key stakeholder interest groups and possess leadership and practical experience in dealing with housing and planning issues statewide. Their task is to identify the top priorities for reforming housing element law and to develop recommendations to improve the value and effectiveness of the law.

California Redevelopment Law

California’s redevelopment law was created to help city and county governments eliminate blight, expand jobs, increase the communities’ supply of affordable housing, and build (or rebuild) homes, office buildings, retail shops, restaurants and industrial developments. Redevelopment areas are formed and managed by local jurisdictions through the formation of redevelopment agencies. Redevelopment agencies are generally funded through tax increment financing. On the date that a Redevelopment Plan is adopted by the jurisdiction, the property tax values for properties within the area are frozen. As the assessed valuation increases over time, more of the new taxes derived from this increase go to the Redevelopment Agency, instead of the cities, school districts, counties, and special districts that provide services to the area. These “tax increment” funds and debt proceeds from loans and bonds are used to finance a variety of projects in the project area, and 20 percent of the increment must be used (set-aside) for the construction and rehabilitation of housing affordable to low and moderate income households. Redevelopment is the largest source of funds for affordable housing development in the San Diego region and throughout the state.

Redevelopment agencies are required to prepare housing production plans as part of their Implementation Plans to ensure that redevelopment housing goals are met. In addition to setting aside and spending at least 20 percent of tax increment on affordable housing development, redevelopment agencies must replace housing lost as a result of redevelopment and balance all new residential development in redevelopment project areas to ensure they include a minimum percentage of lower and moderate income housing.

State Funding and Regulatory Programs

A number of state agencies including the Department of Housing and Community Development (HCD), California Housing Finance Agency (CalHFA), and Treasurer's Office are involved in the financing of affordable homes using state general funds, bonds, and State and Federal Low Income Tax Credits. A \$2 billion statewide housing bond measure was passed in November 2002, which will provide funds for a number of state-run programs for the next four to five years. The San Diego region has and will continue to benefit greatly from these resources.

The Local Agency Formation Commission (LAFCO) also plays a role in housing. If a jurisdiction submits a proposal for a change of local government organization, LAFCO must consider how that change will affect the jurisdiction's ability to meet their share of the region's housing needs, as discussed earlier in the housing element section.

Local Funding Programs

Local jurisdictions have a number of ways of creating funds for housing development. Some local jurisdictions set aside a higher percentage of redevelopment tax increment funds for housing, or require that a certain percentage of their federal Community Development Block Grant (CDBG) funds be used for housing. The establishment of housing trust funds that are funded with commercial/industrial linkage fees (fees paid by commercial and industrial developers to help address their housing impacts) and other funding sources is another method of addressing housing needs locally.

Local Regulatory Programs

Local jurisdictions implement a wide range of regulatory housing programs to help meet their housing needs. While this list is not comprehensive, it highlights some of the tools that jurisdictions have available. None of these is a one-size-fits-all approach; each jurisdiction must assess their housing needs and design a comprehensive housing program to meet them.

- § **Inclusionary.** Inclusionary programs require the construction of affordable housing in new developments, or the payment of in-lieu fees to fund such housing.
- § **Density Bonus.** Density bonus programs, required by state law, allow developers to build more than the usually allowable density if they reserve a portion of their development for lower income residents or seniors.

- § **Minimum Density Requirements.** Minimum density requirements can be established to ensure that development occurs at, or above, the allowable density for a site.
- § **Land Banking.** Through land banking, jurisdictions can acquire land that then must be used for affordable housing development.
- § **Second Dwelling Units.** While jurisdictions are required to allow second dwelling units, or granny flats, to be developed, programs can be designed to facilitate the development of these potentially affordable housing opportunities.
- § **Incentives.** Many jurisdictions offer incentives to developers of affordable and mixed use housing. These can include streamlining of permit review processes, reduced parking standards, increased densities, and fee reductions.

Consolidated Plans

In addition to the state-required housing element and redevelopment housing plan, the federal government, through the U.S. Department of Housing and Urban Development (HUD), requires that cities with populations over 50,000, counties with more than 200,000 people, and states prepare a Consolidated Plan as a prerequisite to receiving federal housing and community development funds such as HOME and Community Development Block Grant (CDBG)⁵ money. HUD's Consolidated Plan requires jurisdictions to identify the housing and community development needs of their low and moderate income households and the resources available to address those needs. As part of their Consolidated Plans, jurisdictions must prepare a Strategic Plan that identifies its long-term (three- to five-year) program objectives, and an Annual Action Plan identifying resources to be used in the upcoming year to address their priorities. Some jurisdictions in the San Diego region have prepared joint housing elements and Consolidated Plans.

Nonprofit Housing Development

Nonprofit developers build the majority of housing that is affordable to lower income households in the San Diego region. In 1990, the San Diego region was home to only two nonprofit developers, and affordable housing production was limited. In response, in the early 1990s, the San Diego Housing Commission, together with the San Diego Foundation and the Local Initiatives Support Corporation, created a program to expand the capacity of nonprofit community-based groups to develop housing. Now, there are at least a dozen affordable housing developers building successful, award-winning homes for the region's lower income residents. While there is still a significant shortage of this type of housing, these developers are ensuring that local, state, and federal funds are being well utilized to provide affordable housing opportunities throughout the region.

⁵ HOME funds (the name is not an acronym) are federal funds that can be used for acquisition, rehabilitation, new construction and rental projects. Community Block Grant (CDBG) funds are federal funds that can be used to revitalize neighborhoods, expand affordable housing and economic opportunities, and/or improve community facilities and services, principally to benefit low- and moderate income persons.

KEY ISSUES

Before delving into the key housing issues that face the region, it is worthwhile to point out that while many people agree that the supply of housing in the region needs to be increased, a variety of opinions exist about how to accomplish this goal, many of which are in conflict. Here are a few examples of these conflicts:

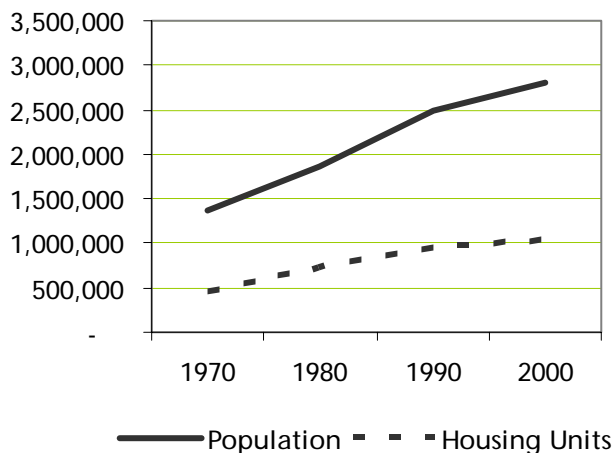
- § Homeowners may be pleased about the rapid rise in housing prices as their home values increase; renters see homeownership becoming increasingly out of reach.
- § Some people believe that inclusionary housing programs are good tools to provide low- and moderate income housing; others believe that they act as a barrier to housing and add costs.
- § Some want to see the redevelopment of older, deteriorating neighborhoods; others believe such change causes gentrification that displaces lower income people and existing property owners.
- § Some believe that all housing should be built based on universal design and green-building principles; others believe such requirements could add unreasonable costs to new housing.

These examples point out the need for the region to develop a comprehensive housing strategy that balances competing interests while providing the housing that our residents need.

Increasing Housing Supply through Smart Growth

The current housing crisis can be largely attributed to a housing shortage caused by a severe decline in housing production, especially multifamily housing, during the 1990s. Home construction in the San Diego region has simply not kept pace with population growth. During the 1970s, 265,000 new homes (one home per 1.9 new residents) were built. During the 1980s, 222,000 new units (one home per 2.9 new residents) were built. However, in the 1990s, only about 94,000 new homes were built, an average of about 9,400 homes per year or one home for every 3.4 new residents.

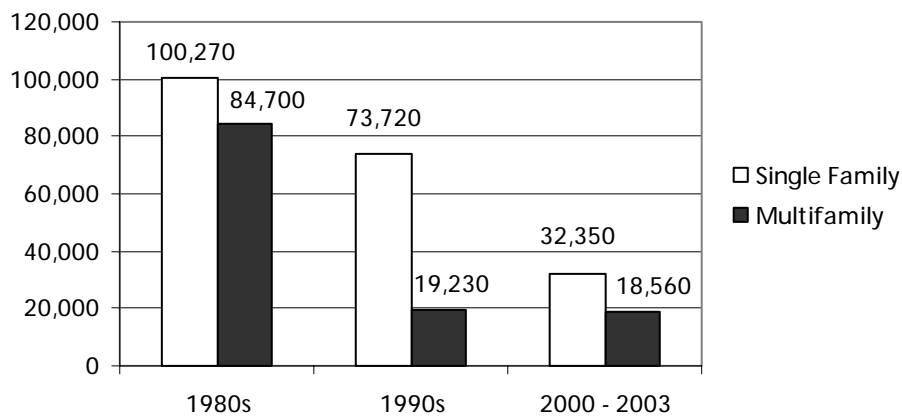
FIGURE 4C.3—INCREASE IN HOUSING UNITS AND POPULATION, SAN DIEGO REGION, 1970-2000



Source: California Department of Finance, SANDAG, 2000

The decline in the production of multifamily housing has been particularly dramatic. In the 1980s, nearly half (46 percent) of the housing that was being built in the region was multifamily. In the 1990s, only 21 percent of the units that were built were multifamily. However, multifamily building has begun to increase. Between 2000 and 2003, 36 percent of the units that were built in the region were multifamily. Much of this multifamily growth is occurring in the downtown area of the City of San Diego.

FIGURE 4C.4—HOUSING UNITS ADDED, SAN DIEGO REGION, 1980-2003



Source: California Department of Finance, SANDAG, 2000

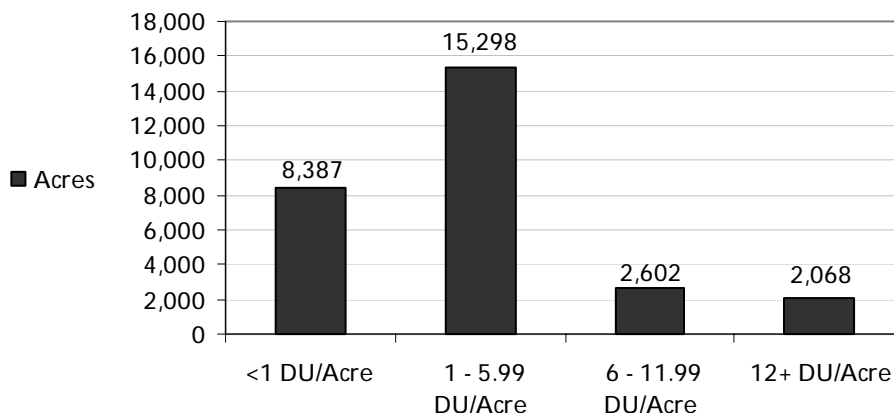
Unfortunately, the San Diego region is not planning for or building the amount or type of housing necessary to meet the existing and future needs of its growing population or to accommodate its changing demographics.

The San Diego region is projected to grow by almost a million more people by 2030. The Final 2030 Forecast estimates the construction of 314,000 new homes (about 10,500 per year) based on current local and regional plans and policies, and the "export" of about 93,000 units out of the region primarily to Riverside and Imperial Counties and northern Baja California, Mexico. As noted in the Regional Planning and Policy Framework chapter, we need to increase the region's housing capacity in key locations within our more urbanized areas to reduce the projected increase in interregional commuting, and to lessen the pressure to develop our more rural areas.

In addition to our future housing need, the region also has an existing unmet housing need. We have not been building enough housing to keep up with our population and job growth, and the housing we have been building is largely unaffordable to lower income households. This existing shortage forces many families, especially lower income families, to spend more than they can afford on housing, live in overcrowded or substandard housing, and/or move to and commute from neighboring regions.

Despite our need to provide more homes, the remaining vacant residential land in the region is largely planned for single family homes on large lots, instead of the smaller single family homes, condominiums, and apartments that are urgently needed. Currently, only seven percent (about 2,000 acres) of the remaining approximately 28,355 acres of vacant residential land in the 18 cities is planned for densities of 12 or more homes per acre (see Figure 4C.5). Adding to the lack of housing capacity is the fact that not all of the planned land supply and densities reflected in existing plans are likely to be developed due to a variety of factors including owners unwilling to sell, community opposition, environmental constraints, and lack of infrastructure or funding for infrastructure as discussed in the "reducing barriers to housing construction" section of this chapter.

FIGURE 4C.5—PLANNED DENSITIES FOR REMAINING VACANT RESIDENTIAL LAND IN CITIES, 2002



DU/Acre = Dwelling Units per Acre
 Source: SANDAG Final 2030 Forecast

In addition to vacant residential land, the region's cities have opportunities for residential redevelopment (change of use, e.g. single family to multifamily), infill development (intensification of the same use), and mixed use development (combining residential uses with compatible commercial uses).

Given the shortage of vacant land for residential use, finding ways to facilitate infill, redevelopment, and mixed use development is increasingly important. The region has many successful examples of these types of development. An increasing number of the region's developers are building homes through infill development and redevelopment, and mixed use housing has been successfully used to revitalize communities. Many are realizing that the region cannot continue to meet its housing needs by "building out" into existing open space and by exporting its housing units — it must begin filling in and "building up" in existing urban areas, particularly in areas with good access to public transit (or the potential for good future transit access), jobs, schools, recreation and services. Unfortunately, these types of development are not occurring at nearly the rate they could.

The RCP seeks to provide incentives for this type of housing development, particularly in Smart Growth Opportunity Areas through smart growth incentive programs. The principles for developing these programs seek to link transportation funding to the provision of a wide range of housing choices within designated smart growth opportunity areas. For additional detail about these programs, see the Urban Form and Implementation chapters.

While smart growth discussions often focus on redevelopment and infill in our existing urban areas, it is important to note there are also opportunities for smart growth development on our remaining vacant land. New suburban communities can be built so that they are higher density, walkable and transit-accessible. By rezoning vacant land at higher densities, land can be used more efficiently, making it easier to include affordable and mixed use housing in new developments, while also preserving open space.

In addition to where we build housing, and what types of housing we build, it is important to consider how we build it. The region's homes and landscapes should be designed, constructed, and operated to incorporate energy efficiency, water conservation, waste minimization, pollution prevention, resource-efficient materials, and indoor environmental quality. These "green-building" techniques can help us meet our region's housing needs while preserving the health of our residents and our environment.

Reducing Barriers to Housing Construction

The San Diego region faces serious barriers to housing production, especially multifamily and affordable housing production. The majority of these barriers are not new, and most have contributed to the housing shortage we have today:

- § **Fiscal Inequities.** Because of state-mandated shifts in how tax dollars are allocated, local governments now receive approximately 11 times more revenue from a retail development than a residential development on the same size lot. This encourages localities to seek land uses and development projects that will pay (or generate) more taxes than they will require in government services. Under this system, sales tax-generating commercial uses consistently win out over housing, resulting in a serious imbalance between commercial and residential development. SANDAG currently is monitoring fiscal reform legislative efforts that would move the State toward a more equitable tax system. For more information on fiscal reform, see Chapter 4E, Economic Prosperity.

- § **Government Regulations and Developer Fees.** The land use regulations, development fees (assessed to pay for necessary public facilities), and growth-management programs that affect the residential development process are numerous and often cumbersome, and may act as a barrier to housing development. While local review is an important and beneficial part of the planning and development process, the process could often be streamlined to ensure efficiency and to provide developers with certainty about their project schedule and costs.

- § **Availability of Capital.** The 1986 Federal Tax Reform Act, and subsequent changes in state law, made investments in rental housing less profitable, thus reducing the capital available to build multifamily homes. Though funding for real estate has become more accessible, in part because of the volatility of the stock market (people see real estate as a more secure investment), new multifamily development mostly is limited to the higher cost market.

- § **Construction Defect Litigation.** In the 1990s, a proliferation of lawsuits over construction defects in condominiums caused the majority of California builders and insurers to pull out of the multifamily for-sale, or condominium, market. State legislation was passed in 2002 to help alleviate this problem. The effect of this legislation on the availability of insurance is still unknown. Currently, insurance for condominium construction is still difficult and expensive to obtain. SANDAG is monitoring construction defect litigation reform efforts.

- § **High Land Prices.** Several factors contribute to the region's high land costs, which is a primary cause of the region's escalating housing costs. These include: a relatively strong economy, great weather, and an attractive physical environment, which cause the San Diego region to be a desirable place to live and work. A shrinking supply of large tracts of vacant land available for development, and land speculation, where people purchase property and resell it within a short timeframe at a higher price without adding significant value, have also contributed to the rise in land prices.

- § **Land Availability.** A more recent barrier, particularly from the standpoint of developing sites that have redevelopment and infill potential, is the difficulty of finding owners who are willing to sell their property at a price that allows new, higher intensity development to "pencil out." High land prices often make such infill development difficult to accomplish.

- § **Low Density Zoning.** Very little land in the San Diego region is zoned for higher density, multifamily use. Higher density zoning is crucial to the development of affordable housing since higher densities allow for reduced land costs per unit, and therefore require less per-unit subsidy.

- § **Community Opposition.** Residents often oppose new housing developments, especially those that are higher density, multifamily and/or affordable, out of concerns that the development will have negative effects on their communities and property values, and that infrastructure like parks, schools, and public safety services will not be in place to support additional development. Because of this opposition, local governments often deny these types of projects, despite acknowledging a need for them in their communities.

The benefits of well-designed developments in terms of community livability and revitalization are not widely known or understood. In response, there are a number of housing and smart growth education efforts taking place throughout the region. While these efforts vary, all show

positive examples of higher density, mixed use, and affordable housing. Additionally, they often focus on removing negative perceptions about residents of affordable housing, showing that they are usually working families who hold jobs that are very important to their community.

Conserving and Rehabilitating our Existing Homes

In addition to the need to build new housing, the region also needs to work at conserving and rehabilitating its existing housing stock. Conservation refers to the preservation of the existing affordable housing stock. Existing affordable units can be lost in a number of ways. In some cases, units are subsidized for only a set period of time. In the San Diego region, it is estimated that there are over 12,000 guaranteed affordable units that are at-risk of losing their affordability due to expiring federal programs and affordability contracts. Often, local governments or nonprofits can purchase these units or work with the program administrator to extend the affordability of the units. Affordable units can also be lost through demolition or conversion from apartments to condominiums, or through the removal of mobile home and manufactured home communities, which often provide affordable housing opportunities for lower income residents. Housing conservation is extremely important to the region.

Rehabilitation is an important tool for maintaining our older housing stock, both single family and multifamily units, and revitalizing our communities. While housing in the San Diego region tends to be relatively new, about 48 percent of our housing stock was built between 1970 and 1989, and while only 11 percent was built before 1949, some of our older neighborhoods have homes in need of rehabilitation. Rehabilitation can range from substantially improving the interior and exterior of homes to conducting smaller repairs, as well as landscaping, weatherproofing, and other activities that can lead to increased energy efficiency and water conservation. Rehabilitation assistance can be provided through low- or no-interest loans or grants to the owner of the property. Additionally, nonprofit developers or local jurisdictions can acquire and rehabilitate the property (usually multifamily properties), and then place a guarantee of affordability on the units.

Rehabilitation is especially important in lower income and minority communities. Lower income and minority households are much more likely to live in substandard housing, which can pose significant health risks from hazards such as lead dust, deteriorated paint, carbon monoxide, and mold. According to the National Low Income Housing Coalition, households with annual incomes below \$30,000 are twice as likely as others to have lead hazards in their homes. Low income children are eight times as likely to be lead poisoned as high income, and African-American children face five times the risk that white, non-Hispanic children experience. Even low-level lead poisoning affects a young child's developing brain and nervous system. High-level lead exposures can cause comas, convulsions, and even death.

Meeting our Diverse Housing Needs

The region needs to ensure the construction and availability of a variety of types of housing for residents of all income levels and abilities. Currently almost all new housing units being built in the San Diego region are large single family homes and luxury apartments and condominiums that are affordable only to people whose incomes are in the above moderate income range. Subsidized affordable housing also is being built, but new affordable units have not kept pace with the loss of existing affordable housing opportunities through expiring rental subsidies, conversion to market rate, and demolition. Very few, if any, homes affordable to those whose incomes are in the

moderate range are being constructed. The following groups all highlight the need for the construction of a variety of housing types.

Lower Income Residents

The region has a severe shortage of housing that is affordable to our lower income households. Many lower income households, which make up about 38 percent of the households in the San Diego region, need some form of subsidy to afford housing in today's market. Unfortunately, these subsidies are in short supply, and those that do not receive subsidies are forced to pay a high percentage of their income to afford housing — in some cases over 50 percent, a situation which, at best, prevents their saving and planning for home ownership, and, at worst, compels them to choose among purchases of basic necessities like food, health care, and childcare. According to the U.S. Department of Housing and Urban Development (HUD), in 2000, 21 percent of San Diego's low income families were paying between 30 and 50 percent of their income toward housing costs, while an additional 28 percent were paying over 50 percent; the lower the income of the household, the greater the cost burden.



Over half (51 percent) of very low income families pay over 50 percent of their income toward housing costs.

Many lower income families also live in overcrowded homes⁶ in an attempt to lower housing costs. In the San Diego region, two percent of owner occupied homes and seven percent of renter-occupied homes are overcrowded. This not only puts strains on families and causes more wear and tear on the housing stock, but also can lead to unplanned strains on local infrastructure, such as overcrowded schools and parking problems.

Additionally, neighborhood revitalization efforts may lead to the displacement of lower income and minority residents. Often, as prices increase in a neighborhood due to improvement efforts, lower income and minority residents who would prefer to stay in their neighborhood cannot do so because of rapidly rising housing costs or the demolition of the units they live in. The trend of higher income residents displacing lower income residents in a neighborhood is often referred to as "gentrification." Gentrification is especially common in tight housing markets, like San Diego's, where a low supply of housing and high housing costs cause many buyers to consider purchasing homes in lower-cost neighborhoods.

Lower income workers occupy jobs that are essential to San Diego's economy. Many are surprised to learn that in the San Diego region, a family of four earning \$54,800 a year or less is defined as low income. Teachers, firefighters, hotel workers, waiters, nursing aides, bus drivers, paralegals, and other workers all may need affordable housing at some point in their lives. And, students, young families, persons with disabilities, farmworkers, and seniors living on fixed incomes often need affordable housing, some of which may be located or designed specifically to meet their needs.

⁶ The U.S. Census Bureau defines "overcrowded homes" as homes that have more than 1.01 person per room, excluding bathrooms.

Housing affordable to lower income families is developed primarily by nonprofit development groups, many of which are community or faith-based organizations. These nonprofit developers typically use a combination of rental income, private funding and federal, state, and local government subsidies. Currently, federal, state, and local funds provide only enough subsidies to build homes for a small fraction of those in need. Many affordable housing developments are proposed, but are never built due to a lack of funding. Those affordable developments that *are* built have long waiting lists before they even open. Rental subsidies, which can provide rental assistance to lower income residents living in market rate apartments, also are in short supply, and these programs also have very long waiting lists.

Many communities in the San Diego region have shown that partnerships among local government, nonprofit housing developers, community leaders, and private financial institutions can create attractive, successful affordable housing developments that not only serve residents, but are an asset to the broader community. Affordable housing provides a number of benefits to the community, including: providing housing for the local workforce, especially lower wage earners; revitalizing distressed areas; directing economic benefits to the local community, such as increased jobs and sales taxes; reducing traffic and improving air quality; promoting economic and social integration while building community; and avoiding unnecessary, costly public expenditures by providing stable living situations for homeless people and people with special needs.

Moderate Income Residents

In addition to a shortage of affordable housing for lower income workers, the lack of moderate income housing has only recently been recognized as home prices have climbed to an all time high. While these families may be able to afford to rent in the San Diego region, homeownership is far out of reach for most given the region's median resale housing price of over \$400,000. The region's high housing prices have caused many families in the region to move to Riverside County and Mexico as noted earlier in this chapter. A study conducted by SANDAG for its I-15 Interregional Partnership (see Borders chapter for more details) found that the largest group of San Diego workers living in southwestern Riverside County is moderate income families, most of which include children. This group appears to value homeownership and single family homes so highly that they are willing to make a significantly longer-than-normal commute to work to have them. The region needs to provide new single family homes in the moderate cost range, generally between \$250,000 and \$350,000, near employment centers within the San Diego region.

Persons with Disabilities

Persons with disabilities have a wide range of housing needs, depending on the type and severity of their disability as well as personal preference and lifestyle. Affordability is one of the largest issues facing persons with disabilities, as many are very low income and living on fixed disability payments. Additionally, locating housing near services and transit can help provide more independent living opportunities for persons with disabilities. And, "barrier-free" or "universal design" principles should be applied. The use of "universal design" principles in building means designing buildings for all people, no matter their ability or age. These design adaptations do not have to be high cost, but rather are simple things that can be done to ensure that a house can be easily adapted to meet the changing needs of its residents. Examples of universal design include electrical outlets installed 18 inches above the floor instead of in the baseboard so that a person can easily reach them while

seated or standing, or light switches that are installed at a height that could easily be reached by someone that is seated.

Seniors

The region's senior population is projected to increase dramatically (by 128 percent) during the next 30 years. Many of these residents will be living on fixed incomes and will need housing that is low cost; close to services such as transportation, health care, recreation and groceries; and smaller in size. Additionally, seniors are well-served by homes that are built with universal design principles, as their homes can easily be modified to meet their changing needs.



Military Personnel

Enlisted military often have a need for housing affordable to lower income families. The frequent shortage of on-base housing forces many military families to search for affordable housing in the communities outside their base.

Young Adults

Young adults forming new households are often single and have lower incomes, creating a demand for lower cost, multifamily homes.

Farmworkers

Because of the high cost of housing and low wages, farmworkers often have difficulty finding affordable, safe, and sanitary housing. These workers represent a need for housing that is affordable to extremely low income workers.

Homeless

Homelessness is one of the biggest housing-related challenges facing the San Diego region today. The Regional Task Force on the Homeless estimates that in 2004 there were nearly 10,000 homeless persons in the San Diego region. Of these, an estimated 7,300 are urban homeless, and 2,300 are rural homeless including farm workers. Almost one-third of the urban homeless are homeless families with children. These families highlight the need for affordable housing - many of these families work in the region, but are unable to afford the high housing costs. This has swelled the ranks of the "economically homeless," a growing and distinct category from those who are homeless and have mental illness and/or substance abuse. For the latter category, there is a lack of affordable supportive/transitional housing.

Preventing Housing Discrimination

For the San Diego region to truly meet its housing needs, it must ensure that its housing market is free from discrimination. The Federal Fair Housing Act of 1968 prohibits housing discrimination based on race, color, national origin, religion, sex, family status, and disability. Despite this, discrimination remains a problem in the San Diego region. Additionally, a lack of multifamily

zoning can lead to the exclusion of low income and minority residents from communities, which have implications for fair housing and housing discrimination. (For more information on housing discrimination, see the “Social Equity and Environmental Justice Assessment chapter.)

Unfair lending, or “predatory lending,” is also very common in lower income and minority communities. This type of lending puts borrowers in mortgages that strip away large amounts of their home equity, trap them in excessive and unaffordable monthly payments, or result in a number of other costs which the resident often cannot afford. This practice also can lead to loss of homes through foreclosure. Developers who want to build in lower income and minority communities also may face difficulties in obtaining financing, as banks can be reluctant to invest in areas they consider to be “high risk.”

Jurisdictions should safeguard against housing discrimination by working with nonprofit housing groups. The Fair Housing Council of San Diego offers public outreach and education regarding fair housing rights; owner, manager, and lender training; and discrimination complaint processing.

GOALS, POLICY OBJECTIVES, AND RECOMMENDED ACTIONS

Goal

Provide a variety of affordable and quality housing choices for people of all income levels and abilities throughout the region.

Policy Objectives

1. Increase the supply and variety of housing choices, especially higher density multifamily housing, for residents of all ages and income levels.
2. When developing both vacant land and redevelopment and infill sites, integrate housing with jobs, transit, schools, recreation, and services, creating more livable neighborhoods and diverse mixed use communities to support the RCP’s smart growth objectives.
3. Increase the effectiveness of housing element law, creating a more meaningful regional housing allocation process.
4. Provide incentives for local jurisdictions to meet their housing needs.
5. Provide an adequate supply of housing for our region’s workforce to minimize projected interregional and long distance commuting.
6. Conserve and rehabilitate the existing housing stock.
7. Provide safe, healthy, environmentally sound, and accessible housing, for all segments of the population.
8. Increase opportunities for homeownership.

9. Minimize the displacement of lower income and minority residents as housing costs rise when redevelopment and revitalization occurs.

Recommended Actions

Planning, Design, and Coordination

1. Identify and rezone appropriate sites for entry-level small-lot single family houses, higher density multifamily housing, and mixed use housing in appropriate locations close to public transportation, employment, and other services.
2. Identify and develop appropriate underutilized sites for housing, such as vacant shopping centers and deteriorated strip commercial centers.
3. Identify and rezone appropriate sites for homeless facilities, transitional housing, farmworker housing, and housing for those in need of supportive services, while not disproportionately siting them in any one community.
4. Research and hold forums on housing issues of local and regional interest, such as condominium conversions, fair housing, methods to preserve the supply of affordable rental units, tax incentives, and other topics.
5. Continue to participate in the State of California Department of Housing and Community Development (HCD)'s Housing Element Working Group.

Program and Project Development and Implementation

1. Develop and implement local affordable housing programs and incentives, such as land banking, inclusionary housing, density bonus, second dwelling unit, and priority permit processing programs.
2. Review governmental processes and fees, and make changes if needed, to ensure that they are not acting as unnecessary barriers to housing construction.
3. Develop and implement programs to conserve and rehabilitate our existing affordable housing stock, including rental apartments and mobile and manufactured homes.
4. Implement homeownership programs, such as cooperatives (co-ops), first time homebuyer programs, community land trusts, location efficient mortgage programs, and employer-assisted housing programs.
5. Develop and implement programs for new housing construction that encourage environmentally sustainable construction (green building techniques) and the application of universal design principles to promote accessibility.
6. Eliminate environmental and health hazards in existing housing, and in new housing as it is sited, designed, and built.

7. Develop strategies to provide replacement housing for lower income residents as conversion, demolition, redevelopment, and/or infill development occurs.
8. Implement public education programs, showing positive examples and benefits of affordable and multifamily housing, and mixed use developments.

Funding

1. Ensure that housing affordability is included in the criteria for SANDAG's smart growth incentive programs.
2. Pursue and ensure the lawful and efficient use of existing funds for the creation of additional affordable housing for families, seniors, persons with disabilities, the homeless, and other lower income residents.
3. Develop new funding sources for the creation of additional affordable housing for families, seniors, persons with disabilities, the homeless, and other lower income residents, such as housing trust funds, linkage fees, and bonds.
4. Reduce the fiscal inequities associated with housing construction to provide local jurisdictions with a financial incentive to plan for and approve housing.

CONCLUSION

There is a strong need to increase and diversify the housing supply in the region. Implementation of the actions in this chapter will assist the region in meeting its housing needs through smart growth — providing more housing, and more types of housing, in appropriate locations close to public transportation, employment, and other services. A cooperative effort to implement these actions will ensure that more of the region's residents have access to safe, decent, affordable homes.

HEALTHY ENVIRONMENT

Enhancing Our Natural Habitats, Air, Water, and Beaches

2030 VISION

Our region has retained its natural beauty. We now have healthy and vibrant communities as well as well-preserved open space, agricultural lands, and rural areas. We have permanently preserved open space corridors that run from Orange and Riverside Counties to Mexico and from the Pacific Ocean to the Imperial Valley, which all residents of the region enjoy. This interregional and international preserve system protects native plants and animals that were once on the verge of extinction. Urban canyons, parks, and public spaces in our cities reflect the native habitats of the area. Native birds frequent local parks and our own backyards.

We now have a greater awareness about the overall health of our watersheds: how our streams, lakes, and rivers are connected to groundwater, lagoons, and the ocean. Our water bodies are safe for plants, animals, and people. Pollution no longer closes beaches. Groundwater supplies, now free of pollutants, help us meet the region's water demands.

Our coastal environment, including reefs and kelp beds, continues to flourish. The coastline is restored to its natural condition, providing productive habitats for sea life and enhancing the region as a tourist destination with the best beaches on the West Coast. Our wide, sandy beaches help minimize damage from storms, while providing wonderful recreational opportunities to residents and visitors.

The air we breathe is clean. We enjoy exercising and playing outdoors. We drive less frequently, taking advantage of convenient transportation options such as transit, bicycling, and walking. Our cars and trucks are more fuel-efficient and use cleaner-burning fuels, and we have increased numbers of electric vehicles and those that run on alternative fuels. Industrial plants continue to upgrade pollution-control equipment and curb emissions. Residential neighborhoods are free of potentially harmful industries. We now lead the country in compliance with state and federal clean air standards, and as a result, see fewer people with respiratory disease.

INTRODUCTION

San Diegans share a strong attachment to the regional landscape. When asked what they like most about San Diego, natives and newcomers alike consistently cite the enviable climate, beaches, bays, urban canyons, local mountains, and deserts.

To protect these special places and ensure a healthy environment, the region must protect key open spaces and sensitive habitat areas, ensure that the air and water are clean, and restore eroding beaches.

To balance the need for development and sensitive lands conservation, many local jurisdictions within the region have adopted habitat conservation plans. These play an important role in defining areas where development is appropriate. Also important to our healthy environment is urban ecology: those natural areas that remain in or around urbanized areas.



Clean air and water, viable natural habitats, and a well-managed shoreline are critical components to the overall economic prosperity of our region. They are also critical to the health and wellbeing of our residents.

NATURAL HABITATS

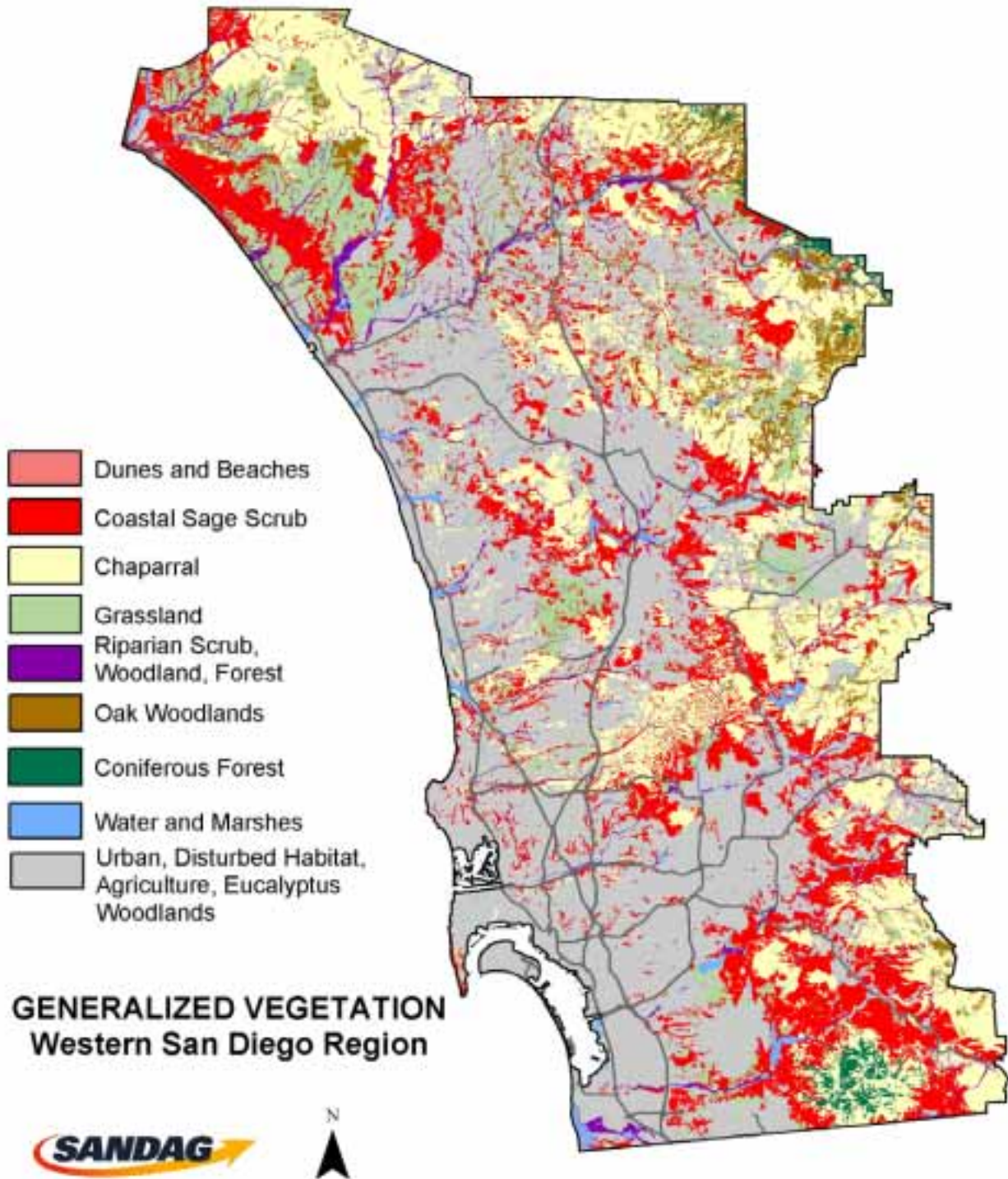
EXISTING SETTING



The San Diego region's natural environment is as diverse as its people. The region includes three general geographic areas: coastal, mountain, and desert. Most of the population and employment centers are in the western portion of the region (coastal plain and inland valleys) where the topography and the coastal climate are mild (Figure 4A.1). Almost 41 percent of the western portion of the region is not in its original natural state, of which approximately 28 percent is developed, ten percent is in agricultural production and three percent is habitat which has been disturbed. The remaining 59 percent is covered by natural habitats. Of these areas, 33 percent are covered by chaparral, 30 percent by coastal sage

scrub, 16 percent by grasslands, and 21 percent by other vegetation types (dunes, marshes, oak and eucalyptus woodlands, riparian scrub, and coniferous forests) (Figure 4D.1).

FIGURE 4D.1—GENERALIZED VEGETATION, 1995



The eastern portion of the region (the mountains and desert) is not as populated as the coastal plain and inland valleys. Vegetation for the eastern region has recently been obtained and will be mapped to create a region-wide vegetation map. Existing plans and policies for the eastern portion of the region do not plan for future population growth at the rate and the number as in the western portion of the County. The majority of land (62 percent) is owned by the U.S. Forest Service (the Cleveland National Forest), the Bureau of Land Management, or the California State Park System (Anza Borrego State Park).

The San Diego region has been identified as a major “hot spot” for biodiversity and species endangerment, nationally and globally. Many unique and endangered species are found in the region. San Diego County’s population is also growing. This combination of high biodiversity, large numbers of rare and unique species, and increasing urbanization has led to intense conflicts among the issues of economic growth, biological conservation, and quality of life.

EXISTING PLANS AND PROGRAMS

To reconcile conflicts between urbanization and rare, threatened, and endangered species, the State of California enacted the Natural Community Conservation Planning (NCCP) Act of 1991. The NCCP facilitates the creation of a landmark regional preservation system based on the characteristics of habitat areas rather than individual species. In addition, the preservation of natural habitats in the urbanized areas of the region provides visual relief from the manufactured landscape and maintains a connection to the region’s natural heritage.

In the San Diego region, most remaining natural habitats are included in subregional habitat conservation plans, as defined by the NCCP Act. Subregional plans cover more than one jurisdiction providing the overall policy framework for the subregion. Subarea plans are single-jurisdiction plans that specify how local land use authority will be used to conserve habitat and build the preserve. To date, two subregional plans have been approved: the Multiple Species Conservation Program (MSCP) and the Multiple Habitat Conservation Program (MHCP). Eight subarea plans also have been approved.

Multiple Species Conservation Program

The largest subregional plan, the Multiple Species Conservation Program (MSCP), spans eleven cities and a portion of unincorporated San Diego County in southwestern San Diego County. Approved in 1997 the plan targets more than 172,000 acres for conservation and protects 85 sensitive plants and animal species (Area 1, Figure 4D.2).

FIGURE 4D.2—HABITAT PRESERVE PLANNING AREAS



Source: SANDAG, 1995

Multiple Habitat Conservation Program

The Multiple Habitat Conservation Program (MHCP) includes seven incorporated cities in northern San Diego County. This subregional plan, approved by the SANDAG Board of Directors in March 2003, provides the guidelines for the preservation of a 20,000-acre preserve system and the protection of 61 plant and animal species (Area 2, Figure 4D.2).

County of San Diego North and East County MSCP Subarea Plans

The North County MSCP Subarea Plan includes land above the Lake Hodges area, west to Rancho Santa Fe, east toward Ramona, and continuing north to the Riverside County border (Area 3, Figure 4D.2). Since March 2000, the County has been working with the U.S. Fish and Wildlife Service and the California Department of Fish and Game to develop a draft map for the North County Subarea Plan. This map has received comments at many stakeholder meetings and has gone through several revisions. The County Board of Supervisors is expected to consider the North County MSCP Subarea Plan text and map for final approval in December 2004. The County intends to provide the same Endangered Species Act protections for North County landowners and sensitive resources previously achieved in its South County MSCP Subarea Plan (1998).

The County of San Diego will begin planning the East County MSCP Subarea Plan in spring 2004 (Area 4, Figure 4D.2).

The following is a summary of local subarea plans approved to date:

- š **City of Coronado (1995)** - The Silver Strand Beach is the primary contributor to Coronado's subarea plan. The plan preserves approximately 483 acres and protects 15 plant and bird species.

- § **City of Poway (1996)** - Poway's subarea plan protects 87 species of plants and animals. The goal is to preserve at least 78 percent of an identified 13,300-acre conservation area, providing linkages to the San Vicente Reservoir.
- § **City of Del Mar (1996)** - Del Mar's plan protects 20 plant and animal species within a 175 acre preserve system. The San Dieguito Lagoon and neighboring Crest Canyon make up the largest portion of the system.
- § **City of San Diego (1997)** - This approved subarea plan preserves approximately 52,000 acres and protects 85 plant and animal species. The preserve includes Mission Trails Regional Park, the San Dieguito Lagoon and River Park, the Los Penasquitos Lagoon and Canyon, Marron Valley, Lake Hodges, Otay Lakes, and San Vincente Reservoir.
- § **County of San Diego South County MSCP Subarea Plan (1998)** - This Subarea Plan for the unincorporated areas of South County preserves 98,379 acres and protects 85 plant and animal species.
- § **City of La Mesa (1999)** - La Mesa's remaining habitat area consists largely of coastal sage scrub. The plan preserves 208 acres and protects 85 sensitive plant and animal species.
- § **City of Carlsbad (2003)** - Carlsbad's subarea plan preserves approximately 6,500 acres and protects 61 sensitive plants and animals. The preserve conserves large blocks of remaining habitat and habitat corridors which connect with habitats in adjoining jurisdictions.
- § **City of Chula Vista (2003)** - This subarea plan will preserve approximately 9,200 acres after the city annexes large segments of Otay Ranch and San Miguel. The plan protects 86 sensitive plant and animal species.

The Cities of Encinitas, Escondido, Oceanside, San Marcos, Santee, and Vista are preparing subarea plans, which are expected to be adopted in 2004.

When completed this landmark regional preserve system will not only protect rare, threatened, and endangered species, it will also help define our region's long-term urban form.

KEY ISSUES

A number of issues must be addressed in order to implement a comprehensive, regional habitat preservation system and sustain natural features in urbanized areas of the region. They include:

Funding

The NCCP subregional and subarea plans prepared to date include financing plans that identify associated costs for habitat acquisition, land management, and biological monitoring. Each plan requires the U.S. Fish and Wildlife Service and the California Department of Fish and Game to sign implementing agreements with local jurisdictions specifying, among other things, funding responsibilities among the three levels of government. The challenge to the region is the identification of a permanent regional fund or funding sources to meet local funding responsibility.

Land Management Strategy

The region's preserve areas are being assembled, managed, and monitored by federal, state, and local agencies; developers meeting mitigation requirements; non-profit conservancies; and private individuals. A strategy assuring the coordination and cooperation of land management practices throughout the preserve is needed.

Regional Database

The region's habitat conservation plans require the collection, analysis and interpretation of data for monitoring biology. A regional strategy should be developed that identifies how the biological data can be shared and interpreted on a regional scale. The habitat conservation plans also require local jurisdictions to prepare annual reports showing the amount and location of habitats lost and conserved over time due to the impacts of public and private development projects.

A common standard for data collection and a networked or centralized repository for this data would allow greater access by students, researchers, and biologists throughout the region. This, in turn, would help researchers to analyze, disseminate and report on the data, as well as to determine trends, develop and share models, monitor the health of the ecosystem, and prepare biological monitoring reports on the various plants and animals protected by the preserve.

A Geographic Information System (GIS) computer software application known as HabiTrak has been developed to assist local jurisdictions to track and report on preservation and development activities. The user can prepare tables and maps for the annual reports to show habitat conservation and loss by project footprint, prepare maps and tables summarizing the habitats lost and conserved over time, modify conservation goals, and aggregate subarea data.

Interregional and International Preserves

The natural environment defies political boundaries. If we want to ensure the health and vitality of San Diego's preserve, we should coordinate our efforts with the counties of Orange, Riverside, and Imperial, and the Republic of Mexico. Fortunately, several of our neighbors are implementing habitat conservation programs similar to ours. We need to ensure linkages and common land management practices across our borders.

For more information regarding habitat planning along our borders, please refer to the Borders chapter.

Urban Canyons and Landscapes

While preserve areas provide habitat for threatened and endangered species, urban canyons and natural landscapes outside preserve areas are also important. They provide visual relief from urbanization as well as public access to the region's natural resources.

The value of these areas is incalculable to residents' quality of life, but is increasingly important as the region continues to grow. We need a preservation strategy to ensure that the region's residents have access to these natural areas.



Agricultural Lands

Historically, portions of San Diego County were major agricultural areas; today significant agricultural fields and orchards still remain, and small agricultural fields or pastures are scattered throughout. In some places, agricultural lands function as travel corridors for a variety of species. These fields also help buffer native habitats and species against adverse effects from urban land uses and associated human impacts.

Natural Fire Ecology

Fire is a natural process in ecosystems. As more and more people move into and closer to the remaining habitat areas, fire safety becomes more of a concern. Many vegetation communities depend on a regular cycle of burning for maintaining a balance of species, seed viability, and reproduction. However, in urbanized portions of San Diego County, the natural fire cycle is affected by human activities, both by increasing fire frequency in some locations and decreasing it in others through fire prevention measures.

The habitat conservation plans include fire management strategies to achieve biological resource goals as well as hazard reduction for humans and their property. The fire management strategy must be compatible with conservation of biological resources, including reducing brush in areas where fire may threaten human safety or property, suppressing fires once they have started, and provide sufficient fire suppression equipment and personnel.

NATURAL HABITATS POLICY OBJECTIVES AND RECOMMENDED ACTIONS***Policy Objective***

1. Preserve and maintain natural biological communities and species native to the region.
2. Protect agricultural lands for future crop production and for functions described in habitat conservation plans.
3. Promote fire management techniques that are compatible with preservation of biological resources and reduce hazards to humans and their property.

Recommended Actions**Planning, Design, and Coordination**

1. Coordinate and cooperate throughout the region on habitat management and monitoring functions.
2. Link habitat corridors within San Diego County and with surrounding counties and Mexico to create interregional and international preserve systems.
3. Coordinate and cooperate throughout the region on the planning and implementation of future transportation and habitat preserve infrastructure systems.

4. Consider wildfires when designing future developments to increase public safety while avoiding excessive clearing, fragmentation, and degradation of natural habitats.

Program and Project Development and Implementation

1. Coordinate efforts with the U.S. Fish and Wildlife Service, the California Department of Fish and Game, and non-profit organizations to establish and maintain regional databases for biological monitoring.
2. Preserve and maintain natural areas in urban neighborhoods, such as canyons and creeks, and provide access for the enjoyment of the region's residents.
3. Identify and implement programs for the use of native plants in the landscaping of public facilities; and encourage the use of native vegetation in private landscaping.
4. Design future infrastructure projects in accordance with wildlife corridor and habitat linkages principles as found in the habitat conservation plans.

Funding

1. Secure regional funding to acquire high-value habitat areas from willing sellers as shown in adopted habitat plans.
2. Distribute regional funding for habitat land acquisition in accordance with approved local subarea habitat conservation plans.
3. Secure regional funding for ongoing land management and biological monitoring of high-value habitat areas.

WATER QUALITY

EXISTING SETTING

Water bodies within the region, including groundwater, lakes, reservoirs, rivers, streams, lagoons, estuaries, vernal pools, bays, and the ocean, are among our most valuable resources. They provide a wide range of "beneficial uses," or the uses of water necessary for the survival or well being of humans, plants, and animals. Beneficial uses of water serve to promote both tangible and intangible economic, social, and environmental goals. For example, the beaches and coastline provide places to relax and play, and they attract tourism, which stimulates the regional economy. Regional reservoirs provide a valued water supply and emergency storage function. Water bodies also provide habitat for many of the region's rare, threatened, and endangered species, while serving as an important part of an overall healthy environment.



A key indicator of our region's water quality is how often our beaches and bays are closed due to pollution. Beach closures, when they happen, are a matter of significant concern. Beach closures within the region are largely attributed to pollution in urban runoff¹ that is transported to rivers, bays, and the ocean via the stormwater conveyance system.

In 2002, a dry year, the region received only 33 percent of our normal rainfall² and there were about 1,300 beach closures and advisories. An advisory is issued when ocean or bay water quality does not meet state standards due to high bacterial levels, or during the excavation of a coastal outlet (river or lagoon) when potentially contaminated water is released into the ocean. In addition, there were 35 days when all coastal waters were under a General Advisory³ due to stormwater and other urban runoff affecting beaches after rainfall. Residents are increasingly concerned about pollution and possible health risks associated with swimming, surfing, and recreating in these waters.⁴

Urban runoff can adversely impact the quality of our local drinking water. The significance of urban runoff with respect to drinking water quality has only recently come to be recognized in the region. The deterioration of water quality also can result in a reduced water supply and increased water treatment costs.

The region's water bodies, such as lakes, streams, and estuaries, are also affected by pollution. Currently, there are 52 water segments, such as streams, water bodies, and shoreline (see Figure 4D.3), that are considered impaired and do not meet water quality standards set forth in the Water Quality Control Plan for the San Diego Basin (Basin Plan).⁵

¹ Urban runoff is primarily caused by non-point source pollutants, such as urbanization and agriculture, which now contribute a larger portion of many kinds of pollutants into our waters. More information on urban runoff can be found under the "Existing Plans and Programs" section of this chapter.

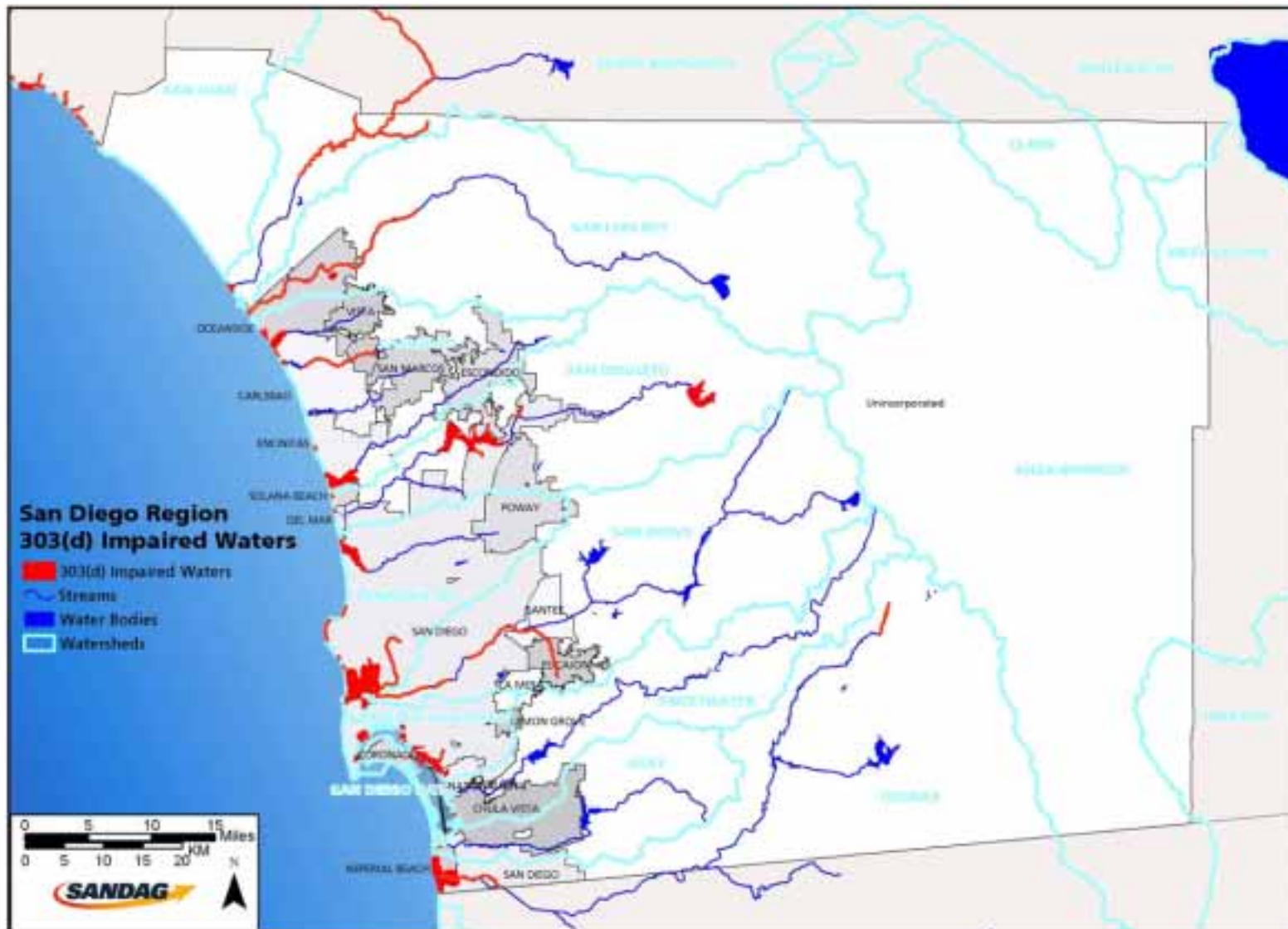
² San Diego County Water Authority, Annual Rainfall amounts at Lindbergh Field, San Diego County, <http://www.sdcwa.org/manage/rainfall-lindbergh.phtml>.

³ A General Advisory is issued after 0.2" or more rainfall to alert the public of ocean and bay water contamination by urban runoff.

⁴ County of San Diego Department of Environmental Health, Beach and Bay Status Report, San Diego County Beach Closures and Advisories in 2002, <http://www.co.san-diego.ca.us/deh/lwq/beachbay/#closures>.

⁵ San Diego Regional Water Quality Control Board, Section 303 (d) Impaired Water Bodies List, <http://www.swrcb.ca.gov/rwqcb9/programs/303dlist.html>.

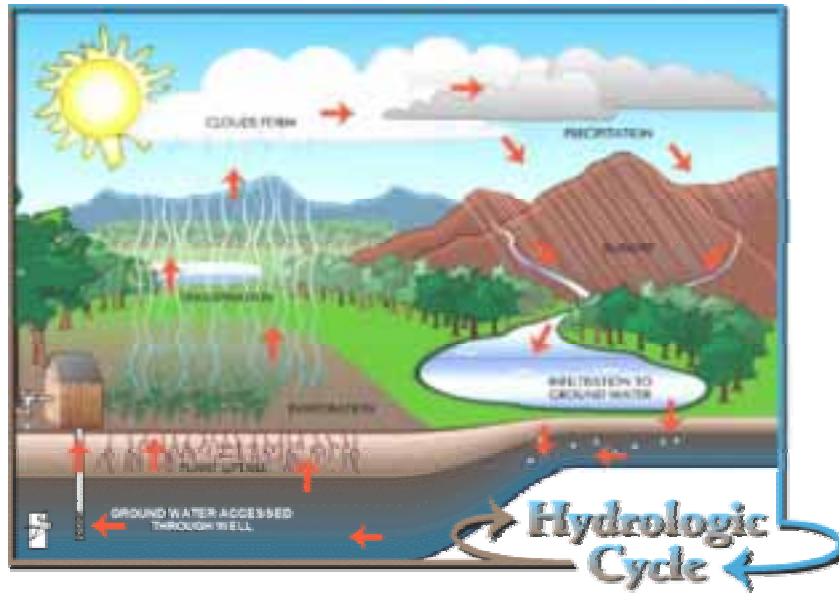
FIGURE 4D.3—SAN DIEGO REGION 303(d) IMPAIRED WATERS



Additional information on the Final 2002 Clean Water Act Section 303(d) List of Water Quality Limited Segments can be found on the State Water Resources Control Board Web site at http://www.swrcb.ca.gov/tmdl/303d_lists.html.

Water is governed by something scientists refer to as the “hydrologic cycle,” as seen in Figure 4D.4.

FIGURE 4D.4—HYDROLOGIC CYCLE



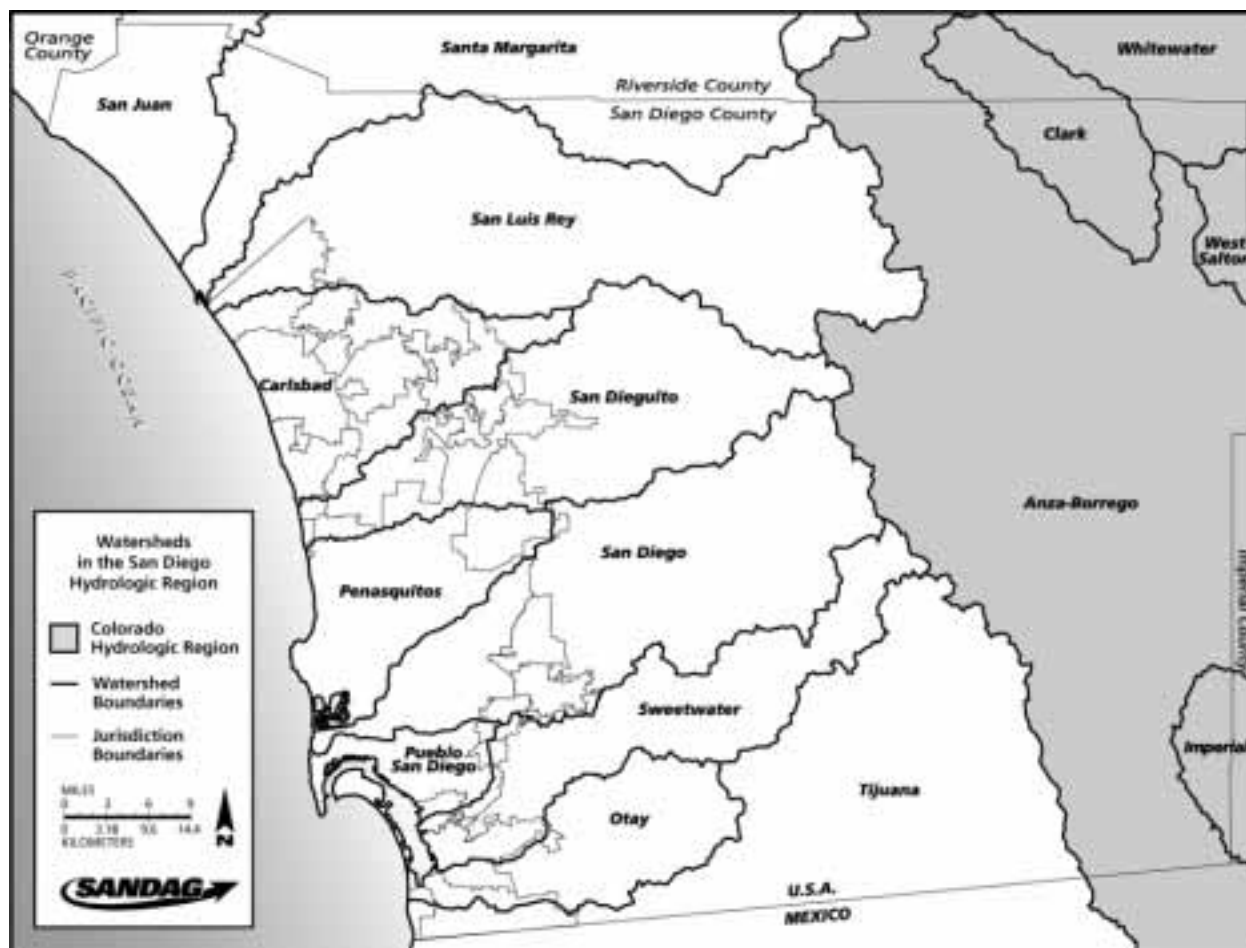
Source: © Copyright, 1996 by Purdue Research Foundation, West Lafayette, IN 47909
All Rights Reserved

The hydrologic cycle consists of inflows, outflows, and storage of water. Inflows, such as rain, add water to the different parts of the hydrologic system, while outflows, such as streams or rivers, remove water. Storage is when the system retains water, such as groundwater in the earth. Because water movement is cyclical, an inflow for one part of the system is an outflow for another. For example, when it rains (an inflow into the local system), the water hits the ground and travels downward toward the closest water body, such as a stream, lake, wetland, estuary, river, or the ocean (an outflow from the local system). These flows can occur naturally or as a result of human activity.⁶ The natural water flow areas are defined as “watersheds,” a hydrologic geographic area in which waters, solids, and dissolved materials flow to a common outlet.

The Tecate Divide splits the County of San Diego into two hydrologic regions: the San Diego Hydrologic Region and the Colorado Hydrologic Region (see Figure 4D.5). The San Diego region contains seven watersheds fully within its political boundaries, and an additional eight watersheds shared with neighboring counties and Mexico.

⁶ United States Environmental Protection Agency Region 5, Agricultural and Biological Engineering, Purdue University, 1997, Groundwater Primer, Groundwater Basics, Hydrologic Cycle. <http://www.epa.gov/seahome/groundwater/src/title.htm>.

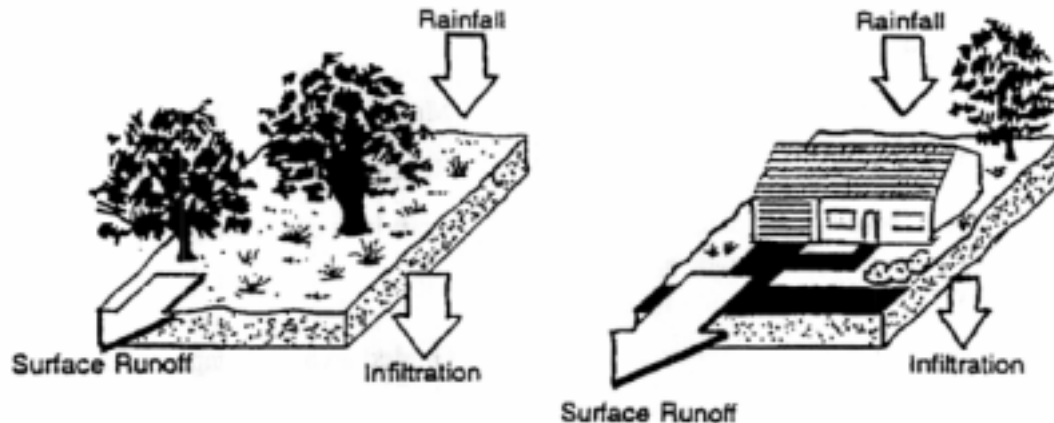
FIGURE 4D.5—WATERSHEDS IN THE SAN DIEGO HYDROLOGIC REGION



Planners, environmentalists, and others increasingly recognize the links between land use activities, such as building homes, roads, and offices, and their impacts on water quality. These activities can throw the hydrologic cycle out of balance and can affect the quantity and quality of natural water resources. Water infiltration occurs when precipitation seeps through vegetated areas and other pervious surfaces (surfaces that are easily penetrated by water) into the ground, thus filtering pollutants from the runoff. Infiltration rates are affected by developments that include impervious surfaces, those surfaces that are not easily penetrated by water, such as parking lots, roads, and sidewalks.⁷

⁷ United States Environmental Protection Agency Region 5, Agricultural and Biological Engineering, Purdue University, 1997

FIGURE 4D.6—CHANGES IN CALIFORNIA WATERSHED HYDROLOGY RESULTING FROM URBANIZATION⁸



Increases in urbanization and impervious surfaces are accompanied by accelerated water drainage through the water conveyance system, or those systems that move water from one place to another, which can increase urban flooding. Consequently, urbanization alters the rates of infiltration, evaporation (the conversion of water from a liquid into a gas), and transpiration (transfer of water from plants to the atmosphere) that would otherwise occur in a natural setting. The replenishing of groundwater aquifers is also effected and does not occur or occurs at a slower rate. Together, these various effects determine the amount of water in the system and can result in extremely negative consequences for river watersheds, lake levels, aquifers, and the environment as a whole.⁹

Different types of land uses affect watershed areas in different ways. As seen in Figure 4D.6, stormwater¹⁰ that travels through a watershed over developed lands, whether residential, industrial, agricultural, or commercial, has a higher potential of carrying pollutants to receiving waters (depicted by the large surface runoff arrow and small infiltration arrow on the right side of the diagram) than stormwater that travels over undeveloped lands, such as parks and other pervious surfaces, because the undeveloped lands allow for a greater rate of infiltration into the soil surface (depicted by the smaller surface runoff arrow and larger infiltration arrow on the left side of the diagram).

Urban planning must consider where water flows and the impacts of development on our water resources, including drinking water. In the natural setting, runoff water flows through vegetated land areas and other pervious services, which filter water before entering reservoirs. Interruption of this process can affect the quality and quantity of water entering the drinking water system. Additionally, too much infiltration of urban runoff can cause pollutant build up in underground aquifers, which can negatively impact groundwater supplies.

⁸ California Stormwater Quality Taskforce, Municipal Handbook – March 1993

⁹ United States Environmental Protection Agency Region 5, Agricultural and Biological Engineering, Purdue University, 1997.

¹⁰ Water from rain or melting snow that doesn't soak into the ground. The key factor in determining if a discharge is a "stormwater" or "non-stormwater" is based entirely on whether or not the discharge originated from a precipitation event. Only discharges originating from precipitation events are stormwater.

**TABLE 4D.1—LAND USE ACRES BY WATERSHED
FOR WATERSHEDS ENTIRELY WITHIN THE SAN DIEGO REGION¹¹**

| WATERSHED | TOTAL ACRES | TOTAL DEVELOPED ACRES | RESIDENTIAL | COMMERCIAL/ INDUSTRIAL | SCHOOLS | ROADS/ FREEWAYS | PARKS | WATER | MILITARY | OTHER |
|---------------------|------------------|-----------------------|----------------|---------------------------|---------------|--------------------|----------------|---------------|---------------|---------------|
| SAN LUIS REY | 359,226 | 159,517 | 75,630 | 4,478 | 495 | 7,159 | 25,084 | 1,610 | 7,578 | 37,483 |
| CARLSBAD | 134,145 | 93,348 | 44,682 | 11,383 | 1,759 | 14,021 | 12,487 | 1,656 | 0 | 7,360 |
| SAN DIEGUITO | 216,880 | 109,017 | 47,035 | 5,918 | 456 | 5,776 | 27,441 | 1,743 | 0 | 20,648 |
| PENASQUITOS | 108,984 | 90,612 | 25,263 | 11,486 | 2,787 | 13,376 | 31,299 | 2,147 | 1,425 | 2,829 |
| SAN DIEGO | 276,048 | 125,015 | 43,963 | 10,606 | 2,016 | 13,903 | 44,815 | 4,344 | 1,745 | 3,623 |
| PUEBLO SAN DIEGO | 35,975 | 33,717 | 14,250 | 5,181 | 1,113 | 8,978 | 2,592 | 100 | 1,488 | 14 |
| SWEETWATER | 145,004 | 83,822 | 29,218 | 5,252 | 1,499 | 8,408 | 35,487 | 1,456 | 0 | 2,502 |
| OTAY | 94,945 | 44,308 | 9,461 | 3,742 | 571 | 3,339 | 21,611 | 1,053 | 1,986 | 2,544 |
| TOTAL | 1,371,207 | 739,355 | 289,502 | 58,046 | 10,696 | 74,960 | 200,816 | 14,109 | 14,222 | 77,003 |

Source: SANDAG 2030 Final Forecast, base year 2000.

¹¹ Figures may not add to total due to independent rounding.

Table 4D.1 outlines existing land use acreages in watersheds entirely contained within the San Diego region. About 54 percent of the acreage within these eight watersheds is developed. Further, 27 percent of that developed land consists of park lands, which allow for infiltration. Unfortunately, most of the areas that allow for infiltration are higher up in the watershed and do not provide a filter for urban runoff, which mainly occurs in the more populated areas in the western third of the San Diego region.

The watershed entirely within the San Diego region with the highest proportion of land area in urban use is the Pueblo San Diego watershed, with only six percent vacant/undeveloped land. The San Luis Rey, San Dieguito, San Diego, and Otay watersheds have the greatest proportion of undeveloped land with 50 percent or more each.

There is a strong relationship between land use planning and the quality of our watersheds. The way we plan to use our lands in the future may help us to prevent and repair water quality problems. Depending on the type and magnitude of water quality problems that occur in surface water bodies and groundwater basins, the acreage of undeveloped land and its planned land use can provide an indication as to the types of water quality problems that may be expected to occur in the future so that they may be addressed.

Equally important as the existing land uses in each watershed are the design standards and development regulations adopted by each local jurisdiction to protect the environment. Regulations, such as preserving open space, help to ensure that excessive pollutants are naturally filtered before reaching surface water and groundwater resources. Additionally, design standards and regulations that prevent or reduce the generation of sediment and other pollutants play a significant role in maintaining the health of the region's waterways.



Physical features, such as steep slopes or floodplains, and local policies and programs, such as habitat conservation plans, constrain development in 51 percent of the region's vacant/undeveloped land (see Table 4D.2). Vacant or undeveloped land is constrained in 61 percent of the San Luis Rey watershed and in 38 percent of the Carlsbad and Sweetwater watershed. The types of development that can be expected in the remaining developable acres in each of the region's watersheds are also shown in Table 4D.2 (note that these planned land use categories have been generalized from the land use elements of local jurisdictions). Most of the region's developable acres are slated for future residential development.

**TABLE 4D.2—PLANNED LAND USE OF VACANT/UNDEVELOPED LAND FOR WATERSHEDS
ENTIRELY WITHIN THE SAN DIEGO REGION¹²**

| WATERSHED | TOTAL VACANT/ UNDEVELOPED | CONSTRAINED | PCT. CONSTRAINED | TOTAL | RESIDENTIAL | COMM./ OFFICE | INDUSTRIAL | SCHOOLS | FUTURE ROADS/ FREEWAYS |
|---------------------|------------------------------|----------------|---------------------|----------------|----------------|------------------|--------------|--------------|------------------------------|
| SAN LUIS REY | 199,709 | 121,037 | 61% | 78,672 | 77,878 | 499 | 196 | 45 | 54 |
| CARLSBAD | 40,797 | 15,628 | 38% | 25,169 | 20,943 | 1,590 | 1,989 | 409 | 237 |
| SAN DIEGUITO | 107,864 | 43,005 | 40% | 64,859 | 63,629 | 493 | 171 | 114 | 452 |
| PENASQUITOS | 18,372 | 8,977 | 49% | 9,395 | 6,745 | 690 | 1,145 | 445 | 369 |
| SAN DIEGO | 151,034 | 85,366 | 57% | 65,668 | 63,771 | 682 | 1,006 | 52 | 157 |
| PUEBLO SAN DIEGO | 2,258 | 909 | 47% | 1,349 | 594 | 458 | 232 | 44 | 21 |
| SWEETWATER | 61,182 | 23,343 | 38% | 37,839 | 36,393 | 406 | 260 | 55 | 725 |
| OTAY | 50,636 | 22,364 | 44% | 28,272 | 25,056 | 776 | 1,045 | 785 | 610 |
| TOTAL | 631,852 | 320,629 | 51% | 311,223 | 295,009 | 5,594 | 6,044 | 7,543 | 2,625 |

Source: SANDAG 2030 Final Forecast, base year 2000.

¹² Figures may not add to total due to independent rounding.

The population and expected growth in the watersheds entirely within the San Diego region varies considerably. Table 4D.3 shows the 2000 and 2030 population counts and densities within these watersheds. As seen below, future population growth is expected to occur in all of the watersheds, most dramatically within the San Luis Rey, San Dieguito, and Otay watersheds. Currently, these watersheds are the smallest, in terms of population, but are expected to grow by the greatest percentage. The implementation of land use policies designed to improve water quality, as well as other pollution measures, is necessary to prevent potential water quality degradation due to the rate of growth in these watersheds.

TABLE 4D.3—2000 AND 2030 POPULATION IN WATERSHEDS ENTIRELY WITHIN THE SAN DIEGO REGION

| WATERSHED | TOTAL POPULATION | | NUMERIC CHANGE | PERCENT CHANGE | PERSONS PER ACRE | |
|------------------|------------------|------------------|----------------|----------------|------------------|-------------|
| | 2000 | 2030 | 2000-2030 | 2000-2030 | 2000 | 2030 |
| SAN LUIS REY | 142,402 | 231,797 | 89,395 | 63% | 0.40 | 0.64 |
| CARLSBAD | 511,540 | 695,407 | 183,867 | 36% | 3.78 | 5.52 |
| SAN DIEGUITO | 128,202 | 209,375 | 81,173 | 63% | 0.58 | 0.94 |
| PENASQUITOS | 462,721 | 588,804 | 126,083 | 27% | 4.46 | 5.71 |
| SAN DIEGO | 503,971 | 641,353 | 137,382 | 27% | 1.82 | 2.34 |
| PUEBLO SAN DIEGO | 477,092 | 641,339 | 164,247 | 34% | 13.23 | 17.29 |
| SWEETWATER | 305,193 | 367,326 | 62,133 | 20% | 2.06 | 2.64 |
| OTAY | 150,479 | 269,484 | 119,005 | 79% | 1.53 | 2.81 |
| TOTAL | 2,681,600 | 3,644,885 | 963,285 | 44% | 1.94 | 2.69 |

Source: SANDAG 2030 Final Forecast

EXISTING PLANS AND PROGRAMS

Several federal, state, and local government entities are responsible for monitoring and/or regulating water quality within the region. Additionally, numerous laws provide a basis for water quality and establish the goals and objectives that guide the region's water quality programs.

At the state level, the Porter-Cologne Act of 1969 established a regulatory program to protect water quality and the beneficial uses of state waters. It created and designated the State Water Resources Control Board and the Regional Water Quality Control Boards as the principle state agencies responsible for water quality control.

The Regional Water Quality Control Boards (RWQCB) formulate and adopt, for all areas within each region in California, a Water Quality Control Plan (Basin Plan) that designates beneficial uses for surface and groundwaters; sets narrative and numerical objectives that must be attained or

maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy; describes implementation programs to protect the beneficial uses of all waters in the region; and describes surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan.¹³

The 1972 Clean Water Act, a federal statute governing water quality regulation, established the National Pollutant Discharge Elimination System (NPDES) permit program to regulate the discharge of pollutants from point sources. Point source pollutants originate from an identifiable source or "point" of waste release, such as municipal sewage treatment plant outfalls and stormwater conveyance system outfalls. These outfalls contain harmful substances are emitted directly into waters of the United States. Since its adoption, several NPDES permits have been issued by the RWQCB, and pollution from point sources has been diminished. These permits have been issued for work being done throughout the region to local, state, and federal agencies, such as the County of San Diego, the California Department of Transportation (Caltrans), and the Navy. In addition, private industrial businesses, such as certain manufacturing, biomedical, and scrap yard facilities are also subject to NPDES permits.

Amendments to the Clean Water Act in 1987 further strengthened regulation of pollutants by establishing a framework for the regulation of stormwater and other types of urban runoff. Urban runoff is primarily caused by non-point source pollutants, such as urbanization and agriculture, which now contribute a larger portion of many kinds of pollutants into our waters. Non-point source pollutants originate from diffuse sources and are the result of man's uses or disturbances of land.

Non-point source pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants (from lands used for urban development, agriculture, industry, boating and shipping, waste disposal sites, etc.), finally depositing them into lakes, rivers, wetlands, coastal waters, and even underground sources of drinking water.

To reduce pollution in urban runoff, the San Diego RWQCB issued an NPDES Stormwater Permit in 2001 to the 18 incorporated cities within San Diego County, the County of San Diego, and the San Diego Unified Port District. These agencies, with the County of San Diego as the lead agency, are collectively known as the "copermittees." The permit ordered the copermittees to collaborate to control waste discharges in stormwater and other urban runoff from the Municipal Separate Storm Sewer Systems (MS4) that drain into the watersheds of the region¹⁴. In August of 2003, the 2001-01 Municipal Stormwater Permit (Permit), was amended to include the San Diego Regional Airport Authority.

The Permit requires in part, that the copermittees develop and implement two water quality programs to address the pollution found in urban stormwater runoff: the Jurisdictional Urban Runoff Management Program (JURMP) and the Watershed Urban Runoff Management Program (WURMP).

¹³ Information on the Basin Plan can be found at www.swrcb.ca.gov/rwqcb9

¹⁴ NPDES Order No. 2001-01

The JURMP, which is developed and implemented by each municipality, describes what the jurisdiction is doing within its own borders to address the pollution levels found in their MS4s. The program establishes clear minimum stormwater management requirements and controls for four primary activities: commercial, industrial, municipal, and new construction/development. In addition, the copermittee's have prepared a model Standard Urban Stormwater Mitigation Plan (SUSMP) that addresses the JURMP requirements that apply to new construction and development activities. The SUSMP requires the development and implementation of a program addressing urban runoff pollution issues in development planning for public and private projects.

The WURMP, which is developed through coordination and collaboration by the copermittees within a particular watershed, includes the identification of high-priority water quality issues and pollutants found within the watershed and a list of activities that target those water quality issues. Each municipality has developed and implemented a JURMP. Furthermore, a WURMP has been developed and implemented for every watershed within the San Diego Hydrologic region.¹⁵

The NPDES permits also require regular water quality monitoring. They require assessments to ensure compliance with the permit standards. As the permits mandate, there are several local jurisdictions and government agencies throughout the San Diego region that perform water quality assessments. In addition, there are non-profit organizations and other interested parties that routinely assess water quality.

In 1999, Caltrans was issued an NPDES permit¹⁶, similar to the NPDES permit issued to the copermittees. The Caltrans permit requires development of a program for communication with local agencies, and coordination with other MS4 storm sewer system programs where those programs overlap geographically with Caltrans facilities. As part of the permit, Caltrans is required to create a Stormwater Management Plan (SWMP) that is used to outline the regulation of pollutant discharge caused by current and future construction.

As part of *MOBILITY 2030*, the Regional Transportation Plan (RTP), SANDAG prioritizes transportation improvement projects, including highway projects built by Caltrans. These projects are required to comply with water quality regulations outlined in the NPDES permit. Through its involvement with Caltrans and transportation planning within the region, SANDAG has a role to play in compliance with Caltrans' NPDES permit and water quality planning throughout the region.

KEY ISSUES

Continued resource planning in all jurisdictions is necessary to provide a long-term management strategy to protect water resources in each watershed. All jurisdictions within each watershed must continue to work together to adequately protect the region's water bodies now and in the future.

Intergovernmental Coordination

The quality of our water, as well as the health of our plant and animal species, is affected by policy decisions made at all levels of government. To improve water quality through better watershed management, we must also change the way that we look at political boundaries and land use

¹⁵ Copies of the WURMPs can be found on the Project Clean Water website at www.projectcleanwater.org

¹⁶ NPDES Order No. 99-06-DWQ

policies. The region's effort with multiple jurisdictional habitat conservation programs is a case in point. Jurisdictions worked together on a comprehensive approach to achieve a biologically functioning preserve design.

Watershed planning should continue the same approach. As seen above, the Permit calls for collaboration and coordination of water quality programs, such as the WURMP. Continued support and funding of programs laid out in the WURMP are also needed for implementation and overall betterment of our shared watersheds.

Watersheds are a complete ecosystem where change to one part of the system can affect other parts. Additional cooperation and a comprehensive integrated approach that continues to focus on the identification of issues and concerns within the watershed, not just the jurisdiction, could reduce impacts to water quality throughout the region. In addition, by coordinating the habitat conservation programs with watershed management, the region will be in a better position to address erosion control measures, native plant reseeding efforts, urban runoff issues, and other issues that impact water quality.

It is important for local jurisdictions and agencies to continue to share watershed data and information to minimize duplication of any water quality improvement efforts. This leads to more cost-effective and efficient watershed management, resulting in a higher likelihood of meeting the beneficial uses of the region's water bodies.

Monitoring and Management Programs

Coordinated management programs and water quality assessments identify current pollution problems. These assessments of current conditions should be used to create a baseline against which water quality monitoring may be measured in the future. Once monitoring programs have identified pollutants and pollutant sources, management programs should be adopted and Best Management Practices (BMPs), such as site design, source control, and treatment control, should be implemented as a way to meet and/or exceed prescribed water quality standards.

Urban Runoff

Urban and stormwater runoff has been identified under local, regional, and national research programs as the principle cause of water quality problems in most urbanized regions. Runoff from precipitation or human activities flows untreated into our waters and often contains a host of contaminants such as trash and debris, bacteria and viruses, oil and grease, sediments, nutrients, and metals.¹⁷

In addition, modifications of natural streams and the increase in impervious surfaces such as asphalt and concrete contribute to polluted urban runoff. This also has negative impacts on our region's water



¹⁷ City of San Diego Storm Water Pollution Prevention Program

bodies and can directly affect the health of habitat preserve areas and the coastal near-shore habitats.

Polluted urban runoff can also be a serious and major source of sediment contamination in our region's receiving waters and significantly affect public health. The most likely path of exposure is through drinking water and the food chain, by eating fish and shellfish that has become contaminated through pollutants in the sediments.

To protect the health of the water bodies and watersheds within the region, we need a new approach to runoff management — an approach that addresses new possibilities for pollution prevention and source control, instead of focusing solely on the treatment of urban runoff. The Regional Water Quality Control Board states:

“Conducting education practices and incorporating pollution prevention practices into project planning and design activities are generally more effective [than treatment practices because they] require less maintenance, and are more cost-effective in the long term Treatment strategies should only be used to address unavoidable loadings or where they are truly cost-effective.”¹⁸

The implementation of educational programs plays a key role in reducing urban runoff. Educational programs, such as the City of San Diego's "Think Blue" program, that raise stormwater awareness are important in educating residents, businesses, and industries on how their habits affect the quality of our region's water bodies. For example, it is important residents understand that when they wash their cars, the oil and dirt that comes off flows down the driveways and streets into a gutter that goes into a storm drain, which flows directly to the ocean.

Wastewater

The sewer system and storm drain system are not connected. Unlike storm drain water that goes untreated, the water that is flushed down sinks or toilets flows to a wastewater treatment plant where it is treated and filtered. Most cities in the San Diego region, such as the Cities of San Diego, Oceanside, and Escondido, have a wastewater department or division that operates and maintains a sanitary sewer collection system. Some cities treat their own wastewater, while others transport their wastewater to treatment plants in other cities. There are also sanitation districts, municipal water districts, and community service districts that provide wastewater services to various areas in the San Diego region.

The operation of the wastewater system in the San Diego region varies between cities and districts. There are 42 wastewater agencies in the San Diego region. There are 14 city wastewater departments, ten water or municipal water districts, eight sanitation or sanitation maintenance districts, five community service districts, four other districts (including Camp Pendleton), and one public utility district.

Many rural areas within the region, Julian, Pine Valley and Campo for example, use "on-site" treatment and disposal systems, such as septic tanks, which utilize a settling tank and a wastewater distribution system. These septic tank systems can potentially have negative impacts on water

¹⁸ RWQCB, <http://www.swrcb.ca.gov/nps/docs/cammpr-urb.doc>

quality and public health because the clarified water from the system drains into the soils and eventually into the groundwater. The RCP advocates channeling much of the region's future growth into existing urban areas where wastewater infrastructure exists. Any future developments in rural areas of the region will have to look at potential impacts on the soil and groundwater of additional septic tank systems. For more information on wastewater, please refer to the Sewage Collection, Treatment, and Discharge System (Wastewater) Appendix of the IRIS (Chapter 7).

Development and Urban Planning

The location and design of new development has a significant effect on the amount and type of pollutants that flow through watersheds to coastal water bodies and the ocean. Plant and animal species are also affected by where and how homes, new industry, and infrastructure systems are built, as well as where land is conserved. Effective land use planning can incorporate measures to limit the amount and type of development that occurs within particular watersheds and reduce the impacts on downstream communities. Jurisdictions within the San Diego region should continue their efforts to require urban and suburban developers to implement BMPs within their project boundaries. Local agencies can learn from the successes and failures of BMPs applied in developments to date to guide future policies on such measures.

Funding

A recurring theme when it comes to the funding of urban runoff programs is the lack of overall funding availability. Currently there is no specifically dedicated source of revenue for stormwater infrastructure at the regional level. Compounding this problem is the fiscal implication of the requirements of the NPDES permit. Local jurisdictions must comply with this unfunded mandate, while continuing to meet the financial needs of current services and programs. Additional funding sources must be identified to consistently support all the needs of the permit as well as additional programs adopted through comprehensive watershed management.



Drinking Water

Water imported from the Colorado River already contains some level of pollutants before it reaches our storage reservoirs. That water can be further polluted in the reservoirs. Continued development within our watersheds, and along our rivers and reservoirs, affects water quality and therefore affects local reservoirs and the quality of the water stored within them. Rainfall and melting snow flow to our rivers, become trapped in the region's dams, and is then stored in local reservoirs, such as the Loveland and Sweetwater Reservoirs in the San Diego region. These reservoirs store billions of gallons of water each year and are used as a water supply for almost three million local residents.

Drinking water quality is affected by the environmental conditions within the region's watersheds. Historically, the U.S. Public Health Service mandated that the most pure and pristine water supplies be used for drinking water. However, urbanization in the watershed changes the characteristics of water quality by adding contaminants from runoff and other sources. Traditional water treatment plants remove most of these contaminants but are not designed to remove solvents such as MTBE,

and certain pesticides. The Safe Drinking Water Act (SDWA) requires that information be made available so the public can learn how to help protect its drinking water and make personal health decisions about it. When SDWA was amended in 1996, numerous provisions were added that give consumers greater access to information about, and opportunities for involvement in, drinking water issues.

The U.S. Environmental Protection Agency (EPA) sets health-based standards to protect the nation's drinking water from unsafe amounts of contaminants. The standards are part of SDWA's "multiple barrier" approach to protecting drinking water as it travels from its source to your tap. EPA delegates responsibility for ensuring that the health standards are met to California's Department of Health Services (DHS).

California Health and Safety Code requires the DHS to develop and implement a program to protect sources of drinking water, specifying that the program must include both a source water assessment program and a wellhead protection program¹⁹. The 1996 federal Safe Drinking Water Act amendments require each state to develop and implement a Source Water Assessment Program. A source water assessment is an evaluation of a public drinking water source to determine the human-caused activities to which the source is most vulnerable.

Source Water Assessments examine each of the region's drinking water sources (the rivers, lakes, groundwater, etc. from which water systems derive their water) to determine how susceptible they are to contamination. DHS makes the results of these assessments available to the public when they are completed. These assessments need to be updated in the future to maintain accuracy if land use or other changes occur in the watershed. Consumer confidence reports, prepared annually by each community water system, will include a summary of the Source Water Assessments once done, and may include more information, such as the source of the water supply, the level of any regulated contaminants detected in the water, the health effects of contaminants detected above the safety limit, and the water system's compliance with other drinking water regulations.

Source Water Protection is everyone's responsibility. Protecting a community's drinking water source happens in many ways. Local government and water suppliers create inventories of potential pollution threats to the source of drinking water. The public can work with them to periodically update the assessment to include any land use changes that may occur over time. To ensure that the water entering our regional reservoirs and treatment facilities is safe to drink, jurisdictions and other local agencies should continue to work together with the state and federal government to identify priorities and concerns in local watersheds.

WATER QUALITY POLICY OBJECTIVES AND RECOMMENDED ACTIONS

Policy Objectives

1. Restore, protect, and enhance the water quality and the beneficial uses of local coastal waters, inland surface waters, groundwaters, and wetlands.

¹⁹ According to the U. S. Environmental Protection Agency, a Wellhead Protection Program is a pollution prevention and management program used to protect underground based sources of drinking water.

2. Reduce or eliminate pollutants at their source before they enter our region's water bodies.
3. Protect local drinking water sources.

Recommended Actions

Planning, Design, and Coordination

1. Evaluate the effectiveness of Best Management Practices (BMPs) and revise policies as needed to ensure they best meet the needs of the region.
2. Encourage and support land use planning at the watershed level in order to improve identified water quality issues within the watershed.
3. Integrate drinking water source protection guidelines into the development process.

Program and Project Development and Implementation

1. Continue to develop, support, and implement collaborative programs to improve the health of shared watersheds.
2. Create a regional water quality assessment database that can be used as a baseline against which future water quality can be measured.
3. Educate the community about the importance of eliminating pollutants at their source and the positive impacts they can make through changes in their daily activities on the water quality of the ocean, drinking water reservoirs, and other bodies of water.
4. Establish urban form design guidelines that identify measures to reduce the impact of urban runoff.
5. Evaluate the quality of surface water bodies and develop and implement programs to ensure that no community is disproportionately negatively affected.
6. Develop a framework for assessing the effectiveness of jurisdictional stormwater programs.

Funding

1. Secure a reliable funding source to ensure development and implementation of comprehensive regional stormwater plans and programs.
2. Secure funding to comply with state and federal mandated regulations and enhance the stormwater infrastructure throughout the region.
3. Secure funding for watershed management efforts throughout the region.

SHORELINE PRESERVATION

EXISTING SETTING

The San Diego region's shoreline, including the beaches, bluffs, bays, and estuaries, is a significant environmental and economic resource, locally and globally. It is an integral part of the area's ecosystem, interconnected with the near-shore ocean environment, wetland habitats, and water quality.



Beaches are a priceless recreational resource and a key part of the region's positive image and overall quality of life. Beaches also protect important public infrastructure such as parks, roads, and rail lines. However, the San Diego shoreline is an erosional coast, which means that it constantly wears away. This is a shoreline response to the forces of the ocean and the atmosphere. This process is further accelerated by urban development that traps or restricts natural sediment from flowing downstream through the watersheds to the ocean. Episodic and site-specific coastal retreat, such as bluff collapse, is inevitable, although some coastal areas remain stable for many years. Most of the San Diego shoreline consists of narrow beaches backed up by steep sea cliffs. The beaches and cliffs have for thousands of years been eroded by ocean waves and rising sea levels. The San Diego region's beaches will continue to suffer serious erosion, thereby reducing, and eventually almost eliminating, their physical and economic benefits.

Some intervention projects have been successful in slowing erosion and widening beaches, while others have been harmful. Natural sand supply to the beaches has been significantly altered as a result of coastal development, including the building of dams, seawalls, and the removal of sand and gravel through extraction operations. Where beaches were once fed by continuously through the region's watersheds, our beaches' natural supply of sand has been significantly diminished by flood control structures, dams, water quality control devices, and other such mechanisms. Seawalls have further reduced natural sand supply at the beach by reducing the rate of bluff erosion, necessitating active management of our coastline to maintain and/or reestablish historic beach widths to prior levels. Ongoing management of sand supply will be required to maintain beaches of historic widths in this region.

The San Diego region's nearshore environment, which supports a large and diverse array of species and habitats, is directly linked to the beaches that are so important to the region. Activities that occur on land adjacent to the ocean, such as sand replenishment, and development further inland can affect nearshore marine habitats such as kelp forests and seagrass bed, as well as species that depend on these habitats for food and shelter, including lobsters, mussels, and rockfish.

EXISTING PLANS AND PROGRAMS

Shoreline Preservation Strategy

In 1993, the SANDAG Board of Directors adopted the Shoreline Preservation Strategy, a long-term vision for restoring the region's beaches to their historic widths. The strategy is the region's response to concerns about erosion voiced by thousands of citizens in both coastal and inland San Diego County.

The Shoreline Preservation Strategy proposes an extensive beach building and maintenance program for the critical shoreline erosion areas in the region. The strategy contains a comprehensive set of recommendations on the beach building program, and on financing and implementation.

To support ongoing and future beach nourishment efforts, SANDAG enacted a shoreline monitoring program in 1996. This program consists of semi-annual beach profile surveys, semi-annual aerial photographs, and monthly beach width measurements. The beach profile surveys are conducted during the transitions between winter and summer wave seasons (stronger swells from the north pull sand offshore during the winter months while more gentle southern swells push sand back onshore during the summer months). This monitoring helps provide an indication of what is



happening to the coastline, both seasonally and over time. The comprehensive approach to monitoring the shoreline provides data that can demonstrate the long-term effectiveness of beach replenishment as a means of protecting the long-term health of the shoreline.



The Shoreline Preservation Strategy set the stage for the successful implementation of the Regional Beach Sand Project in 2001, which deposited over two million cubic yards of clean, beach-quality sand in key areas along our coastline. Our shoreline will require continuing active management and annual funding levels of around \$7.5

million over the next decade or more to restore and maintain the severe sand deficit along the region's coastline.

San Diego Nearshore Habitat Inventory

Shortly after completion of the Regional Beach Sand Project, SANDAG and the California Coastal Conservancy initiated the development of the San Diego Nearshore Habitat Inventory. This comprehensive marine database is intended to provide a central clearinghouse of nearshore habitat information for the San Diego region. The database is intended to guide future decisions on projects that may affect the nearshore ocean environment.

KEY ISSUES

Erosion

The region's shoreline is continuing to erode. Although erosion is a natural condition, the process has been accelerated by activities that have severely limited the amount of sediment reaching the beaches. For this reason, the region needs to address the erosion problem in the short- and long-term.

- § **Short-term Sediment Management** - Beach nourishment is one approach to addressing the erosion problem in the short-term. Although one demonstration project was completed in 2001, a strategy to continue with more beach nourishment needs to be implemented.
- § **Long-term Management** - In the long-term, development regulations, including water supply management, runoff control, and coastal plain development should consider the impacts those decisions have on coastal erosion, as well as on other natural systems.

Near-shore Habitat Management

In order to successfully implement more beach nourishment projects in the future, the region needs to better understand the natural resources that are located in the near-shore, which includes kelp beds, surf grass, and reefs. The integrity of the near-shore resources cannot be compromised when placing sand on the region's beaches.

SHORELINE PRESERVATION POLICY OBJECTIVES AND RECOMMENDED ACTIONS

Policy Objective

Preserve and enhance the region's beaches and nearshore areas as environmental and recreational resources.

Recommended Actions

Planning, Design, and Coordination

1. Continue to implement the Regional Shoreline Preservation Strategy.
2. Prepare and implement habitat conservation plans for nearshore areas.

Program and Project Development and Implementation

1. Improve existing programs and develop new programs to restore and maintain beach sand.
2. Explore new programs to help restore natural systems, thereby reducing sand depletion.

Funding

Secure regional funding to continue sand replenishment activities consistent with the Regional Shoreline Preservation Strategy.

AIR QUALITY

EXISTING SETTING

There are 15 air basins in the State of California. An air basin is a land area with generally similar meteorological and geographic conditions throughout. Areas within an air basin are considered to share the same air masses and therefore are expected to have similar air qualities. To the extent possible, air basin boundaries are defined along political boundary lines and include both stationary and mobile sources and receptors of pollution. Stationary sources include power plants as well as manufacturing and industrial facilities that emit air pollutants. Mobile sources are sources of air pollution such as automobiles, trucks, off-road vehicles, boats, and airplanes. The San Diego Air Basin encompasses the entire county of San Diego.

In general, air quality in the San Diego region has improved dramatically over the past two decades, but continued efforts are needed to sustain this positive trend and ensure clean air. The region has seen remarkable reductions in common air pollutants such as carbon monoxide (CO), ozone, oxides of nitrogen (NO_x), and reactive organic gasses (ROG), as well as reductions in more harmful, toxic air contaminants. The air quality improvement is the result of an ambitious undertaking at the federal, state, and local levels to implement the federal and state Clean Air Acts.

Emission control efforts have resulted in cleaner vehicles, power plants, factories, and consumer products, as well as transportation plans that integrate transit and other alternatives to solo vehicle travel. Still, more reductions in air contaminant emissions are needed to meet and maintain federal and state clean air standards for ozone and fine particulate and to reduce health risks from exposure to toxic air contaminants.

Exposure to polluted air can cause health problems, especially in children and adults who are active outdoors, and in people with respiratory diseases, such as asthma. According to the Air Resources Control Board, air pollution in California contributes annually to as many as:

- § 17,000 premature deaths,
- § 55,000 hospital admissions,
- § 1.3 million asthma attacks, and,
- § 3.3 million lost work days.

Air quality standards are set by the state and federal governments to provide an adequate margin of safety in protecting public health.

Sources of Pollution

Smog

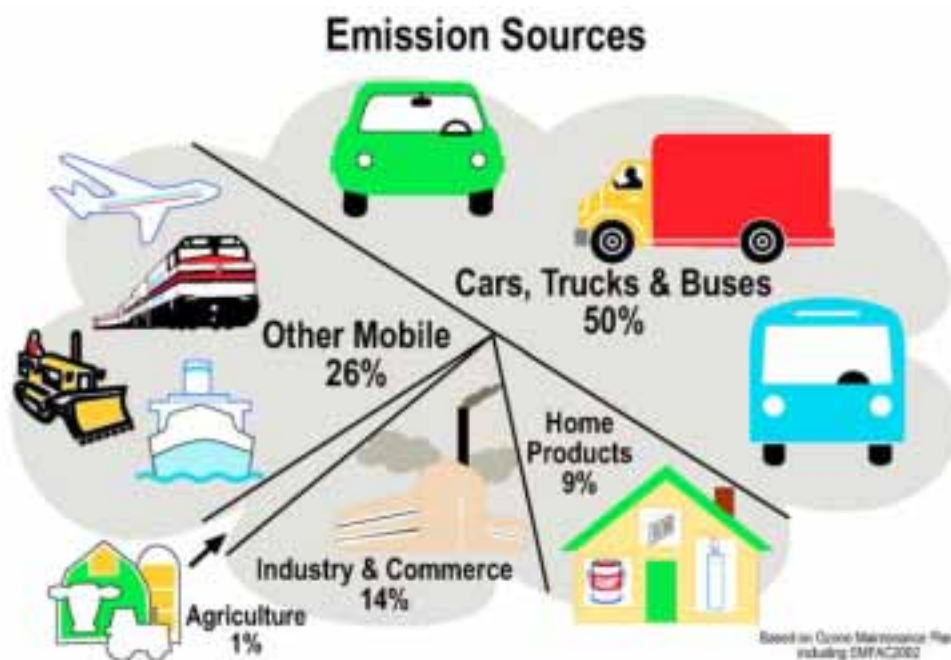
Smog is the San Diego region's primary air pollution problem. Oxides of Nitrogen (NO_x) and Reactive Organic Gases (ROG) react in the presence of sunlight to form smog. These pollutants are called ozone precursors.

Ozone is the main component of smog. Ozone is caused by emissions from cars, power plants, chemical plants, and other sources. In addition to generating ozone locally, pollution from the Los Angeles region adversely affects our ozone levels.

On-road motor vehicles, such as autos, trucks, and buses generate half of the smog-forming emissions in the San Diego region. Other large sources of air pollution are off-road mobile sources, such as utility engines, construction and farm equipment, ships, airplanes, and trains. All mobile sources currently generate about three-fourths of the smog-forming pollutants.

Combined, stationary sources and area-wide sources account for almost one-fourth of the region-wide smog-forming emissions. Emissions from area-wide sources are individually small and spread over a wide area. They are mostly residential sources, including consumer products, fireplaces, furnaces, and water heaters. Figure 4D.7 illustrates the sources of smog-forming emissions in 2001.

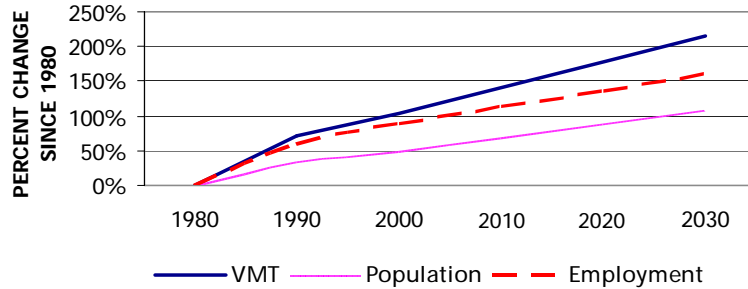
FIGURE 4D.7—SMOG-FORMING POLLUTANTS: 2001 EMISSIONS SOURCES



Source: San Diego County Air Pollution Control District, *Air Quality in 2002*, published in 2003

Between 1980 and 2000, motor vehicle travel in the San Diego region increased at a faster rate than population and employment. Vehicle miles traveled (VMT) slightly more than doubled during that period while population grew by 50 percent and employment increased by 89 percent. These factors partially offset the benefits of cleaner vehicles. Figure 4D.8 illustrates the growth in travel, population, and employment over the past two decades.

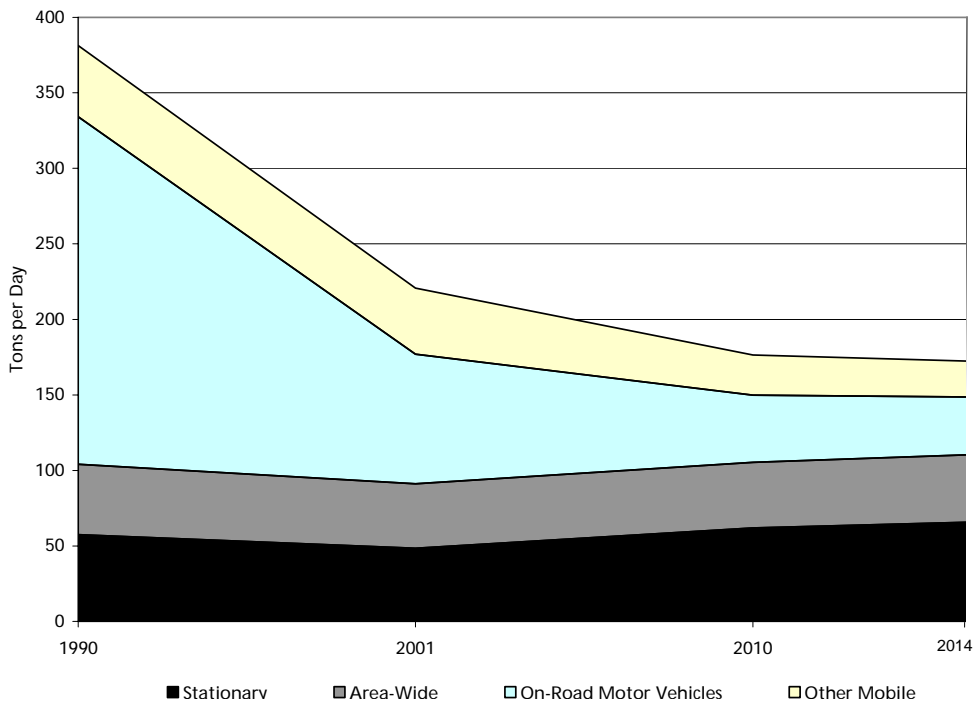
FIGURE 4D.8—GROWTH IN VEHICLE MILES TRAVELED, POPULATION, & EMPLOYMENT



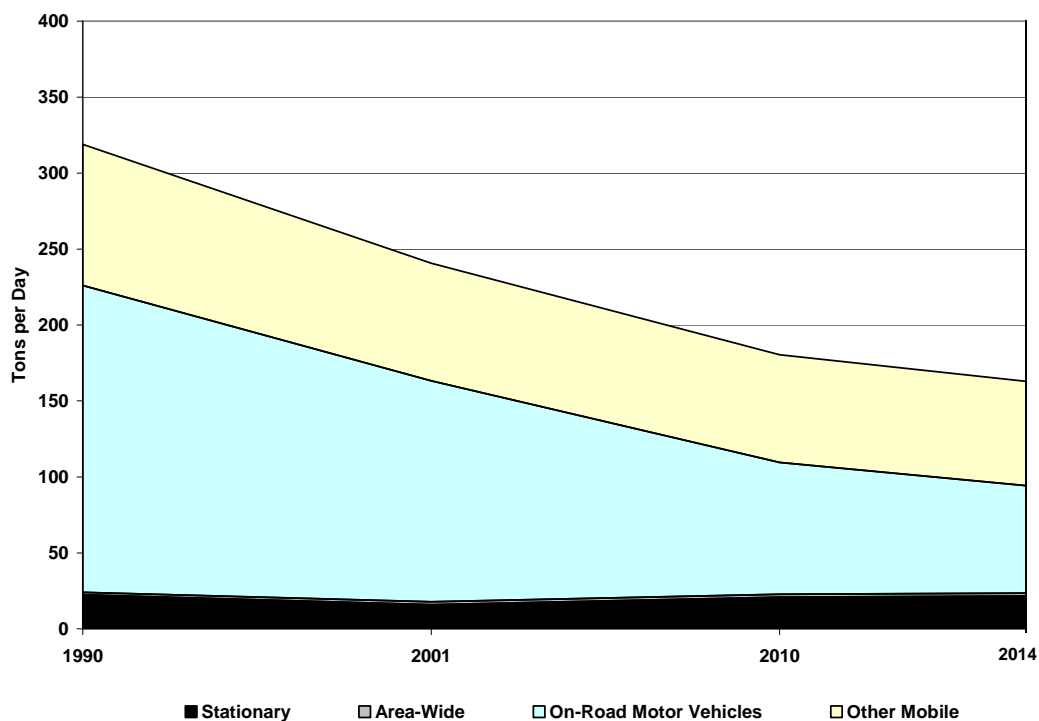
Source: SANDAG, 2030 Regional Transportation Plan, 2003

Smog-forming emissions from mobile sources are expected to drop by 46 percent between 2001 (federal one-hour ozone standard attainment year) and 2014, mainly due to the state’s low emission vehicle requirements and cleaner fuels. In the same period, stationary sources are projected to increase 39 percent due to anticipated strong economic expansion, while area-wide sources would grow by nearly six percent. Figures 4D.9 and 4D.10 show the projected trends for ROG and NOx.

FIGURE 4D.9—SAN DIEGO REGION TRENDS IN EMISSIONS OF REACTION ORGANIC GASES (ROG)



Source: San Diego County Air Pollution Control District, Ozone Redesignation Request and Maintenance Plan for San Diego County, 2002

FIGURE 4D.10—SAN DIEGO REGION TRENDS IN EMISSIONS OF OXIDES OF NITROGEN (NO_x)

Source: San Diego County Air Pollution Control District, Ozone Redesignation Request and Maintenance Plan for San Diego County, 2002

Fine Particulates

Airborne fine particulates are also a concern. The San Diego region does not comply with the state standard for PM₁₀ (particles that are 10 microns or less in diameter). Smaller particles are a concern because they are found to cause more serious health problems. PM₁₀ emissions are generated predominantly from area-wide sources (e.g. dust from vehicle travel on unpaved and paved roads and from construction and demolition operations). Exhaust emissions from mobile sources, including gasoline and diesel-powered vehicles, also contribute to PM₁₀ emissions.

New Air Quality Standards

The U.S. EPA has added two new standards to protect public health: measuring ozone levels over eight-hour periods and measuring smaller particulate matter (PM) in the air. The more stringent eight-hour ozone standard will protect the public against longer exposure periods. The new fine particulate matter standard (PM_{2.5}) will focus more protection against the smaller particles, which pose an increased health risk.

The U.S. EPA has designated the San Diego region as non-attainment for the eight-hour ozone standard. This designation takes effect on June 15, 2004. The PM_{2.5} designation is expected in late 2004.

PM_{2.5} particles can invade the respiratory system's natural defenses and deposit deep in the lungs, worsening heart and lung disease. Combustion from vehicles, diesel engines, and industrial facilities is a major source of fine particulate matter.

In 1998, the California Air Resources Board (ARB) identified PM exhaust from diesel-fueled engines as a toxic air contaminant, based on data linking exposure to diesel PM with increased incidence of lung cancer. As a result of local and state emission control efforts, ARB estimates that health risks from diesel PM have decreased by more than 50 percent in the past decade. However, diesel PM remains the primary contributor to health risks from urban toxic air pollution.

ARB has developed a Diesel Risk Reduction Plan, which intends to reduce diesel PM emissions and associated cancer risks throughout the state by 75 percent by 2010 and by 85 percent by 2020. Mobile sources contribute the majority of diesel PM emissions and, therefore, will be the most affected. In addition, existing and new stationary diesel-fueled engines will be subject to new performance standards.

Several common air pollutants are regulated under the state and federal Clean Air Acts and are known as "criteria" air pollutants. State and federal standards for carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead have been attained. The federal PM₁₀ standards were never violated in the San Diego Air Basin, but the area was designated as "unclassifiable" before monitoring data were available to show the attainment status. Areas with levels that exceed federal or state standards for particular pollutants are designated as non-attainment areas.

Table 4D.4 outlines the air quality designations in the San Diego Air Basin for all criteria pollutants:

TABLE 4D.4—SAN DIEGO AIR BASIN: AIR QUALITY DESIGNATIONS

| POLLUTANT | FEDERAL DESIGNATION | STATE DESIGNATION |
|--|---|--------------------------|
| Ozone (one-hour) | Attainment/ Maintenance | Non-Attainment |
| Ozone (eight-hour) | Non-Attainment (effective 6/15/04) | No state standard |
| Carbon Monoxide | Attainment/ Maintenance | Attainment |
| Particulate Matter 10 microns or less in diameter (PM ₁₀) | Unclassifiable | Non-Attainment |
| Particulate Matter 2.5 microns or less in diameter (PM _{2.5}) | Will be designated Non-Attainment in late 2004 | Non-Attainment |
| Nitrogen Dioxide | Attainment | Attainment |
| Sulfur Dioxide | Attainment | Attainment |
| Lead | Attainment | Attainment |
| Sulfates | (No federal standard) | Attainment |
| Hydrogen Sulfide | (No federal standard) | Unclassified |
| Visibility | (No federal standard) | Unclassified |

Source: San Diego County Air Pollution Control District, 2002 Annual Report, 2003

NOTE: Unclassifiable, under federal regulations, and Unclassified, under state regulations, represent the same concept: not enough data are available to determine the attainment or non-attainment status of the air basin.

EXISTING PLANS AND PROGRAMS

Federal, state, and local government agencies are responsible for air quality within the San Diego region by implementing the federal and state Clean Air Acts.

The U.S. Environmental Protection Agency (EPA) requires that each state with non-attainment areas develop plans to attain the National Ambient Air Quality Standards (NAAQS) by a specified deadline. These attainment plans are called State Implementation Plans. The San Diego Air Pollution Control District (APCD) prepares the San Diego portion of the California State Implementation Plan (SIP). Once the air quality standards are attained, further plans – called Maintenance Plans – are required to demonstrate continued maintenance of the national standards.

SANDAG, as the Metropolitan Planning Organization (MPO) for the San Diego region, must demonstrate that *MOBILITY 2030* and the Regional Transportation Improvement Program (RTIP) are in conformity with the SIP for meeting air quality standards. On-road motor vehicle emissions from planned transportation projects must be below a target level of emissions for both carbon monoxide and one-hour ozone. This is known as an “emissions budget.” Conformity to the eight-hour ozone standard must be demonstrated once this standard becomes effective. The U.S. Department of Transportation (DOT) monitors the conformity of *MOBILITY 2030* and RTIP.

In addition, local jurisdictions have the ability to examine land use policies affecting the siting of facilities that emit toxic air pollutants through the development of their general plans.

Ozone standards are more stringent in California than at the federal level. For this reason, the San Diego Air Basin has been federally designated as a maintenance area for carbon monoxide and for the federal one-hour ozone standard, but it has been designated as a non-attainment area under the more stringent state one-hour ozone standard. The San Diego region met the federal one-hour ozone standard in 2001, and in July 2003, the EPA approved its Maintenance Plan.

As stated above, the more stringent state one-hour ozone standard has not been met. The APCD’s Regional Air Quality Strategy (RAQS) outlines efforts to achieve this state standard. Overall, the RAQS describes the tactics for controlling stationary, area-wide, and mobile sources of pollution — including transportation control measures — to achieve the federal and state air quality standards.

KEY ISSUES

Meeting Air Quality Standards in Our Growing Region

Air quality in the San Diego region has improved dramatically over the past two decades, but continued efforts are needed to sustain this positive trend and ensure cleaner air within the context of continuing regional growth in both population and motor vehicle travel. The state standards for ozone and PM₁₀ have not been met. The air basin also will have to comply with the new federal eight-hour ozone and PM_{2.5} standards. The San Diego region needs to concentrate its efforts in order to meet these standards. The ability to attain these standards will depend on technically feasible and cost-effective emission reductions from all sources, including those under exclusive federal or state authority such as vehicles and consumer products.

Reducing Air Pollution

Exposure to polluted air can cause health problems, especially in children and adults who are active outdoors, as well as to people with respiratory diseases, such as asthma. Pollutants are caused by on-road motor vehicles, such as autos, trucks, and buses; off-road mobile sources such as utility engines, ships, airplanes, and trains; and stationary sources such as power plants and manufacturing and industrial facilities. Many pollutants are also generated from our homes. Fireplaces and aerosol consumer products, for example, are area wide sources of air pollution.

Environmental Justice

Low income and minority communities may be more likely to experience air pollution caused by the siting of facilities, such as freeways and industrial parks, and services, such as dry cleaners and gas stations, in their neighborhoods near schools and homes. The region needs to work hard to ensure that all our residents, regardless of income or ethnicity, share the benefits of a healthy environment.

AIR QUALITY POLICY OBJECTIVES AND RECOMMENDED ACTIONS

Policy Objective

Achieve and maintain federal and state clean air standards.

Recommended Actions

Planning, Design, and Coordination

1. Implement transit-oriented development to reduce automobile trips.
2. Encourage and create incentives for energy-efficient design in new development.
3. Promote reduction of industrial emissions through use of least-polluting cost-effective processes and technologies.
4. Promote reduction of mobile source emissions through the adoption and enforcement of fuel specifications and the improvement of engine and emission equipment systems.

Program and Project Development and Implementation

1. Continue to implement the Regional Air Quality Strategy to achieve federal and state air quality standards.
2. Implement emission control programs for stationary sources.
3. Site industries and high-traffic corridors in a way that minimizes the potential impacts of poor air quality on homes, schools, hospitals and other land uses where people congregate, and implement programs to ensure low income and minority populations are not disproportionately negatively affected.

4. Implement the Transportation Control Measures contained in the federal and state air quality plans such as ridesharing, transit improvements, traffic flow improvements, and bicycle facilities and programs.
5. Implement programs and needed infrastructure to increase the availability and usage of energy-efficient vehicles such as hybrid electric vehicles, electric vehicles, or those that run on alternative fuels.

CONCLUSION

Clean air and water, viable natural habitats, and a well-managed shoreline are critical to the health and well-being of our residents as well as to the economic prosperity of the region. In order to ensure the long-term viability of the environment, effects from urbanized areas to natural systems need to be minimized. Implementation of the actions outlined in this chapter will move the region closer to maintaining the natural areas that make this region unique. In addition, focusing on these components of the natural environment can provide a context to move the region toward establishing a watershed approach to planning and preserving these vital, natural systems.

ECONOMIC PROSPERITY

Creating Opportunities for a Rising Standard of Living

2030 VISION

Our region is economically diverse. We have an educated and well-trained workforce, an innovative business culture, and excellent universities. Our transportation, water, and energy infrastructure systems serve the needs of the greater region while meeting the demands of the modern global marketplace.

The region's K-12 school system has the resources to provide well-trained teachers, deliver education programs that meet the needs of learners at all skill levels, and parents and families are committed partners in the education process. The region has a highly educated and well-trained workforce and all segments of society are able to participate in our economic prosperity. Our workforce is capable of adapting to the ever-changing needs of modern industry. Local businesses work closely with schools to develop programs that fit their needs.

We embrace our economic and social diversity. A majority of our residents have gainful employment with improved purchasing power and increasing economic prosperity. These attributes place our region among the most competitive in the world and have contributed to a significantly higher and sustainable standard of living for all our residents. Environmentally-friendly and sustainable business practices have become a hallmark of the region.

INTRODUCTION

Presidential, gubernatorial, and local elections are often decided on the candidates' economic policies and on the state of the economy itself. Growth and migration directly correlate with fluctuations in national and regional economies. The reputations of cities and regions are often based on the strength of their local industries. People, constantly searching for a higher standard of living, count on the economic opportunities provided in their area.



No matter how localized or community-specific our jobs may be, none of us work in a vacuum. We all operate within the broader context of a regional and global economic setting.

Within this context, the San Diego-Baja California binational region faces increasing domestic and global competition. Many people are aware of globalization, but few understand that

regionalization, or the increasing importance of regional economies, is the other side of the coin. As Neal Pierce, a nationally syndicated columnist, and others have observed: Only regions have the necessary scale and diversity to compete in the global marketplace.¹ Individual counties and cities lack the essential infrastructure or a sufficiently skilled labor pool to compete at that level.

In economic terms, our region is directly connected to the greater Los Angeles area; it's our gateway to the domestic and international marketplaces. To our south, we depend on Baja California for an important part of our labor pool. Southwestern Riverside is becoming an increasingly important source of labor and an alternative housing choice for many.

Our relationships with our neighbors influence our regional economic planning process and decisions. On that stage, the San Diego region has the scale and diversity to compete.

To maintain and expand the San Diego region's economic vitality, we need to attract and retain the best and brightest people to live and work here. Research shows that CEOs who are considering relocating their companies are significantly influenced by the quality of life they can expect for themselves, their families, and their employees in a new location. The Regional Economic Prosperity Strategy (REPS) serves as the primary economic element of the Regional Comprehensive Plan (RCP), which applies a quality of life approach to growth management.²

EXISTING SETTING

The recession of the early 1990s reminded us that our economic prosperity should not be taken for granted. Cutbacks in military defense spending further intensified that recession, but the San Diego region eventually emerged from stalled growth in its per capita income levels by 1995, as shown in Figure 4E.1. By monitoring per capita income, we can measure individuals' job quality and purchasing power in the marketplace; thus reflecting workforce health. Economists use real per capita income to measure standard of living.

Figure 4E.1 compares the change in per capita income over time for the region, state, and nation. The way to track change is by setting the standard of living for the region, state, and nation equal to zero in 1980, and then measure the change over time.³ The chart shows that our standard of living is growing slower than the nation's, but at a rate similar to that of the state.

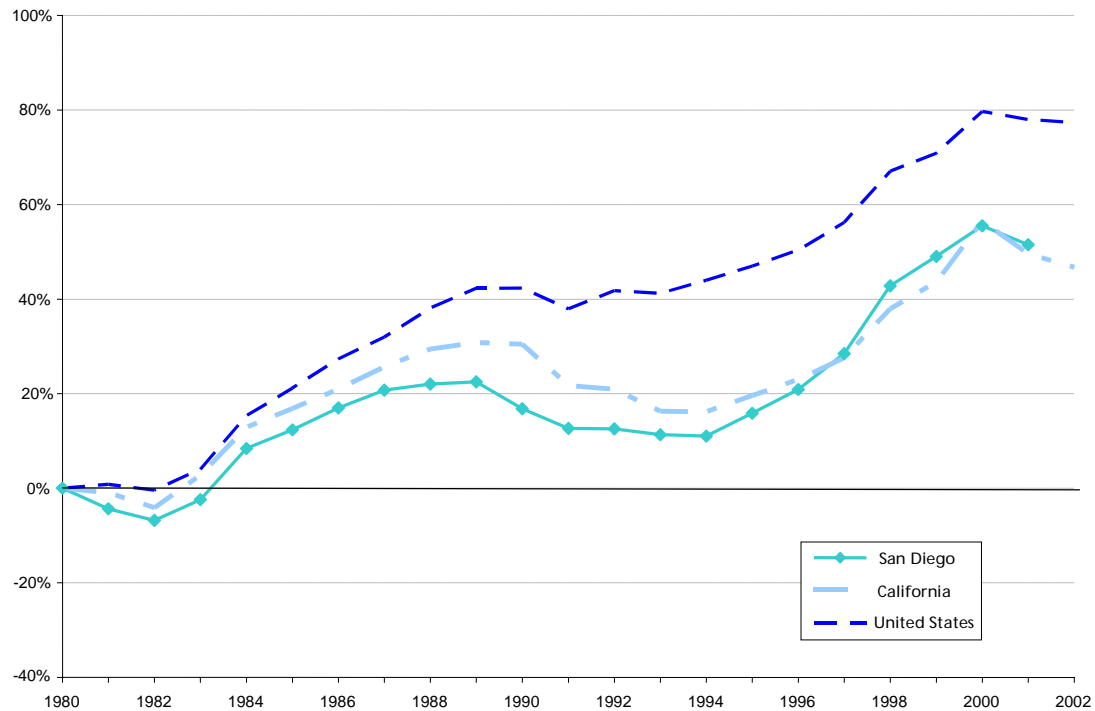
Historically, growth in the San Diego region's real per capita income (adjusted for inflation) has lagged behind the state and nation. Robust growth from the mid-1990's increased income levels for the region, state, and nation. Growth slowed in all areas after 1998, although San Diego displayed a significantly stronger upward trend until 1999. After that, all areas began to enter the most recent recession and have continued to struggle. However, Figure 4E.1 shows that growth in per capita income for the nation outpaced California and San Diego.

¹ *San Diego Regional Economic Prosperity Strategy: Toward a Shared Economic Vision for the San Diego Region*, SANDAG, 1998.

² *San Diego Regional Economic Prosperity Strategy: Toward a Shared Economic Vision for the San Diego Region*, SANDAG, 1998.

³ Yearly variations in growth are measured by indexing the values to 100 (or 0 percent) in 1980, then tracking the annual change over time. The percentage change has been indexed to zero.

**FIGURE 4E.1—SAN DIEGO REGION’S STANDARD OF LIVING
INDEX OF REAL PER CAPITA INCOME IN THE U.S., CALIFORNIA, & SAN DIEGO (1980-2002)**



Source: Bureau of Economic Analysis, SA1-3 Annual State Per Capita Personal Income Series, 2004

Despite our slower growth rate, compared to the U.S. and California, the San Diego region’s real per capita income is slightly higher (refer to Table 4E.1), although it is in the middle when compared to other major metropolitan areas similar to ours.⁴ It is important that the region continue to make investment and policy decisions with the goal of increasing economic competitiveness if we wish to outpace the state and nation in terms of per capita income growth.

**TABLE 4E.1—REAL PER CAPITA INCOME U.S., CALIFORNIA,
& SAN DIEGO (1999-2001)**

| | SD | CA | US |
|-------------|----------|----------|----------|
| 1999 | \$34,726 | \$32,491 | \$30,106 |
| 2000 | \$35,628 | \$34,196 | \$31,091 |
| 2001 | \$35,070 | \$33,286 | \$30,894 |

Source: Bureau of Economic Analysis, SA1-3 Annual State Per Capita Personal Income Series

⁴ SANDAG, Indicators of Sustainable Competitiveness, 2003.

During the recession, the down-sizing of the region's defense industry resulted in a shrinking of the economy and high unemployment. The region saw an exodus of long-time residents seeking work elsewhere.

In search of solutions, economists focused on the idea of fostering specific groups of industries that can add wealth to a local economy while not wholly depending on the size or health of the local market for their own growth. These groups are known as "traded" or export-oriented industry clusters. Industrial clusters are groups of complementary, competing, and interdependent industries. They make money — for themselves, and, indirectly, for the region — primarily through export of goods and services. Economists identified 16 such clusters (described in Table 4E.2) that are not constrained by the size of the local market and are most responsible for setting wage rates in the region. They also drive the expansion of local businesses that provide support services. Maintaining and improving the health of the region's clusters is an integral step towards improving the region's economic prosperity.



Experts forecast continued low levels of unemployment for the region. As such, the quality of new jobs and skills of the remaining workforce becomes increasingly important as we seek to raise incomes. This concept is directly related to the core values and policy objectives of the RCP, which can be simplified into the following: San Diego residents want good jobs and regional employers want skilled employees. The Economic Prosperity Strategy seeks to address both of these areas through infrastructure investments and public policies that promote traded industry clusters, and by focusing on improving the skills and abilities of the local labor force.

At one time, firms depended mostly on local resources such as labor, raw materials, capital, and infrastructure. These resources are known as factor costs, and the firm with the lowest factor costs won. The changing nature of competition now supersedes this historical model. Globalization allows firms to acquire factors such as low-cost labor, raw materials, capital, and even generic scientific knowledge from international markets. Burgeoning technology also helps firms overcome or circumvent weaknesses in local factors. For example, high product quality and extraordinary technical standards can offset high wages.

The most dynamic and innovative companies often outpace the competition, even those entrenched competitors that enjoy economies of scale. Intense competition and close cooperation spur innovation across industries, often spawning the development of entirely new companies and industries. As they develop, cluster firms create demand for new types of products and services, some of which can be supplied by existing or new local firms. In short, the cluster dynamic gives companies and their regions a competitive leg-up against others because clustering helps firms to continually innovate and upgrade.

Industrial Clusters: The San Diego Region's Export Engines



The productivity of all regional economies depends on the sophistication and efficiency of all its industries. All industries contribute to determining individual worker productivity. However, it is important to distinguish between those industries that are primarily local and those that export their products. These two types of industries have very different roles in economic growth.

In the most advanced economies worldwide, one or more “traded” industry clusters — the groups of interdependent industries primarily engaged in exporting goods and services — serve as the driving force of the regional economy. These firms can include companies that make or help make a final product, as well as specialized suppliers and service providers. Clusters include large companies and small companies, both domestic and foreign.⁵

In addition to selling their products and services locally, cluster firms sell globally and bring outside dollars into our region. These dollars drive the regional economy as firms buy products from other sectors in the area. Their employees also spend their paychecks at local stores and restaurants, and buy homes. This is known as the prosperity multiplier effect (not employment multiplier), and in high-tech cluster firms it is exceptionally strong.⁶

Clusters are related to the entire economy, either through transactions that support cluster operations, or through the purchase of items from wages earned at cluster firms. Focusing on clusters represents a prioritization of scarce economic development resources towards those areas that provide the greatest impact. Without healthy clusters, the rest of our region’s economy — retail, services, and government — cannot prosper.

Traded clusters have far greater long-term growth potential. Opportunities for growth in these industries are not constrained by the size of the local market, and they can expand far beyond it. The key to rebuilding our middle-class jobs is the expansion of employment opportunities in our high value-added, traded clusters. High value-added clusters provide the opportunity for the region to recognize significantly larger profits and generate more revenue than in many other types of industries.

During the recession in the early 1990s, some of our emerging clusters expanded rapidly, offering new job opportunities at a time when older industries were contracting. Equally important to creating new jobs are the average earnings per worker in these high value-added clusters, which are typically above the regional average. Our ability to create wealth and high-quality jobs — to

⁵ The term “traded” clusters in the San Diego region was coined by Michael Porter in the “Clusters of Innovation Initiative, San Diego.” The clusters of innovation initiative is a national project sponsored by the Council on Competitiveness. For more information, refer to the Council’s website at http://www.compete.org/nri/clusters_innovation.asp.

⁶ A prosperity multiplier refers to the quality of job creation, while an employment multiplier represents the additional employment that results from economic activity regardless of the type of job. The prosperity multiplier addresses the value of the job to the regional economy and its impact on our standard of living.

create prosperity — throughout our entire economy depends on the health of our regional traded clusters.⁷

Sixteen export-oriented or traded, industrial clusters drive our economy (Table 4E.2). In 2000, the latest year for which information was available, our region's traded clusters employed over 427,613 people, accounting for 32 percent of the region's total employment (1,351,800 jobs).⁸ Due to security concerns, this total excludes the Uniformed Military cluster's employment figures. As shown in Table 4E.2, employment in the cluster industries grew 23 percent between 1990 and 2000, at the same time total employment in the region grew 16 percent.⁹ The Business Services and Visitor Industry clusters employ the most people, while the Recreational Goods, Software and Computer Services, and Biotechnology and Pharmaceuticals were the fastest-growing clusters in the last decade.

**TABLE 4E.2—REGIONAL INDUSTRY CLUSTER EMPLOYMENT CHANGE
SAN DIEGO REGION (1990-2000)**

| | 1990 | 2000 | % CHANGE |
|--|------------------|------------------|------------|
| Recreational Goods | 1,992 | 4,939 | 148% |
| Software and Computer Services | 8,870 | 21,290 | 140% |
| Biotechnology and Pharmaceuticals | 11,422 | 23,056 | 102% |
| Communications | 13,376 | 24,878 | 86% |
| Business Services | 52,447 | 97,062 | 85% |
| Environmental Technology | 3,111 | 4,580 | 47% |
| Entertainment and Amusement | 14,918 | 20,506 | 37% |
| Computer & Electronics Manufacturing | 21,583 | 24,169 | 12% |
| Medical Services | 64,495 | 71,889 | 11% |
| Financial Services | 15,750 | 17,337 | 10% |
| Visitor Industry Services | 76,474 | 83,255 | 9% |
| Horticulture | 6,328 | 6,644 | 5% |
| Fruit and Vegetables | 3,556 | 3,603 | 1% |
| Biomedical Products | 7,363 | 6,256 | -15% |
| Defense and Transportation Manufacturing | 45,023 | 18,149 | -60% |
| Cluster Totals | 346,707 | 427,613 | 23% |
| Regional Employment Totals | 1,163,900 | 1,351,800 | 16% |

Source: California Employment Development Department, LMID, ES 202 data, compiled by SANDAG using 2000 SANDAG cluster definitions.

⁷ For more information on the region's industry clusters, please refer to SANDAG's web site at www.sandag.org. Click on economics and finance, then employment clusters.

⁸ Does not include figures for the Uniformed Military cluster. Historically, uniformed military employment has ranged between 80,000 to 100,000 service personnel. Year 2000 employment data is the most recent information available for cluster SIC codes.

⁹ *Source:* Employment figures from California Employment Development Department, Labor Market Information Division, Cluster calculations from SANDAG.

The regional clusters also pay higher than average salaries, as shown in Table 4E.3. Cluster industries, on average, pay wages 40 percent higher than the regional average. Communications, Software and Computer Services, and Computer and Electronics Manufacturing clusters pay the highest average wages. In 2000, stock options contributed to the significantly higher average wages for the communications cluster.

**TABLE 4E.3—REGIONAL INDUSTRY CLUSTER AVERAGE WAGE
SAN DIEGO REGION (2000)**

| | 2000 |
|--|-----------------|
| Communications | \$116,301 |
| Software & Computer Services | \$79,360 |
| Computer & Electronics Manufacturing | \$72,616 |
| Biotechnology & Pharmaceuticals | \$70,259 |
| Financial Services | \$57,321 |
| Defense Manufacturing | \$53,111 |
| Biomedical Products | \$46,227 |
| Environmental Technology | \$45,429 |
| Recreational Goods | \$42,197 |
| Medical Services | \$39,684 |
| Business Services | \$38,485 |
| Entertainment & Amusement | \$30,874 |
| Horticulture | \$22,383 |
| Fruit and Vegetables | \$17,529 |
| Visitor Industry Services | \$17,089 |
| Total Cluster Average Wage: | \$45,549 |
| Average Wage for Entire Region: | \$32,977 |

Source: California Employment Development Department, LMID, ES 202 data, compiled by SANDAG using 2000 SANDAG cluster definitions.

One of the key elements of economic prosperity is improving economic diversity. Although they are not defined as high-paying or high-value added, Visitor Industry Services, Fruits and Vegetables, Horticulture, Entertainment and Amusement, and the Uniformed Military are important clusters. These clusters have given the San Diego region economic stability, as well as the ability to maintain a relatively low unemployment rate.

Other regions, such as Dallas-Fort Worth, Denver, and Phoenix, are less diverse than San Diego and have experienced significantly worse economic downturns. Part of the reason why the San Diego region has been spared in recent economic downturns is the strength, or floor, that these stable clusters have provided, keeping this region's economy from experiencing deeper and more precipitous economic decline.



EXISTING PLANS AND PROGRAMS

In 1998, the Regional Economic Prosperity Strategy (REPS) Advisory Committee created a strategy that is ambitious, yet simple. The strategy's recommended actions call for infrastructure investment and public policy support in key areas to strengthen the region's economic foundation.

Implementing the REPS requires a variety of regional organizations and agencies to coordinate their efforts and to promote the creation of middle-income jobs. The REPS also recommends that the region focus on targeted workforce development and training for local residents so that they can attain the jobs created. The prosperity strategy is presented within the three "E" sustainability framework of Environment, Equity, and Economy. Balancing these areas requires a universal and holistic approach to policy making. Making the REPS an element of the RCP has inextricably linked economic growth, opportunity, and prosperity to quality of life.

The strategy's recommended actions are intended to strengthen our existing industries, our emerging growth companies, and our universities and research and development institutions that create new enterprises. These actions are an important part of the foundation on which our future economic prosperity depends. The actions call for investment in people and infrastructure and suggest changes in public policies that are necessary to meet the region's economic restructuring challenges: allowing the region to reinvent itself. Above all, these actions are designed to replace the high-paying jobs lost during the recession of the 1990s and create middle-class jobs that will ensure a rising standard of living.

How does a region carry out a regional prosperity strategy?

There may be as many answers to this question as there are regions. The San Diego region relies on existing organizations and agencies to implement the strategy, which contains a set of recommended goals and suggests ways to achieve them. It identifies the agency or organization most responsible for carrying out the recommended action and makes it responsible for achieving results. For example, the San Diego County Water Authority is tasked with providing the region with a safe, adequate water supply. This process ensures a broad-based collaborative approach and minimizes problems that would arise if a new organization or agency is formed to accomplish the same task.

There are a number of local economic development groups that also strive, within the context of the REPS, to improve the region's standard of living. The San Diego Regional Economic Development Corporation (EDC) works to create and sustain a globally competitive region fueled by a diversified, technology-driven economy, positioned to achieve prosperity and opportunity for its residents. EDC's core mission is to help companies locate here and existing companies expand, while also focusing on regional competitiveness. It employs a CEO-driven issue agenda that supports the growth and expansion of high-wage, high-growth industries in the region. In addition to the regional EDC, there are also numerous subregional economic development corporations around the region that share similar agendas, but on a more local scale.



In fact, supporting the health of regional employment clusters is a focus for economic development efforts around the region. A diverse range of organizations has collaborated to foster infrastructure investment and develop policy on a number of fronts. These organizations also provide a support network and a voice for regional businesses on a complex range of issues far beyond clusters. Examples of these organizations include: the San Diego Regional Technology Alliance, UCSD Connect, San Diego Regional Chamber of Commerce, World Trade Center, San Diego Unified Port District, and many more around the region.



Finally, the San Diego Workforce Partnership (WFP) coordinates a comprehensive system of employee education and training that helps ensure a supply of skilled, productive workers. The WFP develops training programs with an emphasis on regional industry clusters.

It's essential to nurture an economy where everyone who is willing to participate can; one that focuses on workforce development. Many local groups, including the San Diego Workforce Partnership and local universities and community colleges, develop programs for

a broad range of skill levels and target these programs towards specific communities. Improving the quality of education across all schools and programs, specifically targeting those most in need, promotes access to opportunities rising from the REPS' economic investments and policies. A recent publication by the San Diego Workforce Partnership titled, "A Path to Prosperity: Preparing our Workforce," focuses on helping the region address workforce and training needs consistent with these principles.¹⁰

However, education and training are only part of the story. Working to create good jobs is equally important to improve the well-being of all segments of society. The public sector plays a key role here by creating policies and investing in infrastructure — water and energy facilities, roads, and other basic needs — that help industries produce the types of jobs that can improve the region's standard of living. The combination of preparing the local workforce for the type of jobs the region is creating, and then focusing on developing jobs that pay an adequate wage and allow potential for career advancement, will help the region address disparity between income levels.

KEY ISSUES

Developing an Internationally Competitive Economy

The San Diego region's ability to compete successfully is crucial, not merely within southern California, the state, and the United States at large, but also with global concerns in Europe, Asia, and Latin America. We should recognize that we compete with the world, whether we do it well or not.

¹⁰ "A Path to Prosperity: Preparing Our Workforce." San Diego Workforce Partnership, prepared by SourcePoint, December 2002.

International trade is the fastest-growing sector of our nation's Gross Domestic Product (GDP), a measure of the total value of the nation's output of goods and services. Today, international trade accounts for 25 percent to 50 percent of the annual growth in the nation's GDP. To be competitive, we must have access to international markets.

The regional economy continues to develop high-paying jobs in industrial clusters that depend on access to a quality export-oriented infrastructure system of rail, freeways, and air and water ports. To retain and grow our industrial clusters and establish new ones, the region's private and



governmental sectors must maintain an adequate system of trade-related infrastructure.

One way to affect the region's competitiveness is to encourage collaborative efforts by private-sector organizations and government agencies responsible for maintaining and improving the region's access to domestic and international markets. Included in these discussions should be representatives from the Republic of Mexico.

The San Diego Unified Port District and the San Diego County Regional Airport Authority are the agencies most responsible for maintaining or influencing the region's trade-related infrastructure in three important

areas: our airport, water port, and rail linkages. They must collaborate on several initial steps to take advantage of international trade. The steps include:

- § Collaborate with the Marine Corps Recruit Depot and the Department of Defense to ensure that Lindbergh Field or a suitable alternative can accommodate current and projected passenger and cargo demands in the region. If an expansion to Lindbergh does not occur or will not be sufficient, an alternative must be developed. The airport does not necessarily need to be located in the San Diego region to meet this objective as long as efficient passenger and goods movement for the region are ensured. The passage of Assembly Bill 93 and the creation of the San Diego County Regional Airport Authority are steps in the right direction, but much work remains to be done.¹¹



- § Improve the region's water port facilities to accommodate larger cargo ships and off-load cargo more efficiently. The Port's recent planning documents identify action steps related to this need, but they are still in the process of clarifying and refining their strategic approach.

¹¹ In October 2001, Assembly Bill 93, followed later by Senate Bill 1896, created the San Diego County Regional Airport Authority (the Authority, or SDCRAA). The Authority is responsible for regional airport planning and the Comprehensive Land Use Plans for each County and City airport. The Comprehensive Land Use Plans, or CLUPs, are designed to limit development around airports to compatible uses. The Authority's new responsibilities also include the day-to-day operations and capital improvements of San Diego International Airport. The Authority is guided by a nine member Board, appointed by elected officials and representing geographical areas of the County.

- § Research opportunities offered by barging goods between the ports of LA/Long Beach/San Diego and/or Ensenada. In addition, explore the potential of double tracking rail between these key ports.
- § Ensure the opening and expansion of the San Diego and Arizona Eastern railway.



In addition, SANDAG and Caltrans should work to improve our roads, air and rail routes, and other avenues that link us with the Los Angeles, Pacific Northwest, and Mexico trade networks, beginning with improvements to State Route 905.

Finally, agencies that control, fund, or plan infrastructure systems or their trade-related components should prioritize capital improvements on a regional level. This is an important piece of the Integrated Regional Infrastructure Strategy (IRIS), Chapter 7.

Fostering a Collaborative Leadership Culture

While the previous recession and current economic difficulties have done some damage, they have also created opportunities for new growth and competitiveness. As is typical in a recession, much work has been done to minimize the damage. In fact, there are numerous private- and public-sector projects underway (such as the San Diego County Water Authority's agreement with Imperial Irrigation District, and the creation of the San Diego County Regional Airport Authority) to help the economy, and some of the harm is already being undone.

But there is still more to do. We need to apply an economic competitiveness focus to our regional infrastructure investment decisions, and we must try to ensure that the local, federal and state regulations that affect this region are understandable, achievable, beneficial, and cost-effective.

Our primary goal should be improved economic performance, measured by a rising standard of living. The San Diego region is currently faced with a shrinking middle class. While per capita incomes in the region are higher than the state and nation, in inflation-adjusted terms the rate of growth is declining. The region's various economic development organizations and local government can form partnerships, invest in needed infrastructure, improve regulatory conditions for business, and encourage the growth of our regional industrial clusters.

Our modern economy poses a myriad of leadership challenges. We must continue to encourage collaborative efforts by organizations, agencies, and other interests. This support will enable the region to make vital investments in people, infrastructure, and public policy changes necessary to restructure our economy, as laid out in the Regional Economic Prosperity Strategy.

Attracting Venture Capital and Other Financing Resources

Attracting capital resources, such as equity markets and venture capital, is important because it provides the revenues necessary for local firms to expand or enter new markets. Venture capital is one of the primary revenue sources used to start and grow new companies. Other sources include personal savings, bond markets, and investments by family and friends. Typically, only firms with potential for exceptionally high rates of growth (25-40 percent annually) over a five- to ten-year period will attract venture capital.



Over the last decade, the Silicon Valley has seen up to 10 times more venture capital investment than the San Diego region. San Jose and San Francisco attracted three and four times more resources in 2001, \$4.9 billion and \$6 billion, respectively, compared to the San Diego region's \$1.5 billion.¹²

San Diego embodies an economically vital atmosphere in the areas of research and innovative technologies. San Diego also provides attractive investment opportunities for pooling "new" money for growing companies through funding provided by venture capitalists. Biotech research, both private and public, in conjunction with advanced telecommunication firms, provides ideal scouting grounds for venture capital funding.

Many of our regional banks and lenders have disappeared, making the unique relationship between local lender and local business a part of our past. As a result, our regional cluster industries, especially those in emerging stages, lack direct access to financial institutions and the networks they provided.

Much of the region's private sector funding for capital improvements in the past was provided by large Department of Defense (DOD) contracts. As the region lost jobs associated with defense contracts, we also lost billions of dollars that could be spent for capital improvements, such as new and upgraded facilities. Due to events related to the war in Iraq and the terrorist attacks of September 11, 2001, additional revenue for defense-related contracts is likely to be allocated to the San Diego region in the near future. Overall, the San Diego region may need to be more reliant upon itself, its residents, to fund public infrastructure and more dependent on venture capital funds to support its emerging growth technology clusters.

To improve our ability to launch new businesses and foster innovation, the region's economic development organizations should collaborate to expand direct access to capital resources and funding opportunities for our emerging industrial clusters.

Local economic development groups, such as the San Diego Regional Economic Development Corporation, subregional EDC's, and the San Diego Regional Technology Alliance, should continue

¹² Source: PricewaterhouseCoopers / Venture Economics - National Venture Capital Association Money Tree Survey, 2002.

to collaborate with cluster industry associations, like BIOCUM (the regional life science industry association) and the American Electronics Association (AEA), to improve access to equity and venture capital companies. Financial institutions could be encouraged to create venture capital departments that could become a local source of financial resources. These advocacy organizations should consider setting a goal of establishing a financial/venture capital presence in the region that would eventually replace the lost financial institutions and reduced presence of businesses with ties to the DOD.

Strengthening the Relationship between Workforce Requirements and Educational Programs

Investment in physical infrastructure — roads, rail, air, and water ports, as well as an adequate water supply, hazardous waste storage sites and energy generation and transmission facilities — to improve our regional competitiveness and productivity forms one of the Regional Economic



Prosperity Strategy's core objectives. The other core objective is training and educating our young people, preparing them for a career in an industry capable of increasing their standard of living. More education correlates to a stronger economy. Studies have shown that the greater level of education and training, the more productive individuals are. Therefore, they earn more, bolstering future economic health.

A broader partnership between our technology clusters and our K-12 institutions should focus on raising student performance in math and science, and on monitoring student progress in important

job skill traits such as on-time attendance and working in groups. Creative arts and other programs designed to improve creative thinking and problem solving are also important. The private sector may be able to further improve K-12 districts with financial assistance programs or donations of computer hardware and software.

Our young people need access to quality computers and other technology-based teaching tools if they are to compete in the modern workforce. These efforts must be supported during fiscally challenging times. The State faces budgetary concerns and may implement funding cuts that adversely impact the ability of the K-12 system to meet our educational challenges. Because of education's impact on future prosperity and economic opportunity, it is imperative that the quality and level of education at least remain consistent and even improve. The region's public school districts must continue to find additional resources to ensure our K-12 students have adequate access to technology in the classroom.

As the largest education and training providers in the San Diego region, the community college districts play a critical role in developing our workforce — particularly in preparing well-qualified workers for employment in targeted industry clusters. These efforts prepare students for entry into the workforce, help currently employed individuals upgrade skills and advancement to higher-level positions, retrain individuals for a different occupation; and prepare students for transfer to four-year colleges/universities to pursue education for professional-level positions. In addition,

community colleges contract with employers to provide customized, on-site training for company employees as well as provide technical services to help improve company performance.

The community college is vital in a regional economy. Establishing a closer link between workforce requirements and community colleges is necessary to ensure a rising standard of living. To accomplish this, the San Diego region's community college districts should continue to work with the private sector, workforce development agencies, and economic development organizations to meet the workforce education and training needs of the region's employers. Private-sector board members of community college districts and the San Diego Workforce Partnership can provide direction in workforce development efforts by ensuring that curriculum and employment programs are consistent with requirements of the modern workplace.



The region's research institutions are moving to establish graduate business programs that enable entrepreneurs to merge their technological talents and ideas with an understanding of business practices and technology transfer opportunities. Some of the region's most successful businesses have developed this way.

Everyone should have access to higher education. The region's community college districts and universities already have programs in place that reach out to underrepresented students, but more can be done. The cost to the region of these educational investments and the energies they demand will be far less than our failure to provide them. We can define our future prosperity by our ability to provide these opportunities to people, regardless of background or status.

Identifying an Adequate Supply of Residential and Employment Land for Housing and Businesses



With rising home prices outpacing wages, it is increasingly difficult for the average person to purchase a home in the region. Housing affordability has declined since 1994, the end of the last recession. Because of this decline in affordability, in February 2004, only 15 percent of households in the San Diego region would have been able to afford a median priced home.¹³

An adequate supply of land for businesses and sufficient workforce housing opportunities are essential to the region's business expansion and retention efforts. As discussed previously in the RCP (Overview, Planning and Policy Framework, Housing Chapters), the cities' and the County's current general plans — blueprints for growth — do not

¹³ Source: California Association of Realtors, Housing Affordability Index, April 2004

designate enough residential land with land use characteristics such as those identified in the Urban Form chapter of the RCP to accommodate the projected housing demand. Although the market will dictate the overall supply and demand for land, without changes to these general plans, the region will not have sufficient capacity available in its urban areas to meet its long-term housing needs. This will result in a continuing rise in land and home prices. There also is growing concern that local governments have not set aside enough industrial and other employment land to accommodate the projected growth in our cluster industries.

The cities and the County have local land use authority to decide how, if, and when they should amend their plans to meet the region's projected residential and employment growth. Efforts to identify additional amounts of land "immediately available" for residential and employment development are important and will require coordination between developers, planning departments, and agencies designed to assist with infill and redevelopment projects (such as the Centre City Development Corporation, the City of San Diego's downtown redevelopment agency).

The San Diego Regional Economic Development Corporation and SANDAG established an Employment Lands Committee that developed an inventory of employment lands, identified areas suitable for redevelopment and business park development, and recommended opportunities for increasing the supply of immediately available employment land. The committee found that the region has plenty of developable employment land, but not enough immediately available. This shortage makes it challenging for businesses to expand or locate here. The committee also found that the location of developable employment land is not generally close to housing, freeways, public transit, and other infrastructure. Local jurisdictions, the IRIS, and the overall policy framework for the RCP incorporate and build upon these findings in their efforts to identify smart growth housing and job opportunities.

Because the region's clusters play such an important role in our local economy, the jurisdictions should focus on the needs of cluster industries targeted in the Partnership for the New Century Economy, an effort spearheaded by the Regional Economic Development Corporation. The region should also consider more efficient and compact use of existing and planned employment lands, possibly through redevelopment or other mechanisms.

Creating Workforce Housing and Achieving State-Local Fiscal Reform

The current tax system is an impediment to achieving sustainable communities. It restricts the



freedom of local governments to manage their own fiscal affairs and thereby destabilizes local governments. It impedes home construction and encourages cities to compete against each other for the weakest contributors to economic prosperity — retail outlets. In short, the current tax system adversely affects how our communities look, and even more importantly, how they work.

Suggested steps to better address housing supply and affordability include: state-local government fiscal reform, creating jobs that pay above the regional average wage, providing adequate amounts of land with

the appropriate characteristics for housing, curbing litigation problems associated with

condominium development, and reviewing the development fee structure. In this section, the focus is on the importance of state-local fiscal reform to workforce (market-priced) housing. For additional suggestions on how to improve housing affordability, please refer to the Housing chapter of the RCP.

The current shortage of housing is in part an unintended consequence of the 1978 ballot measure Proposition 13, made worse by actions of the state legislature during the recession of the early 1990s. By limiting property taxes, Proposition 13 immediately reduced local jurisdictions' tax revenue by 53 percent, dramatically altering their ability to provide basic public services. Several subsequent propositions further curtailed local government's ability to impose or raise other taxes. When the state encountered a severe budget shortfall in the early 1990s, it shifted billions of property tax dollars away from the local jurisdictions and into the state general fund.

Having lost control of their locally generated property tax revenue, jurisdictions in California have become increasingly reliant on a more stable revenue source: sales tax. Housing has become, in effect, a money-loser for local governments. It now costs more to provide basic public services and facilities than can be collected in property taxes (which are supposed to pay for the services).



From sales taxes, however, jurisdictions receive a steady and predictable revenue source. On the same size lot, cities receive nearly 11 times more revenue from a retail outlet than a home. As a result, local jurisdictions often change residentially zoned land to commercial and compete for large sales tax generators such as auto dealerships and big-box retail outlets. In cities throughout the state, there is a fiscal incentive to build retail, and a fiscal disincentive to build housing. This has provided the state with a housing shortage and skyrocketing home prices.

This "fiscalization of land use" has become a statewide issue, and several proposals for reform have been discussed, including a proposal from SANDAG. So far, there has been little consensus on what reform approach the region should take, if any. That said, until the system is changed, it will severely hamper local jurisdictions' ability and willingness to encourage much-needed housing supply. For more information on fiscal reform, please refer to SANDAG's website and publication "Achieving Fiscal Reform in California."¹⁴

Improving the Region's Business Environment and Monitoring Our Progress

Overly burdensome business regulations and requirements do more harm than good. However, some level of public oversight and control is desirable to protect the public good and maintain a healthy living environment for our residents and wildlife. Local governments in the San Diego region should take the lead in doing what's necessary to reduce the costs imposed on business by

¹⁴ "Achieving Fiscal Reform in California: San Diego Regional Growth Management Strategy." SANDAG, 2000.



government. Most local jurisdictions have streamlined or clarified their development and other business-related regulations. More can be done.

Local governments should emphasize new directions for existing companies and on new, emerging businesses, as they represent the innovative potential in the region. Furthermore, because new ventures are often a company's attempt at entering into new market opportunities

and "niches," they may also provide the greatest potential for growth. A majority of new employment growth comes from new business start-ups and on-site expansions of existing businesses. In addition, more than half of all new jobs are produced by independent businesses less than five years old.

To further reduce costs, government should consider actions in two areas: regulatory reform and increased competition, possibly through privatization.

Regulations affecting business should be:

- § Cost effective,
- § Administered consistently according to easily understood procedures,
- § Evaluated periodically to ensure they accomplish what they are supposed to, and
- § Based on achievable and beneficial standards or objectives.

This effort will not, and should not, compromise environmental standards.

The provision of efficient and reliable public services and facilities should be opened to competition, since neither the public nor private sector is innately more efficient and reliable than the other. Government should be able to consider both public agency and private-sector alternatives (with proper levels of oversight).

Progress toward achieving regional goals should be evaluated on a regular basis. SANDAG should take the lead in periodically evaluating and monitoring the region's progress, and has committed to do so as part of the Regional Comprehensive Plan, Sustainable Competitiveness Index, and Regional Economic Prosperity Strategy work programs.

SANDAG should continue to monitor progress toward achieving the goals outlined in the RCP, in an approach similar to the one used in the Regional Economic Prosperity Strategy. The REPS program tracks the effects of existing as well as new economic policies and investments, compares our region with other metropolitan areas, and helps determine which areas of our economy have recorded the most progress and which areas might require additional attention. For example, where applicable, we should identify opportunities for changing regulatory processes and fee structures to improve the business environment.

SANDAG's current monitoring process is illustrated in the Sustainable Competitiveness Index (SCI). The index, updated annually, measures the region's performance and success in relation to other comparable metropolitan areas with respect to the three "Es" of sustainability: Economy, Equity, and the Environment. Sustainable competitiveness means that a region is successfully retaining and attracting people who help sustain economic prosperity, while improving social equity and preserving environmental quality. This framework for monitoring balanced progress is consistent with the performance monitoring approach of the RCP.

Fostering the Region's Emerging and High-Technology Industries

Some of the San Diego region's most vital cluster industries are hampered by inadequate infrastructure investment and lack of needed facilities. To ensure continued success of industries such as biotechnology, computer and electronics manufacturing, defense, and others, the region should provide access to international markets and adequate facilities to ensure a safe location for disposal of industrial waste, and a reliable supply of water.¹⁵ Beyond the clusters, the economic health of the region, and ultimately our quality of life, will depend upon environmentally sound disposal techniques and an adequate supply of potable water.

Along these lines, local and state elected officials should continue to collaborate with our federal representatives to resolve the problem of on-site storage of hazardous waste. The region's many biotechnology and health care businesses produce low-level radioactive waste during research and production. Due to the lack of a low-level radiation waste facility, this material is stored in hundreds of permitted "temporary" low-radiation waste storage sites across the region.

A centralized, secure, state-of-the-art waste disposal facility poses less of a health risk than do hundreds of temporary storage sites. In addition, because these industries contain some of our region's fastest-growing companies, a low-level radioactive waste site is necessary to help retain and encourage the industry's continued development, providing the region with a competitive advantage rather than placing us at a competitive disadvantage.

The U.S. Department of the Interior should follow the recommendations of the National Academy of Sciences, which has said that a low-level radioactive waste storage site at Ward Valley poses a negligible threat to the Colorado River basin. Our elected representatives should continue to work with the Department of the Interior to transfer control of the Ward Valley site to the state of California at the earliest possible date. If control of Ward Valley is not transferred, the state of California should work on locating another suitable disposal site. This is an issue for the entire state, and may need to be resolved outside of the San Diego region.



¹⁵ The recently approved water transfer between the Imperial Irrigation District and the San Diego County Water Authority should be recognized as a key step toward securing a reliable supply of water for the region.

Water is also critical for the health of the regional economy. The region should promote public policy changes and investments that continue to diversify the region's water sources and work with local, state, and federal officials and other interested parties on providing California with a competitive water market. Included in these discussions should be representatives from the Republic of Mexico.

Imported water is an essential resource in the development of the San Diego region and is vital for a number of emerging technology industry clusters, such as biotechnology and pharmaceuticals and environmental technology.

The San Diego County Water Authority has developed a long-range vision for the future of the region's water supply; the Draft Regional Water Facilities Master Plan is available at the Water Authority website, www.sdcwa.org. There are several aspects to the San Diego County Water Authority's (Water Authority) plan to provide the region with a safe, adequate water supply. These include:

- § Continued efforts to purchase water from outside sources, such as the recently approved transfer from the Imperial Irrigation District to the Water Authority (agricultural use to urban use), to strengthen and diversify our regional water supply,
- § Maintenance of the capital improvement program that has strengthened the region's water-carrying infrastructure and provides a more adequate emergency water storage system,
- § Advocating the development of a competitive water market within California that includes water sources from throughout the state and region,
- § Development of desalination plants within the region as currently under consideration by the Water Authority,
- § Working with the private sector and agricultural users on water conservation, and with the general public on reclamation and re-purification, and
- § Continued discussions with Mexico on water-related issues that are mutually beneficial. The primary water supply for both regions is imported water from the Colorado River. Cross-border communication on water issues should examine joint opportunities for meeting the region's future water supply needs.

For more discussion on the region's water supply and quality, please refer to the Public Facilities and Healthy Environment chapters of the RCP and the Integrated Regional Infrastructure Strategy (IRIS).

Summary of Recommended Actions

Helping foster a sustainable, prosperous San Diego region is the bottom line for the Regional Economic Prosperity Strategy. The strategy focuses on retaining and expanding local businesses, creating more well-paying jobs, and preparing our residents to fill these jobs. The primary objective is to increase, through these jobs, personal income, and thus raise the standard of living for all of the region's residents.

ACTIONS TO ENSURE ECONOMIC PROSPERITY

The Regional Economic Prosperity Strategy (REPS) includes ten recommended actions to meet the goals and policy objectives outlined below. The strategy identifies who is responsible for the action and suggests ways to achieve the desired results. The San Diego region relies on existing organizations and agencies to implement the strategy and assumes that the responsible agencies, having the most direct knowledge of the issue, are best equipped to develop an approach for meeting the region's needs. The actions have been organized and condensed according to the policy objectives of the RCP. For more detail, please visit SANDAG's Web site and refer to the "Regional Economic Prosperity Strategy: Toward a Shared Economic Vision for the San Diego Region."

GOALS, POLICY OBJECTIVES, AND RECOMMENDED ACTIONS

Goal

Ensure a rising standard of living for all of our residents.

Policy Objectives

1. Continue to update and implement the Regional Economic Prosperity Strategy.
2. Position the San Diego region to better compete in the global economy.
3. Offer broad access to education and workforce training opportunities to all residents, with an emphasis on the economically disadvantaged, to foster shared economic prosperity.
4. Provide an adequate supply of housing for our region's workforce and adequate sites to accommodate business expansion and retention.
5. Improve the business environment.
6. Produce more high-quality jobs in the region.
7. Foster growth in the region's emerging and high technology industries.

Recommended Actions

Planning, Design, and Coordination

1. Ensure that sufficient land with appropriate zoning and urban services (including infill and redevelopment) is available for future housing and employment needs.
2. Attract venture capital resources to retain and attract industries that will produce more high-quality jobs in the region.
3. Provide infrastructure that enables emerging technologies and existing businesses that provide high-quality jobs to flourish.

Program and Project Development and Implementation

1. Expand access to international trade infrastructure, such as airports, seaports, and railways, and their associated cargo-transport capabilities.
2. Develop and implement programs that provide workforce development and educational opportunities for all residents.
3. Identify and implement appropriate changes to regulatory processes and fee structures that would result in an improved business environment.
4. Develop and maintain reliable, sustainable, and secure energy and water supply systems to help ensure the region's economic prosperity.

Funding

1. Reach regional consensus on, and implement a state-local fiscal reform proposal that provides financial incentives to local jurisdictions to increase the supply of housing and helps achieve the smart growth goals of the RCP.

CONCLUSION

A primary goal of the Regional Comprehensive Plan is to ensure a rising standard of living for all of our residents. This must be accomplished in a sustainable way, such that our quality of life is not adversely impacted.

This chapter is based on the Regional Economic Prosperity Strategy (REPS), which is designed to prepare the region for the economic opportunities of the new century through a series of recommended actions. The recommended actions suggest investment in human and physical infrastructure to help ensure our competitiveness in the global economy, focusing on our traded employment clusters. Workforce development, education and training all play a critical role as a way to improve economic equality within our region because they create opportunities for local residents to attain the types of jobs we hope to create. This, in turn, provides an opportunity to improve the standard of living of our region's residents across all income categories.

PUBLIC FACILITIES

Strengthening the Social and Physical Infrastructure of our Communities

2030 VISION

The region is more self-sufficient with regard to water. Water is valued as a precious resource. Conservation is practiced in our homes, gardens, businesses, farms, and ranches; and made easier with new and improved technologies. We have a diversified water supply with a broad range of water resources including seawater desalination, water transfers, water recycling, reclamation, and sustainable groundwater supplies. We are less dependent on water imports, and our region's water conveyance systems are flexible and reliable.

The region has a reliable and diversified energy supply and has reduced its dependence upon outside sources. Local supplies satisfy a greater proportion of the region's demand. Energy sources, including solar, wind, and geothermal power, are clean, efficiently produced, plentiful, and reasonably-priced. We also draw energy from converted organic materials, landfills, and water sources. Our utility lines are underground, making our neighborhood skylines more attractive.

Educational and public awareness campaigns that focused on reducing waste, increasing recycling, and promoting composting, have been so effective that our region is closer to achieving a zero-waste philosophy than any other metropolitan area in the United States. Composting has become a common practice for reducing green waste. We make regular use of new technologies that convert organic materials into energy, ethanol, solvents, and other products. We properly treat and dispose of hazardous wastes, protecting our streams and land from contamination and meeting the needs of our local industries. More construction and demolition debris is recycled, sparing the need for new landfills.

Our neighborhoods are safe, and residents can walk to quality schools and well-maintained parks. Sidewalks, buildings, and recreational facilities are accessible and barrier-free.

INTRODUCTION

Most of us give little thought to the origins of the water that flows from our faucets, or to the final destination of the trash that disappears from our curbsides. Similarly, many of us are not very familiar with how our schools, parks, libraries, hospitals and police stations are provided; yet we consider these public facilities essential to the quality of our daily lives.

A sometimes-complicated mix of public agencies and funding sources are responsible for our public facilities and services. It is imperative that these agencies continue to coordinate efforts, search for greater efficiencies, and have the resources necessary to provide the public facilities that meet our current and future needs.

Our region requires reliable supplies of water and energy, opportunities to reuse and recycle materials, and sufficient disposal options for waste. The region also needs to make more efficient use of its resources. We can do this by locating public facilities where they will most effectively provide access and availability of needed services and protect public health and safety, while ensuring that lower income and minority communities are not disproportionately affected.

The issues addressed throughout the RCP are all interrelated and must be considered in a number of contexts. Housing creation relates to urban form, jobs relate to transportation, and public facilities have a direct relationship to our region's sustainability. Other key issues that are frequently raised include: access to healthcare and social services; good, safe schools for our children that provide a quality education and can serve as focal points for our neighborhoods; walkable, safe, and healthy neighborhoods; access to parks, stores, child care facilities; and accessibility and a barrier-free physical environment for all.

This chapter focuses on water supply, energy and waste management. Additional public facilities, such as parks, libraries, police, fire, hospitals, and schools also are discussed in this chapter. Transportation infrastructure is addressed separately in Chapter 4B. Many other chapters, including Borders, Housing, and Economic Prosperity, reference infrastructure needs as well.

WATER SUPPLY

EXISTING SETTING

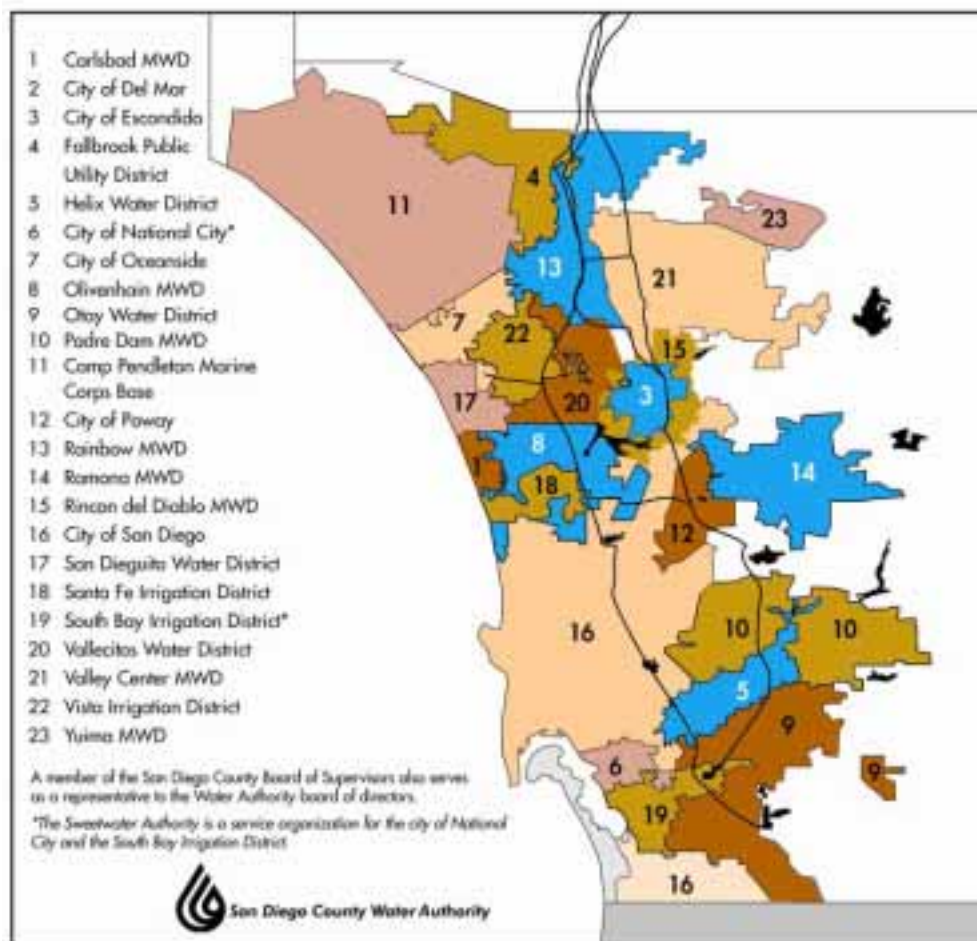
The San Diego region is semi-arid and relies heavily on imported water supplies from a single supply source. The region historically imported 75 percent to 95 percent of its water exclusively through the Metropolitan Water District of Southern California. In 2003, the San Diego region made a significant step toward water independence when the San Diego County Water Authority signed a landmark agreement to purchase conserved agricultural water from the Imperial Irrigation District.



Whether used predominantly for agricultural purposes, as in the Imperial and Mexicali Valleys, or to meet urban demand, as in coastal San Diego, increasing pressure is being placed upon water supplies as the population and economy continue to expand. The historic “water wars” of the desert southwest are legendary because water, like energy, is critical for a healthy economy. For this reason, we should consider water reliability not just for ourselves, but for our neighbors on tribal reservations, in Orange, Riverside, and Imperial Counties, and the Republic of Mexico as well, since a thriving neighboring economy can be beneficial to our own region.

To increase regional cooperation, water authorities in the San Diego region, as well as our neighboring regions, are working together to ensure that water is being used efficiently and that necessary supply projects are being planned and implemented for water reliability throughout the entire greater Southern California/Northern Baja California region.

FIGURE 4F.1—SDCWA SERVICE AREA WITH AGENCY BOUNDARIES



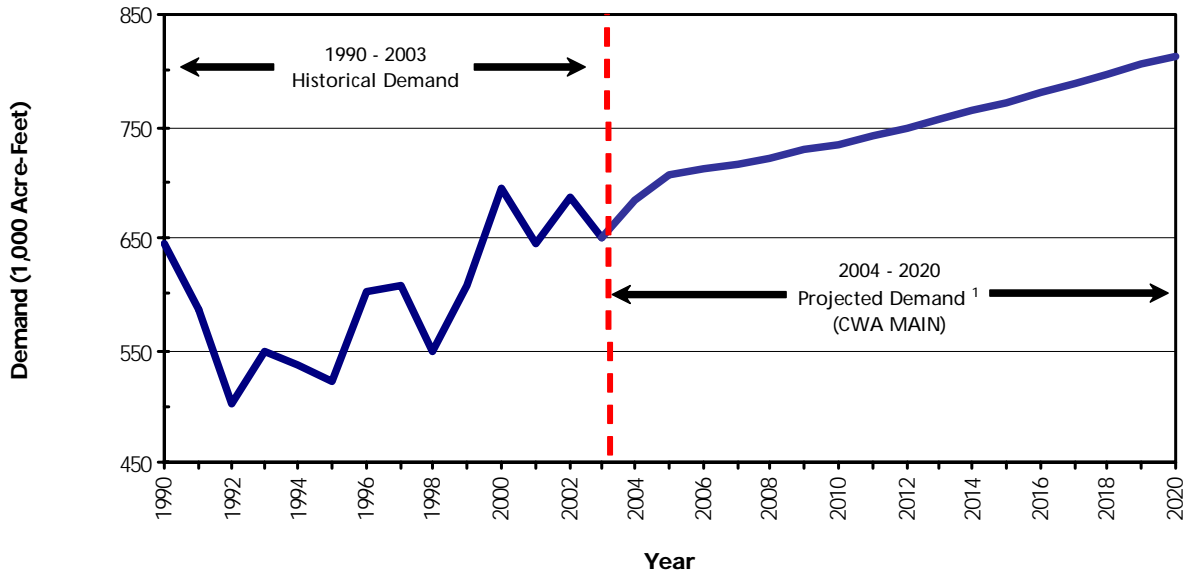
Source: San Diego County Water Authority

The San Diego County Water Authority (Water Authority) is the wholesale water agency serving 23 retail water agencies in the San Diego region (Figure 4F.1). The mission of the Water Authority is to provide a safe and reliable supply of water to its member agencies. The Water Authority relies upon SANDAG and its member agencies for forecasted growth projections by which to calculate demands and plan for future water supplies.

For nearly 15 years, the Water Authority and SANDAG have worked together to link future water supply needs with the forecasted growth within the region. In 1988, voters in San Diego County passed Proposition C, which required SANDAG to prepare a regional growth management strategy. In response, the Water Authority and SANDAG entered into a memorandum of agreement (MOA), which ensures that the water demand projections for the San Diego region are linked with SANDAG's growth forecasts and that water supply is a component of regional growth management and planning.

Historic and forecasted water demands for the region are shown in Figure 4F.2 where we can see an increase in demands over the next 20 years.

FIGURE 4F.2—REGIONAL HISTORIC AND PROJECTED NORMAL WATER DEMANDS



¹ Projected water use now includes demands at Camp Pendleton Marine Corps Base
 Source: San Diego County Water Authority; 2000 Urban Water Management Plan

Current water demands are met primarily through imported water deliveries. The Metropolitan Water District of Southern California (MWD) secures its imported supply from two main sources, the Colorado River and the State Water Project. The reliability of these two supplies has a direct impact upon our region’s availability of water for future growth. MWD’s service area is shown in Figure 4F.3.

FIGURE 4F.3—METROPOLITAN WATER DISTRICT SERVICE AREA INCLUDING SAN DIEGO COUNTY WATER AUTHORITY



Source: San Diego County Water Authority: 2000 Urban Water Management Plan

State Water Project

Based on annual precipitation and numerous pressures upon the Bay-Delta system, there can be variability in the delivery of large supplies of water from the State Water Project (which flows from the San Francisco Bay/Sacramento-San Joaquin River Delta through the California Aqueduct, as shown in Figure 4F.4). In order to address the overall health and economic sustainability of the system, the state and federal government established the CALFED Bay Delta Program. This program was organized to develop a comprehensive long-term solution to the ecosystem, levee stability, water quality, and water supply reliability problems affecting the Bay-Delta system.

FIGURE 4F.4—MAJOR WATER CONVEYANCE FACILITIES SERVING SAN DIEGO COUNTY



Source: San Diego County Water Authority: 2000 Urban Water Management Plan

Colorado River

The availability of Colorado River water is governed by a system of priorities and water rights that have been established over many years. The Colorado River Lower Basin states have an annual apportionment of 7.5 million acre feet¹ (MAF) which is divided as follows:

- § California: 4.4 MAF
- § Arizona: 2.8 MAF
- § Nevada: 0.3 MAF

California has historically used about 5.2 MAF by purchasing surplus water and other states' unused apportionments. In recent years, as growth has occurred throughout the West, Arizona and Nevada have increased their water demand, which has limited the amount available to Southern California.

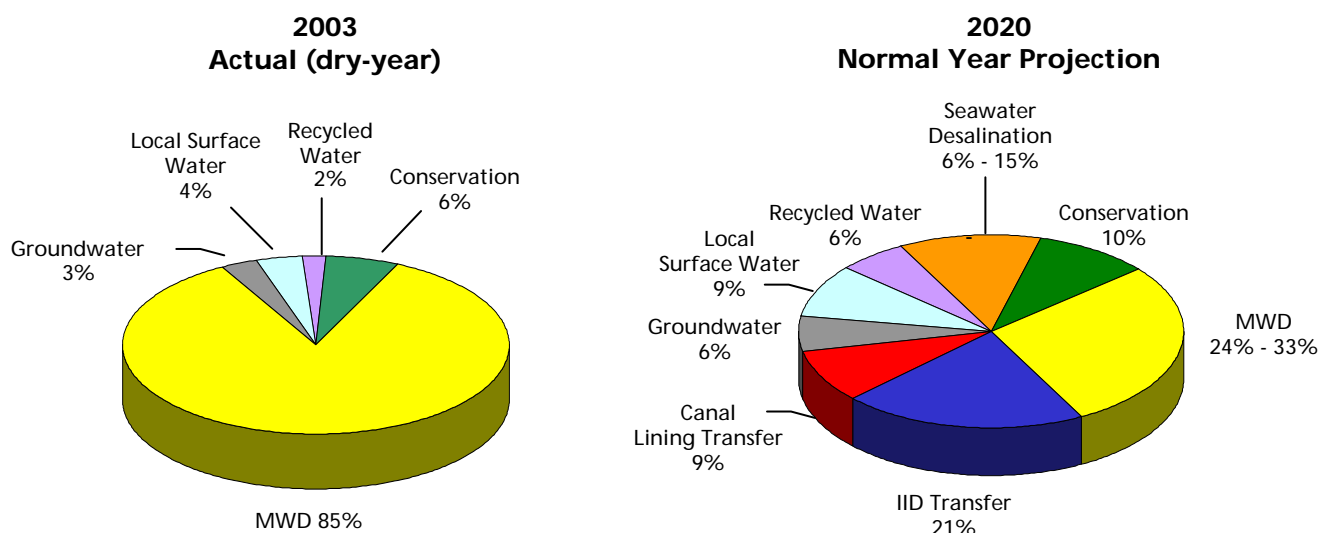
In October 2003, a transfer agreement was approved after many years of complex negotiations among four water agencies and the state and federal governments, the purpose of which is to provide a framework on how California will transition to, and live within its basic 4.4 MAF apportionment of Colorado River water. Key to the success of that plan was the ability of the Water Authority to purchase surplus agricultural water from Imperial County, through the Imperial

¹ According to the San Diego County Water Authority, one acre-foot of water meets the demands of two households per year.

Irrigation District (for more information regarding the San Diego County Water Authority – Imperial Irrigation District water transfer and the All-American and Coachella Canal Lining Projects, see the Water Supply section of the Borders chapter).

Due to continuing uncertainties regarding MWD’s apportionment of Colorado River water and State Project supplies, the RCP and Water Authority’s long range plans call for the region to diversify its water supply portfolio (shown in Figure 4F.5) to become less reliant on a single supply source. One single resource cannot meet all the projected water needs. The San Diego region will implement a mix of resources to ensure water reliability for future generations including demand management (water conservation), water transfers, local water supplies, and existing imported supplies.

FIGURE 4F.5—MEETING THE REGION’S WATER NEEDS IN THE YEAR 2020



Source: San Diego County Water Authority, 2004

EXISTING PLANS AND PROGRAMS

New growth within the region and throughout the state presses the issue of water availability. Recently, legislation has sought to provide greater ties between land use planning, growth, and water supply. State legislation requires the region to assure that sufficient water supplies are available before new development is approved. Ultimately, each jurisdiction’s general plan will drive where growth will occur and influence actions that the Water Authority will need to take to secure future water supplies.

The California Water Code requires that all urban water suppliers within the state prepare an Urban Water Management Plan and update it every five years. The Water Authority updates and adopts the plan for the San Diego region, which addresses regional issues concerning San Diego County water demands and supplies. Urban Water Management Plans are also prepared by the Water Authority’s member agencies, which, in turn, prepare and update their own plans to address supply and demand issues at the consumer level.

The Water Authority's 2000 *Urban Water Management Plan* analyzes different mixes of resources for supplying water to the region and serves as an update to previous plans. In addition, the Water Authority has prepared a *Regional Water Facilities Master Plan* that serves as the roadmap for implementing the major capital improvements needed by the Authority to meet regional demands through 2030.

KEY ISSUES

Meeting Our Regional Water Demand

The Water Authority and local water districts are mandated to supply sufficient water resources to meet the needs of the region. These agencies base their supply needs upon population, demographic, housing, and economic numbers provided to them by SANDAG and the local land use agencies. With current forecasts projecting one million more people in the region in the next thirty years, how the region grows will have a significant impact upon water demand. The types and design of development as well as the location where development occurs can have impacts on demand for water and water infrastructure, and affect our water agencies' ability to supply enough water to the region.

In addition, emergencies can create water shortages or cut off access to imported supplies. In the early 1990s, residents of the San Diego region taxed themselves to help fund the construction of an 800,000-acre-foot emergency water storage reservoir in Riverside County. That reservoir, Diamond Valley Lake, protects Southern California water supplies in the event of an earthquake or severe drought. Diamond Valley Lake is one element of an Emergency Response Plan and Emergency Storage Project developed by the Water Authority to address water shortages that may occur due to disaster. This includes multi-agency and multi-jurisdictional coordination between the Water Authority, its member agencies, and MWD during any emergency situation.

Rural Water Needs

There are some rural communities within the region that are not served by the Water Authority; these communities rely solely on local water sources, such as groundwater. An increase in development in those areas puts a strain on finite local water supplies. As our region continues to grow and develop we must consider our rural communities and ensure that their water needs are met.

Diversifying Our Water Sources

Currently, only about five to 25 percent of the water used within the Water Authority's service area within any given year comes from local sources, primarily from surface water reservoirs. To lessen demands on a single supply source like the MWD, the region will diversify its water supply portfolio through the Water Authority-Imperial Irrigation District water transfer, the All American and Coachella Canal Lining Projects, and through the development of local recycling, groundwater and desalination projects. Development of a diverse supply provides for flexibility and adaptability in the resource mix to handle potential risks associated with managing and developing supplies. These risks could include environmental constraints, lack of political will, water supply contamination, and/or lack of funding.

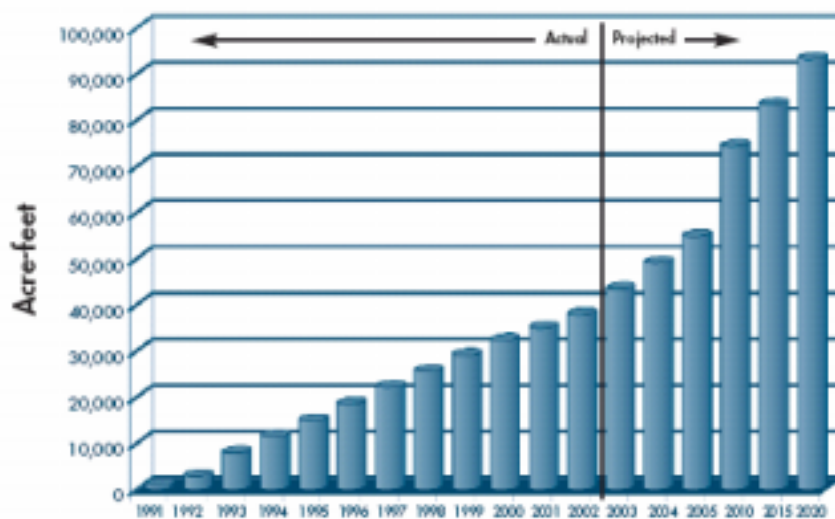
Maintaining Water Quality

Local surface water supplies such as lakes and reservoirs and other supplies such as groundwater aquifers are important in maintaining and developing a diverse water supply for the San Diego region. Therefore, maintaining the quality of these supplies is of utmost importance to ensure delivery of a safe supply of water.

Conserving Limited Water Resources

In addition to diversification, conservation measures also can help address future water demands. Local governments can directly affect our overall demand by promoting conservation programs within their jurisdiction and implementing water efficiency standards throughout the planning process. Figure 4F.7 illustrates the annual and projected water savings through 2020 if our region adopts water saving measures, such as planting native, drought resistant plants and discouraging over-watering by helping the public calculate how much to water their gardens at varied times of the year. In addition, implementation of programs such as the ultra-low-flush toilet incentives program and adopting Best Management Practices such as making irrigation system upgrades that promote efficiency will also help to reduce overall water consumption throughout the region.

FIGURE 4F.6—CONSERVATION SAVINGS



Source: San Diego County Water Authority: 2000 Urban Water Management Plan

Interregional Planning

Because the San Diego region is bordered by several other counties and the Republic of Mexico, and includes the 17 tribal governments, it is imperative that we coordinate efforts to ensure a supply of water for all residents throughout our greater border region. This way, we will be able to provide the necessary facilities and infrastructure to ensure that future supply needs are met for all of us. For a more detailed discussion of interregional water planning, please see the Borders chapter.

Capital Improvements

As the Water Authority and local water districts plan to meet future water demands, they will need to adopt and implement capital improvement programs that require the siting and building of additional infrastructure. The Water Authority's capital improvement program will maintain an adequate, functioning, and dependable water supply system throughout its service area. The Water Authority's member agencies' water deliveries and the quality of their delivery systems may differ, depending on each jurisdiction's municipal water system. Local agencies are responsible for building necessary infrastructure, such as water conveyance systems, to meet the demands of their service area.

WATER SUPPLY POLICY OBJECTIVES AND RECOMMENDED ACTIONS

Policy Objective

Ensure a safe, sufficient, reliable, and cost-efficient water supply for the San Diego region.

Recommended Actions

Planning, Design, and Coordination

1. Continue to implement the San Diego County Water Authority Urban Water Management Plan and Regional Water Facilities Master Plan.
2. Develop and/or implement programs and projects that promote water conservation, provide adequate emergency storage and carryover storage needs, add treatment capacity to satisfy treated water needs, and develop seawater desalination facilities.
3. Maximize water resources through diversification strategies such as transfer agreements, water recycling and reclamation, seawater desalination, and sustainable groundwater development.
4. Create opportunities to coordinate water supply strategies with areas beyond our jurisdictional boundaries.
5. Develop allocation plans for potential future water shortages, such as those caused by drought, earthquakes, terrorist attacks, or diminished water treatment capacity.

Program and Project Development and Implementation

1. Promote and implement water efficiency and conservation techniques.
2. Implement programs to educate the general public and the business community about the importance of efficient water use and water conservation methods.

Funding

1. Continue regional funding from the Water Authority and MWD to assist in the development of local projects and conservation measures.
2. Secure funding from the federal and state governments to ensure adequate development and maintenance of a diverse supply of water.

ENERGY

EXISTING SETTING

Energy is fundamental to our regional economy and the quality of life of our residents. Energy lights, heats, and cools our homes and offices, runs our businesses and industrial machines, moves people and goods, and impacts nearly every facet of daily life.

In the San Diego region, there has been a steady increase in per capita electricity consumption over the last two decades. Between 1988 and 2000, peak electric demand grew an average of 3.4 percent per year, and current trends indicate that electricity peak demand will nearly double by 2030.² We need to plan for the provision of energy, from a variety of sources, to assure that our quality of life and economic stability are maintained and enhanced in the future.



In this section, we discuss two sources of energy — electricity and gas. Electricity is produced at power plants, from nuclear energy, burning gas or coal, from water, from windmills, solar panels, and geothermal sources, to name some of the more common sources. Electricity is transmitted over power lines to users.

Some electricity is produced locally at the Cabrillo (Encina) and South Bay Power Plants, which are gas-fueled, steam-generating plants, and at the San Onofre Nuclear Generating Station, which is nuclear powered. A new, gas-fired power plant is proposed for development at Otay Mesa. There are a number of smaller power plants, which generate electricity, mostly for emergency use. The existing major plants produce about 55 - 65 percent of peak summer demand for electricity in the region.

All natural gas is produced outside the region, and even outside the nation. It is imported into the region through pipelines to users. There are no storage facilities for natural gas in the region. Gas is used primarily for generating electricity and for heating homes and businesses. There is a growing demand for gas in the region. San Diego Gas & Electric (SDG&E) is the local distributor for natural gas.

² The San Diego Regional Energy Strategy: Energy 2030 (RES) and the Regional Energy Infrastructure Study (REIS).

Other sources of energy are also used for making electricity. These include renewable sources, such as wind, solar, and geothermal sources. Major sources of geothermal energy are nearby in the Imperial Valley of California and the Mexicali Valley of Baja California.



At the time of this Plan, there are proposals to develop liquid natural gas import and transmission facilities in northern Baja California. Some of the gas may be made available to the San Diego region, if these facilities are developed.

More efficient use of electricity and gas, through conservation, more efficient appliances and machinery, and demand reduction programs, among others, can help reduce the region's need for imported energy.

Energy supply and costs are controlled by many factors: national and international events; federal and state legislation and regulatory measures; price; and supply. Major regulatory agencies are the U.S. Department of Energy and its Federal Energy Regulatory Commission, and the California Energy Commission and Public Utilities Commission. Mexico has similar regulatory agencies that have oversight of energy facilities in that country.

This chapter does not discuss gasoline, diesel, or kerosene for autos and other transportation vehicles, nor propane for heating and cooking.

EXISTING PLANS AND PROGRAMS

1994 Regional Energy Plan

The San Diego Regional Energy Plan was adopted by SANDAG in 1994. It identified significant energy issues for the region, offered a portfolio of preferred energy resources, objectives, policies, and specific Action Plan measures for local implementation. The plan called for transportation control measures, clean-operating vehicles, measures to improve the efficiency of energy use in buildings, and development of distributed generation.

San Diego Regional Energy Office

As a result of the 1994 Regional Energy Plan, SANDAG, with other local agencies, formed the independent non-profit San Diego Regional Energy Office (SDREO) in 1998. It provides objective information and research, analysis, and long-term planning on energy issues for the region. Using funds collected from rate payers, it manages a variety of rebate, incentive, and educational programs.

Funded by SANDAG and other public and private partners, the SDREO managed the San Diego Regional Energy Infrastructure Study, which was accepted in 2002. The study developed a fact-based foundation for assessing the region's electricity and natural gas needs through 2030. The

report included a comprehensive inventory and evaluation of current (2002) and potential future energy supply and infrastructure required to meet the region's growing needs.

2003 Regional Energy Strategy

SANDAG, with other partners, produced the 2003 Regional Energy Strategy (RES), which used the technical information of the Regional Energy Infrastructure Study to develop a vision for how energy will be produced and consumed in the region. The RES proposes eight goals and the implementation steps necessary to achieve them. These goals are:

1. Achieve and represent regional consensus on energy issues at the state and federal levels.
2. Achieve and maintain capacity to generate a major portion of summer peak demand with in-county generation.
3. Increase the total electricity supply from renewable resources, especially from resources located within the region.
4. Increase the total contribution of clean, distributed generation resources (non-renewable).
5. Increase the transmission system capacity as necessary to maintain required reliability and to promote better access to renewable resources and low-cost supply.
6. Reduce per capita electricity peak demand and per capita electricity consumption.
7. Develop policies to ensure an adequate, secure, and reasonably priced supply of natural gas to the region.
8. Reduce regional natural gas per capita consumption.

An additional goal called for a transportation energy study to evaluate potential savings through more use of transportation technology and fuels. The 1994 Energy Study noted that transportation consumed 53 percent of the region's energy. *MOBILITY 2030*, the SANDAG Regional Transportation Plan (RTP), lists programs to reduce energy uses by increasing the use of public transit, carpooling, biking, and other means.

In July 2003, SANDAG adopted the RES. In addition, it accepted the implementation report with recommendations from the RES advisory committee, the Regional Energy Policy Advisory Council (REPAC). The REPAC discussed how the RES could be implemented and proposed four options for a new implementing entity. In its Implementation Report, REPAC recommended that SANDAG form an Energy Committee with the possibility that it could transition into a Regional Energy Authority with powers vested by the state.

In December 2003, SANDAG established the Energy Working Group that advises SANDAG on issues related to the coordination and implementation of the San Diego Regional Energy Strategy adopted by the SANDAG Board of Directors in July 2003. The working group consists of elected officials from the San Diego region as well as stakeholders representing business, energy, environment, economy, education, and consumer interests. The San Diego Regional Energy Plan

(1994), San Diego Regional Energy Infrastructure Study (2002) and the San Diego Regional Energy Strategy (2003) are incorporated into the RCP by reference.

State Deregulation

Implementing a 1996 law, the state made fundamental changes to deregulate the electricity market in order to increase competition and lower costs to rate payers. These included requiring utilities to sell their generation plants and only deliver power that they had purchased. Unfortunately, this had the opposite of the intended effect, as the action resulted in substantial price increases, leading to the California energy crises of 2000-2001. At the same time, natural gas prices increased, leading to additional costs to residential and business users.

The state legislation also removed long-range planning from the industry's responsibilities. In 2003, the state legislature reversed itself and again required public utility companies to prepare a 15-year electricity plan. San Diego Gas & Electric (SDG&E) submitted its plan, which was similar to the RES' goals for the first ten years, but not as aggressive as the RES in the last five years with regard to renewable energy and demand reduction strategies. The Integrated Regional Infrastructure Study (IRIS) discusses the delivery of energy and financial aspects.

KEY ISSUES

The region faces a number of challenges with regard to energy supply, distribution, and use.

The Cost of Energy

The relative cost of energy in the San Diego region is the most obvious public concern, as prices for electricity and natural gas are expected to remain high through 2010, compared to other regions in the country. With the growth in population, and the expanded use of technology in all aspects of private and business life, the demand for energy is projected to grow faster than population growth.

The Energy Market

The energy market is affected by many factors including availability and supply, both domestic and foreign, and regulation from the federal and state governments. Energy, specifically renewable energy resources, to sustain the local economy and the quality of life for the region's residents is a major public need.

Aging Infrastructure

An overarching challenge is our aging power plants and transmission lines for electricity and transmission infrastructure for natural gas. Energy infrastructure is expensive to build, but it has a long useful life. Thus, investments made at the time of the Regional Comprehensive Plan's adoption will still have an effect on the region in 2030.

ENERGY POLICY OBJECTIVES AND RECOMMENDED ACTIONS

Policy Objective

Meet the region's energy needs in a fiscally and environmentally sound manner.

Recommended Actions

Planning, Design and Coordination

1. Promote the local production of cost-effective, environmentally sensitive energy to reduce our dependence on imported energy.
2. Promote development regulations and design standards to maximize energy efficiency and minimize potential health risks.
3. Create opportunities to coordinate energy supply strategies between governments in our greater border region.
4. Locate energy facilities, such as power plants and/or transmission lines, so that lower income and minority communities are not disproportionately negatively affected.

Program and Project Development and Implementation

1. Develop renewable energy resources, including wind, solar, and geothermal, to help meet the region's needs in an environmentally sensitive manner.
2. Replace or upgrade and modernize existing energy production facilities; expand transmission systems.
3. Identify and implement energy conservation, efficiency, and incentive programs, such as rebates.

WASTE MANAGEMENT

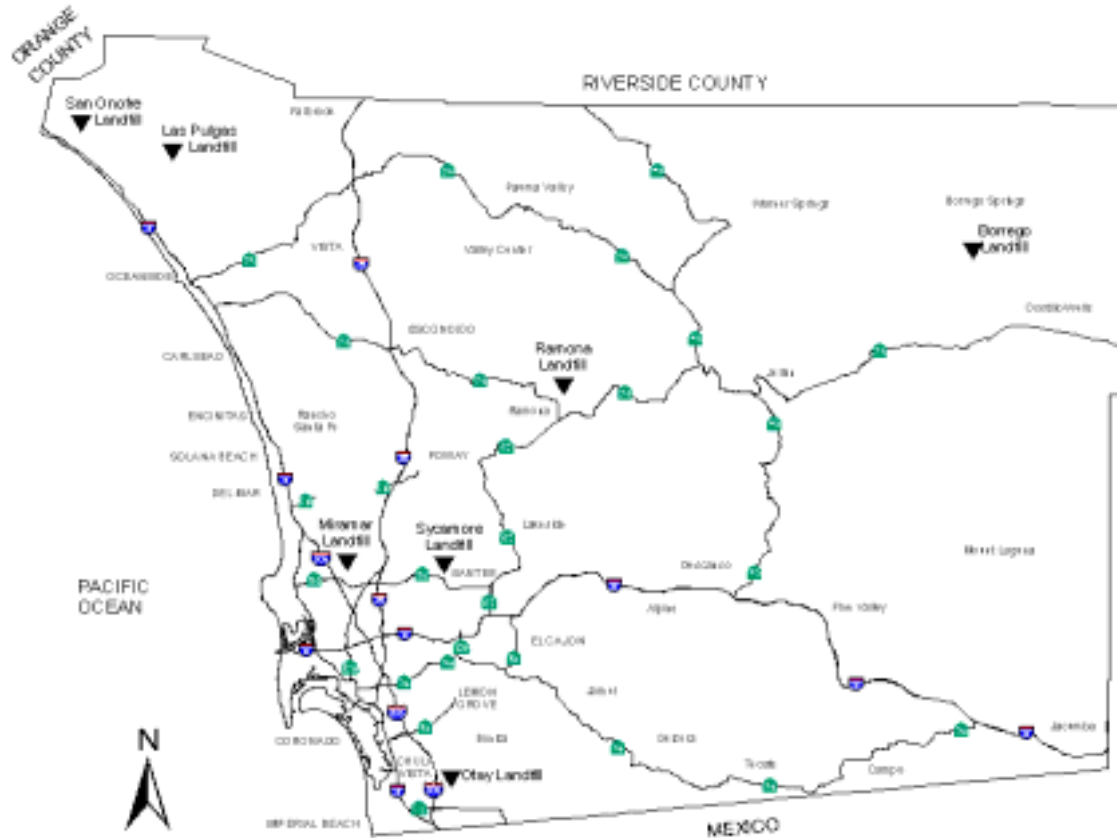
EXISTING SETTING

When we set our trash and recyclables out at our homes, we expect it to be hauled away, and we don't usually think about where it goes or where it will end up. Our region produces more waste each year and we are running out of landfill space. From 1995 through 2001, San Diego County disposed of approximately 2.8 million tons of waste annually in local landfills. In addition, the County exported an annual average of 240,000 tons of waste to other California counties and 116,000 tons out of state.³ By using the waste reduction hierarchy of waste prevention, reuse, recycling, composting, and transformation, the San Diego region can reduce the amount of waste it produces per person and maximize its existing landfill capacity.

³ County of San Diego Integrated Waste Management Plan Countywide Siting Element 2003 Amendment, Department of Public Works

The region’s waste management network is composed of landfills, transfer stations, material recovery facilities, recycling centers, composting facilities, and household hazardous waste collection facilities. Seven functional landfills exist in San Diego County (Figure 4F.7). Of these, five of them accept municipal solid waste and the remaining two, Las Pulgas and San Onofre, only accept military waste. Of those accepting municipal waste, four are privately owned.

FIGURE 4F.7—GENERAL LANDFILL LOCATIONS IN SAN DIEGO COUNTY



Source: San Diego County Department of Public Works

Landfill Capacity

The region’s long-term waste disposal capacity needs must be addressed. As shown in Table 4F.1, annual waste disposal is projected to increase from 3.7 million tons in 2002, to about 6 million tons in 2017⁴. The latter estimate is based upon disposal tonnages reported between 1995 and 2001, and assumes a 50 percent diversion (recycling and composting) rate by 2005.

⁴ County of San Diego Integrated Waste Management Plan Countywide Siting Element 2003 Amendment, Department of Public Works

**TABLE 4F.1— SAN DIEGO COUNTY RATE OF DISPOSAL
(MILLIONS OF TONS)**

| YEAR | TOTAL GENERATION (2000-2001 ACTUAL) | ESTIMATED DIVERSION % | TOTAL DISPOSAL (1995-2001 ACTUAL) | EXPORTS (1995-2001 ACTUAL) | IMPORTS (1995-2001 ACTUAL) | IN-COUNTY LANDFILL RATE OF DISPOSAL (DISPOSAL - EXPORTED + IMPORTED) |
|------|-------------------------------------|-----------------------|-----------------------------------|----------------------------|----------------------------|--|
| 1995 | | | 2.8 | 0.4 | 0.002 | 2.4 |
| 1996 | | | 2.7 | 0.3 | 0.002 | 2.4 |
| 1997 | | | 2.9 | 0.4 | 0.002 | 2.5 |
| 1998 | | | 3.2 | 0.5 | 0.006 | 2.7 |
| 1999 | | | 3.3 | 0.5 | 0.005 | 2.8 |
| 2000 | 6.6 | 48% | 3.4 | 0.2 | 0.008 | 3.2 |
| 2001 | 6.9 | 46% | 3.7 | 0.2 | 0.019 | 3.6 |
| 2002 | 7.2 | 48% | 3.7 ¹ | 0.3 | 0.009 | 3.5 |
| 2003 | 7.5 | 48% | 3.9 | 0.3 | 0.009 | 3.6 |
| 2004 | 7.9 | 48% | 4.1 | 0.3 | 0.010 | 3.8 |
| 2005 | 8.2 | 50% | 4.1 | 0.3 | 0.010 | 3.8 |
| 2006 | 8.5 | 50% | 4.3 | 0.3 | 0.011 | 3.9 |
| 2007 | 8.8 | 50% | 4.4 | 0.3 | 0.011 | 4.1 |
| 2008 | 9.2 | 50% | 4.6 | 0.3 | 0.011 | 4.3 |
| 2009 | 9.5 | 50% | 4.7 | 0.4 | 0.012 | 4.4 |
| 2010 | 9.8 | 50% | 4.9 | 0.4 | 0.012 | 4.6 |
| 2011 | 10.2 | 50% | 5.1 | 0.4 | 0.012 | 4.7 |
| 2012 | 10.5 | 50% | 5.2 | 0.4 | 0.012 | 4.9 |
| 2013 | 10.8 | 50% | 5.4 | 0.4 | 0.013 | 5.0 |
| 2014 | 11.1 | 50% | 5.6 | 0.4 | 0.013 | 5.2 |
| 2015 | 11.5 | 50% | 5.7 | 0.4 | 0.013 | 5.3 |
| 2016 | 11.8 | 50% | 5.9 | 0.4 | 0.014 | 5.5 |
| 2017 | 12.1 | 50% | 6.1 | 0.4 | 0.014 | 5.6 |
| 2018 | 12.4 | 50% | 6.2 | 0.4 | 0.015 | 5.8 |
| 2019 | 12.8 | 50% | 6.4 | 0.5 | 0.015 | 5.9 |
| 2020 | 13.1 | 50% | 6.5 | 0.5 | 0.015 | 6.1 |

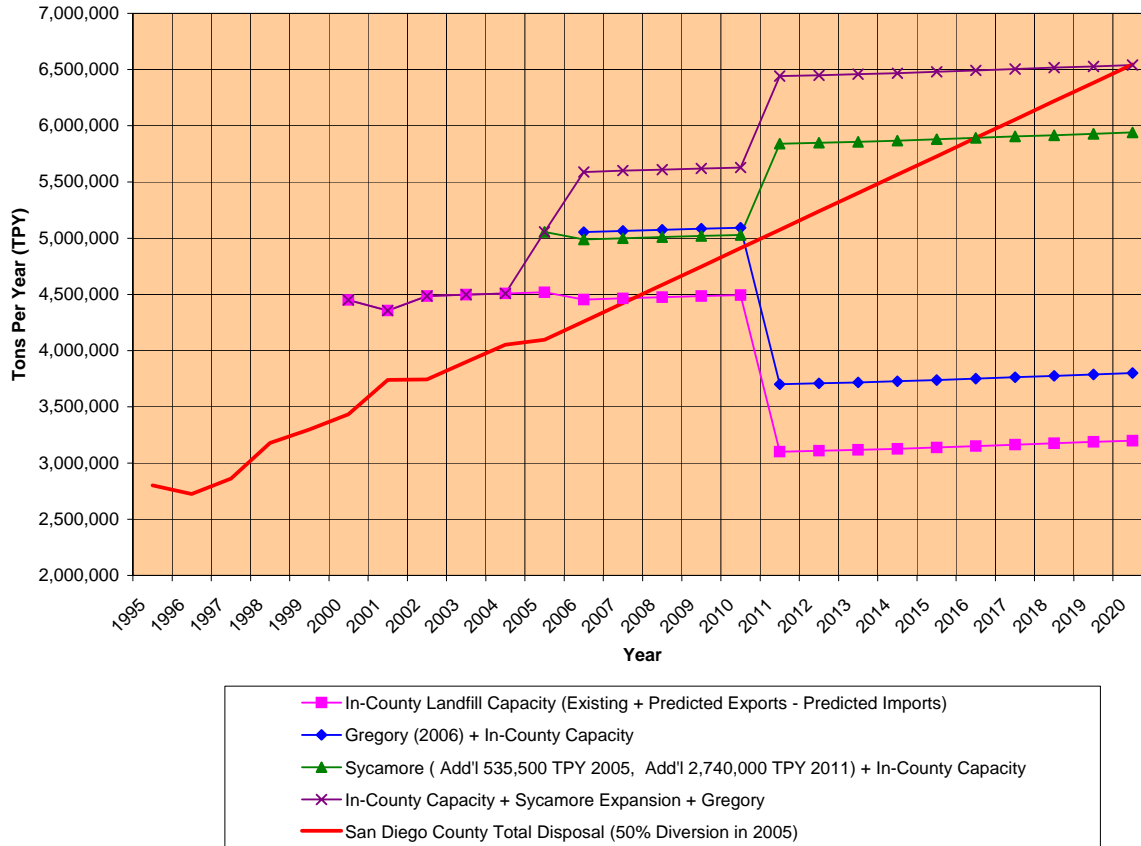
¹ California Integrated Waste Management Board estimate; actual is 3.6 million tons.

Source: San Diego County Department of Public Works

Future landfill capacity depends on the adequacy of the physical capacity and whether the facilities will be able to accept waste at the region's rate of disposal. Physical landfill capacity is defined as the remaining volumetric landfill capacity of existing landfills. Even though physical landfill capacity may be sufficient, the rate at which materials can enter landfills is restricted by the following constraints: the amount of annual and/or daily traffic and by tonnage limits at disposal and transfer facilities. These limits are a matter of traffic control and health and welfare protection, but they can be changed through the permit review process.

If the 2002 permitted limits on disposal rates are not changed, and without increased landfill space, diversion, or exporting of waste, the region will likely run out of landfill disposal capacity by 2016 (as shown in Figure 4F.8).

FIGURE 4F.8—SAN DIEGO COUNTY ANNUAL RATE OF DISPOSAL PROJECTION (BASED ON ANNUAL PERMITTED DISPOSAL TONS)



Source: San Diego County Department of Public Works

Landfill Expansions

The City of San Diego is considering expanding the Miramar and Sycamore Canyon landfills. Specifically, the City is considering options regarding “vertical expansion” (a vertical increase in the permitted volume design capacity of the landfill) of Miramar Landfill, which would otherwise be expected to close by 2011. Vertical expansion could extend the landfill’s operational life by three to 10 years. Sycamore Landfill Inc. and Allied Waste of North America have applied for a permit to expand the Sycamore Canyon Landfill, subject to certification of an Environmental Impact Report. The proposal includes an expansion of capacity over time, with a staged increase in annual and daily permitted disposal capacity at around year 2005 from the current 3,300 tons per day to 5,000 tons per day, and when Miramar Landfill closes to 12,000 tons per day. While a permit for expansion has been submitted, expansion is not guaranteed at the Sycamore Canyon landfill.

Proposed New Landfill

One new landfill is proposed in San Diego County at the time of the preparation of this Regional Comprehensive Plan. Gregory Canyon was incorporated into the County of San Diego’s General Plan by a voter initiative on November 8, 1994, as a possible landfill site. Environmental review and permitting procedures are underway. The future date of opening this landfill remains uncertain because of opposition to the facility by concerned municipalities, agencies, and private parties.

EXISTING PLANS AND PROGRAMS

Integrated Waste Management is a method of reducing the overall generation of waste and treating discarded materials as a resource, rather than as a substance of no value. The Integrated Waste Management Act of 1989 (IWMA) or “AB 939,” was enacted by the California legislature to reduce our dependence on sending waste to landfills, and set forth policies and mandated requirements for state and local governments to ensure an effective and coordinated approach to safe management of all waste generated within the state.

The law promotes a hierarchy of preferred waste and materials management practices. The highest priority is to reduce the amount of waste generated at its source (source reduction). The next priorities are: reuse (extending the life of existing products), recycling of materials, and composting of organic materials. Source reduction, reuse, recycling, and composting are referred to as waste diversion methods, because they divert materials from the landfill. The lowest priority in the hierarchy is the disposal by environmentally safe transformation or landfilling.

In order to meet the waste reduction mandates and planning requirements specified by the law, local jurisdictions are required to prepare a Countywide Integrated Waste Management Plan (CIWMP) with five elements. These elements are the Source Reduction Recycling Element (SRRE), the Household Hazardous Waste Element (HHWE), the Non-Disposal Facility Element (NDFE), the Siting Element, and a Summary Plan. The 2003 San Diego CIWMP is incorporated into the Regional Comprehensive Plan by reference.

The Countywide Siting Element in the CIWMP must demonstrate that landfill facilities (existing or planned) and strategies will provide adequate capacity for 15 years disposal of solid waste for all jurisdictions within San Diego County. The Siting Element assists local governments and private industry in planning for integrated waste management and the

Components of the Countywide Integrated Waste Management Plan

- § **Source Reduction and Recycling Element (SRRE).** Provides a framework of programs to meet the waste reduction mandates and analyzes the local waste stream to determine where to focus the waste reduction efforts.
- § **Household Hazardous Waste Element (HHWE).** Provides a framework for the reduction, recycling, and safe disposal of toxic household products.
- § **Non-Disposal Facility Element (NDFE).** Lists existing and planned transfer stations, material recovery facilities, and composting facilities that will assist the jurisdiction in recovering or diverting recyclable materials from the waste stream.
- § **Countywide Siting Element.** Demonstrates that there are 15 years of remaining disposal capacity, if combined with proposed landfill expansions and increased diversion efforts, to serve all of the jurisdictions within the region.
- § **Countywide Summary Plan.** Summarizes each jurisdiction’s programs to meet the reduction mandates, and the steps needed to implement and administer the programs. The Countywide Summary Plan should be updated every five years.

siting of waste disposal facilities. The Countywide Siting Element is reviewed every five years. San Diego County's review and revision of the Siting Element began in 2002, and projects disposal needs for the 15-year period of 2002 to 2017.

In 1990, SANDAG was designated the region's Integrated Waste Management Local Task Force (LTF) and, in this capacity, is responsible for advising and assisting the region's cities and the County of San Diego in complying with the IWMA. The LTF has two committees whose purpose is to advise SANDAG on Siting Element issues; 1) the Citizens Advisory Committee (CAC), consisting of public interest groups and industry representatives, and 2) the Technical Advisory Committee (TAC), consisting of the County Chief Administrative Officer and the city managers or their representatives from each of the 18 cities in the region.

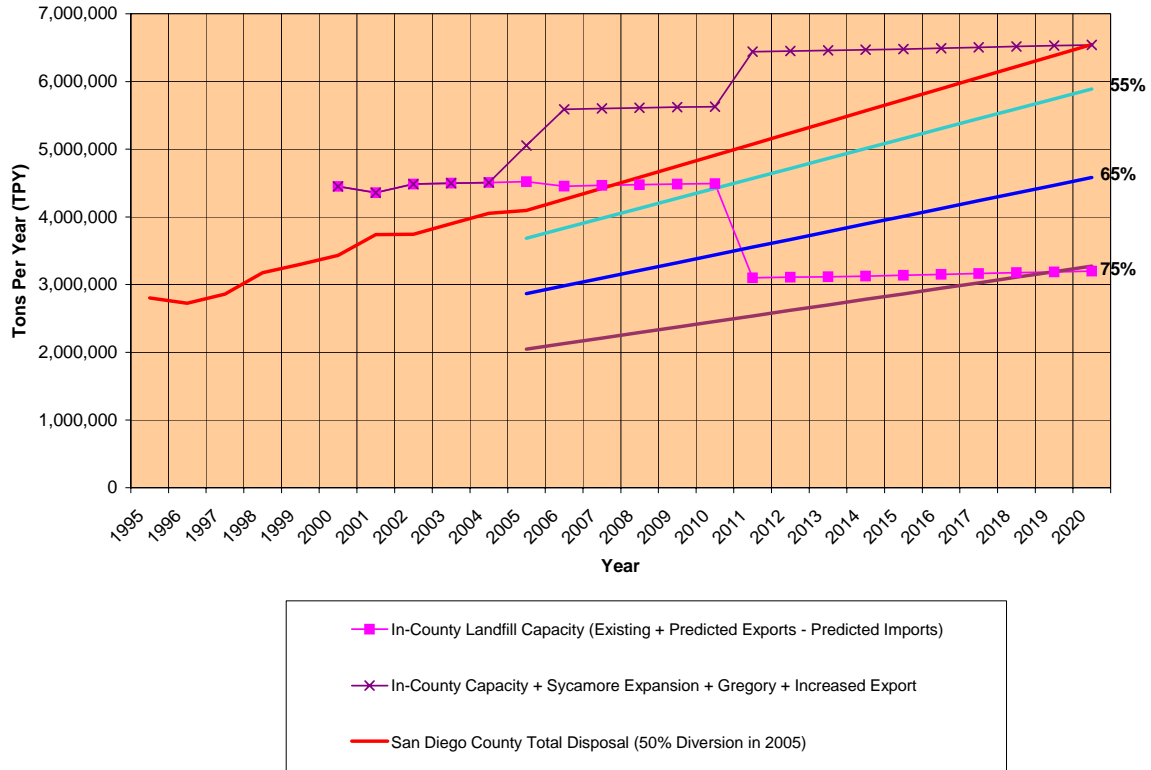
KEY ISSUES

Dwindling Landfill Space

Dwindling landfill space in the region and the need for resolving waste management through a number of strategies is the key issue. Considering the increasing tonnage of trash entering the system, the region needs a multi-faceted approach that will address landfill disposal capacity shortages in the region. The following are strategies to address these deficiencies:

§ **Diversions.** Focus the region's efforts on resource recovery (the effective recovery of natural resources from waste) and recycling. The San Diego County regional diversion rate in 2002, of materials going to landfills, was 48 percent. While the cities and the County continue to optimize the current disposal capacity by implementing an integrated waste management system through each jurisdiction's SRRE and HHWE, the strategy for ensuring adequate landfill capacity relies on the region meeting the state requirement of 50 percent diversion of waste. At current landfill capacity, reaching 55 percent diversion of recyclable materials in 2005 would give the County an additional two years of capacity, and each 10 percent increase of diversion could give the County between four and six additional years of landfill capacity (as shown in Figure 4F.9). At 75 percent diversion starting in 2005, there would be no need for additional landfill space during the 15-year capacity requirement of the Countywide Siting Element.

FIGURE 4F.9—SAN DIEGO COUNTY ANNUAL RATE OF DISPOSAL PROJECTION DIVERSION OPTIONS (BASED ON ANNUAL PERMITTED DISPOSAL TONS)



Source: San Diego County Department of Public Works

- § **New Facilities and Technologies.** Landfill capacity can be preserved through new technologies in waste reduction and diversification of disposal options. Adequate land should be zoned for the development of more facilities in the region for composting, material recovery, and reuse of construction and demolition materials, which could provide environmentally safe alternatives to disposal. In 2001, the region disposed of approximately 300,000 tons of construction and demolition material at the Miramar Landfill. If mixed construction and demolition processing facilities were to be sited in the region, waste disposal could be reduced by at least 10 percent. Additional composting operations could divert extra tonnage because organic materials make up 40 percent of the region’s waste stream. This could be accomplished if jurisdictions had the ability to ban certain types of compost material from landfills, such as yard trimmings, paper, and food.
- § **Increase Disposal Limits for County Landfills.** The combined physical capacity of existing and proposed landfills could provide sufficient short-to-mid-term disposal capacity for the region. However, the current daily and annual limits on traffic and amounts of solid waste allowed into the facilities under the solid waste facility permits and local land use permits would have to be increased.

§ **Export Waste.** The amount of waste exported out-of-county has fluctuated greatly from year to year. In 1995, the region exported 14 percent of its waste, compared to four percent in 2001. Even if the Sycamore Canyon landfill expansion and the proposed Gregory Canyon landfill are approved, the region will need to export 7.2 percent of its waste in 2017 in order to meet the region's disposal need of six million tons. If neither landfill proposal is approved, the region may need to export up to 55 percent of its waste in 2017.

§ **Proactive Waste Management Strategies.** The San Diego region is running out of landfill space and therefore needs to take a proactive approach in achieving a sustainable urban waste management system.

Of all the environmental problems we face, trash is one issue individuals really can do something about. Reducing the amount of solid waste we generate must become a top priority for households and businesses. Promoting and expanding waste reduction, recycling, household hazardous material collections, and composting programs throughout the region and emphasizing waste prevention practices are essential. Developing incentives to encourage participation in these types of programs is necessary. Public education and changes in lifestyle are also needed for consumers to buy products with minimal packaging, which can be reused, and that are made from recycled materials.



§ **Intergovernmental Cooperation.** Cooperation is needed among jurisdictions of the region to generate local markets for recycled materials. This is important to sustain and support the recovery of recyclables from the waste stream. More programs and incentives to assist industry to use recycled content materials would help make this aspect of diversion sustainable. Implementing these types of programs would greatly reduce the need for new landfills in the region and the dependence on out-of-county exports.

§ **Investment in Waste Management Infrastructure.** The region must work together to provide methods of waste disposal that protect the environment and ensure a high quality of life for all residents. We must anticipate the demands of future growth. We must also place a higher priority on diverting and recovering materials rather than burying them in landfills. Providing new facilities, such as composting facilities for the region's large amount of organic material, as well as investing in new technologies for disposal, would considerably reduce the amount of waste we dispose of in the future. However, as we site necessary new waste handling facilities, environmental justice concerns should be considered, and we need to ensure that they are sited in a way that do not disproportionately affect any one community. Siting policies should seek to avoid the over-concentration of such facilities, especially in proximity to residential dwellings and schools.⁵

⁵ An additional discussion about the siting of public facilities is included in the Social Equity and Environmental Justice Assessment chapter.

WASTE MANAGEMENT POLICY OBJECTIVES AND RECOMMENDED ACTIONS

Policy Objectives

1. Minimize the need for additional landfills and provide economically and environmentally sound resource recovery, management, and disposal facilities.
2. Exceed the state-mandated 50 percent waste stream diversion rate and work toward a 75 percent diversion rate.

Recommended Actions

Planning, Design, and Coordination

1. Use the Siting Element of the Countywide Integrated Waste Management Plan as a guide to locate facilities to meet the region's future disposal needs.
2. Identify and secure an appropriate and coordinated network of sites for recycling, resource recovery, composting facilities, and transfer stations.
3. Site waste disposal and management facilities in a manner that protects public health and safety and does not disproportionately negatively affect lower income and minority communities.

Program and Project Development and Implementation

1. Significantly reduce the waste generated within the region by encouraging the use of products with less packaging and the reuse of existing resources.
2. Implement, promote, and provide incentives for composting, recycling, construction and demolition, and household hazardous waste material collection programs.
3. Develop public education and industry training programs to encourage waste reduction and resource recovery.

PARKS, LIBRARIES, POLICE, FIRE, AND HOSPITALS

The public facilities available to residents within their own neighborhoods can boost their quality of life and enhance their sense of place. Schools and colleges educate young and old. Community parks and libraries provide places to play, learn, and socialize.

Thoughtful siting of police, fire, and health care facilities help residents feel secure. As seen in the Core Values section of Chapter 2, these issues are extremely important to local residents and add to the character and appeal to many communities, in addition to providing necessary public services.

Each local jurisdiction is responsible for planning and siting these specific public facilities. For that reason, this first Regional Comprehensive Plan does not address the planning, financing, or implementation of libraries, police, fire, and hospitals. A discussion of parks and open space is included in Chapter 7, the Integrated Regional Infrastructure Strategy (IRIS). With regard to public safety, a SANDAG Public Safety Committee was recently created that advises the Board of Directors on major policy-level matters related to public safety. Composed of both elected officials and public safety representatives, the goals of the group include improving the quality of life in the region by promoting public safety and justice through collaboration, information sharing, effective technology, and objective monitoring and assessment.



EDUCATION



Good schools are major community assets. Many families' first concern when choosing a home is the quality of the local school district. The perceived superior quality of suburban schools have drawn many families away from the urban core, which has contributed to sprawl, the loss of open space, and increased traffic congestion. Smart-growth objectives and more intense development will only be achieved if the quality of our schools in our existing urban areas is improved.

The San Diego region is beginning to develop new strategies for creating innovative educational facilities that serve multiple roles as neighborhood parks, arts and cultural centers, youth sports facilities, and adult learning centers. This, combined with a more compact design of schools, especially those in urban areas, can help to use land more efficiently. This process takes place at the local level between local jurisdictions, local school boards, and universities, increasingly involving neighborhood and community input.

Because the planning and siting of elementary and secondary schools and community colleges is primarily a responsibility of local school districts, and because the planning and siting of public universities is primarily a state responsibility, the Public Facilities chapter of this initial Regional

Comprehensive Plan does not include an in-depth discussion of the planning aspects of the educational system. However, the financial aspects of educational facilities are addressed in the IRIS.

CONCLUSION

The overall goal of this chapter is to ensure that the region provides public facilities that meet our current and future needs in a timely, efficient, and sustainable manner. Although this chapter primarily focuses on water supply, energy, and waste management, public facilities also include important assets such as parks, libraries, police, fire, hospitals, and schools. Recognizing the importance of these services, it is imperative that the region makes efficient use of its resources in order to meet communities' needs. The goals, policy objectives, and actions set forth in this chapter are an important step in this direction and aim to maintain and enhance the quality of life for all of our region's residents.

BORDERS

Forging a Better Future with our Neighbors

2030 VISION

The greater Southern California-Baja California region boasts a seamless network that connects our economies, infrastructure, transportation, environment, and tourism industries.

Major achievements have been made in cross-border infrastructure investment. Our air, land, and sea ports are served by extensive highway and rail transportation networks geared toward moving freight and goods north and south, east and west.

We work closely with Mexico and our surrounding neighbors to maintain a healthy environment, and both sides of the international border are recognized throughout the world for clean air and water and thriving ecosystems. We have established linkages and common land management practices along our borders.

Most of our workers live here in San Diego County. However, those who travel to and from neighboring counties and Mexico have a number of commuting choices, including high-speed rail, better trolleys, buses, train-like services, carpools, and vanpools. Our international border is transparent as many in Europe, and border-crossings are fast and safe.

INTRODUCTION

The San Diego region's borders have traditionally been thought of as limited to the jurisdictional boundaries of San Diego County; however, over the years, the perceptions of our borders have expanded. San Diego County increasingly has close ties to its neighboring counties and Mexico, which challenge us to think of our region beyond our borders. We are also home to seventeen diverse tribal governments which are sovereign nations within our border. Our abundant natural resources, as well as our location on the U.S.-Mexico border, make our region an attractive place to live and work. Continued growth here, as well as in the surrounding regions, is evidence of this desirability. The region's distinct characteristics also present a variety of opportunities and challenges for planning and coordination along our interregional and binational borders.



SANDAG's Borders Committee brings together elected officials and representatives from Orange, Riverside, and Imperial counties, and Mexico. Together, the Borders Committee is tackling a number of significant issues facing the region and its surrounding counties, tribal reservations, and Mexico.

The committee has set the following overall goal and guiding principles to serve as the framework for policy objectives and actions that will advance important initiatives to enhance the cross-border region:

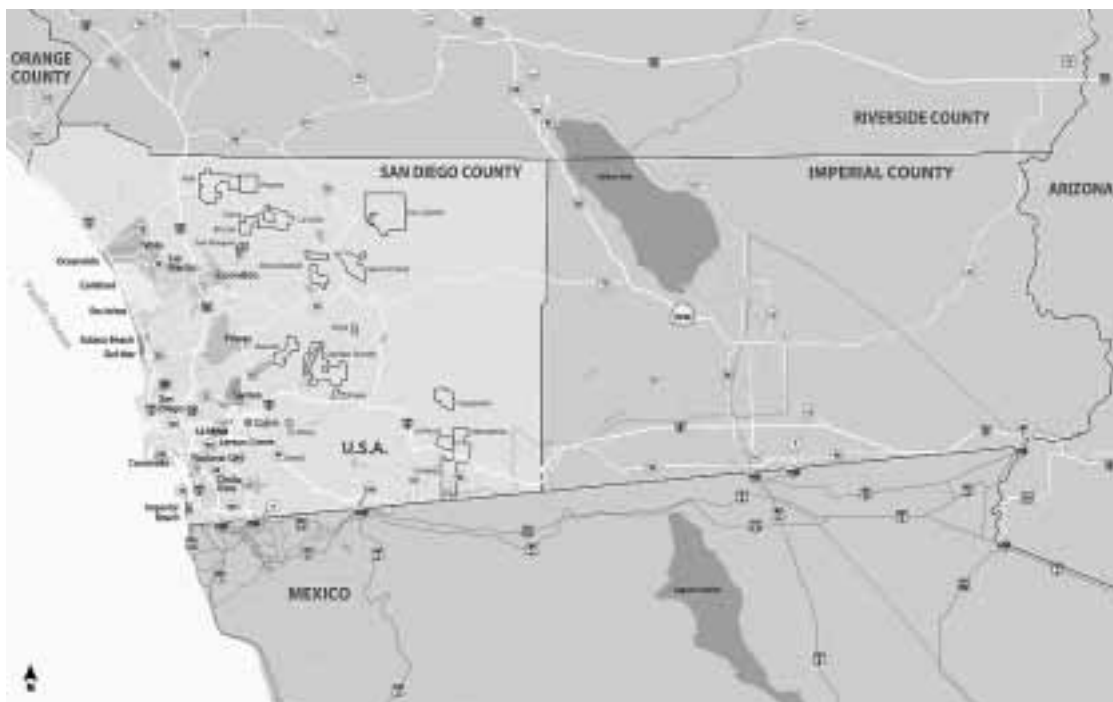
Goal

Create a regional community where San Diego, our neighboring counties, tribal governments, and northern Baja California mutually benefit from our varied resources and international location.

Guiding Principles

- § Our region will pursue fair and equitable planning with consideration of interregional impacts and will maintain active and honest communication with our neighboring counties, tribal governments, and Mexico.
- § Our region will promote shared infrastructure, efficient transportation systems, integrated environmental planning and economic development with our neighboring counties, tribal governments, and Mexico.
- § Our region recognizes that it is a unique and dynamic place to live — one that embraces cultural diversity, promotes interregional understanding, and benefits from our varied history and experience.

FIGURE 5.1—THE SAN DIEGO REGION, SOVEREIGN INDIAN NATIONS, AND NEIGHBORING AREAS



Source: SANDAG

This goal and these guiding principles will be considered from two perspectives — the binational perspective with relation to our international border with Mexico; and the interregional perspective regarding issues with our Orange, Riverside, and Imperial County neighbors. This Plan also addresses working with tribal governments within San Diego County boundaries, which are part of the region but are also sovereign nations, and thereby best discussed in the Borders context.

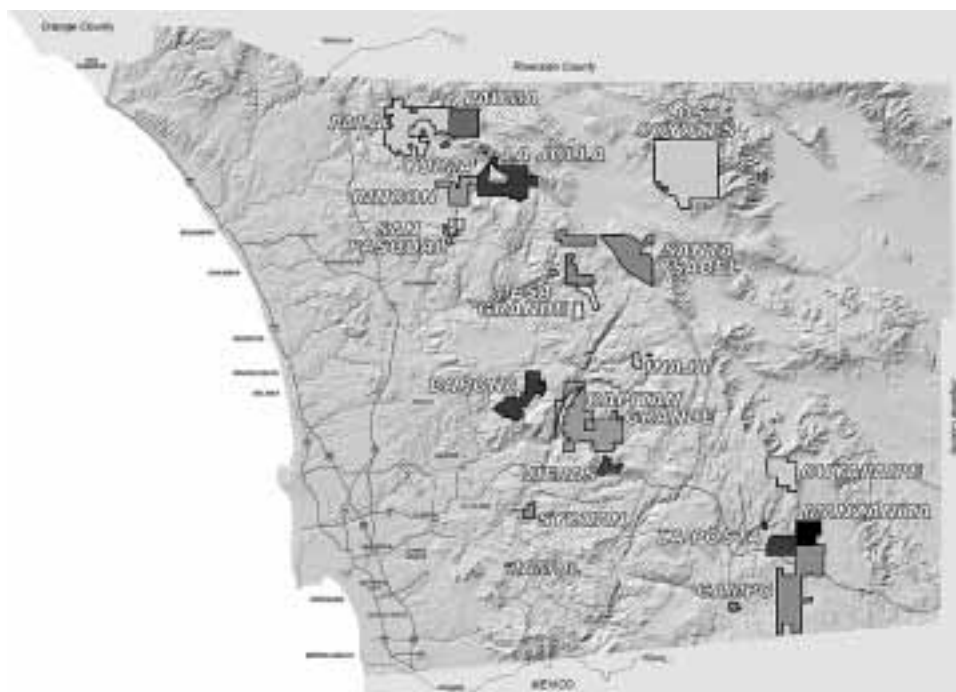
This chapter focuses primarily on current border-related issues; the proposed policy objectives and actions are strategic rather than comprehensive in nature. Since the RCP is implemented at a regional level, the Borders chapter emphasizes strategies for addressing *specific* border-related issues, rather than attempting to resolve all border-related issues.

The Borders Committee has identified six critical planning areas around which to focus its collaborative efforts: jobs/housing accessibility, transportation, energy and water supply, environment, economic development, and homeland security. These six issue areas serve as the focus of this chapter.

EXISTING SETTING

The San Diego region occupies a unique geographic position. Our boundaries are defined by mountains, deserts, and the Pacific Ocean; as well as the growing counties of Orange, Riverside, and Imperial; Marine Corps Base Camp Pendleton; and the U.S.-Mexico border. Within our boundaries, we also have eighteen federally recognized Indian reservations represented by seventeen sovereign tribal governments.

FIGURE 5.2—SOVEREIGN INDIAN NATIONS - SAN DIEGO REGION



Source: SANDAG

The region features diverse landscapes, politics, economics, languages, and culture. Therefore, it behooves us to make every effort to understand and consider not just our own future but also that of our geographic neighbors. Our regions are linked socially and economically, as demonstrated by the quantity of goods and people that flow across our borders on a regular basis. Otay Mesa, our region's main commercial port of entry, is the third-busiest commercial crossing in trade value and second in the number of truck crossings along the U.S.-Mexico border.¹ The passenger port of entry at San Ysidro is one of the busiest international land ports of entry in the world.

The San Diego region imports up to 90 percent of its energy and up to 95 percent of its potable water, and shares delivery systems for these resources with our neighbors to the north, east, and south. Infrastructure that crosses our boundaries, such as roadways, ports of entry, energy, transmission lines, and water delivery systems are a major concern.

Binational Growth

San Diego's location on the U.S.-Mexico border offers many distinct opportunities. Capitalizing on these will require a positive and productive relationship with the federal government of Mexico, as well as with Mexican state and municipal governments.

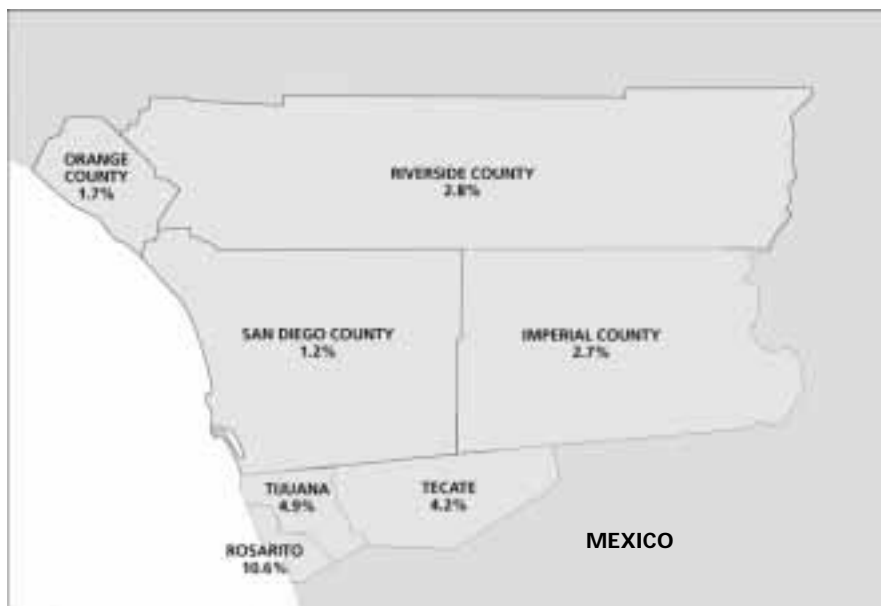
With a current combined border population of 4.5 million in San Diego County and the northwestern coastal municipalities of Baja California, and a projected combined population of seven million by 2030, our binational border region also faces a number of challenges. One of these challenges is national security. The tragic terrorist events of September 11, 2001 and the aftermath, have forced us to address cross-border issues with a heightened sensitivity to homeland security. Today, agencies on both sides of the border are collaborating to address the challenges of maintaining heightened security at our international border, while still providing for the efficient flow of people and goods.

Interregional Growth

How we grow inevitably affects those around us, just as growth around us affects our region. During the 1990s, the San Diego region's average annual population growth rate paralleled the national average as shown in Figure 5.3. However, the rates in Orange, Riverside, and Imperial Counties, and Baja California were substantially higher.

¹ U.S. Department of Transportation.

**FIGURE 5.3—SOUTHERN CALIFORNIA/NORTHERN BAJA CALIFORNIA
ANNUAL AVERAGE GROWTH RATES, 1990-2000**



Source: U.S. Census Bureau and Instituto Municipal de Planeación (IMPlan).

This growth increases the demand for local and imported resources, such as water and energy, creates a need for more infrastructure such as housing and roadways, and places increasing pressure upon the natural environment. How we plan to meet these demands will affect those around us, and vice-versa. Coordinated interregional and intergovernmental planning is needed to alleviate potential conflicts, promote collaborative solutions, and protect the overall quality of life in our interregional and binational area.

Tribal Reservations

The region is home to 18 Native American reservations represented by 17 tribal governments,² the most in any county in the United States. Reservations have generally been established by Executive Order, and most of the land within the boundaries of reservations is owned by tribes and held in trust by the federal government. Native American reservations currently cover more than 116,000 acres, or approximately four percent of the region's land. Four tribal groupings make up the indigenous peoples of San Diego County: the Kumeyaay/Diegueño, the Luiseño, the Cupeño, and the Cahuilla.

The U.S. Constitution and treaties recognize Native American communities as separate and independent political communities within the territorial boundaries of the United States. Tribes are subject to federal regulations, but are not subject to local or state regulations, unless the U.S. Congress delegates implementation of federal law to the state. Tribal governments operate much like those of local jurisdictions. In addition to the standard governmental functions of regulating, taxing and delivering services, tribal governments act to preserve and protect tribal culture and the

² While each Reservation has its own government, Barona and Viejas also jointly administer one, that of Capitan Grande.

tribal community. Tribal governments are also responsible for the development, management and operation of tribal economic enterprises.³

A number of planning issues surround these reservations. Reservations in San Diego County are typically in remote areas. Inadequate access to and from the reservations often results in a lack of employment opportunities, as well as insufficient health, social and cultural services. Recently, 14 of the tribes have developed or have agreements to develop gaming facilities as a means of economic development, giving San Diego County the greatest number of Indian gaming facilities in California. Gaming-related and other types of development have led to rapid economic growth for these tribes while also providing jobs and stimulating the regional economy. This growth has been accompanied by increases in traffic, jobs-housing accessibility issues, and the need for additional resources such as water and energy. Even those tribes that do not have gaming facilities continue to have economic development, transportation, and infrastructure needs. To address these issues, state agencies, local governments, and SANDAG are working to increase communications with tribal governments.

EXISTING PLANS AND PROGRAMS

SANDAG's Binational Planning and Interregional Planning programs address important binational, intergovernmental, and interregional issues such as transportation infrastructure, economic development, and environmental planning and preservation.

The Borders Committee of the SANDAG Board of Directors supervises planning activities that affect all the borders of the San Diego region (Orange, Riverside, and Imperial counties, and Baja California, Mexico). It advises the SANDAG Board of Directors on major interregional planning and policy matters and oversees both SANDAG's Committee on Binational Regional Opportunities (COBRO) and the I-15 Interregional Partnership (I-15 IRP).

Binational Planning

SANDAG's binational planning program calls on a wide array of experts in this region to provide advice on important binational topics. The Committee for Binational Regional Opportunities (COBRO) serves as a working group to support the SANDAG Borders Committee and makes recommendations for actions by appropriate agencies. COBRO brings together representatives from cities, government agencies, businesses, academia, and other organizations located on both sides of the U.S.-Mexico border and is the region's only government-sponsored public advisory committee addressing the binational community.

SANDAG works with many other public agencies, private organizations, and institutions beyond the COBRO to address cross-border issues in a comprehensive manner. They include:

- § Business organizations such as local chambers of commerce and economic development corporations;
- § Academic institutions such as California State University San Marcos, San Diego State University (SDSU), University of California San Diego (UCSD), University of San Diego (USD), Centro de Enseñanza Técnica y Superior (CETYS); Centro de Investigación Científica y de Educación Superior

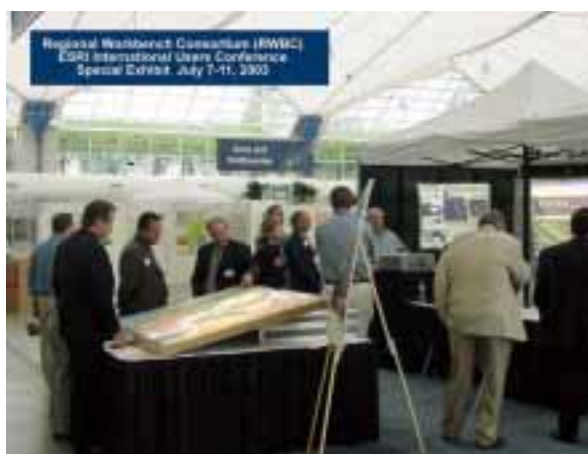
³ Source: State of California Department of Transportation, "Transportation Guide for Native Americans," November 2002

de Ensenada (CICESE); El Colegio de la Frontera Norte (COLEF); Universidad Autónoma de Baja California (UABC), and Universidad Iberoamericana (UIA);

- § Public policy research centers such as the Center for U.S.-Mexican Studies (UCSD); Institute of the Americas; Institute for Regional Studies of the Californias (SDSU); San Diego Dialogue (UCSD); and Trans-border Institute (USD); as well as non-profit organizations such as the International Community Foundation (ICA);
- § Multisectoral crossborder initiatives such as the Binational Tijuana Watershed Advisory Council (BWAC); Border 2012; and the Regional Workbench Consortium (RWBC).
- § Local consuls general offices of Mexico and the United States, which have played an important role in facilitating federal participation in important cross border initiatives.

Many other community-based, environmental, and issue-specific entities are also engaged in cross-border collaboration and problem solving.

Transportation infrastructure in the border region is critical to both Mexico and the United States. SANDAG coordinates a number of comprehensive planning efforts to improve U.S.-Mexico border transportation and infrastructure. Border-related transportation projects are included in *MOBILITY 2030*, SANDAG's Regional Transportation Plan (RTP).



Other cross-border efforts include plans and policies to improve water quality and supply, develop and expand energy resources, and protect marine and terrestrial habitats.

Innovative leadership among governments, agencies, and other stakeholders in northern Baja California and Southern California has helped improve transportation infrastructure, enhance economic competitiveness, and work toward a more sustainable environment for the region.

Interregional Planning

One of SANDAG's most active interregional programs is the I-15 Interregional Partnership (IRP), funded by the California Department of Housing and Community Development (HCD). The IRP is a voluntary partnership among elected officials representing communities along Interstate 15. Three regional government agencies, including SANDAG, the Southern California Association of Governments (SCAG), and the Western Riverside Council of Governments (WRCOG), meet to address the inaccessibility between jobs and housing that has caused increasing traffic congestion between San Diego and Riverside counties.

The initial Interregional strategies focused on coordinating the transportation programs operating separately in the two regions: including transit ridesharing and employer programs, like teleworking, to reduce commuting. Between May 2003 and May 2004, daily vanpool riders increased from 970 to more than 1,300 commuters each day. While interregional transit ridership is still quite

low, it increased one-third from January to March 2004 to more than 600 riders per month. It has been a successful, ongoing collaborative effort.

Tribal Government Planning

SANDAG's intergovernmental planning efforts include improving communication with tribal governments. SANDAG and the leaders of the region's tribal governments have begun meeting to promote cooperation and coordination. Additional avenues to improve communication are currently being explored, with the goal of building cooperative and collaborative government-to-government relationships between SANDAG and the tribal governments.

KEY ISSUES

ACCESS TO JOBS AND HOUSING

The growth projected for San Diego region over the next 30 years is a function of economic expansion and job creation, a continued influx of people moving to the area, and natural population growth within the area. However, home construction in the San Diego region has not kept pace with population growth. During the 1990s, only about 94,000 new homes were built, or one home for every 3.4 residents. In comparison, during the 1980s the region was building one home for every 2.9 new residents, and in the 1970s we were building one home per 1.9 new residents.

Consequently, housing prices have risen, making home ownership difficult for much of the population. As of the first quarter of 2002, only 21.6 percent of homes sold in San Diego County were affordable to a family of four earning the median yearly income of \$60,100⁴. By February 2004, only 15 percent of households in the San Diego region would have been able to afford a median priced home.⁵ As a result, many people who are employed in the region have started moving to neighboring regions, including southwestern Riverside County, Imperial County, and Baja California, in search of homeownership.

As referenced in the Overview and Housing chapters of the RCP, when taken together, existing local land use plans do not accommodate the amount of growth anticipated in our region. If we continue to build homes at a slower pace than we add people, interregional commuting will increase. Over the 30-year period, it is estimated that 93,000 households would, in effect, be "exported" to Riverside County, Baja California, or even Imperial County unless there are significant changes to today's land use plans. This imbalance will result in the worsening of four trends we see in the region today: high housing costs, low vacancy rates, more persons per household ("doubling up"), and an increase in long-distance interregional commuting by the region's employees who seek less expensive housing in surrounding areas. Census data from 1990 and 2000 indicate that the number of people commuting from Riverside County almost tripled in the last decade. And a more recent survey found the flow of interregional commuters to be increasing steadily.

⁴ Median income for a family of four according to the California Department of Housing and Community Development

⁵ Source: California Association of Realtors, Housing Affordability Index, April 2004

Long-distance commuting, both interregional and from within the region, puts a tremendous strain on our roads, freeways, infrastructure, and personal lives. While some amount of interregional commuting will always occur, providing additional housing capacity in key locations within the more urbanized areas of the region could assist in reducing the projected increases in interregional commuting and provide more housing and transportation choices to our residents.

Binational Perspective - Jobs/Housing

While it is well known that many Mexican residents cross the border on a daily basis to work, recreate, shop, and attend U.S. schools, it is less well known that many Americans also reside in Mexico and cross the border daily for these same purposes.

Even a decade ago, among the hundreds of thousands of crossings a month, an estimated 40,000 were made by commuters traveling to work on a daily or weekly basis from Mexico.⁶ Forty-four percent of these commuters were employed in the service sector, including firefighters, security guards, cooks, bartenders, and waiters. Although there have been no recent studies of border crossers to determine their frequency and purpose, it is safe to say that this number has grown, as has the diversity of sectors in which they are employed since the early 1990s. The daily pressure upon the border ports of entry and its related infrastructure is enormous. Commute times can be long and unpredictable.

The growth rate for the northern coastal urban areas of Baja California is predicted to slow in the future, from a five percent growth rate in Tijuana today, to 3.8 percent in 2010 and 2.8 percent in 2025. Still, Tijuana's population is expected to reach 2.9 million by the year 2025 — double its current population of nearly 1.4 million people.⁷

The housing deficit in Tijuana has been met by self constructed houses for many decades. However, the current housing demand in that city is overwhelming existing capacity and this situation is causing an overflow of unregulated, self constructed housing to crop up along the eastern edges of the city. This type of growth can be very harmful to human health and affect open space preservation, public safety, and myriad other issues.



Housing costs have a significant impact on daily migration. The cost of a low- to medium-level home in Tijuana in 2001 was \$263,000 pesos or roughly \$26,000 U.S. dollars.⁸ Compare this to the median priced home in San Diego in 2001 of \$312,000, and it becomes obvious why many would choose to live south of the border and commute

⁶ This number is based on a study published in 1994 by San Diego Dialogue in which border crossers were interviewed about their reasons for crossing. To date this is the only valid data related to commuters. The DHS data on crossings does not distinguish between one time crossers and frequent crossers. San Diego Dialogue (1994) *Who Crosses the Border? A View of the San Diego-Tijuana Metropolitan Region*. (La Jolla: San Diego Dialogue).

⁷ Programa de Desarrollo Urbano de Centro de Población Tijuana, B.C. 2002-2025

⁸ Information was obtained from the Instituto Municipal de Planeación (IMPLAN) de Tijuana and was based on a 710 square foot bedroom, 1 bath, living room, and kitchen home.

to their jobs in the United States. This disparity is a factor of the overall national economy of each country and will not likely be resolved in the near future.

Current trends indicate that San Diego's housing needs will, in part, be met outside this region. Although it is struggling to meet its own demand for housing units, Tijuana is beginning to see San Diegans buying homes and crossing daily to work in San Diego. We must address both the issues of San Diegans migrating southward for affordable housing and the northward migration of Mexicans in search of work along the border.

Similar to the partnership created with southwestern Riverside County, a partnership should be developed with authorities in Mexico, to address the issues surrounding jobs/housing accessibility in the binational region.

Interregional Perspective - Jobs/Housing

Jobs and housing are becoming increasingly disconnected and inaccessible between San Diego and Riverside counties. People are living farther and farther from where they work because housing where they work is out of their financial reach. An increasing number of those working in San Diego are finding affordable housing as far as southwestern Riverside County. This pattern is also prevalent between Orange and Riverside counties. To a lesser extent, this situation exists between San Diego and Imperial counties, where Caltrans estimates that over 1,000 households have members who live in Imperial County and commute to work in San Diego.

As people move further away from their places of employment, increased pressure is placed upon our interregional transportation systems, affecting not only the long-distance commuter but also causing congestion for residents in communities along the transportation route.

A recent study conducted by the I-15 Interregional Partnership observes that:

“Increasing numbers of long distance commuters — generated by land use decisions — will have serious impacts on transportation, our environment, and general quality of life. Increased air pollution, increased stress in commuting, and decreased leisure time reduce the quality of life in an area where many residents must commute long distances by automobile. For many, a jobs-housing imbalance means they cannot choose to live near where they work.”⁹

Other related impacts include increased emissions of air pollutants and greenhouse gases which cause human health effects and can adversely affect water quality and habitat, further diminishing the overall quality of life in the region.

Southwestern Riverside County

Over the last decade, southwestern Riverside County has attracted many homebuyers from areas throughout Southern California, including San Diego, Orange, and Los Angeles counties. Almost 35 percent of all commuters from communities in southwestern Riverside County, such as Temecula, Murrieta, and Lake Elsinore, commute to San Diego County. Southwestern Riverside County is expected to continue to attract residents from the San Diego region, as well as from the coastal

⁹ I-15 Interregional Partnership. “Existing Conditions Report.” San Diego, CA. March 2003.

areas of Orange County and Los Angeles County because of less expensive housing. Substantial amounts of available land exist there for development.¹⁰ Plans in that region show that 140,000 new houses are slated to be built there in the next few years.

As a result, transportation systems in the San Diego region are showing increased traffic volumes, mainly in the northern region of San Diego along the I-15 corridor. According to Caltrans, there were 114,000 average daily highway vehicle trips along the stretch of I-15 connecting the two regions in 2002. The number of users of this segment is estimated to double by 2020.

In order to address the increasing traffic volumes, planning agencies in San Diego and southwestern Riverside County created the I-15 Interregional Partnership (IRP). The IRP has developed a number of short- and long-term strategies in the areas of transportation, economic development, and housing, designed to increase housing opportunities in job-rich areas, promote job creation in housing-rich areas, and reduce traffic congestion.

Tribal Government Perspective - Jobs/Housing

Those tribes that have Indian gaming facilities have seen a dramatic increase in the number of jobs available on tribal reservations. Some 12,000 new jobs have been created, both in gaming-related business such as casinos, hotels, and golf courses, and in non-gaming related businesses started with gaming revenue, such as outlet shopping centers and banks.¹¹ While this economic growth is beneficial to the tribes and the region as a whole, it has led to inaccessibility between jobs and housing in that most employees of tribal developments do not live on the reservation where they work. While many tribal members live and work on the reservation, many workers that are not tribal members commute to their on-reservation jobs from San Diego, Riverside, and Imperial counties, and even from as far away as Ventura County, and Mexico. As reservations tend to be located in remote areas — most are relatively far from urban and suburban communities — this increases traffic congestion both on freeways and on rural roadways. Some tribes have begun to address this issue by providing shuttle transportation for their employees, while others have considered providing employee housing on the reservation.

For those tribes that do not have gaming facilities, on-reservation employment is scarce, leading to a situation that is the opposite of that discussed above. These Tribal members often need better transit to and from their communities to take advantage of job opportunities elsewhere.

JOBS/HOUSING GOALS, POLICY OBJECTIVES, AND RECOMMENDED ACTIONS

Goal

Achieve a better mix of, and accessibility to, jobs and housing throughout our international and interregional borders, and with the tribal governments.

¹⁰ Ibid.

¹¹ County of San Diego. *Update on Economic Impacts of Tribal Economic Development Projects in San Diego County*. Report. San Diego, CA. 2002.

Policy Objectives

1. Increase collaborative economic development, transportation, and housing strategies throughout San Diego County in coordination with our neighbors.
2. Encourage better job accessibility in housing-rich areas and housing accessibility in job-rich areas in our greater interregional and binational area.
3. Develop and implement transportation strategies and facilities to address international and interregional commute patterns.

Recommended Actions**Planning, Design, and Coordination**

1. Develop additional interregional partnerships with neighboring counties, tribal governments, and Mexico to address land use and transportation needs:
 - § Meet with transportation and planning authorities from Orange and Imperial counties, tribal governments, and Mexico to discuss potential partnerships in those areas.
 - § Coordinate policies with Mexico to address binational commuting patterns.
2. Support interregional partnerships such as the I-15 IRP by supporting or sponsoring legislation that addresses interregional jobs/housing accessibility.
3. Implement I-15 Interregional Partnership (IRP) long-range transportation strategies:
 - § Support high-speed rail service in the I-15 corridor.
 - § Coordinate Caltrans/regional agency transportation planning in the I-15 corridor
4. Implement IRP economic development strategies to increase job creation in southwest Riverside County:
 - § Facilitate greater collaboration between regional economic development entities.
 - § Improve job growth through the promotion of new employment opportunities in the cluster industries that drive the bi-regional economies.
5. Implement IRP long-range housing strategies:
 - § Provide a range of housing affordability and housing types in all communities.
 - § Support fiscal reform to encourage housing construction.
 - § Provide incentives for the construction of moderate cost family housing near employment centers.
 - § Encourage the adoption of programs that result in the construction of moderate cost family housing near employment centers.
 - § Encourage infill development in older residential neighborhoods.

Program and Project Development and Implementation

1. Implement IRP short-range transportation strategies:
 - § Coordinate interregional vanpool and carpool programs.
 - § Expand park-and-ride lots and improve rideshare information signage.
 - § Conduct joint outreach and marketing for transit, vanpool, and ridesharing programs.
 - § Implement interregional public transit commuter services.
 - § Collaborate with transit providers.
 - § Advocate employer-based rideshare incentives.
 - § Encourage adoption of alternative work schedules.
 - § Encourage telecommuting.

2. Implement IRP long-range transportation strategies:
 - § Implement transit shuttle services for interregional transit.
 - § Preserve transportation rights-of-way and implement priority measures through the development process.
 - § Implement the I-15 high-occupancy vehicle system.
 - § Expand interregional commuter transit service by developing a bus rapid transit network.

3. Implement IRP economic development strategies to increase job creation in southwest Riverside County:
 - § Actively engage in community outreach about the interregional partnership and its strategies.

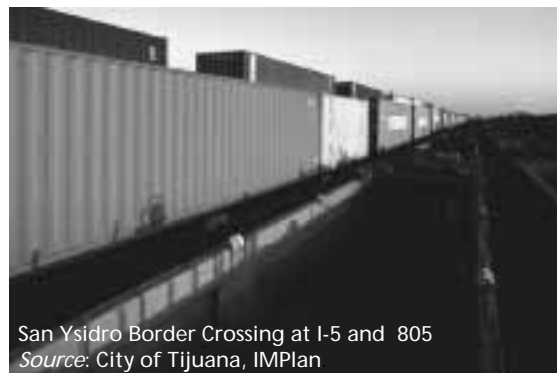
Funding

1. Implement IRP jobs/housing accessibility strategies:
 - § Support/sponsor legislation that provides incentives for jobs/housing accessibility and mix programs.
 - § Identify and pursue funding to support the implementation efforts of the interregional partnership.

2. Develop additional interregional partnerships with neighboring counties, tribal governments, and Mexico to address land use and transportation needs.
 - § Identify and pursue funding to develop new partnerships.

TRANSPORTATION

Regional transportation facilities and services connect to larger transportation systems beyond the San Diego region's boundaries. These connections have become more important with the rise in both interregional and international commuting and goods movement in the last several years. These trends are recognized in SANDAG's Final 2030 Forecast.



San Ysidro Border Crossing at I-5 and 805
Source: City of Tijuana, IMPlan

San Diego and the rest of Southern California is home to major U.S.-Mexico trade corridors where goods pass through the region on their way to markets throughout the country and the world. Our transportation systems are also greatly affected by interregional commuting patterns and general travel.

As growth continues in this region and the surrounding areas, maintaining major transportation systems will be an even greater challenge. To address these issues, SANDAG developed *MOBILITY 2030*, the Regional Transportation Plan (RTP), which outlines a strategy for addressing the San Diego region's travel needs through the year 2030, including funding, building, and maintaining interregional and international roadways and railways.

An estimated 29,000 Riverside County residents commute to San Diego jobs each day using Interstate 15.¹² *MOBILITY 2030* proposes new carpool lanes to accommodate the forecasted growth of these commuters, and the Riverside County Transportation Commission also proposes the addition of freeway lanes. The Southern California Association of Governments (SCAG), the regional planning agency in the Los Angeles region, proposes high-speed, magnetic levitation (Maglev) passenger service intersecting with the I-15 corridor to serve both commuter and other intercity travel demand; the California High-Speed Rail Authority proposes high speed rail services connecting the San Diego region to a state-wide high speed rail system.

Binational Perspective - Transportation

At least 40,000 commuters pass northward through our border ports of entry on a daily or weekly basis¹³. Projections indicate that cross-border vehicle traffic will more than double between 2000 and 2020. To accommodate the dynamic border transportation system, *MOBILITY 2030* includes projects to improve access to border crossings, expand freight rail service, coordinate commercial vehicle crossings, and implement programs such as the Secure Electronic Network for Travelers Rapid Inspection (SENTRI) and Free and Secure Trade (FAST) that expedite border crossings for pre-screened participants.

¹² I-15 Interregional Partnership. "Existing Conditions Report." San Diego, CA. March 2003

¹³ San Diego Dialogue, "Who Crosses the Border? A View of the San Diego-Tijuana Metropolitan Region," 1994

Ports of Entry and Related Infrastructure

In 2002, 56.5 million individuals crossed the border in our region from Mexico to the United States: 42.2 million crossed the border at San Ysidro, 11.3 million crossed at Otay Mesa, and 2.7 million crossed at Tecate.

The physical infrastructure and administrative resources at existing border ports of entry are already strained. Anticipated increases in population growth and international trade will place even greater pressures on the existing infrastructure. Planning is underway with the federal General Services Administration (GSA) to improve the San Ysidro port of entry through reorganization strategies, including the re-use of the Virginia Avenue-El Chaparral gate. Similarly, plans are underway to modernize the Tecate port of entry and its related transportation infrastructure. New technologies and long-term strategies are also being evaluated to improve northbound and southbound truck access at the Otay Mesa-Mesa de Otay commercial port.



Similar to the pressures on the San Ysidro port of entry, the number of commercial crossings at the Otay Mesa port of entry is staggering. In 2003, an estimated 698,228 trucks passed northbound through the port (it is assumed approximately the same number passed southbound). Between 1994 and 2003, the number of commercial trucks crossing the border at the region's commercial gate at Otay Mesa increased 63 percent, from 428,086 to 698,228, and this number is expected to significantly increase by 2030. Likewise, volumes have increased at Tecate and Calexico in Imperial County.¹⁴



The increase in commercial truck traffic since 1995 is related to the implementation of the North American Free Trade Agreement (NAFTA), which spurred a 192 percent growth in trade between California and Mexico, leading Mexico to surpass Japan as California's major trading partner.

Local governments and authorities responsible for transportation infrastructure have also begun to plan or construct new projects to link the ports of entry infrastructure with local transportation systems and trade corridors.

The completion of State Route 905 will connect Interstates 5 and 805 to the Otay Mesa port of entry. The completion of State Route 125 (South Tollway) will improve regional mobility in the South Bay and access for residents and businesses to the employment centers on both sides of the U.S.-Mexico border.

¹⁴ U.S. Dept. of Transportation, Bureau of Transportation Statistics, Transborder Surface Freight Data.

The development of a new port of entry at East Otay Mesa (Mesa de Otay II) is underway and will provide an alternate entry for vehicles and commercial traffic east of the existing commercial crossing. This port will be linked to State Routes 905 and 125 through the construction of State Route 11. This port will also connect to the Tijuana–Rosarito corridor, a new highway under construction in Baja California from the coastal area of Rosarito to the U.S.-Mexico border to the east of the Otay Mesa port of entry. An additional port of entry is being planned in the long term in the area of Jacumba-Jacumé (east of Tecate).

As growth continues in this region and the surrounding areas, maintaining major transportation systems around our ports of entry will be an even greater challenge.

Trade Corridors

Improvements to our regional transportation infrastructure will strengthen trade corridors in the region. In 2003, more than 1 million trucks crossed northbound at the California-Baja California border, carrying almost \$30 billion in freight as shown in Figure 5.4. Almost 60 percent of these trucks were destined for other California counties, while 20 percent were headed outside the state.

FIGURE 5.4—U.S.-MEXICO TRUCK TRADE THROUGH CALIFORNIA-BAJA CALIFORNIA PORTS OF ENTRY



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, Transborder Surface Freight Data.

Given the importance of maintaining these key market entry routes, we need support from our northern and eastern neighbors in securing funding for trade corridor infrastructure in the international border zone. These regions benefit from trade that flows through San Diego from Mexico and improved infrastructure will benefit them directly. These corridors include I-5 and I-15 as the primary north-south corridors, and State Route 94/125, I-8, and SR 905/Otay Mesa Road as the region’s east-west corridors.

The southbound truck route through these corridors is just as significant, since trucks crossing into Mexico through the San Diego region supply many of the components or raw materials needed for the thriving maquiladora industry along the border.



The maquiladora industry was established in Mexico in the mid-1960s to create jobs demanded by the increasing border population and to bring the Mexican national production system to the international market. With this program, Tijuana has developed its commercial and manufacturing industries.

Maintaining efficient transportation systems to facilitate this movement of goods throughout the region is critical, given our location on the California-Baja California border. Today, about 900 maquiladoras in Baja California depend on local transportation systems to move supplies quickly and efficiently.

Multimodal Issues: Rail Freight, Maritime, and Airports

Significant opportunities for binational collaboration exist in the area of freight rail transportation along the California-Baja California border, as shown in Figure 5.5. The existing binational railroad, the San Diego & Arizona Eastern (SD&AE), runs southeast from San Diego into Tijuana and Tecate, and then into Imperial Valley. The Desert Line of the SD&AE between Tecate and the Imperial Valley has been out of service since 1983, but is expected to be repaired and reopened in the fall of 2004. This is the San Diego region's only direct rail link to the east and is operated, or will be operated once complete, by three operators: the San Diego and Imperial Valley Railway (SDIV), between San Diego and Tijuana; Administradora de la Via Corta Tijuana-Tecate (ADMICARGA), between Tijuana and Tecate; and Carrizo Gorge Railway, between Tecate and Imperial County. The SD&AE links Tijuana and San Diego with the rest of the railroad networks in the eastern part of both countries. Recently, the Mexican Federal Government ceded the administration of the Tijuana-Tecate segment to the State of Baja California. It is now operated by the Carrizo Gorge Railway.

FIGURE 5.5—MULTI-MODAL ISSUES: RAIL FREIGHT, MARITIME, AND AIRPORTS



It is expected that rehabilitating and upgrading the eastern section (Desert Line) of the SD&AE will substantially improve the international and interstate movement of goods from this region, as well as provide greater access to agricultural products from the Imperial County. Additionally, Mexican officials are discussing the development of an intermodal transportation center that could link this line with a proposed rail line between Ensenada and Tecate. Once completed, this new rail line would allow for improved goods movement from the Port of Ensenada to the border and into the United States.

Maritime transportation at our local ports plays an important role in the region's transportation system as well. The Ports of San Diego and Ensenada continue to jointly develop strategies to expand their port facilities and accommodate growing trade through ports in the Pacific Rim. Part of their capacity to attract new cargo depends on the region's ability to move those goods to destinations both within and outside of the region. Therefore, efficient transportation systems in the form of roadways, land ports of entry, railways, and air cargo facilities are a key element for their successful growth.

Our region possesses an extensive system of private, commercial, and military airports; however, the regional passenger and cargo facilities are reaching their maximum capacity. In Baja California, the Tijuana and Mexicali airports were recently partially privatized to improve operations, and these airports do serve passengers from both sides of the border. In San Diego, the San Diego County Regional Airport Authority (Airport Authority) is discussing a long-range solution to meet projected passenger and air cargo needs.

The first phase of the Airport Authority's study included two options at the border: (1) a new airport on the U.S. side immediately north of the international border; and (2) a proposed passenger terminal in the United States to serve the International Airport in Tijuana. The first option was problematic due to conflicting air space issues. The latter also was dropped as an option that could meet all the needs of the San Diego region, but a cross-border terminal is still considered among business groups in the binational area as a potential collaborative solution for additional airport capacity.

Interregional Perspective - Transportation

Highway Improvements

The I-15 Interregional Partnership is developing strategies to address the transportation issues caused by the increasing numbers of commuters traveling from southwestern Riverside County to San Diego County for work.

In addition to the jobs/housing accessibility strategies previously outlined, the region must work to complete transportation systems and major capital improvements along key interregional corridors. Major capital improvements are being considered for Interstates 5, 8, 15, and 805.

These improvements include widening projects to accommodate Managed/HOV lanes and general-purpose lanes. The I-15 Managed Lanes project currently under development will create a 20-mile managed lane facility between State Routes 163 and 78. It will feature movable barriers, multiple access points to regular highway lanes, and direct access ramps for buses and other high occupancy vehicles.

Only under the most optimistic funding scenario do SANDAG plans show expanding I-15 north of State Route 78, adding one HOV lane in each direction. By contrast, Riverside County's plans could expand the eight-lane freeway to as many as 12 lanes.



The expansion of I-15 to the San Diego border is included in the program of projects for the Riverside County sales tax measure, which was approved by its voters in November 2002. While SANDAG does acknowledge the likelihood of future congestion along the segment of I-15 connecting the two regions, expanding this portion of I-15 is not considered a top priority due to funding constraints and more urgent needs elsewhere in the San Diego region. The two regions will need to work together to better coordinate plans and resolve this conflict.

In Imperial County, a number of improvements are planned and underway to address passenger and commercial vehicle transportation. Improvements and expansions are planned for SR 98 and SR 111. Highway extensions are planned for SR 7 and SR 115, and a new Brawley Bypass will be constructed at SR 78 in Brawley. Imperial County officials emphasize that these efforts are part of a comprehensive approach for improving intra-county agricultural and recreational travel, as well as interregional, interstate, and international travel.

Key Trade Corridor Connections

In the San Diego region, Interstates 5 and 15 and State Route 125 are the major north-south corridors that accommodate significant volumes of commercial trucks, while State Route 94, State Route 905/Otay Mesa Road, and Interstate 8 are important east-west connectors to these corridors. These north-south and east-west trade corridors serve both domestic cargo as well as international trade routes. Commercial traffic flows and trade corridors are discussed in the *Binational Perspective* section above.

Passenger Rail Corridors

Passenger service for the region is provided along our rail connection north through the Los Angeles basin. Amtrak's intercity passenger rail network connects the region to the rest of the nation, and its Pacific Surfliner Corridor, Amtrak's second busiest corridor, connects San Diego to Los Angeles and San Luis Obispo. Planning and programming for this coastal rail line is coordinated by the Los Angeles-San Diego-San Luis Obispo Rail Corridor Agency (LOSSAN). LOSSAN sets priorities for improvements in the corridor that will increase the capacity of the rail line and the reliability of service.

High Speed Rail

This region may one day be connected to a high speed rail system now being planned at the state level. Two corridors would connect to the north: the Inland Corridor and the Coastal Corridor. The Inland Corridor would provide high speed rail service, stretching from Los Angeles through the

Riverside and Temecula areas to downtown San Diego via Interstate 15. The existing Coastal Corridor, stretching from Los Angeles through Orange County to San Diego would be upgraded to a feeder service to the high speed connection in Orange County or Los Angeles. The environmental and engineering feasibility of these two routes is now being studied. The San Diego Regional High-Speed Rail Task Force, appointed by the SANDAG Board of Directors, is monitoring this work and will continue to advise the Board on the high speed rail plans as they develop.

Rail Freight

Rail freight in the San Diego region is transported via the Burlington Northern Santa Fe (BNSF) and the San Diego and Imperial Valley (SDIV) railroads. The BNSF operates on the coastal rail line and a branch line between Escondido and Oceanside. The SDIV moves freight on the San Diego & Arizona Eastern (SD&AE) Railway between San Diego and Tijuana. Administradora de la Via Corta Tijuana-Tecate (ADMICARGA) moves freight between Tijuana and Tecate, and the Carrizo Gorge Railway will move freight between Tecate and the Imperial Valley. It is anticipated that the SD&AE Desert Line will be reopened in eastern San Diego County in the fall of 2004 (see *Binational Perspective* above).

Airport

The San Diego County Regional Airport Authority (Airport Authority) is evaluating potential options for expanding our passenger and air cargo capacity. As part of this evaluation, the Airport Authority will be soliciting local input and collaboration. These options include a number of collaborative approaches involving air facilities in the surrounding regions, as well as within San Diego County, including building new passenger facilities at March Air Force Base in southern Riverside County or building facilities on a new site in the Imperial Valley. The Authority is evaluating the feasibility of these two options, given their distance from population and employment centers in San Diego region. If pursued, these options would most likely require improved access to the San Diego region.

Tribal Government Perspective - Transportation

Due to their remote locations, reservations are typically accessed from rural two-lane county arterials and/ or state highways. Tribal government transportation issues are complex and vary from tribe to tribe. One tribe may have general access issues while another tribe's main concern may be improving existing roads. Road maintenance issues impact all tribes with roads, and there is often confusion regarding who has the financial responsibility for maintaining reservation roads.¹⁵

The main source of federal funding for tribal roads within the reservations is the Bureau of Indian Affairs (BIA) Indian Reservations Roads (IRR) Program. However, this funding is very limited. IRR funding is allocated according to a "relative need" formula. Tribes from other states, particularly larger ones, benefit from the formula because they are able to demonstrate a greater need based upon larger inventories of road miles, vehicle miles traveled, and population figures. California tribes, which generally have smaller reservations, receive a very low allocation not nearly enough to meet their needs. In 1999, the California Transportation Commission (CTC) identified \$275 million in needed road improvements on Tribal lands. If the funding formula remains as it is, the expected IRR funding over the next 10 years would be just \$50 million, only 18 percent of the identified needs. At

¹⁵ National Indian Justice Center, "Environmental Justice in Transportation for California Tribes," 2004

current funding levels, it would take 55 years to fund existing needs, and this doesn't take future needs into account.¹⁶

Tribes are also eligible to receive most state transportation funds. However, tribes have had limited participation in past regional transportation planning efforts. A Caltrans report on tribal government transportation planning states:

"A number of factors contribute to the resulting limited participation by Tribes: Tribes are accustomed to working with the Federal government and the Bureau of Indian Affairs (BIA) process, which differs greatly from the State process; regional agencies are not aware of the need (or definition) of consultation, or they are reluctant to include the Tribes transportation needs in their plans (local agencies have historically regarded Tribes' as the BIA's "responsibility"); some Tribal Governments lack the resources (staff, finances, experience) to participate in regional transportation planning processes; and, sometimes, relationships between Tribes and local governments have been adversarial. Progress is being made by some of the tribes and regional transportation planning agencies with regard to consultation and participation; however, communication and coordination must be improved in order to fully involve Tribal Governments in transportation planning. Tribal members pay State, Federal, and local transportation taxes the same as all citizens, and they believe that they should be included in policy bodies that determine the use of those tax revenues. The lack of Tribal participation in the transportation planning process has been a problem nationwide."¹⁷

SANDAG needs to consider the tribes' transportation needs when developing its transportation plans. The Caltrans report states:

"Cooperation among the various Tribal, Federal, State and local governments is the key to fully involving Tribes in transportation project planning and programming. U.S.C. 23 requires that states, as a minimum, 'consider the concerns of Indian Tribal governments and Federal land management agencies that have jurisdiction over land within the boundaries of the State.' In addressing the Long Range Transportation Plan in particular, U.S.C. 23, Sec 135 (e)(2)(C) states, 'With respect to each area of the State under the jurisdiction of an Indian Tribal government, the long-range transportation plan shall be developed in consultation with the Tribal government and the Secretary of the Interior.' In addressing the State Transportation Improvement Program, U.S.C. 23, Sec. 135 (f)(1)(B)(iii) states, 'With respect to each area of the State under the jurisdiction of an Indian Tribal government, the program shall be developed in consultation with the Tribal government and the Secretary of the Interior."¹⁸

Given this, during the next update of the Regional Transportation Plan (RTP), SANDAG, will be consulting with the tribes on a government-to-government basis as the plan is being developed. Finding ways to work together to meet the tribes' transportation needs is extremely important.

¹⁶ State of California Department of Transportation, "Transportation Guide for Native Americans," November 2002.

¹⁷ Ibid

¹⁸ Ibid

The Caltrans report states:

“Tribal communities need proper roads, bridges and highways to adequately connect their communities to other communities, thereby enhancing the opportunity for economic, social, cultural and community developments. They also need better transit to and from their communities to take advantage of job opportunities in surrounding communities. As new economic and community development ventures expand in Tribal communities, transportation becomes a major planning component for land use and traffic operations.”¹⁹

Currently, SANDAG works with the tribal governments to assist in meeting their transportation needs in the following ways:

Regional Transportation Improvement Program (RTIP)

The federal government serves the transportation needs of the region’s 18 reservations through the Bureau of Indian Affairs’ Indian Reservation Roads (IRR) program. This program provides funds available only to tribal governments for building or maintaining roads within reservation territory. San Diego’s tribes must compete nationally for these funds.

To allow local governments to be informed of the IRR allocation in the region, the allocation of these funds is required to be included in SANDAG’s Regional Transportation Improvement Program (RTIP). For fiscal years 1999-2004, nine of the region’s reservations received allocations for reservation road improvements, totaling nearly \$7.2 million. SANDAG is required to list all federal, state, and local funds allocated for transportation improvements in this region in its RTIP.

Federal Grant Awards

SANDAG is the agency responsible for approving the region’s applications for federal transportation funds under the TEA-21 “Section 5310” grant program. This federal program, administered by Caltrans in Sacramento, helps non-profit agencies acquire vehicles to transport seniors and persons with disabilities to health and human-service programs. The Indian Health Centers in Alpine and Pala will receive three vehicles through the last two years’ programs, as supported by SANDAG. These vehicles will be used to transport tribal elders to health services and tribal functions. These awards will help address reservation residents’ critical need for improved access to health care. The Federal Transit Administration (FTA) Section 5311 grant program provides funding in the non-urbanized areas of the state, those areas with population under 50,000. Eligible subrecipients include state agencies, local public bodies, tribal governments, private non-profit organizations, and operator of public transportation services. Eligible expenditures of Section 5311 funds are: bicycle facility projects, planning/technical assistance, capital purchases, and operating expenses.

Information

SANDAG, in collaboration with the region’s tribal offices, developed a publicly available map of the reservations using computer mapping software of its Regional Information System. The Regional Information System contains information that could provide additional benefits to tribal governments. In addition to these activities, SANDAG has participated with Caltrans at several

¹⁹ State of California Department of Transportation, “Transportation Guide for Native Americans,” November 2002.

training programs for tribal governments to provide information about the regional transportation planning process.

TRANSPORTATION GOALS, POLICY OBJECTIVES, AND RECOMMENDED ACTIONS

Goal

Provide reliable and efficient transportation systems associated with key trade corridors, interregional commuting corridors, tribal reservations, and ports of entry.

Policy Objectives

1. Complete trade corridors included in *MOBILITY 2030*.
2. Coordinate regional transportation systems across our borders.
3. Ensure an efficient flow of people and goods across the international ports of entry and along key trade and interregional commuting corridors.
4. Reduce future long-distance interregional and binational commuting.
5. Improve communication and collaboration regarding transportation issues with tribal governments.

Recommended Actions

Planning, Design, and Coordination

1. Support the California High-Speed Rail Authority's efforts to bring high-speed rail service to the San Diego region.
2. Support the use of technology at the ports of entry and the expansion of SENTRI-like programs for passengers and cargo.
3. Encourage off-peak use of rail capacity for rail freight movement, and evaluate using managed/HOV facilities for goods movement during off-peak periods.
4. Coordinate transportation facilities at county lines.
5. Review the potential for consolidating intermodal rail, truck, and air cargo freight terminals at specific staging areas.
6. Support the use of transit centers and transportation facilities by agencies from outside of the county.
7. Improve communications among SANDAG, Caltrans, the County of San Diego, and tribal governments to assess rural/reservation transit and transportation needs, and develop strategies to meet these needs.

Program and Project Development and Implementation

1. Implement I-15 Interregional Partnership (IRP) short and long-range transportation strategies listed in the Access to Jobs and Housing section.
2. Support binational freight opportunities on the SD&AE Railway by upgrading the entire line between San Diego and the Imperial Valley.

Funding

1. Provide transportation funding for key trade corridors in the border regions.
2. Secure funding for needed transportation infrastructure in the region's border areas and coordinate the implementation of border-related capital and operating improvements with the federal General Services Administration (GSA).

ENERGY AND WATER SUPPLY

The San Diego region and its neighbors are highly dependent upon both energy and water resources from outside the region. This makes the region vulnerable to shortages, price fluctuations, and manipulation from outside sources. Therefore, diversifying our energy and water resources is a priority of the San Diego region, our neighboring counties, and the municipalities in northern Baja California.

Energy Supply

More than 90 percent of the energy used in the San Diego region is imported. Likewise, much of the public policy and regulatory decisions regarding energy that affect San Diego are made outside of the region in Sacramento, Washington D.C., and Mexico City. This dependency makes energy a cross-border issue. Transmission lines are shared throughout Southern California and the implementation of new energy-related infrastructure such as generation facilities, transmission lines, or natural gas pipelines will inevitably affect neighboring jurisdictions.



Binational Perspective - Energy Supply

The energy sectors of California and Baja California are becoming increasingly integrated. Baja California, which is geographically cut off from the mainland of Mexico, is actually connected to the energy grid system of the western United States through transmission lines across the California and Arizona borders. Therefore, Baja California's energy future is more closely tied to that of the U.S. than to that of Mexico. Consequently, both opportunities and challenges exist for cross-border energy generation, transmission, and coordination in the binational region. The anticipated growth in the population and economy of the border region will require exceptional efforts to plan and implement coordinated energy solutions.

Traditionally, the California-Baja California border region has relied on imported energy from outside sources to meet its energy demand (which is delivered via gas pipelines, oil trucks, and power transmission lines). However, both California and Baja California have recently experienced challenges in meeting the growing energy demands. As a result, an important binational energy market is starting to develop, as a number of power plants are planned or under construction along the California-Baja California border.

Mexico is currently siting new plants on its side of the border and plans to produce energy from natural gas for markets both in the United States and Mexico. However, there are constraints upon the existing transmission infrastructure that delivers energy from Baja California, and significant upgrades will be required if the United States is to benefit from energy generated south of the border.²⁰ The question of transmission also brings with it challenges of siting and building new infrastructure. Most of the new plants are located in or near Mexicali, which means that any new transmission lines would pass through Imperial County and potentially north to Riverside County.

Another area of concern is the reliability of U.S. natural gas supplies provided to Mexico. As pointed out in a study conducted for the San Diego Regional Energy Office:

“If San Diego and California come to rely heavily on power from Mexico, and most of that power is fueled by natural gas, then a secure gas supply to Mexico is critical to assure a secure power supply to California. Similarly, as Baja California becomes more dependent on natural gas from the U.S., it needs to have adequate assurances regarding the reliability of that supply.”²¹

This increase in regional energy generation provides more opportunities for regional self-reliance, represents significant investment in the regional infrastructure, and encourages the use of cleaner-burning fuels than some existing plants in the binational region.²² However, there are also a number of environmental concerns related to locating new power plants along the border. For a discussion regarding environmental issues and energy, please see *Environment: Binational Perspectives* section.

Border Energy Issues Group

To address the many complicated issues related to creating a binational energy market, local academics and energy experts from both sides of the California-Baja California border called for the creation of a neutral forum in which to discuss energy related issues affecting the larger region. The SANDAG Board of Directors authorized the Borders Committee to facilitate an exploratory group, the Border Energy Issues Group (BEIG), to evaluate the merits of creating a formal regional border forum to promote open dialogue between sector leaders from the United States and Mexico with the goal of recommending strategies to address energy infrastructure and supply needs as well as the efficient and environmentally-sound production and use of energy resources in the region.

²⁰ Sweedler, Alan; Van Schoik, Rick; and Sachs, Steve. “Energy Issues in the California-Baja California Binational Region.” Report prepared for the San Diego Regional Energy Office. San Diego: California, 2002.

²¹ Ibid

²² Ibid.

Interregional Perspective - Energy Supply

The RCP incorporates the recently adopted Regional Energy Strategy (RES), a strategy to address our regional energy needs through 2030. This strategy contains a number of goals that include: ensure adequate supplies and infrastructure; promote energy efficiency and conservation; develop indigenous renewable sources; and promote efficient energy-related technologies for the likely transition from a fossil fuel-based economy to new supply sources and technologies.

The first specific goal identified in the RES is “[to] achieve and represent regional consensus on energy issues at the state and federal levels.”²³ Consensus among the jurisdictions in the region is necessary to develop energy infrastructure within the region and reduce dependency on imported sources. Similarly, this consensus should be sought with our neighboring regions as well, to establish a coherent energy plan that examines and addresses potential impacts on our neighboring counties.

The Valley-Rainbow Transmission Interconnect project is an example of how important interregional planning can be. This project, which would have provided the San Diego region additional access to a reliable supply of energy to the north, would have passed through Riverside County. While San Diego stood to benefit from a more reliable energy supply, Riverside would have been affected by having a transmission line pass through its jurisdiction, thereby affecting its land use and development of the adjacent areas. Had the issue of energy supply been dealt with on an interregional basis, perhaps an equitable solution could have been found. However, as designed the land use planning and urban development of one region and the infrastructure planning were incompatible. A significant opportunity was lost to arrive at a solution which would have provided benefits to both regions in an integral way.

Looking to the future, developing more indigenous energy sources can strengthen the situation of Southern California. While the San Diego region does not possess large amounts of fossil fuels or natural gas, there is potential for the development of renewable sources such as solar, photovoltaic, wind, and geothermal in various parts of Southern California. Likewise, reducing demand by making gains in energy efficiency reduces environmental impacts and battles over generation and transmission.

Water Supply

Most of the water used in all of Southern California and northern Baja California is imported from outside sources. This dependence on outside sources is cause for both conflict and cooperation. Whether used predominantly for agricultural purposes, as in the Imperial and Mexicali valleys, or needed to meet urban demand, increasing pressure is being placed upon these supplies as the population and economy continue to expand. Because water (like energy) is an integral component for a healthy economy, we should consider water reliability not just for ourselves, but for our neighbors as well. A failing neighboring economy can negatively affect our own region.

Water authorities in the San Diego region, as well as its neighboring regions, are addressing water reliability issues for the future through a number of strategies. In order to reduce conflict, a cooperative approach will be necessary to assure water reliability for the entire region.

²³ San Diego Regional Energy Office. “The San Diego Regional Energy Strategy.” San Diego, Ca. May 2003.

Binational Perspective - Water Supply



San Diego and Imperial Counties and the municipalities in northern Baja California all rely heavily upon water delivered from the Colorado River. Colorado River water is brought to the western portion of the border region through two aqueducts, one on each side of the border. Water systems in San Diego and Tijuana-Tecate are united through an emergency connection, which can deliver water to Mexico in case of a failure of the delivery system on the south side of the border.

The 1944 Treaty²⁴ signed by both countries assures water allocation to California and Mexico. Based upon the treaty, California's allotment is 4.4 million AF per year, while Mexico's is 1.5 million

AF per year. Of the allotted amount, the lion's share of the water on both sides of the border is dedicated to agricultural production, while the urban areas make up their water supply with a mix of Colorado River water, other imported supplies (on the U.S. side), and local supplies such as groundwater, surface water captured in local reservoirs, and recycling. However, because of rapid economic and population growth along the border, both regions are facing increases in demand and therefore are exploring new ways to secure increased water resources for the future. Likely options for assuring long term water reliability in this arid region include a mix of increased conservation, maximization of local supplies, water recycling, and desalination (for more information regarding long term water planning in the San Diego region, please refer to the Public Facilities chapter).

Imported Water Quality

A significant issue related to the allocation of Colorado River water is water quality, or salinity. While the treaty mentioned above specifies how much water should be delivered to Mexico, it does not stipulate the quality of that water. Water from the river is used many times over. It is drawn out, used, treated, and discharged back into the river by many users before it has reached its southernmost destination. This results in a deterioration of the water quality, producing high levels of salinity by the time it reaches Mexico.

Water Infrastructure

While both sides of the border face increasing water demand, existing water conditions differ on each side of the border. For example, per capita water use in Baja California is much lower than that of the San Diego region. The per capita rate in Tijuana is 180 liters/day or 46.8 gallons/day, while the rate in San Diego County is 180 gallons/day. In 2000, San Diego's overall use was approximately nine times greater than that of the Tijuana-Rosarito area (695,000 AF versus 77,048 AF). San Diego's geographic service area is nine times greater, representing 1,420 square miles (3,678 square

²⁴ The legal name of the treaty is "The Utilization of Waters of the Colorado and Tijuana Rivers and of The Rio Grande"

kilometers) as compared to a service area of 152 square miles (392 square kilometers) in the Tijuana-Rosarito area.

Another major difference is in the existing infrastructure of each area. The San Diego region has very well developed water delivery systems (100 percent of the population has access to potable water). Tijuana's infrastructure has been unable to keep up with the massive migration to that city. As a result, not all of the city's population has water delivery infrastructure. Subsequently, the poorest segment of the population must purchase water liter by liter, spending a significant amount of their per-capita income on this basic human necessity.

Similar to its water delivery system, San Diego's wastewater collection system is capable of handling 100 percent of the wastewater generated. However, Tijuana's wastewater infrastructure only serves approximately 76 percent of the population. This has significant implications on the city's ability to collect, recycle, and reuse existing resources and leads to negative water quality and human health, especially in times of rainy weather.

Tijuana's Master Plan for Water and Wastewater Infrastructure

To address its infrastructure issues, the City of Tijuana, in collaboration with the state Public Services Commission (Comisión Estatal de Servicios Públicos de Tijuana, CESPT), developed the Tijuana Master Plan for Water and Wastewater Infrastructure. The Master Plan is a long-term planning project that will investigate alternatives for meeting Tijuana's water and wastewater infrastructure needs over the next 20 years. The project is funded by the U.S. Environmental Protection Agency with funds being administered by the North American Development Bank and coordinated with other Mexican agencies such as Mexico's National Water Commission (Comisión Nacional de Agua, CNA), and the State Water Commission for Baja California (Comisión Estatal de Agua, CEA). The Master Plan will consider the following: potable water resources, including water reuse alternatives; potable water infrastructure; wastewater collection and conveyance; and wastewater treatment infrastructure, including pretreatment of industrial wastewater.



The Master Plan is an important step in averting a water disaster in the northern Baja California region. Given the proximity of our populations, the integration of significant sectors of our economies, and the social and cultural ties that we share, it is important for San Diego to support efforts in Tijuana and the entire northern Baja California region to upgrade the water supply and collection system.

Binational Conveyance Study

One example of a potential approach to ensure water reliability in the binational region is shared infrastructure across the border. The water authorities for San Diego County and Baja California concluded a binational study in 2002 to analyze the alternatives of transporting water from the Colorado River through a joint aqueduct. This study includes technical information from both sides

to evaluate the possibilities of a binational aqueduct and proposes alternative routes. However, it appears that implementation of the proposed aqueduct is unlikely because Baja California's impending water needs are more immediate than those of San Diego. Therefore, Mexican authorities indicate that they will begin the design of a Mexican aqueduct and will continue to work with the San Diego County Water Authority (Water Authority) to analyze the financial, legal, and institutional issues associated with a future binational project. Mexican authorities say they are open to discussing opportunities for a binational aqueduct or other potential water supply projects in the future.

Interregional Perspective - Water Supply

The Water Authority currently delivers 75 to 95 percent of the region's water supply primarily through purchases of imported supplies from the Metropolitan Water District (MWD) and, increasingly, through purchases of conserved agricultural water from the Imperial Irrigation District (IID). MWD imports its supply from two main sources, the Colorado River and the State Water Project (which is pumped from the San Francisco Bay/Sacramento-San Joaquin River Delta through the California Aqueduct). The reliability of these two supplies directly affects the reliability of San Diego's overall water supply mix. A key element in the Water Authority's planning efforts includes strategies to diversify the water supply sources, thereby lessening our dependency on MWD's imported water supplies.

IID Water Transfer Agreement and All American Canal and Coachella Canal Lining Projects



A key element in the Water Authority's diversification strategy is the recently approved IID Transfer Agreement, which will allow the Water Authority to purchase conserved Colorado River agricultural water from the Imperial Valley. The transfer agreement was approved in October 2003 after many years of complex negotiations among the water agencies and the state and federal governments. Starting in 2003, the Water Authority purchased 10,000 AF, which will increase each year to 200,000 AF in 2021. In October 2003, the Water Authority was also assigned Metropolitan's rights to 77,700 AF per year of conserved water from projects that will line the All American Canal (ACC) and Coachella Canal (CC). These projects will reduce the loss of water that currently occurs through seepage and that conserved water will be delivered to the Water Authority. This will provide the San Diego region with an additional 8.5 million AF of water over the 110-year life of the agreement. At the same time, it is important that this issue be addressed from a binational perspective,

understanding the potential effects that the lining projects may have on Mexico. The Mexican farmers in the Mexicali Valley have depended for decades on the seepage from the All American Canal to recharge the aquifer and provide water to their wells. The Water Authority is aware of this issue and authorities from the United States and Mexico are discussing ways in which to mitigate the potential impacts from the lining projects on local farmers in the Mexicali Valley.

The transfer agreement and lining projects are key elements of California's plan to live within its current Colorado River water allocation of 4.4 million AF. The aptly named "California 4.4 Plan" promises six other Western states that California will stop using more than its allotted portion of the

Colorado River. California has routinely taken surplus water from the Colorado River amounting to approximately 5.2 million AF annually (for more information regarding regional water use, see the *Public Facilities* chapter of the RCP). The transfer allows the San Diego region to receive more water from the IID and therefore less water from the MWD, making it possible to reduce MWD's withdrawals from the Colorado River.

This agriculture to urban transfer of Colorado River Water will not only help the State stay within its 4.4 million AF allotment but will also reduce Southern California's dependency on water supplies from the State Water Project, which will greatly benefit other users of that water supply.

Tribal Government Perspective - Water Supply

Most tribal reservations in San Diego County are outside of the San Diego County Water Authority's boundaries and are, therefore, reliant on groundwater.²⁵ This groundwater dependency has led to some conflict between some tribes with gaming facilities and nearby rural residents who claim that their groundwater supply is being depleted by on-reservation developments. Several tribes are investigating alternative water supply options such as receiving water from the Otay and Padre Dam Water Districts.²⁶

ENERGY AND WATER SUPPLY GOALS, POLICY OBJECTIVES, AND RECOMMENDED ACTIONS

Goal

Meet binational, tribal reservation, and interregional long-term energy and water needs in a fiscally and environmentally sound manner.

Policy Objectives

1. Improve coordination of energy and water planning with Orange, Riverside, and Imperial counties, tribal governments, and Baja California.
2. Collaboratively promote conservation and efficient use of energy and water within the interregional and binational region.
3. Enhance the reliability of the greater border region's water supplies.
4. Site energy and water facilities in a safe and equitable manner.

²⁵ "San Diego County Water Authority regulations contain prohibitions on providing Water Authority water to areas outside of its boundaries or to non-Water Authority member agencies. Contractual service agreements between special districts and third parties are subject to LAFCO review and approval." Local Agency Formation Commission (LAFCO)

²⁶ County of San Diego "Update on Impacts of Tribal Economic Development Projects in San Diego County, April 2003

Recommended Energy Supply Actions**Planning, Design, and Coordination**

1. Increase the use of renewable energy resources throughout the interregional and binational region.
2. Develop a mechanism to reach consensus on energy issues at the interregional and binational level.
3. Continue to support the Border Energy Issues Group as a forum for discussion and development of strategies regarding binational energy issues.
4. Site energy facilities in a manner that protects the health and safety of residents of all borders communities.

Program and Project Development and Implementation

1. Work with the borders communities to develop programs to promote the conservation and efficient use of energy.

Recommended Water Supply Actions**Planning, Design, and Coordination**

1. Maximize border region water resources through diversification strategies such as transfer agreements, water recycling and reclamation, seawater desalination, and sustainable groundwater development.
2. Support the ability of the borders communities to transfer water supplies that mutually meet their needs.
3. Work with the borders communities to develop programs to promote the conservation and efficient use of water.
4. Support Mexican water agencies in their efforts to assure water reliability for the northern Baja California region.
5. Coordinate long term water planning with surrounding counties and tribal governments.
6. Analyze and address the potential impacts of water supply infrastructure investments on surrounding communities in compliance with the California Environmental Quality Act (CEQA).
7. Site water facilities in a manner that protects the health and safety of residents of all borders communities.

Program and Project Development and Implementation

1. Develop programs to increase reliability of the interregional and binational aqueduct systems, provide adequate emergency storage and carryover storage needs, add treatment capacity to satisfy treated water needs, and develop seawater desalination facilities.

Funding

1. Continue to pursue funding through existing and future federal, state, and regional programs for the development of interregional and binational water projects.

ENVIRONMENT



Ecosystems know no political boundaries. Flora and fauna, air, water, and the pollution that plague them are governed by and circulate through a system not restricted by political lines or jurisdictions.

Environmental issues are best addressed on an ecosystem basis. To protect habitat, we should consider open space corridors. To address water quality, we should use a watershed perspective. To understand air quality, we need to understand air basins.

Habitat corridors, watersheds, and air basins define a respective geographical area in which a particular ecological system functions. Our borders do not follow these lines, but our responses to environmental issues should.

The San Diego region has made great strides in habitat management through the Multiple Species Conservation Program (MSCP) and the Multiple Habitat Conservation Program (MHCP). The region must now work to link these efforts with similar efforts in the surrounding regions, and encourage similar consideration of open space planning where needed. Likewise, this region is responding to challenges in water quality through a mixture of responses within jurisdictional boundaries and by collaborating across jurisdictional lines within larger watershed areas.

Regarding clean air, within the State of California, air quality is governed by a system that considers the basin level. However, this approach has not been applied to the international boundary where environmental issues may cross the border, but regulation and enforcement do not.



Habitat

Binational Perspective - Habitat

With the rapid economic and social development in the binational region, finding the balance between new development and the conservation of the environment is an important challenge.

The border region is home to habitat areas significant for the conservation of species of flora and fauna, including coastal sage scrub and chaparral vegetation. Because of the varied climate, topography, and vegetation, the region is one of the most ecologically diverse in the world.

Conservation biologists know the ecological area that encompasses much of Southern California and northern Baja California as the “California Floristic Province.” In its entirety, the province runs from northern Baja California north to the California-Oregon border. The Province is considered one of the world’s 25 hotspots for biodiversity conservation, with a large number of threatened and endangered species and habitats, including 24 species of flora and fauna currently identified under threat of extinction on the Mexican side of the border. Places considered as “hotspots” are areas that harbor the highest concentrations of species (especially those species that do not exist in any other part of the planet, which are referred to as endemic species).

Las Californias Binational Conservation Initiative

Significant opportunities exist for collaborative approaches to conserving portions of the province across the California-Baja California border. Currently, organizations from both sides of the border are working together in the Las Californias Binational Conservation Initiative. The specific aim is to promote coordinated efforts to establish binational habitat corridors and protect biodiversity in this region. Efforts are underway to garner binational support for protecting the area between Tijuana and Tecate, where a habitat corridor is threatened due to eastward urban growth from Tijuana as well as major proposed infrastructure projects. Efforts to link protected planning areas in northern Baja California with existing habitat corridors in San Diego County should be promoted and supported.

Interregional Perspective-Habitat

In 1991, the California Legislature enacted the Natural Community Conservation Planning (NCCP) Act. This act created a NCCP Program to provide counties in Southern California with long-term regional protection of natural vegetation and wildlife diversity while allowing compatible land uses and appropriate development and growth. Five counties take part in this program including San Diego, Orange, Riverside, San Bernardino, and part of Los Angeles. While each county is undertaking its own habitat planning efforts, the NCCP Program provides the criteria for ecosystem planning by focusing on preservation of an entire ecosystem versus preservation on a species-by-species basis. The U.S. Fish and Wildlife Service (US FWS) and California Department of Fish and Game (DFG) are mandated to assure that these corridor planning efforts are implemented. Therefore, the planning oversight for interregional habitat protection lies at the state and federal levels.

The local Multiple Species Conservation Program (MSCP) and the Multiple Habitat Conservation Program (MHCP) are consistent with the NCCP guidelines and meet the requirements of the NCCP Act (for more information regarding habitat planning in San Diego County, please refer to the

Healthy Environment chapter). Similar planning efforts in the counties of Riverside, Orange, and Los Angeles will also apply the same standards and criteria. The objective of this effort would be to ensure the compatibility and integration of these systems across county lines.

As part of the program, the counties take part in the NCCP Five County Funding Group, which seeks and obtains funds on a collaborative basis. This effort focuses on obtaining planning grants and funding for key habitat acquisition areas that have been identified throughout the five-county area.



Along our eastern border with Imperial County, most of the land is public land, including the Anza Borrego State Park, the Cleveland National Forest, and other areas owned and managed by the Bureau of Land Management (BLM). Therefore, there is less concern that this habitat will be lost to development or other disturbances. Nonetheless, as development pressures press eastward, San Diego and Imperial Counties, and the state and federal land management agencies, should coordinate habitat planning in the eastern corridors.

Watersheds & Water Quality

Binational Perspective-Watersheds & Water Quality



Besides sharing an important ecological region, San Diego, Tijuana, and Tecate share the Tijuana River Watershed, which encompasses approximately 1,750 square miles, one-third of which lies in the United States and two-thirds in Mexico as shown in Figure 5.6. The watershed runs 50 miles north-south and 70 miles east-west before draining into the Tijuana Estuary and the Pacific Ocean on the U.S. side of the border.

Significant binational efforts are currently underway to address myriad issues throughout the watershed. The Tijuana River Watershed Binational Vision Project was established to provide a framework for the many activities, projects, and research being conducted about the health of the watershed. It represents a consortium of organizations and individuals including scientists, urban planners, academics, GIS specialists, community stakeholders, and others working to address the root causes of degradation in the system. Projects currently underway are addressing topics related to water quality, air quality, infrastructure, mapping, and other environmental pressures affecting the watershed.

One of the most visible issues affecting the westernmost portion of the watershed (which lies in the urbanized areas of Tijuana and San Diego) is that of sewage and other toxic pollutants entering the Tijuana River on the Mexican side of the border. These flows eventually cross the border and pass through the Tijuana Estuary before entering the Pacific Ocean. Unmitigated, the pollutants cause numerous beach closures and pose serious human health threats on both sides of the border.

A major contributor to this problem is insufficient sewage collection infrastructure in Tijuana. To address this, the Tijuana Sewer Rehabilitation Project, known locally as “Tijuana Sana” (Healthy Tijuana), is currently underway. Tijuana Sana is a four-year project to rehabilitate or replace deteriorated sewer pipes in Tijuana. The project was certified by the Border Environment Cooperation Commission (BECC) and work commenced in early 2002.

Work on the Tijuana Sewer Rehabilitation Project is taking place concurrently with the development of the Tijuana Master Plan, a long-term strategy to address both the water supply and collection systems in Tijuana. Improving the wastewater collection infrastructure in the urban areas of the watershed is imperative to reducing and ultimately eliminating the presence of untreated sewage in the Tijuana River, the estuary, and nearby beaches.

Another effort to minimize the amount of raw sewage that flows across the border was the construction of the International Wastewater Treatment Plant (IWTP), operated by the International Boundary and Water Commission (IBWC) on the U.S. side of the border.²⁷ The IWTP treats up to 25 million gallons a day (mgd) of Tijuana’s sewage. The IWTP operates a dry weather diverter in the Tijuana River to collect up to 13 mgd of flow directly from the river and takes overflow sewage from the treatment system in Tijuana that would otherwise get discharged untreated directly into nearshore waters from the San Antonio de Los Buenos treatment facility in southern Tijuana. The plant does not divert any flows from the river during wet weather. The IWTP treats the sewage from Mexico to an advanced primary level, which technically does not meet standards set by the Clean Water Act in the United States. The plant was planned to treat at a secondary level (which meets U.S. requirements) but implementing the second phase of development has been challenging. The IBWC, in coordination with the U.S. Environmental Protection Agency, is currently working on plans for secondary treatment, but it is unclear when this will occur.

In addition to completing the IWTP, the region should pursue continued collaborative efforts in ocean water quality monitoring along the border as well as programs for point source pollution control in Mexico. While effluents from point sources such as treatment plants have been well addressed in the U.S., progress can still be made in Mexico.

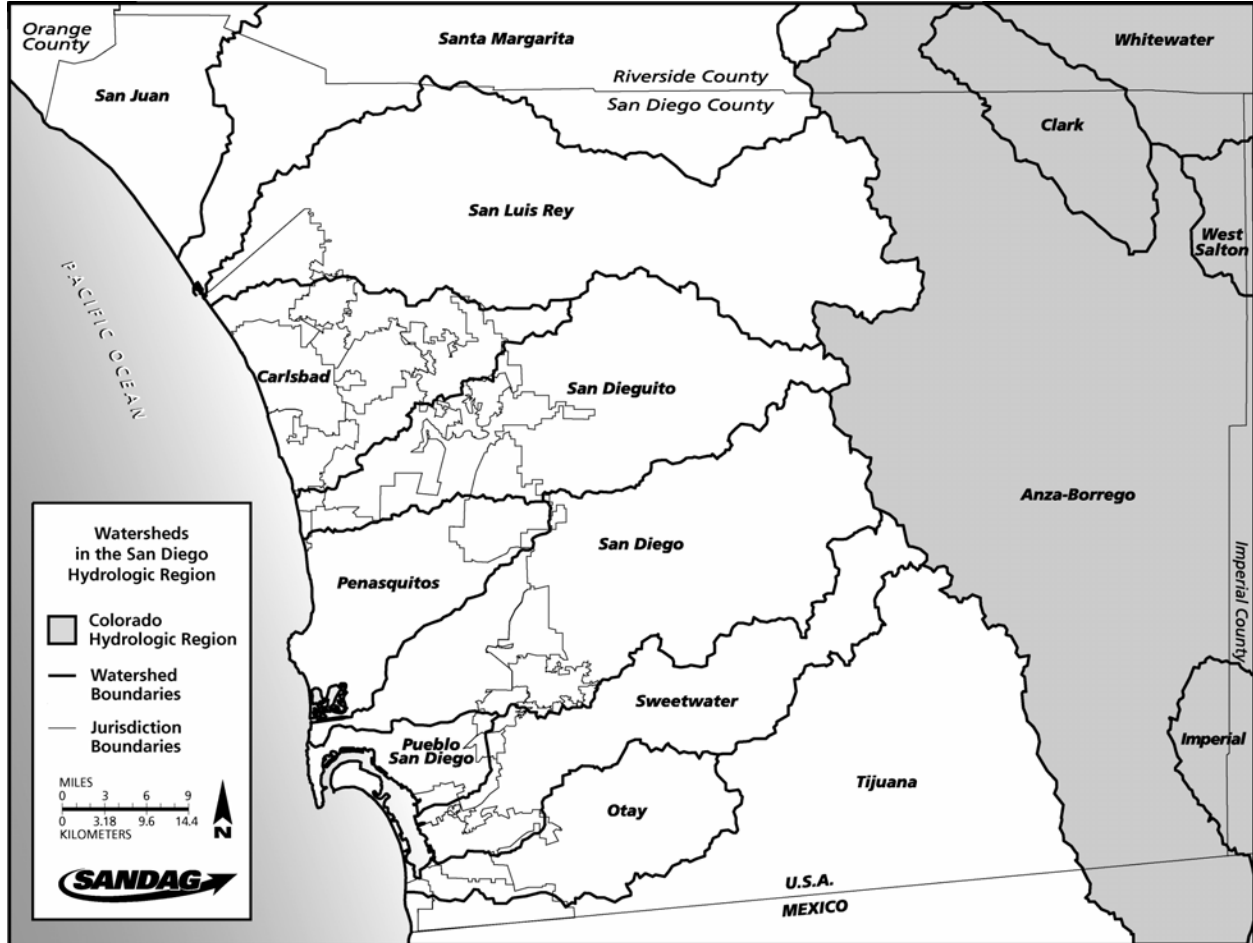
Interregional Perspective - Watersheds and Water Quality

The San Juan and Santa Margarita watersheds lie along our northern border with Orange and Riverside counties as shown in Figure 5.6.

The Santa Margarita Watershed encompasses approximately 750 square miles, most of which lies in southwestern Riverside County, but drains into the area of Camp Pendleton and ultimately discharges to the Pacific Ocean in San Diego County. Due to the massive growth in the eastern areas of the watershed, the lower area of the watershed (Marine Corps Base Camp Pendleton) has experienced flood problems, increased erosion, and high levels of pollutants. Development in the valleys of the Santa Margarita Watershed, which includes the areas of Temecula, Lake Elsinore, and Hemet, will continue to negatively affect the lower reaches of the watershed where development has not occurred.

²⁷ The IBWC is an agency established by the governments of the United States and Mexico to resolve those differences that arise from the application of their boundary and water treaties.

FIGURE 5.6—WATERSHEDS IN THE SAN DIEGO HYDROLOGIC REGION



The San Juan Watershed covers 496 square miles in San Diego, Orange, and Riverside counties. Approximately 150 square miles (30 percent) of this area is located in northwest San Diego County, almost entirely within Camp Pendleton. There are five hydrologic areas in the San Juan Watershed, two of which, the San Onofre and San Mateo hydrologic areas, are within San Diego County. Due to the nature of the hydrological areas, development within the watershed in the areas of Orange County has not adversely affected San Diego County such as has occurred in the Santa Margarita Watershed.

Tribal Government Perspective - Watersheds & Water Quality

While tribal sovereignty has led many to believe that tribes do not have to adhere to environmental regulations in their developments, in truth, tribal governments' relationship to the federal government in environmental matters is similar to that of states. They act as the authority delegated to implement federal environmental laws within their respective jurisdictions. They may enact regulations more stringent than the federal government's rules, as California has done in many areas, or default to federal regulation. Tribes must prepare environmental impact statements in accordance with NEPA, and these reports must include the consideration and potential mitigation of off-reservation impacts.

Air Quality

Binational Perspective - Air Quality

Air quality along the U.S.-Mexico border has traditionally been dealt with separately in each nation; however, there is evidence that the designated regulatory air basins of California do commingle with air on the Mexican side of the border. There is growing concern that as development continues along the border, air pollution from one side of the border may have negative effects on the other side.

This issue has been an ongoing problem for many years. It has become significant along the California-Baja California border, specifically in the Mexicali-Imperial Valley area, as a number of new power plants are planned or have come on-line in the border region adding to existing problems. As pointed out in a study completed for the San Diego Regional Energy Office, these new energy generation facilities are being developed in response to the growing energy needs of the region and are designed to produce energy from natural gas (as opposed to fossil fuels which are still predominantly used in some parts of Mexico and the U.S.). However, because many of these facilities are being located along the border in Mexico, there is concern that companies are choosing to site new plants south of the border "because of perceived lower environmental standards than in the U.S." ²⁸



Subsequently, a number of laws have been introduced in the California and U.S. legislatures to prohibit companies generating power in Mexico that do not meet California's environmental standards from participating in the U.S. market. However, some consider this an unfair practice on the part of the U.S. since much of the energy currently used throughout California (and the U.S.) is purchased from areas of the country where fossil fuel generation (which is much more polluting than natural gas) is the norm. Therefore, this action would place greater restrictions on Mexican generators than on U.S. generators. These legislative proposals do, however, exemplify the concern

²⁸ Sweedler, Alan; Van Schoik, Rick; and Sach, Steve. "Energy Issues in the California-Baja California Binational Region." Report prepared for the San Diego Regional Energy Office. San Diego: California, 2002.

in the region that the significant increase in power plants along the border will result in poorer air quality for populations living on both the Mexican and U.S. sides of the political line.

To address this issue, various entities are discussing changes in U.S. environmental laws to recognize binational air basins. By doing so, air quality mitigation efforts that are required in the U.S. to offset new pollution generation could occur on either side of the border. While these efforts are still in the nascent stages in the California-Baja California area, a similar pilot program in the El Paso-Ciudad Juárez area has been very successful.²⁹

Interregional Perspective - Air Quality

Smog from San Diego's neighbors to the north can affect our air quality. Ozone precursor emissions are transported to San Diego from the South Coast air basin during Santa Ana weather conditions. The South Coast basin comprises the metropolitan areas of Orange, Riverside, Los Angeles, and San Bernardino counties. Winds blowing toward the southwest transport the South Coast's polluted air out over the ocean and the sea breezes bring it onshore into San Diego County.

In 1998, transport pollution prevented the San Diego air basin from attaining the federal one-hour ozone standard in 1999. However, San Diego was able to achieve clean air in 1999, 2000, and 2001 and attained that federal standard in 2001. Most recently San Diego has experienced declines in air quality.

ENVIRONMENT GOALS, POLICY OBJECTIVES, AND RECOMMENDED ACTIONS

Goal

Create and maintain a healthy interregional and binational environment.

Policy Objectives

1. Preserve and enhance ecosystem biodiversity throughout the borders region.
2. Protect habitat corridors, watersheds, and air basins that cross our interregional and binational boundaries.

Recommended Actions

Planning, Design, and Coordination

1. Coordinate habitat corridor planning with surrounding counties, state and federal agencies, tribal governments, and Mexico.
2. Provide a cooperative, coordinated, and long-range conservation and management program for the region's habitat preserve system that is tied to preserve systems in surrounding counties, tribal reservations, and Mexico.

²⁹ The Joint Advisory Committee on Air Quality for the Paso del Norte Region is the entity working to develop and implement binational strategies to improve air quality along the border.

3. Assure coordination and cooperation of environmental agencies and agency staff across multiple regions, subregions, and subareas.
4. Support actions to better understand the dynamics of local air basins and collaborate, where appropriate, along the U.S.-Mexico border on initiatives related to binational air quality.
5. Support collaborative watershed planning with Baja California to improve the health of the Tijuana Watershed.
6. Establish a crossborder cooperative effort to protect border communities from potentially harmful environmental impacts of projects on either side of the U.S.-Mexico border.
7. Support comprehensive solutions to U.S.-Mexico border sewage problems to protect human health and the overall health of our local ecosystems.

Funding

1. Identify and coordinate regional funding sources for watershed planning, habitat land acquisitions, and ongoing land management and biological monitoring functions with surrounding counties, tribal governments, and Mexico.

ECONOMIC DEVELOPMENT

San Diego, combined with neighboring counties and northern Baja California, has the necessary scale and diversity to compete in the global marketplace. Likewise, this region, while separate in many ways from the Los Angeles area, does recognize our ties to our neighbor to the north as a way to access both domestic and international marketplaces.

Interregional and Binational Perspective - Economic Development

Benefiting from our Geographic Location

From a geographical perspective, San Diego occupies an advantageous position. Its proximity to Mexico is a prime example, but its access to other world markets, such as the Pacific Rim and Central and South American markets, make it one of the country's best places to do business.

In order to benefit from our geographic position, however, the region needs to ensure access to reliable trade corridors, whether in concert with port infrastructure along the international border and in northern Baja California, or in collaboration with our neighbors to the east and north, including the greater Los Angeles area.

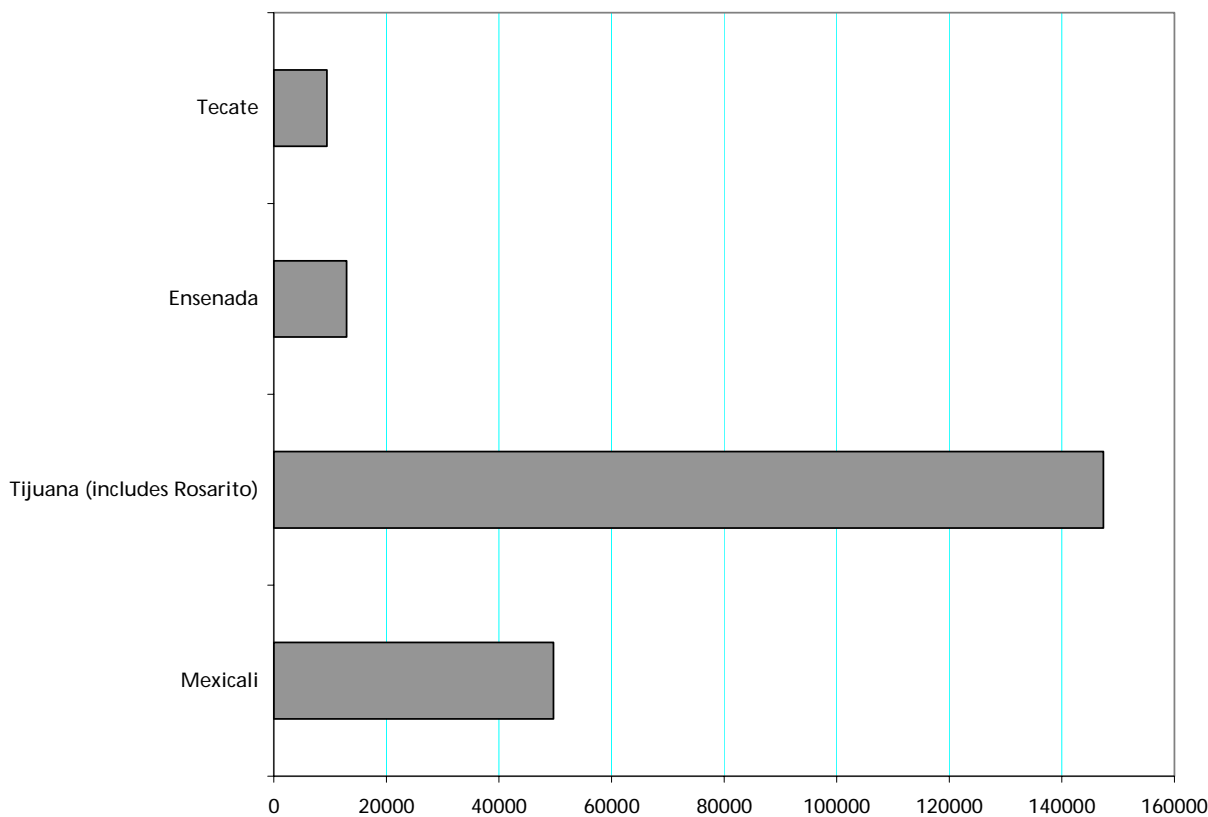
For many years, San Diego's economic development was largely based upon the military defense industry and related manufacturing. However, in the last 15 years, San Diego has diversified its economy to include significant telecommunications and biotechnology industries while maintaining a thriving tourist industry. San Diego's location has allowed it to rely heavily on the large labor force

available in Mexico while Tijuana’s economy has benefited from employment opportunities in San Diego. The close economic ties between the two areas are easily demonstrated through the movement of people and goods across the international border and by economic activity along the border.

Northern Baja California has also benefited from its geographical position next to the United States. Mexico has implemented various strategies to bolster economic development along its northern border, the most recent and well known being the maquiladora program (or in-bond industry).

The maquiladora industry plays a very important role in the region in that it not only generates employment opportunities in Baja California but also in San Diego, as is demonstrated by the number of transnational corporations with sister facilities north of the border. The strength of the regional economy, San Diego’s Gross Domestic Product (GDP) of \$122.5 billion,³⁰ combined with Tijuana’s \$10 billion GDP,³¹ would rank this border economy 36th among the economies of the world, ahead of Singapore, Malaysia, or Venezuela.

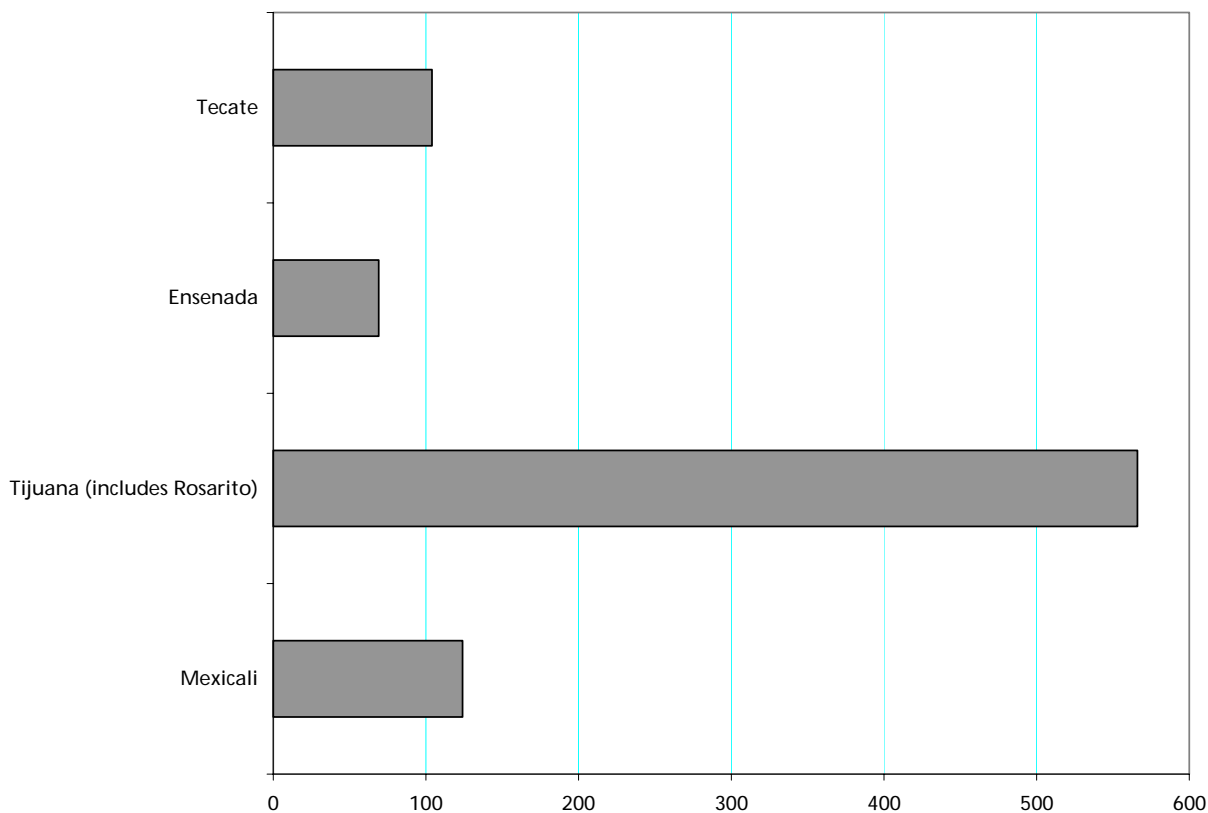
FIGURE 5.7—NUMBER OF PEOPLE EMPLOYED IN BAJA CALIFORNIA - 2004



Source: Secretaría de Desarrollo Económico de Baja California (SEDECO)

³⁰ San Diego Regional Chamber of Commerce: World Bank and Economic Research Bureau

³¹ Tijuana Economic Development Corporation www.tijuana-edc.com, INEGI

FIGURE 5.8—NUMBER OF MAQUILADORAS IN BAJA CALIFORNIA - 2004

Source: Secretaría de Desarrollo Económico de Baja California (SEDECO)

Our regional economy is affected by the global economy. The North American Free Trade Agreement (NAFTA), implemented in 1994, has allowed California's trade with Mexico to exceed \$20 billion yearly and has overcome obstacles such as fluctuations in the peso-dollar relationship as well as differences in economic indicators which, in the past, posed major obstacles for a more stable economic relationship.

If we take advantage of our geographic location and our shared resources, this region has great potential to succeed in highly competitive global markets. In this context, the maquiladora industry has been an important factor for development of the binational market. Employment in the maquiladora industry has doubled since 1991, as shown in Figure 5.5. The maquiladora industry, however, is under competitive pressure from other production centers such as China, where the cost of labor is comparatively cheaper. Therefore, this binational region must rely on its other competitive advantages, such as geographic location, and assure that our regional trade-related infrastructure provides improved access to both domestic and international markets.

The region should also focus its attention on other types of infrastructure needed to support a growing economy. This includes ensuring that adequate educational opportunities exist to develop a highly qualified workforce for high-tech and biotech industries, and that sufficient infrastructure is in place to provide the natural resources (water, energy, etc.) needed to support large-scale industry. Furthermore, the region needs to concentrate its efforts towards building a strong base of small- to

medium-sized firms that support the larger industries in the region. Developing a strong base of feeder or supplier industries will help strengthen the region's core industries and provide more cross-border business opportunities.

The binational aspect of our region has been embraced by the business sector. However, cross-border business could be hampered as crossing the border becomes more time consuming and less efficient for goods movement. The use of better technology at the ports of entry is the region's best option for safeguarding the border while allowing the efficient and safe flow of people and goods.

Expanding International Trade Capabilities

As identified in SANDAG's Regional Economic Prosperity Strategy, improving collaboration between the private sector and government agencies responsible for improving the region's access to domestic and international markets is key to our economic success. In order to be competitive in the global marketplace, San Diego and its neighboring counties and Mexico will need to approach access issues as a region. Recommendations in this area include improving the greater region's sea port facilities to accommodate larger classes of cargo ships, developing stronger ties between the regional ports from Ensenada to Los Angeles, improving capacity of the SD&AE eastward rail line, expanding air passenger and air cargo capacity in the region, and continuing to make improvements to our transportation infrastructure, especially along designated trade corridors (for more information on regional economic development, see the Economic Prosperity chapter).

Tribal Government Perspective-Economic Development

San Diego's Tribal communities greatly affect this region's economic development. According to a County of San Diego report,³² the San Diego tribes who have developed gaming facilities have:

- § Eliminated unemployment on certain reservations, thereby eliminating need for taxpayers to support some tribal members;
- § Made it possible for the Barona, Sycuan and Viejas Bands to allocate to other Bands and Indian programs the annual federal funds they are entitled to;
- § Contributed to reducing unemployment of non-Indians, thereby reducing the need for taxpayers to support those in need of government programs;
- § Created approximately 12,000 jobs, primarily for non-Indian residents of the San Diego region;
- § Generated approximately \$270 million total annual payroll;
- § Resulted in approximately \$263 million in goods and services purchases in 2001;
- § Contact with hundreds of vendors, some with 2000 vendors, most of whom are from San Diego County;
- § Made it possible (in 2000) for Sycuan and Viejas bands to spend over \$7 million on community organizations, charitable contributions, sponsorships, etc.; and
- § Made it possible for non-gaming tribes (with no slot machines or fewer than 350 slot machines) to each receive up to \$1.1 million annually from gaming tribes.

These accomplishments are especially significant when considering that before gaming, no local Indian tribe had found the means to generate sufficient steady income to support itself. Economic development on tribal reservations is limited for several reasons:

³² Update on Impacts of Tribal Economic Development Projects in San Diego County, April 2002

- § Reservation land is owned by the tribes, but held in trust by the federal government. Because of this trust status, tribes could not use their land as collateral to secure financing for economic development without waiving their sovereign immunity.
- § Reservation lands tend to be remote — most are relatively far from urban or suburban communities — and accessed by rural roads.
- § The terrain of most reservations is very constrained.
- § The complexity of Indian law and politics, and a historic dependency on federal programs and services.

Those tribes without gaming still face these challenges, and will need to pursue economic development opportunities to improve the quality of life on their reservations.

ECONOMIC DEVELOPMENT GOALS, POLICY OBJECTIVES, AND RECOMMENDED ACTIONS

Goal

Strengthen the position of the greater interregional and binational area as a strong competitor in the global marketplace.

Policy Objectives

1. Mutually support cooperative economic development and diversification of the economies of the greater borders region.
2. Mutually capitalize upon each region's competitive advantages to maximize the greater borders region's economic prosperity.
3. Enhance cultural, educational, and job training opportunities throughout the greater borders region.
4. Increase communications and coordination with tribal governments regarding activities and opportunities for economic development.

Recommended Actions

Planning, Design, and Coordination

1. Support the I-15 Interregional Partnership economic development strategies as listed in the Jobs/Housing section of this chapter.
2. Support policies and measures that promote economic development along the border with Mexico, such as the Maquiladora Program.
3. Create a forum for increased communication with tribal governments regarding economic development.

Funding

1. Encourage continued U.S. federal and state government financial support of the North American Development Bank (NADBank) and the California Infrastructure and Development Bank (I-Bank).³³

HOMELAND SECURITY

The tragic terrorist events of September 11, 2001, led our nation to re-examine national security both within and along our borders. The resulting decisions made in Washington, D.C., directly affect the people living in communities throughout the Southern California-northern Baja California region. While we support our nation's efforts to safeguard our borders, we must also ensure that in implementing such measures, the quality of life in the region is not significantly diminished.

San Diego's position as home to the busiest binational land port of entry in the world places us on the frontline of national security efforts. Likewise, our significant local defense industry places great responsibility upon this community for implementing those policies instrumental to safeguarding America.

The International Border

The three land ports of entry that connect the San Diego region with the state of Baja California allow our communities to interact, our economies to thrive, and our cultures to meld. More than 40,000 daily commuters and \$20 billion in annual trade goods cross these ports. Therefore, our region needs a border management system that expands trade opportunities while protecting the U.S. from potential terrorist threats and attempts to move contraband or people illegally across the border. A seamless information-sharing system that allows for coordinated communication among border authorities and the broader law enforcement and intelligence gathering communities is also necessary.

The efficient use of technology for pre-screening and information collection is critical in light of limited resources at our border. According to the White House, "...extensive pre-screening of low-risk traffic [allows] limited assets to focus attention on high-risk traffic. The use of advanced technology to track the movement of cargo and the entry and exit of individuals is essential to the task of managing the movement of hundreds of millions of individuals, conveyances, and vehicles."³⁴

In this region, a number of programs are already in place to facilitate this movement. These programs include SENTRI (Secure Electronic Network for Travelers Rapid Inspection) for individual crossers and BRASS (Border Release Advanced Screening and Selectivity) and FAST (Free and Secure Trade) for commercial activity.

³³ See Glossary of Agencies for a description of these institutions

³⁴ White House. *Securing America's Borders Fact Sheet: Border Security*. www.whitehouse.gov/homeland/01.html

The Department of Homeland Security

To better protect the United States from a potential threat and to better secure our borders, Congress authorized the creation of the Department of Homeland Security (DHS). This new department's mission is to prevent terrorist attacks, reduce America's vulnerability to terrorism, and minimize the damage from potential attacks. The DHS oversees 22 existing agencies to provide a more coordinated effort toward homeland security. The department is organized under the following four directorates: Border and Transportation Security Directorate (BTSD); Science and Technology Directorate (STD); Information Analysis and Infrastructure Protection (IAIP); and Emergency Preparedness and Response Directorate (EPRD). Of these, the Border and Transportation Security Directorate plays the most active role in managing our local ports of entry (land, air, and sea), and contains a number of the agencies transferred from the Department of Justice, including the Bureau of Customs and Border Protection (CBP) and the Bureau of Immigration and Customs Enforcement (BICE), among others.

As this new super-agency begins to implement strategies and actions to protect our borders, it is important that the region has meaningful input into the decision-making process. We must support strategies that use new technologies to streamline our ports of entry while ensuring international public safety.

The DHS responds to potential threats along the U.S.-Mexico border through the policy prescribed in the *Twenty Two-Point Smart Border Agreement* between the U.S. and Mexico. This agreement calls for specific actions to ensure secure infrastructure, secure flows of people, and secure flows of goods. Many organizations in the region have supported implementation of the agreement, which calls for cross-border cooperation, harmonized port of entry operations, increased use of technology to allow legal crossers and commercial entities more streamlined access, and technology sharing, to name a few.

A Snapshot of the Defense Posture in the San Diego Region

During times of heightened homeland security, this region is fully aware that it may be at greater risk than other areas of the country. That risk exists because the San Diego region is one of the most significant defense areas in the country in terms of uniformed military personnel, installations, and equipment, and the number of cluster industries that directly support the nation's defense needs. These include companies engaged in manufacturing or assembling aircraft, ships, and products such as cruise missiles. In fact, San Diego County ranks first in the nation in Defense Department wages and salaries (\$4.3 billion), and third in defense procurement contract awards (\$4.7 billion).³⁵

U.S. Navy

The Navy has an amazingly wide complex of commands and operations in the region. As of 2002, the Navy employed 54,975 active duty military personnel and 19,070 civilians.

³⁵ According to information compiled by the Economic Research Bureau of the San Diego Regional Chamber of Commerce and published in Volume 51, Number 7, 2003 edition of the San Diego Economic Bulletin.

The principal Navy bases in the San Diego region are the Naval Base Coronado (Naval Air Station North Island/ Naval Amphibious Base Coronado), the Naval Station San Diego, the Naval Regional Medical Center, the Naval Submarine Base, the Space and Naval Warfare Systems Command, and the Naval Weapons Station Fallbrook. Locally-based nuclear aircraft carriers include the USS John C. Stennis, USS Nimitz, and by 2004, the USS Ronald Reagan — all homeported at North Island Naval Air Station.

In addition, Navy Region Southwest is the major command that provides the highest level of base operating support and quality of life services for all operating forces and shore activities in the Southwest Region. Naval Region Southwest is based in downtown San Diego at the Broadway Complex. The Shore Group supports command groups, including military recruit centers, the Fleet and Industrial Supply Center, Navy Antisubmarine Training Center, U.S. Coast Guard activities, the Naval Facilities Engineering Command, Navy Public Works, and all other Navy bases in the Naval Region Southwest.

U.S. Marine Corps

The United States Marine Corps has 121 command groups based in the San Diego region, employing 53,330 active duty military personnel and 4,487 civilians as of 2002. This was an increase of 2,271 personnel over 2001. The major Marine bases are Marine Corps Base Camp Pendleton, Marine Corps Air Station Miramar and the Marine Corps Recruit Depot.



The Marine Corps Base Camp Pendleton covers more than 250,000 acres and approximately 200 square miles of terrain north of Oceanside. The stretch of shoreline along the base (17.5 miles) is the largest undeveloped portion of coastal area left in Southern California. Camp Pendleton provides training facilities for many active-duty and reserve Marines, Army, and Navy units, as well as national, state, and local agencies. More than 60,000 military and civilian personnel work daily on the base, which is the home of the 1st Marine Expeditionary Force, 1st Marine Division, 1st Force Service Support Group, and many tenant units. Camp Pendleton has 67 command groups with 30,906 active duty military personnel and 4,887 civilian employees in 2002.

The Marine Corps Air Station Miramar (MCAS Miramar) is a 24,000-acre installation located in the northern part of the City of San Diego. The mission of MCAS Miramar is to provide facilities, services and materials to support operations of the 3d Marine Aircraft Wing, Marine Aircraft Group 46, and other Naval aviation units. MCAS Miramar had 48 command groups with approximately 13,000 active duty military personnel and 1,213 civilian employees as of 2002.

The Marine Corps Recruit Depot Group (MCRD) is one of the two Marine recruit training bases in the United States. The base has 388 acres north of downtown San Diego. The MCRD had six command groups with 9,424 active duty military personnel and 605 civilian employees in 2002.

The military is tightly woven into the social and economic fabric of the San Diego region. The Navy/Marine Corps team, coupled with the local defense industry, affords this region continuing opportunities to enhance our quality of life.

Protecting Regional Infrastructure

Just as our economies and societies are linked throughout the region, many of our public facilities and environmental assets are connected and would be adversely affected by disruptions on either side of the border. Joint response capabilities will be important if a disaster of international significance occurs along our border, and our binational border region needs to be prepared to collaborate to address any potential regional terrorist threat.

Efforts are now being made among regional agencies to prepare for a potential attack on our people or resources. In San Diego County, overall county response to disasters is coordinated through the Unified San Diego County Emergency Services Organization, Office of Emergency Services (OES). The organization is comprised of the 18 cities within the region and the County of San Diego and provides for a single operational area for coordination of disaster activities. This office coordinated with the Environmental Protection Agency to develop a cross-border contingency plan for the sister cities of San Diego and Tijuana. This plan addresses such issues as hazardous materials management, bioterrorism, and joint preparedness activities.

While efforts are being made among agencies on both sides of the border, a recent survey conducted regarding perceptions of homeland security efforts in the region indicated a need to improve information dissemination about regional emergency preparedness.³⁶ Efforts need to be made to increase awareness among the general public regarding existing preparations and provide public information regarding what to do in the event of a terrorist attack along our border.

HOMELAND SECURITY GOALS, POLICY OBJECTIVES, AND RECOMMENDED ACTIONS

Goal

Keep the region secure while protecting the quality of life in the greater border region.

Policy Objectives

1. Ensure protection of residents, infrastructure, and resource delivery systems within our greater border region.
2. Balance the implementation of homeland security measures with efficient cross-border and interregional travel and economic prosperity.

³⁶ Gallagher, Nathan. *San Diego Perspectives on Homeland Security: Report* (prepared for the 2003 SANDAG Annual Binational Summer Conference). Institute for Regional Studies, San Diego, Ca. July 2003.

Recommended Actions

Planning, Design, and Coordination

1. Implement strategies to coordinate homeland security measures with all governments within the greater border region.
2. Encourage the implementation of security measures while enabling the growth of a prosperous economy within the greater border region.
3. Establish a meaningful mechanism for local input regarding homeland security measures affecting this region.
4. Support measures to encourage users of border crossings to register and participate in ports of entry programs that facilitate identification of people and efficient movement of goods to ensure national security at the borders and beyond.

Program and Project Development and Implementation

1. Develop adaptive strategies to address potential impacts from security measures.
2. Increase the use of technology at the ports of entry.

Funding

1. Pursue funding opportunities with partners in Imperial County and Mexico to encourage a comprehensive approach to Homeland Security which supports economic prosperity while respecting public safety in the Californias.

CONCLUSION

The San Diego region is a unique and dynamic place to live, with a number of opportunities and challenges in relation to our continued growth and prosperity. Over the next 30 years, our policies and actions will have a dramatic effect on our neighbors and vice-versa. Close collaboration with each of our neighboring jurisdictions — within and outside the region — will be critical to achieving the goals, policy objectives, and actions that have been set forth in this chapter.

SOCIAL EQUITY & ENVIRONMENTAL JUSTICE ASSESSMENT

Fair Planning and Development for all Communities

2030 VISION

Housing prices are within reach of much of our population. We have a variety of housing types for a variety of lifestyles and family structures – many of them near places where we work, shop, and play. They are connected to attractive, efficient, and well-integrated transit stations. Our streets are walkable and wheelchair accessible, and they're safer to cross. Our homes are built or retrofitted with environmentally-friendly materials and universal design features, resulting in greater energy and water efficiency and significantly easier access for our aging and differently-abled population. A majority of our residents have gainful employment with improved purchasing power and increasing economic prosperity. Industrial plants continue to upgrade pollution-control equipment and curb emissions, making them better neighbors to communities nearby. Residential neighborhoods are free of potentially harmful industries. All voices are heard in the decision-making process.

INTRODUCTION

Social Equity

Social equity means ensuring that all communities are treated fairly and are given equal opportunity to participate in the planning and decision-making process, with an emphasis on ensuring that traditionally disadvantaged groups are not left behind. These groups include, but are not limited to, ethnic minorities, low income residents, persons with disabilities, and seniors. Social equity means everyone, regardless of race, culture, ability, or income, shares in the benefits of planning and development.



Ensuring social equity does not necessarily guarantee equality — but it does mean giving every community an equal voice. Social equity is providing all residents with access to affordable and safe housing, quality jobs, adequate infrastructure, and quality education. It means allowing children and families of all races, abilities, and income levels to live in the best possible environment.

This chapter analyzes the RCP's equity level, much like an environmental impact report, but with an emphasis on social impacts. We know from experience that regions grow healthier when all

communities are strong, which is why social equity is one of the three Es of sustainability (Equity, Environment, and Economy). Without it, the region cannot have true prosperity.

Environmental Justice

Environmental justice is an important component of social equity. SANDAG defines environmental justice¹ as ensuring that land use plans, policies and actions do not disproportionately affect low income and minority communities. Environmental justice is achieved when everyone, regardless of race, culture, or income, enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.

In 1982, a PCB² landfill proposed in the rural and mostly African-American county of Warren, North Carolina, ignited protests and over 500 arrests. It also brought national attention to the environmental justice movement. The Warren County protests provided the impetus for an U.S. General Accounting Office study, which showed that three of every four off-site, commercial hazardous waste landfills in Region 4 (which comprises eight states in the South) were located in predominantly African-American communities, although African-Americans made up only 20 percent of the region's population. In 1987, the Commission for Racial Justice (CRJ) produced *Toxic Waste and Race*, the first national study to correlate waste facility sites and demographic characteristics. In this study, race was found to be the most potent variable in predicting where these facilities were located – more important than poverty, land values, and home ownership rates. The CRJ study also found that three of every five African-Americans or Hispanics live in a community adjacent to unregulated toxic waste sites. Additionally, the study noted that African-Americans were heavily overrepresented in the populations of metropolitan areas with the greatest number of uncontrolled toxic waste sites.

Federal Legal Background

The federal basis for environmental justice lies in the Equal Protection Clause of the U.S. Constitution. The Fourteenth Amendment expressly provides that the states may not “deny to any person within [their] jurisdiction the equal protection of the laws.”³



Adding to this, on February 11, 1994, President Clinton signed Executive Order 12898, titled “Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations.” The order followed a 1992 report by the U.S. Environmental Protection Agency (EPA) indicating that “racial minority and low income populations experience higher than average exposures to selected air pollutants, hazardous waste facilities, and other forms of environmental

¹ Federal programs define environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. State government code (65040.12(c)) defines environmental justice as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation and enforcement of environmental laws and policies.

² PCBs — polychlorinated biphenyls — once were used in paints, lubricants and other products. They have been linked to cancer and birth defects.

³ U.S. Constitution, amend. XIV, §1

pollution.” Among other things, the executive order directed federal agencies to incorporate environmental justice into their missions.

In a memorandum accompanying the order, President Clinton underscored existing federal laws that can be used to further environmental justice. These laws include Title VI of the Civil Rights Act of 1964 and the National Environmental Policy Act (NEPA), among others. Title VI prohibits any recipient (state or local entity or public or private agency) of federal financial assistance from discriminating on the basis of race, color, or national origin in its programs or activities.⁴ Pursuant to the Civil Rights Restoration Act of 1987, this requirement applies to all agency programs and activities, not just those that receive direct federal funding. In response, many state and local agencies that receive federal funding have initiated environmental justice programs of their own. NEPA applies to projects carried out or funded by a federal agency (including the issuance of federal permits). NEPA requires public participation and discussion of alternatives and mitigation measures that could reduce disproportionate negative effects on low income and minority populations.

State Legal Background

The first state environmental justice law in California was passed in 1999, although anti-discrimination laws existed before then. The California Constitution prohibits discrimination in the operation of public employment, public education, or public contracting.⁵ State law further prohibits discrimination under any program or activity that is funded or administered by the state.⁶ The Planning and Zoning Law prohibits any local entity from denying any individual or group of the enjoyment of residence, land ownership,



tenancy, or any other land use in California due to their race, sex, color, religion, ethnicity, national origin, ancestry, lawful occupation, or age.⁷ The Fair Employment and Housing Act (FEHA) specifically prohibits housing discrimination on the basis of race, color, religion, sex, sexual orientation, marital status, national origin, ancestry, familial status, disability, or source of income.⁸

In 1999, SB 115 was signed into law, defining environmental justice in statute and establishing the Governor’s Office of Planning and Research (OPR) as the coordinating agency for state environmental justice programs,⁹ and requiring the California Environmental Protection Agency (Cal/EPA) to develop a model environmental justice mission statement for boards, departments, and offices within the agency.¹⁰ SB 89, signed in 2000, required the creation of an environmental justice

⁴ 42 USC §2000d-§2000d-7

⁵ Article I, §31

⁶ §11135

⁷ §65008

⁸ §12900, et seq.

⁹ §65040.12

¹⁰ Public Resources Code §72000-72001

working group and an advisory group to assist Cal/EPA in developing an intra-agency environmental justice strategy.¹¹ This strategy was finalized in September 2003.

AB 1553, which took effect in 2003, required OPR to incorporate environmental justice considerations into General Plan Guidelines, proposing methods for local governments to address the following:

- § Planning for the equitable distribution of new public facilities and services that increase and enhance community quality of life.
- § Siting industrial facilities and uses that pose a significant hazard to human health and safety in a manner that seeks to avoid over-concentrating these uses in proximity to schools or residential dwellings.
- § Building new schools and residential dwellings well apart from industrial facilities and uses that pose a significant hazard to human health and safety.
- § Promoting more livable communities by expanding opportunities for transit-oriented development.

These guidelines have been finalized, and are available through OPR.¹² The RCP addresses each of these issues, and in many areas places an increased emphasis on the health and safety of low income and minority communities.

DIVERSITY IN THE SAN DIEGO REGION

Social equity and environmental justice considerations in the RCP ensure that in the future, all communities move forward as the region moves forward. Many communities have traditionally been left behind or excluded from the planning and development process, including low income and minority communities, persons with disabilities, and seniors. Each of these communities has a strong presence in the San Diego region.



Ethnic Minorities

Table 6.1 shows 2000 Census data on race and Hispanic origin in the San Diego region. In the census, race and Hispanic origin are two separate and distinct concepts. Hispanics are individuals who designated themselves as having origins from Spain, the Spanish-speaking countries of Central or South America, the Caribbean, or those identifying themselves generally as Spanish or Spanish-American. Like Hispanic origin, race is a self-identification item in which respondents choose the race or races with which they most closely identify. For the first time in the 210-year history of the census, respondents were allowed to identify themselves as being in more than one race group. As shown, in the San Diego region, about 43 percent of the residents in the region are a race other than White. Of these, about 6 percent are black or African American, about one percent are

¹¹ Public Resources Code §72002- 72003

¹² OPR General Plan guidelines can be found at www.opr.ca.gov/planning/PDFs/General_Plan_Guidelines_2003.pdf

American Indian, nine percent are Asian, 0.5 percent are Native Hawaiian or Pacific Islander, 13 percent are “some other race” and five percent identified themselves as two or more races. About 27 percent of the region’s residents identified themselves as being Hispanic.

TABLE 6.1—2000 RACE AND HISPANIC ORIGIN IN THE SAN DIEGO REGION

| | Total | | Hispanic | | Non-Hispanic | |
|--|------------------|---------------|----------------|--------------|------------------|--------------|
| | Number | Percent* | Number | Percent* | Number | Percent* |
| White | 1,871,839 | 66.5% | 323,006 | 11.5% | 1,548,833 | 55.0% |
| Black or African American | 161,480 | 5.7% | 6,993 | 0.2% | 154,487 | 5.5% |
| American Indian | 24,337 | 0.9% | 9,084 | 0.3% | 15,253 | 0.5% |
| Asian | 249,802 | 8.9% | 4,505 | 0.2% | 245,297 | 8.7% |
| Native Hawaiian & Other Pacific Islander | 13,561 | 0.5% | 1,397 | 0.0% | 12,164 | 0.4% |
| Some other race | 360,847 | 12.8% | 355,025 | 12.6% | 5,822 | 0.2% |
| Two or more races | 131,967 | 4.7% | 50,955 | 1.8% | 81,012 | 2.9% |
| Total | 2,813,833 | 100.0% | 750,965 | 26.7% | 2,062,868 | 73.3% |

*Percent of Total Population in Region

Source: U.S. Census Bureau, 2000

Lower Income Residents

The following table shows 1999 income levels in the San Diego region (these figures are from the 2000 Census, and are the most recent available). These income levels are based on the 1999 Area Median Income (AMI), established by the California Department of Community Development. In 1999, the AMI for San Diego County was \$52,500. The “extremely low,” “very low,” “low,” and “moderate” income limits are 30 percent, 50 percent, 80 percent, and 120 percent of AMI, respectively. Income limits are adjusted for household size because larger households require higher incomes than smaller households to maintain the same standard of living.

TABLE 6.2—1999 INCOME LEVELS IN THE SAN DIEGO REGION

| Income Level | Number of People in Household | | | | | | | |
|---------------|-------------------------------|-----------|-----------|-----------|-----------|----------|----------|-----------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Extremely Low | \$11,050 | \$ 12,600 | \$ 14,200 | \$ 15,750 | \$ 17,000 | \$18,300 | \$19,550 | \$ 20,800 |
| Very Low | \$18,400 | \$ 21,000 | \$ 23,650 | \$ 26,250 | \$ 28,350 | \$30,450 | \$32,550 | \$ 34,650 |
| Low | \$29,400 | \$ 33,600 | \$ 37,800 | \$ 42,000 | \$ 45,350 | \$48,700 | \$52,100 | \$ 55,450 |
| Moderate | \$44,100 | \$ 50,100 | \$ 56,700 | \$ 63,000 | \$ 68,050 | \$73,100 | \$78,100 | \$ 83,150 |

Source: California Department of Housing and Community Development

TABLE 6.3—1999 HOUSEHOLD INCOME IN THE SAN DIEGO REGION

| Income Level | Households | |
|--------------------------------------|----------------|------------------|
| | Total | Percent of Total |
| Extremely Low (0 - 30% A.M.I.) | 102,598 | 10% |
| Very Low (31 - 50% A.M.I.) | 107,906 | 11% |
| Low (51 - 80% A.M.I.) | 166,053 | 17% |
| <i>Total Lower Income Households</i> | <i>76,557</i> | <i>38%</i> |
| Moderate (81 - 120% A.M.I.) | 98,207 | 20% |
| Above Moderate (>120% A.M.I.) | 418,340 | 42% |
| Total | 993,104 | 100% |

Source: Census 2000 5% PUMS File; Compiled by SANDAG

As shown, a significant percentage of households fall in the “extremely low,” “very low,” and “low” categories. Collectively, 38 percent of households are in these categories. There has been a slight increase in the percentage of households falling in the “extremely low,” “very low,” and “low” categories since 1990, as shown in Table 6.4. The proportion of “extremely low” income households increased the most out of the three over the decade, from 8 percent to 10 percent.

TABLE 6.4—1990–2000 CHANGE IN HOUSEHOLD INCOME

| Income Level | Percent of Total Households | |
|--------------------------------------|-----------------------------|------------|
| | 1990 | 2000 |
| Extremely Low | 8% | 10% |
| Very Low | 10% | 11% |
| Low | 15% | 17% |
| <i>Total Lower Income Households</i> | <i>33%</i> | <i>38%</i> |
| Moderate | 20% | 20% |
| Above Moderate | 47% | 42% |

Source: Census 1990 and Census 2000 5% PUMS File; Compiled by SANDAG

In addition to the information above, the Census shows that thirteen percent of residents live below the poverty level. The U.S. Census Bureau defines the 2000 poverty level for a family of four as \$18,400 or below.

Seniors

- § In 2000, eleven percent of San Diego region residents were age 65 and over.¹³
- § By 2030, the number of people age 65 and older will have increased by 128 percent, and 19 percent of the region's population will be in that age group then.¹⁴

Persons with Disabilities

In 2000, about 798,400 people in the region (18 percent of residents) age five and older had some type of disability.¹⁵



EQUITY CONDITIONS IN THE SAN DIEGO REGION

The San Diego region faces serious challenges of inequity.

The following information is not a comprehensive look at inequity in the region, but focuses on income, unemployment, job quality, and housing in an attempt to present a brief snapshot of some of the issues facing some of our residents today. More information is needed to truly analyze the conditions in low income and minority communities, as well as those of seniors and persons with disabilities. This is discussed in the last section of this chapter, "Next Steps."

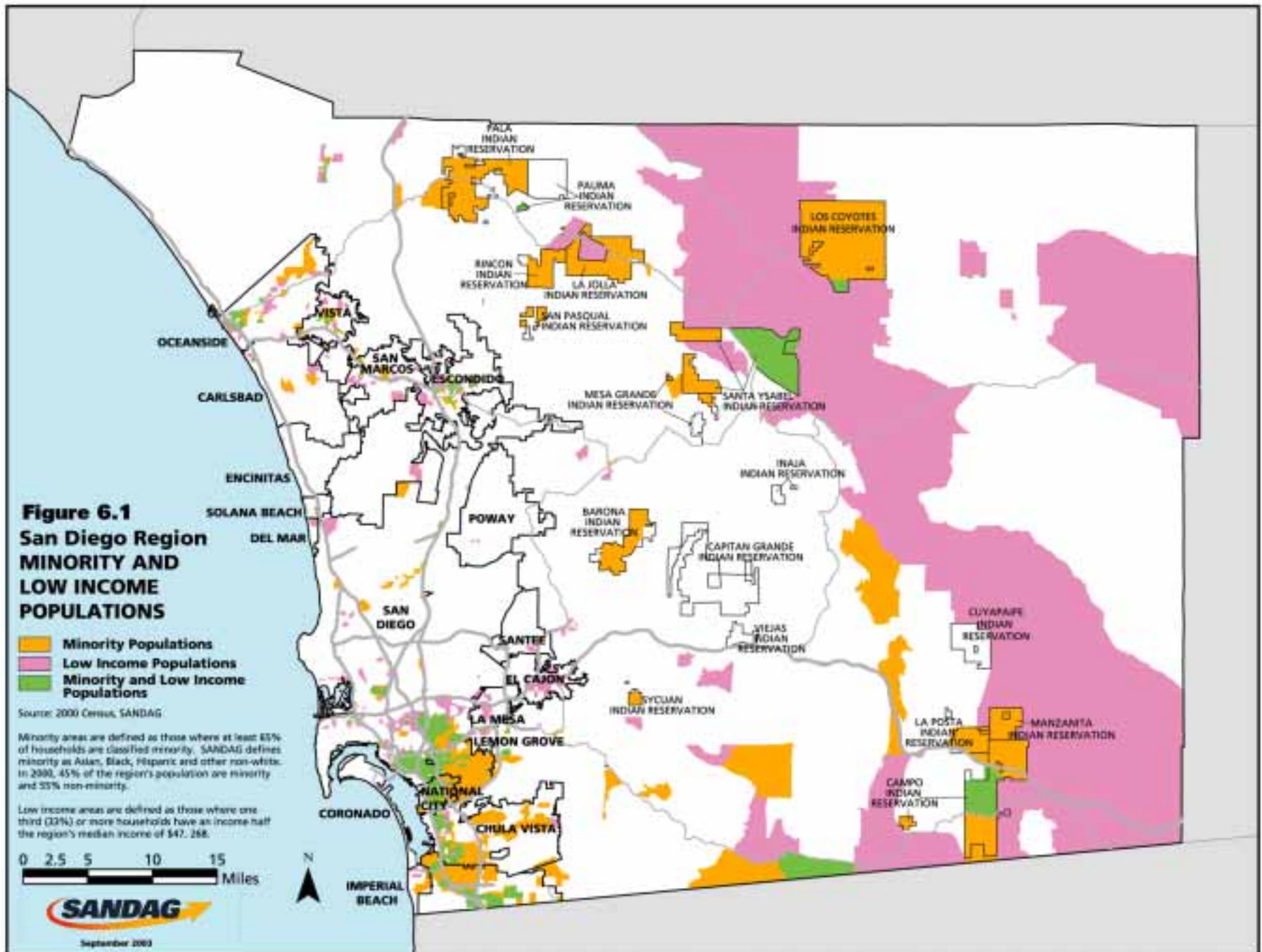
The following data includes information about high minority Traffic Analysis Zones (TAZs), low income TAZs, and TAZs that are both high minority and low income. TAZs are geographic areas used in transportation forecasting that summarize socioeconomic and land-use characteristics. They are typically smaller than census tracts, and therefore can help put forth a more accurate description of a community's ethnicity and income distribution. For this analysis, high minority TAZs are defined as those where non-Whites made up 65 percent or more of the population. Very low income TAZs are those where one third of the households have incomes of 50 percent or less of the regional median income of \$47,268. Note that this is different than the Area Median Income used above, as it is not adjusted for household size. High minority and very low income TAZs are those where both criteria were met. Figure 6.1 shows these communities in the San Diego region.

¹³ Source: U.S. Census Bureau

¹⁴ Source: SANDAG Final 2030 Forecast

¹⁵ Source: U.S. Census Bureau. This includes sensory, mental, physical, and self-care, employment, and go-outside-home disabilities.

FIGURE 6.1—SAN DIEGO REGION MINORITY AND LOW INCOME POPULATIONS



Poverty/ Unemployment/ Job Quality

- § Thirteen percent of San Diego residents live below the poverty level.
- § Sixteen percent of people with disabilities live below the poverty level.
- § Nine percent of seniors with disabilities live below the poverty level, compared to six percent of seniors with no disabilities.
- § Seventeen percent of children age 17 and under live below the poverty level.
- § Regionally, the unemployment rate is six percent, compared to nine percent in high minority TAZs, 10 percent in very low income TAZs, and 11 percent in tracts that are both high minority and very low income.
- § Regionally, 38 percent of residents are employed in managerial and professional positions, compared to 21 percent of residents in high minority TAZs, 23 percent in very low income TAZs, and 16 percent in TAZs that are both high minority and very low income.



Housing

- § Of the total owner-occupied homes in the San Diego region, only 19 percent are owned by non-White householders.
- § In high minority TAZs, 42 percent of households owned their own homes, compared to 55 percent regionwide. In very low income TAZs, 27 percent of residents owned their own homes, and in TAZs that are both high minority and very low income, only 25 percent of residents owned their own homes.
- § Thirty percent of households in high minority TAZs were overcrowded¹⁶, and 24 percent of households in very low income TAZs were overcrowded, compared to 12 percent regionwide. In TAZs that are both high minority and very low income 37 percent of households were overcrowded.
- § Twelve percent of homes in high minority TAZs, and 17 percent of homes in very low income TAZs were built before 1950, compared to 10 percent regionwide. In TAZs that were both high minority and very low income, 37 percent of homes were built before 1950. Older housing can lead to health hazards for residents. It may be substandard and there is an increased risk of the presence of lead based paint.

¹⁶ According the U.S. Census Bureau, households with more than 1.01 people per room (excluding bathrooms) are considered overcrowded.

Community Example 1: Imperial Avenue Corridor

The San Diego City/County Reinvestment Task Force¹⁷ recently conducted a socio-economic study of the Imperial Avenue Corridor¹⁸ in the City of San Diego. This area has the highest concentration of minorities and low income households within the City of San Diego. The Task Force study¹⁹ analyzed population, income, employment characteristics, land use, housing needs, the availability of capital, and the distribution of banks within the study area. A few of the Task Force's key findings show that in the Imperial Avenue Corridor:

- § The total housing stock as a percentage of the population is lower than in the region as a whole, while residential densities are among the highest in the region, indicating overcrowded housing situations.
- § Residents living in the Imperial Avenue Corridor are not receiving a proportionate amount of bank loans or bank-loan dollars based on the business characteristics of the study area.
- § For every home loan denied in the study area, 1.3 loans were approved – compared to the regionwide rate of 3.2.
- § Eighty-eight percent of the home loan denials were in the low income tracts within the Imperial Avenue Corridor, compared to 3.8 percent in low income tracts for the region.
- § Forty-one percent of the home loan applications were denied, compared to a 23 percent denial rate for the region overall.
- § There are approximately 6,440 households per bank branch. This is more than three times greater than the regional average of 2,025 households per branch.

While these communities are within the City of San Diego, these types of conditions exist in low income and minority communities throughout the San Diego region.

¹⁷ The San Diego City/County Reinvestment Task Force was created in 1977 to monitor lending practices and to develop strategies for reinvestment in the San Diego region.

¹⁸ The Imperial Avenue Corridor includes the neighborhoods of Barrio Logan, Logan Heights, Sherman Heights, Grant Hill, Stockton, Mt. Hope, Chollas View, Mountain View, Lincoln Park, Southcrest, and Shelltown.

¹⁹ This study was funded by and produced for the Annie E. Casey Foundation and was conducted in collaboration with Steve Bouton of Bouton and Associates.

Community Example 2: Barrio Logan

In 1997, the Environmental Health Coalition, a local, nonprofit, environmental justice organization, sought to provide information on the health effects that may be related to environmental pollution for residents of four communities in San Diego County, which bear more sources of pollution than most others. Disorders often related to toxic pollution exposure were documented in 838 adults and children in Barrio Logan, Logan Heights, Sherman Heights, and National City. Some of the results suggest that the health of these residents may be adversely impacted by these exposures. Respiratory illness and associated symptoms among children were the most striking findings of the study. Other findings:

- § Survey children reported nearly twice the number of symptoms of respiratory illness than the control group.
- § Twelve percent of all survey children not previously diagnosed with asthma reported at least two symptoms of respiratory illness that may indicate undiagnosed asthma. 7.7 percent of all survey children had physician-diagnosed asthma. This indicates that up to 20 percent of children may be asthmatic.
- § Children living within the Barrio Logan area reported more physician-diagnosed asthma than children in the other survey areas or the control group: 10.5 percent reported physician-diagnosed asthma compared to the national average of 7.7 percent and the national average for Mexican-American children of 4.4 percent.
- § Twenty seven percent of all survey children reported nose and eye irritation, compared to 15 percent of the control group.
- § Rates of adult respiratory symptoms were higher than that of the control group with 17.6 percent reporting two or three symptoms, compared to 9.3 percent in the control group.

While this is also a City of San Diego example, these types of conditions exist in low income and minority communities throughout the San Diego region.

ANALYSIS OF SOCIAL EQUITY/ENVIRONMENTAL JUSTICE IN THE RCP

Given the existing and growing diversity of our region, the RCP must promote social equity and environmental justice. The following section discusses social equity and environmental justice-related issues in each major topic area of the RCP, and lays out the goals, policy objectives and/or actions within the individual RCP chapters that address these issues. To achieve social equity and environmental justice, we must have greater public involvement. That's why a core value of the RCP is to "promote broader participation in the planning process and the allocation of resources." (See Vision and Core Values chapter for additional information).

Many jurisdictions in the region have already implemented a wide range of the following goals, policy objectives, and actions that promote social equity and environmental justice, such as zoning in a way that avoids incompatible land uses, developing affordable housing for their residents, and incorporating accessibility guidelines into their building codes. However, it is important that future planning and development builds upon and expands these successes.

URBAN FORM

Equity considerations are essential when discussing urban form (where and how our region grows.) In the discussions of where we should grow, the focus is often on the environmental consequences of our development patterns, such as increased traffic, air pollution, consumption of open space, and energy consumption. However, our development patterns also have social and economic consequences. They can accelerate urban infrastructure decline, concentrate poverty in urban areas, create a spatial mismatch between urban workers and suburban job centers, and negatively affect public health.

The solution is to focus future growth in our existing urban communities close to public transit and existing public facilities. However, these communities, which tend to be older, often have higher concentrations of low income and minority residents than newer communities. While focusing growth in these communities is encouraged, this growth must include adequate supporting infrastructure to ensure a rising standard of living for existing residents. Growth without supporting infrastructure can exacerbate problems in older communities.



Likewise, in discussions of how the region should grow, mixed use is often promoted as a way of creating walkable, transit-friendly communities. However, it is important to note that not all uses should be mixed. For example, placing housing close to potentially toxic commercial and industrial uses can place residents at risk. While the solution may seem obvious – simply avoid building residential or school uses near industrial facilities – other uses can also be potentially toxic. These include heavy transportation corridors, distribution centers and corridors, agricultural areas with heavy pesticide use, and small sources of air toxics, such as chrome plating, dry cleaning, and auto body shops.

Additionally, accessibility for seniors and persons with disabilities is a key issue as we plan for growth. The built environment causes many of the inequities for people with disabilities. Physical standards for buildings, sidewalks, streets, and public areas can inadvertently restrict the activities and the quality of life of many members of the community. One solution is “Universal Design” – the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

URBAN FORM GOALS, POLICY OBJECTIVES, AND RECOMMENDED ACTIONS

In response to these issues, the RCP includes the following social equity and environmental justice-related urban form goals, policy objectives, and actions, as included in Chapter 4A:

Goal

Create safe, healthy, walkable, and vibrant communities that are designed and built accessible to people of all abilities.

Policy Objectives

1. Place high priority on public facility investments that support compact, mixed use, accessible, walkable neighborhoods that are conveniently located to transit.
2. Improve existing public facilities in smart growth areas to mitigate the impact of higher intensities of use.
3. Protect public health and safety by avoiding and/or mitigating incompatible land uses.

Recommended Actions

1. Implement development projects and plans that:
 - § Provide a more diverse mix of housing types, jobs, services, and recreational land uses with good access for pedestrians and people with disabilities.
 - § Preserve our natural resources.
 - § Avoid and mitigate incompatible land uses, for example, by establishing buffers or transition zones between housing and industrial uses or major transportation corridors that could pose health risks.
2. Develop an urban design best practices manual as a tool for local agencies, which addresses walkability, compatibility with public transportation, crime prevention, universal design, and accessibility, as well as other urban design issues.
3. Institute an education and outreach program to help local agencies develop community consensus on urban design that supports smart growth.
4. Using the smart growth incentive principles, prioritize transportation infrastructure funding and other public facility investments in areas that support smart growth development and smart growth opportunities, as identified by the Smart Growth Area Concept Map.
5. Promote public and private investments in redevelopment and infill areas through the Smart Growth Incentive Program and other funding programs.

TRANSPORTATION

Transportation systems can have a significant effect on the quality of life for a region's residents by determining access to housing, jobs, services, and recreational opportunities. Social equity means investing in transportation systems that provide urban residents with opportunities to work, shop, study, invest, and play in the region.



However, without proper planning and development, transportation systems can also be disruptive to communities. The construction of roads, freeways, and rail-transit systems has placed health burdens on many lower income and minority communities. At times, the construction of new transportation systems has physically divided communities, resulting in long-lasting social and economic costs.

Additionally, transportation planning must be done in a way that provides for accessibility to low income and minority communities, seniors, and persons with disabilities. This accessibility can be seen in terms of location of transit stations, physical accessibility of buses and trains (wheelchair and disabled access), and cost of services. Transportation planning must be done with a wide variety of communities in order to promote regional equity.

TRANSPORTATION POLICY OBJECTIVES AND RECOMMENDED ACTIONS

In response to these issues, the RCP includes the following social equity and environmental justice-related transportation policy objectives, and actions, as included in Chapter 4B:

Policy Objectives

1. Provide equitable and accessible transportation services for all residents, regardless of income, age, or ability.
2. Ensure that the benefits and potential burdens of transportation projects are equitable.

Recommended Actions

1. Ensure that transit is accessible, available, and within the financial reach of as many residents as possible.
2. Design new transportation projects in such a way that they do not result in disproportionate health-related and environmental impacts on any community.
3. Ensure that the development review process addresses the transit planning needs both within and adjacent to proposed developments.

4. Develop and implement programs such as paratransit that improve transportation options for seniors and persons with disabilities.
5. Develop Transportation Project Evaluation Criteria based on the preliminary criteria themes in the RCP in order to prioritize transportation funding and transit service in areas where smart growth development has already occurred or is planned.

HOUSING

Improving social equity in the region can be accomplished by building healthy, mixed-income neighborhoods with sufficient affordable housing. Housing is one of the most important factors in our residents' quality of life. Unfortunately, high housing costs are leading to extreme hardship for low income residents in the San Diego region. There simply is not enough housing that is affordable to residents that work at the lower-wage jobs that help drive our economy, like those in the tourism and service sectors. As rents rise, these residents are often forced to move repeatedly, live in overcrowded units, or move out of the region to find less expensive housing, leading to long commutes.



In addition to providing affordable housing, we need to ensure that homes are being made available to all residents, regardless of ethnicity. Recent data from the Home Mortgage Disclosure Act (HMDA) showed that in San Diego County, while only nine percent of loan applications filed by White applicants were denied, 10 percent of Asian applicants, 17 percent of Black applicants, 17 percent of Hispanic applicants, and 17 percent of Native American/Alaskan Native applicants were turned down. While there can be a variety of reasons for this, discrimination is a strong possibility. At a minimum, it points to a need for increased analysis of lending patterns in minority communities, and the enforcement of fair-housing laws, which can be used to prevent discrimination in the selling and renting of homes as well as the siting of new affordable housing.

Additionally, the housing built in the region needs to be accessible to persons with disabilities. This is especially important as the region ages. While currently 18 percent of residents have some type of disability, this percentage will greatly increase as the older population increases, and designing accessible housing now means that residents will be more likely to be able to stay in their homes as they age.

We also need to ensure that existing homes in low income and minority communities aren't negatively affecting the health of residents. These communities often have an older housing stock, which is more likely to cause lead-related health hazards. Lead is a highly toxic metal that was used for many years in products found in and around our homes. Lead may cause a range of health effects, from behavioral problems and learning disabilities, to seizures and death. Children under seven years old are most at risk, because their bodies are growing quickly. Research suggests that

the primary sources of lead exposure for most children are deteriorating lead-based paint, lead contaminated dust, and lead contaminated residential soil.

HOUSING GOALS, POLICY OBJECTIVES, AND RECOMMENDED ACTIONS

In response to these issues, the RCP includes the following social equity and environmental justice-related housing goals, policy objectives, and actions, as included in Chapter 4C:

Goal

Provide a variety of affordable and quality housing choices for people of all income levels and abilities throughout the region.

Policy Objectives

1. Increase the supply and variety of housing choices, especially higher density multifamily housing, for residents of all ages and income levels.
2. Provide incentives for local jurisdictions to meet their housing needs.
3. Provide an adequate supply of housing for our region's workforce to minimize projected interregional and long distance commuting.
4. Conserve and rehabilitate the existing housing stock.
5. Provide safe, healthy, environmentally sound, and accessible housing, for all segments of the population.
6. Increase opportunities for homeownership.
7. Minimize the displacement of lower income and minority residents as housing costs rise when redevelopment and revitalization occurs.

Recommended Actions

1. Identify and rezone appropriate sites for entry-level small-lot single family houses, higher density multifamily housing, and mixed use housing in appropriate locations close to public transportation, employment, and other services.
2. Identify and rezone appropriate sites for homeless facilities, transitional housing, farmworker housing, and housing for those in need of supportive services, while not disproportionately siting them in any one community.
3. Research and hold forums on housing issues of local and regional interest, such as condominium conversions, fair housing, methods to preserve the supply of affordable rental units, tax incentives, and other topics.

4. Develop and implement local affordable housing programs and incentives, such as land banking, inclusionary housing, density bonus, second dwelling unit, and priority permit processing programs.
5. Develop and implement programs to conserve and rehabilitate our existing affordable housing stock, including rental apartments and mobile and manufactured homes.
6. Implement homeownership programs, such as cooperatives (co-ops), first time homebuyer programs, community land trusts, location efficient mortgage programs, and employer-assisted housing programs.
7. Develop and implement programs for new housing construction that encourage environmentally sustainable construction (green building techniques) and the application of universal design principles to promote accessibility.
8. Eliminate environmental and health hazards in existing housing, and in new housing as it is sited, designed, and built.
9. Develop strategies to provide replacement housing for lower income residents as conversion, demolition, redevelopment, and/or infill development occurs.
10. Implement public education programs, showing positive examples and benefits of affordable and multifamily housing, and mixed use developments.
11. Ensure that housing affordability is included in the criteria for SANDAG's smart growth incentive programs.
12. Pursue and ensure the lawful and efficient use of existing funds for the creation of additional affordable housing for families, seniors, persons with disabilities, the homeless, and other lower income residents.
13. Develop new funding sources for the creation of additional affordable housing for families, seniors, persons with disabilities, the homeless, and other lower income residents, such as housing trust funds, linkage fees, and bonds.

HEALTHY ENVIRONMENT

The most important social equity and environmental justice issues in the healthy environment chapter are related to air and water quality in low income and minority communities. The nonprofit institute PolicyLink states:

Because they possess less political and economic clout than wealthier communities, low income communities are often more likely to be near potential air polluters like freeways and industrial installations. And, these communities are more likely to be home to incompatible land uses, such as potentially toxic industries or business near schools or homes. A wide variety of facilities that can pose a potential hazard to nearby residents,

including drycleaners, gas stations, welding shops, metal plating shops, auto body shops, and other small sources of air toxics.²⁰

This statement also could apply to water quality. While clean air and water are goals for the entire region, we need to work diligently to ensure that all our residents, regardless of income or ethnicity, share the benefits of a healthy environment.

HEALTHY ENVIRONMENT RECOMMENDED ACTIONS

Recommended Actions

In response to these issues, the RCP includes the following social equity and environmental justice-related healthy environment actions, as included in Chapter 4D:

1. Preserve and maintain natural areas in urban neighborhoods, such as canyons and creeks, and provide access for the enjoyment of the region's residents.
2. Site industries and high-traffic corridors in a way that minimizes the potential impacts of poor air quality on homes, schools, hospitals and other land uses where people congregate, and implement programs to ensure low income and minority populations are not disproportionately negatively affected.

ECONOMIC PROSPERITY

Promoting social equity in the region means providing economic opportunity and secure, high-quality jobs for all residents. This means providing education and workforce training opportunities that are targeted to residents from a variety of backgrounds and education levels, with an emphasis on outreach to low income communities. It means ensuring access to the education and skills necessary for all individuals to participate fully in regional growth industries and the competitive economy. And, it means creating high-quality, middle-income jobs that lower income residents can obtain with proper training.



ECONOMIC PROSPERITY GOALS, POLICY OBJECTIVES, AND RECOMMENDED ACTIONS

In response to these issues, the RCP includes the following social equity and environmental justice-related economic prosperity goal, policy objectives, and action, as included in Chapter 4E:

Goal

Ensure a rising standard of living for all of our residents.

²⁰ "Promoting Regional Equity: A Framing Paper," PolicyLink, November 2002

Policy Objectives

1. Offer broad access to education and workforce training opportunities to all residents, with an emphasis on the economically disadvantaged, to foster shared economic prosperity.
2. Provide an adequate supply of housing for our region's workforce and adequate sites to accommodate business expansion and retention.
3. Produce more high-quality jobs in the region.

Recommended Actions

1. Ensure that sufficient land with appropriate zoning and urban services (including infill and redevelopment) is available for future housing and employment needs.
2. Attract venture capital resources to retain and attract industries that will produce more high-quality jobs in the region.
3. Provide infrastructure that enables emerging technologies and existing businesses that provide high-quality jobs to flourish.
4. Develop and implement programs that provide workforce development and educational opportunities for all residents.

PUBLIC FACILITIES

The most pressing social equity and environmental justice issue regarding public facilities is the disproportionate siting of potentially polluting facilities in low income and minority communities. These types of facilities can include, but are not limited to, landfills, hazardous waste collection facilities, power plants and transmission lines. Not all of these uses are toxic, however, great care must be taken when siting them to ensure that they do not create health hazards for the community. The analysis of potentially impacted communities needs to include not just the community in question, but, in some cases, adjacent communities, because some pollution effects can be far-reaching.

**PUBLIC FACILITIES RECOMMENDED ACTIONS**

In response to these issues, the RCP includes the following social equity and environmental justice-related public facilities actions, as included in Chapter 4F:

Recommended Actions

1. Locate energy facilities, such as power plants and/or transmission lines, so that lower income and minority communities are not disproportionately negatively affected.
2. Site waste disposal and management facilities in a manner that protects public health and safety and does not disproportionately negatively affect lower income and minority communities.

NEXT STEPS FOR PROMOTING REGIONAL SOCIAL EQUITY AND ENVIRONMENTAL JUSTICE

There are four key steps that must be taken in order to promote social equity and environmental justice in the San Diego region:

Monitor the Performance of the RCP

The RCP contains a number of social equity and environmental justice-based actions. As the RCP is implemented, it is essential that its performance is monitored to ensure that these actions are being carried out and have the desired effect. The Performance Monitoring chapter describes performance indicators to monitor social equity within the region.

Expand Current Social Equity and Environmental Justice Analysis

The development of this RCP highlighted many areas where insufficient information exists to thoroughly assess existing social equity and environmental justice conditions in the region. Future studies need to be conducted in areas such as:

- § The location and emissions levels of potentially toxic facilities.
- § The location of potentially incompatible land uses and zoning.
- § Air and water quality in low income and minority communities.
- § The physical, social, environmental, and economic impacts of transportation systems that are proposed in the Regional Transportation Plan.

This information needs to be gathered and mapped in order to more effectively analyze, and propose solutions to, existing conditions in the San Diego region.

Evaluate Future Plans, Programs, and Projects

The social equity and environmental justice analysis and policies included in the RCP are just a first step to ensuring greater equity in our region. Criteria and procedures should be developed to ensure that all plans, programs, and projects within the region consider social equity. These criteria and procedures could be utilized by SANDAG and other public agencies, including Caltrans and the local jurisdictions, to evaluate the potential social equity and environmental justice-related impacts of plans and projects, in a manner similar to that used to evaluate environmental impacts of projects, and in allocating regional funding. These criteria and procedures would not need to result in new review processes; instead they could be used to enhance to existing processes.

Expand Public Involvement

Public involvement is essential to advancing social equity in the region. SANDAG, the local jurisdictions, and other public agencies need to review their public involvement strategies to ensure that they are providing for the meaningful involvement a wide range of residents, including lower income and minority residents, seniors, tribal government representatives, persons with disabilities, and others. A meaningful involvement process ensures that: (1) potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; (2) the public's contribution can influence the decisions being made; (3) the concerns of all participants involved are considered in the decision-making process; and (4) the decision makers seek out and facilitate the involvement of those potentially affected. This type of process helps us design and implement plans and projects that truly meet the needs of our diverse communities.

CONCLUSION

Social equity and environmental justice are essential components of a successful region, especially one as diverse as the San Diego region. While guaranteeing social equity and environmental justice does not guarantee equality, it can help reduce existing inequalities while ensuring that no communities are disproportionately negatively affected by future plans and actions. Lower income and minority residents, seniors, persons with disabilities, and others that have been traditionally underrepresented in the planning process need to be given an equal voice in the decisions that affect their communities. In order to have true sustainability, we must ensure that all residents are given opportunities to benefit from the region's economic and environmental health.

INTEGRATED REGIONAL INFRASTRUCTURE STRATEGY (IRIS)

Ensuring the Foundation of our Vision for the Future

INTRODUCTION

The first hint of trouble came during the late 1970s and early 1980s; policy makers, engineers, and economists across the nation expressed their deep concern about the nation's inadequate infrastructure investments. This concern quickly spread to the states. In California, landmark reports like *Rusty Hinges on the Golden Gate* released during 1983 identified the many reasons for inadequate infrastructure investment, although the report suggested things were not as bad in California as they were elsewhere in the nation.



Since the release of that publication, Sacramento policy analysts have produced a virtual flood of reports identifying the state's infrastructure inadequacies and a range of proposals to remedy the problems. During the late 1990s, the Business Roundtable and the state's Legislative Analyst Office produced a series of publications on reforming infrastructure policy, stimulating renewed interest in planning issues in the state. More recently, the state's Commission on Building for the 21st Century assessed the state's infrastructure issues and formulated policy options for improving infrastructure quality. About the same time, the Public Policy Institute of California commissioned three studies on infrastructure policy and institutional planning.

While all the hand wringing has gone on at the national and state level, regions and local jurisdictions have suffered. More recently, they have begun to act.

In the San Diego region, for example, more local funding sources have been developed to fund needed improvements to our infrastructure, such as transportation systems and schools. More recently, the water agencies in the southern California region signed a joint agreement to reduce California's over-dependence upon the Colorado River. For those closely watching these events, none were easy, but each represents progress in solving our regional infrastructure issues.

Will this trend stick? Will regions become more responsible for planning and paying for their own infrastructure solutions? The lack of available resources at the national and state level may make this our best option. This is not to say we don't need state or federal funds that help finance infrastructure planning, programming, and maintenance. But it does seem that regions are being asked increasingly to leverage or match state and federal funds with local money or programs that help fill the infrastructure gaps.

The Integrated Regional Infrastructure Strategy (IRIS) was produced with the idea of addressing this trend. As an integral part of the San Diego Regional Comprehensive Plan (RCP), the IRIS outlines a forward-looking investment and financing strategy that will help the San Diego region meet its collective infrastructure needs.

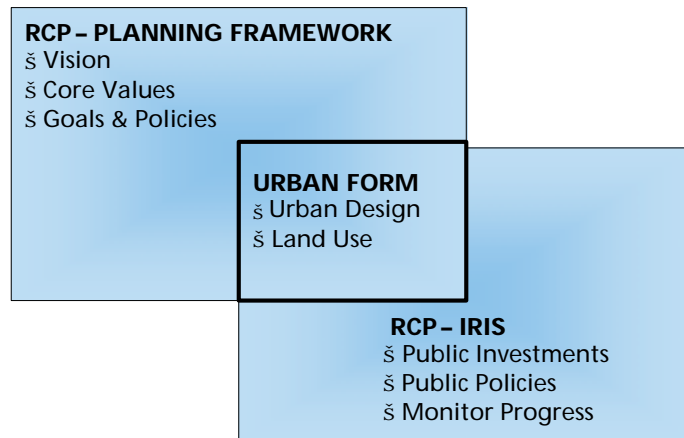
Planning for the Future

Since the days of the California Gold Rush, demand for infrastructure has been driven by population growth. In the next 30 years, the San Diego region is expected to add more than one million people, bringing the total population to just less than four million. Where will these people live? Where will they work? Will they have clean air to breathe, clean water to drink? Will their highways be choked with traffic, or will they find other, smarter ways to commute? The truth is, no one knows with certainty the answers to these questions. What we do know is that how well we respond to these challenges will largely define our region’s quality of life for decades to come. In drafting the Regional Comprehensive Plan, we are developing a long-term blueprint for the San Diego region that will help us achieve our goal of balancing population growth and sustainable development.

Achieving Quality of Life Goals through Infrastructure Investments

The RCP is based on the premise that we must plan for our future differently than we have in our past — striving to create an urban form that supports sustainable and balanced communities with a high quality of life. The region’s quality of life, as expressed in the Core Values of the RCP, is greatly affected by the quality of our infrastructure. As the San Diego region continues to change, we must regularly assess the ability of our infrastructure to keep pace and to maintain our quality of life at acceptable levels.

FIGURE 7.1—MAKING INVESTMENTS THAT SUPPORT OUR VISION



Local jurisdictions, acting together as SANDAG, have endorsed an urban form that channels much of the region’s future growth into existing urban (primarily incorporated) communities, preserving and protecting the lifestyle and sensitive environment of our rural (primarily unincorporated) areas.¹ For example, over time, if the RCP goals and objectives are implemented, an increasing proportion of the growth will occur as redevelopment and urban infill. To adequately prepare for this change, the urban form and design goals in the RCP should be universally embraced to help ensure that infrastructure is in place prior to or concurrent with the land use decisions that implement the urban form goals. The relationship between the IRIS and RCP is illustrated in Figure 7.1.

¹ All 18 of the region’s cities recently have adopted resolutions supporting Smart Growth in the San Diego Region. The major land use principles noted in these resolutions have been incorporated into the urban form and design goals of the RCP.

Today, however, most infrastructure planning is done without a framework that coordinates long-term visionary planning with short-term capital expenditures. Integration of long-range planning with current expenditures should be the standard practice, as it is with transportation and water supply. In fact, a number of recent studies and reports have cited this as being a fundamental necessity for addressing the state's infrastructure needs.² One of the objectives of the IRIS is to put the most important pieces of the infrastructure puzzle on the table at one time, substantially improving the region's opportunity to address needs in a comprehensive, not piecemeal, fashion. This is why the IRIS is a key component of the RCP.

Defining Regional and Subregional Infrastructure

The IRIS identifies a set of criteria for selecting key infrastructure areas. Based on direction from the Regional Planning Committee and the SANDAG Board of Directors, the criteria reflect primarily region-serving infrastructure. These eight infrastructure areas will likely be expanded in future updates to the IRIS and RCP.

To be included in the IRIS, the infrastructure needed to meet all of the criteria listed below:

- § Must be a public facility or regulated monopoly;
- § Must be a publicly shared system, network, or resource used by or benefiting a majority of the region on a regular and consistent basis;
- § Must provide for equal opportunity for all residents and businesses to benefit;
- § Must be run, regulated, or overseen by state or local elected officials or their appointed representatives;
- § Must ensure that the level of service available and the price of the service be about the same for all users;
- § Must play an integral part in maintaining the quality of every day life for the average resident; and
- § Must include ports of entry with Mexico due to the unique location of the San Diego region.

Based on these criteria, the following eight infrastructure areas were selected for evaluation in the IRIS:

- § Transportation (including regional airport, maritime port, transit, highways, and international ports of entry);
- § Water supply and delivery system;
- § Wastewater (sewage collection, treatment and discharge system);
- § Storm water management;
- § Solid waste collection, recycling, and disposal;
- § Energy supply and delivery system;
- § Education (including K-12, community colleges and universities); and
- § Parks and open space (including parks and recreation, shoreline preservation, and habitat preservation)

² Dowall, David and Whittington, Jan. "Making Room for the Future: California's Infrastructure." Public Policy Institute of California, 2003. "California's Five Year Infrastructure Report, 2002". Prepared for Governor Gray Davis by the California Department of Finance.

In addition, infrastructure facilities and needs can be categorized broadly into two groups, *regional* and *subregional*. Regional infrastructure primarily addresses aggregate supply or capacity. Subregional infrastructure involves more localized distribution and service provision. Water supply can be used to illustrate this distinction between regional and subregional infrastructure. The regional aqueducts and reservoirs help transport and store water, while subregional facilities are used to distribute potable water to households and businesses. Although regional and subregional facility needs are different, they must be integrated. All communities share in the regional need, but each community has its own set of specific needs.

Objectives of the IRIS

The IRIS proposes a process that will better align our RCP goals and objectives with our infrastructure investments. The process applies market-based financial and public policy incentives within a competitive capital improvement programming framework to implement the urban form and design goals of the RCP. The incentives and framework are intended to provide local jurisdictions and infrastructure providers with a process and resources for incrementally moving toward sustainable and livable communities.

The primary IRIS objectives are to:

1. Provide a framework to strengthen the relationship between local and regional plans and policies.
2. Link capital improvement programming and land use decisions that support the urban form and design goals envisioned in the RCP.
3. Determine if capital improvement programs and plans can be better integrated to support the smart growth urban form and design goals in the RCP.
4. Create a flexible, incentive-based process, so each community has the opportunity to implement smart growth within the framework established by the RCP.

Research Approach

The IRIS was completed in a four-step process, as illustrated in Figure 7.2:

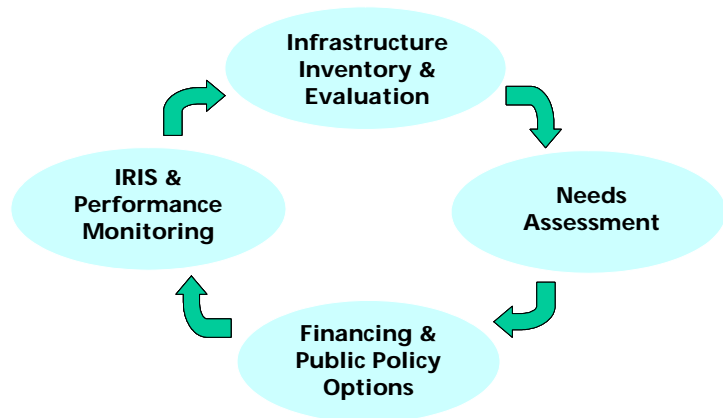
1. *Infrastructure Inventory and Evaluation:* First, data was gathered to verify the following: who is responsible for the infrastructure; who are the key decision-makers; how is it currently financed; and, what types of capital and operating budgets are available and where are the capital investments being made? So comparisons could be made across infrastructure areas, to the extent possible, this information was organized into a framework that links capital budgeting to strategic planning; similar to SANDAG's Regional Transportation Plan (a long-range strategic planning document) and Regional Transportation Improvement Plan (a short-term capital improvement programming document). This information has been summarized in the eight technical appendices that have been produced as part of the IRIS. The Technical Appendices are available at www.sandag.org.

2. *Needs Assessment:* The second step was to identify how infrastructure needs are currently being met and planned, using existing programmed expenditures and strategic plans. Regional needs addressed capacity in a broad context while subregional needs primarily addressed service delivery capabilities. The needs assessment recognizes that the overall request for infrastructure is greater than the available pool of resources.

3. *Financing and Public Policy Options:* The third step developed a set of policy and/or investment options that could be used to support the urban form and design goals called for in the RCP. The options came from three main areas: current capital investment and operational practices, current or new public policy changes, and if necessary, raising new revenue. The IRIS options favor an approach that invites collaboration, relying on incentives and competition to achieve our urban form and design goals.

4. *IRIS:* Finally, a process is identified that integrates the public policy and financing options into the RCP, as well as creating a framework for a procedure that can be used to monitor the region’s progress and performance in meeting the quality of life goals and objectives identified in the RCP. The goals and actions of the RCP and IRIS may be refined over time based upon the results of the performance monitoring efforts of the RCP.

FIGURE 7.2—INTEGRATED REGIONAL INFRASTRUCTURE STRATEGY PROCESS

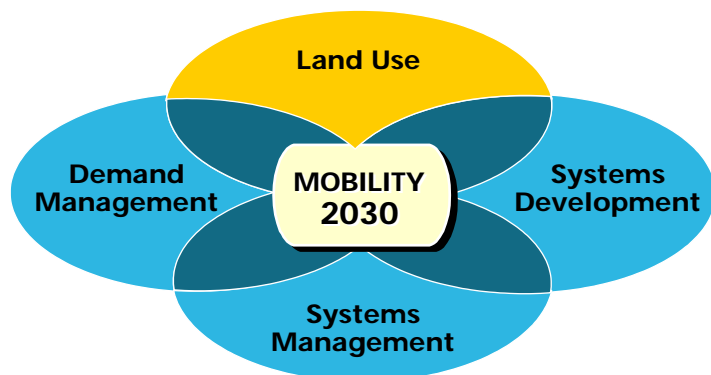


INTEGRATED REGIONAL INFRASTRUCTURE STRATEGY

Leading the Way - Linking Transportation and Land Use

One way to achieve the urban form and design goals identified in the RCP is to create an incentive-based process that links transportation funding and land use. SANDAG is the logical agency to spearhead such an effort. As the regional planning agency, SANDAG is responsible for regional transportation funding; the cities and county that make up its policy board have control over local land use decisions — the key ingredients for linking transportation and land use.

FIGURE 7.3—STRENGTHENING THE LAND USE AND TRANSPORTATION CONNECTION



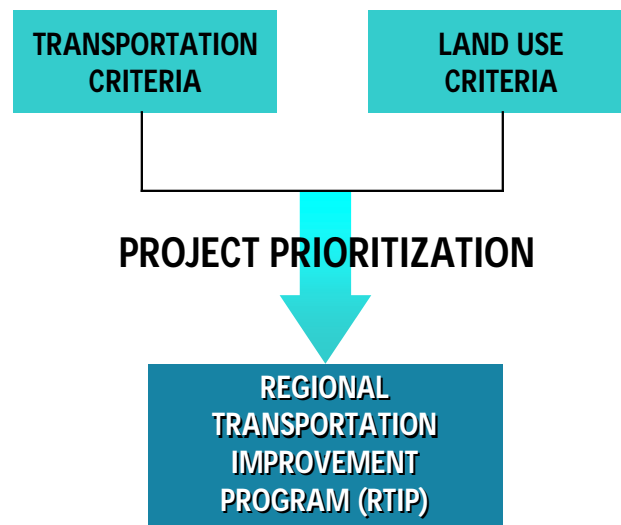
One of the most powerful incentives to implement the RCP smart growth goals rests in SANDAG's authority over regional transportation funding decisions. As the Metropolitan Planning Organization (MPO), Regional Transportation Planning Agency (RTPA), and Regional Transportation Commission (RTC), SANDAG is responsible for programming federal, state, and local (*TransNet*) transportation funds in the San Diego region.

San Diego's Regional Transportation Plan (RTP), *MOBILITY 2030*, is the blueprint to address the mobility challenges created by our region's growth. *MOBILITY 2030* serves as the transportation component of the RCP and provides a mechanism to strengthen the land use and transportation connection, as shown in Figure 7.3. In addition to its RTP responsibilities, as the MPO, SANDAG is required to develop a Regional Transportation Improvement Program (RTIP). The 2002 RTIP is a \$4.4 billion five-year program of major highway, transit, arterial, and non-motorized projects funded from FY 2003 to FY 2007. The 2002 RTIP is a prioritized program of transportation improvement projects, based on SANDAG Board-established criteria, designed to incrementally develop the projects identified in the RTP (representing vertical integration).

The RTIP indicates the region's priorities for the implementation of transportation projects. It is required to include realistic estimates of project cost and anticipated program revenue; this means that funding must be available and committed to implement the projects listed in the document.

Following the adoption of *MOBILITY 2030* (March 2003), SANDAG began a process to modify the transportation criteria used to evaluate and prioritize major highway, transit, and regional arterial system projects for planning and funding purposes. The purpose of modifying the evaluation and prioritization process is to better link major transportation planning and programming decisions to land use and the smart growth priorities identified in the RCP. This link would allow the region to leverage the RTIP funds to influence the location and character of future land use decisions; the land use decisions would encourage the urban form and design goals of the RCP.

FIGURE 7.4—PROPOSED EVALUATION PROCESS



To improve the transportation-land use link, transportation projects should be evaluated using criteria that include both transportation and land use objectives, as illustrated in Figure 7.4. The current RTIP process evaluates projects from both of these perspectives, but the criteria used do not weight the land use criteria on a level equivalent to transportation-specific criteria.³ The current transportation project evaluation criteria, for example, could be expanded to include an element that encourages cities to approve development in smart growth opportunity areas at higher densities than those allowed in current general plans. Including land use criteria of this type in the transportation project funding evaluation process would focus future growth in the cities, reduce

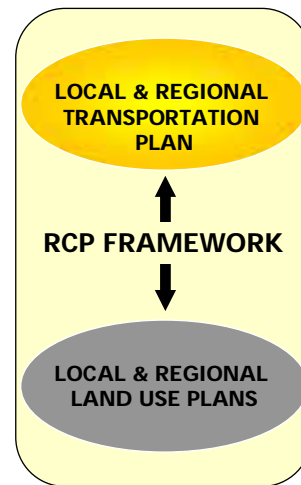
³ Project Evaluation Criteria, SANDAG, October 2002.

land consumption, and increase housing supply; these results are consistent with the Vision and Core Values of the RCP and further strengthen the local and regional plan relationship, as illustrated in Figure 7.5.

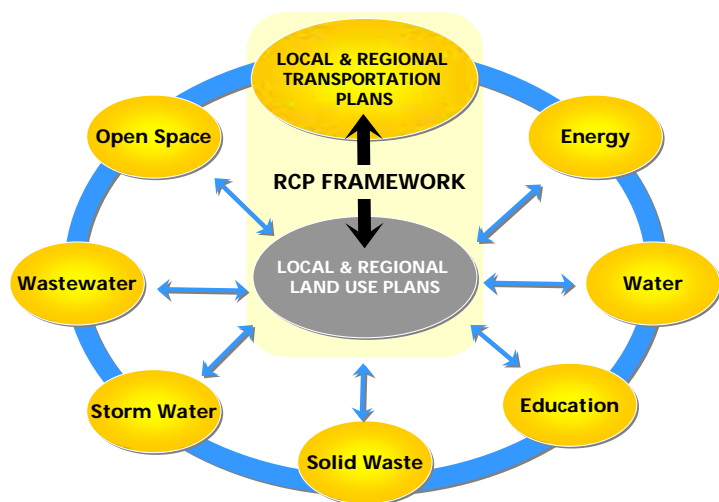
***Following the Lead -
Linking Infrastructure Investments to
Transportation and Land Use Plans***

Transportation funds in the RTIP will act as the initial incentive (in the form of prioritized transportation project expenditures) for communities willing to adopt land use changes that support the RCP goals. Taking advantage of the competitive RTIP funding allocation process should ensure meaningful urban design changes, influencing the land use elements of each jurisdiction’s general plan. Because the land use elements of general plans serve as a planning framework for developers and most non-transportation infrastructure providers, any change in the general plans will ripple through the capital improvement programs of most non-transportation infrastructure and service providers. The proposed process takes advantage of this relationship; most non-transportation infrastructure facility and service providers largely follow the land use plans and decisions approved by local land use agencies (primarily jurisdictions) and are funded through development fees and exactions. Thus a stronger transportation-land use connection will also result in a coordinated process to prioritize and synchronize capital improvement programs and strategic plans, as illustrated in Figure 7.6.

**FIGURE 7.5—LINKING
TRANSPORTATION
AND LAND USE PLANS**



**FIGURE 7.6—LINKING INFRASTRUCTURE
INVESTMENTS TO TRANSPORTATION
AND LAND USE**



Implementing these changes would likely bring a number of benefits to the region’s communities. First, we will have created a regional framework for achieving smart growth and integrated it with the local planning process. Second, while continuing to rely on existing procedures, the changes will lead to the necessary infrastructure in place prior to or concurrent with growth. Lastly, the urban form created will help the region move towards more sustainable communities through the implementation of the RCP’s vision and core values. The core values emphasize the importance of creating livable neighborhoods and a healthy environment, linking jobs to housing, improving the region’s workforce through education, and providing infrastructure systems that serve the needs of a growing region.

It is unlikely that the IRIS approach, as discussed, will affect the current set of capital improvement programs, as these funds have already been allocated based on existing prioritized needs. It will likely take three to five years for the region to incorporate the incentive-based approach into the local planning process so that it coincides with new capital improvement program budgets. This provides the region with the opportunity to refine the framework, obtain a collaborative regional agreement on the approach, and address specific challenges and opportunities.

Engaging Communities in Smart Growth

As part of an incentive-based financing approach, infrastructure and transportation investments will be made in areas where local jurisdictions have identified opportunities and put in place programs to further smart growth and the goals of the RCP. The addition of a smart growth framework to the process of selecting and funding regional and subregional infrastructure projects will help local jurisdictions prioritize those projects that directly address the regional goals and objectives of the RCP while simultaneously achieving local community goals.

Allowing communities to implement smart growth in their own terms (within the RCP framework) helps to ensure that the smart growth approach reflects the unique sense of place of each community and avoids changes that may not fit within its existing character. The IRIS allows communities to implement smart growth themselves, rather than applying a “one size fits all” approach to smart growth that may or may not be applicable to an individual neighborhood, community, or transportation corridor.

To effectively encourage smart growth, our region should continue the current competitive process to allocate the scarce RTIP resources. Competition for these funds will help encourage communities to offer or show enough existing smart growth commitments to get their project ranked high on the priority list, providing local jurisdictions with choices in determining their level of smart growth participation. Incentives and competition work. For example, the City of San Diego’s experience with downtown redevelopment showed that the first developers received the greatest levels of assistance or incentives in return for taking on the initial, biggest risk. Subsequent redevelopment activity required less public assistance and today developers compete for the right to develop parcels prioritized by the City’s redevelopment agency.

Linking Capital Budgeting and Strategic Planning

Our region spends billions annually to maintain, operate, and construct infrastructure facilities. Given the amount of money we invest annually on infrastructure, it seems that the expenditure plans should be consistent with the overall long-term vision or strategic plan for supplying and delivering services. Today, however, most infrastructure planning is done without a coordinated “vertical” framework that prioritizes the annual expenditures of capital improvement programs to meet the goals of the longer-term strategic plans that form the basis of facility master plans. With notable exceptions, most infrastructure programming and planning is not coordinated or prioritized with respect to regional plans. A broader prioritization of infrastructure expenditures requires that a regional framework be established, based on RCP goals, that can be incorporated into and addressed as part of the evaluation of infrastructure projects.

Infrastructure programming and planning should be based on principles of strategic planning. Strategic planning provides a means for more rigorously assessing capital expenditure proposals. It

addresses the question of whether the agency actually needs the infrastructure asset, while capital budgeting concentrates on achieving more for the money invested. Strategic planning includes more than supply-side concepts, such as a process to explore and identify alternative forms of service delivery as well as non-capital alternatives for meeting future needs.

A best practices approach to integrating strategic planning and capital budgeting is available from the U.S. General Accounting Office and the Office of Management and Budget. One trait shared by many practitioners and relevant to the IRIS, according to the GAO approach, is that many use strategic planning and visioning to drive their capital decision-making process. In the absence of a unified strategic vision, the budget process paints a large part of the “big picture” for infrastructure planning by default. Each infrastructure provider intuitively has its own vision of the region’s future from various board actions, administration edicts, and overall climate of opinion and builds its capital budget from individual construction project proposals. The project-based budget, an annual snapshot, attempts to replace the big picture.

Managing the Demand for Infrastructure Services

Some long-time Californians call for a return to the state’s “golden era” of infrastructure investment. After all, large infrastructure projects have had a lot to do with shaping California. The most popular perception is that the state’s prosperity is due to the state’s vision and commitment to build three grand systems: aqueducts, highways, and universities. The systems were, and still are, the cornerstones of the state’s economy and society.



Traditional supply-side infrastructure planning made sense in the 1950s when the sectors were in their infancy, California was growing rapidly, and there was a broad consensus in support of growth. But now, the environment has changed. Not all citizens view the state’s economic and demographic growth as desirable. In short, the context in which the state or regions plan and fund capital infrastructure investments is vastly different now than during the eras of former Governors Earl Warren and Pat Brown.

Most infrastructure agencies do not explore alternative forms of service delivery or identify non-capital alternatives for meeting future needs.⁴ Strategic infrastructure planning poses some basic questions, such as: Are there ways to meet infrastructure needs without investing in new capital equipment? It may be possible, for example, to manage the demand for existing infrastructure in ways that encourage its most efficient use and thereby minimize the need for new investment. This sort of demand management contrasts with traditional planning approaches, which focus almost exclusively on increasing the supply of infrastructure. Generally, supply-oriented planning forecasts infrastructure needs based on per capita estimates of consumption. These per capita estimates, in turn, are based on historical patterns of infrastructure use. Demand management, in contrast,

⁴ Dowall, David and Whittington, Jan. “Making Room for the Future: California’s Infrastructure.” Public Policy Institute of California, 2003. “California’s Five Year Infrastructure Report, 2002.” Prepared for Governor Gray Davis by the California Department of Finance.

begins with consumers' willingness and ability to pay for services. It recognizes that the demand for infrastructure is dynamic, and it seeks to control the key drivers of that demand to make the most efficient use of existing resources.

Studies on demand management have identified eight drivers of infrastructure demand, identified below. All eight factors will help shape our region's infrastructure requirements in the future and should be incorporated into infrastructure strategic plans:

- § Growth and composition of the population - age profiles would help determine school and health care needs.
- § Levels of economic activity - different types of economic growth have varied impacts on transportation, energy, and water.
- § Income - as income rises, the demand for infrastructure services increases.
- § User fees - consumers economize their use of services as prices rise.
- § Tastes and preferences - demand for services can change as social groups or age cohorts change preferences.
- § Availability of alternative services - increased availability of private services diminishes the demand for public service.
- § Technology - electronic shopping and on-line education are changing the demand for infrastructure.
- § Conservation - incentives to buy low-flush toilets, drip-irrigation systems, and drought tolerant landscaping are conserving water; and incentives to utilize energy efficient construction materials, home appliances and photovoltaic cells are conserving energy.

Infrastructure Revenue Options and Gaps

Financing Options

Whether one considers infrastructure needs at the federal, state, or local level, one finding is consistent across all infrastructure providers: *the overall request for infrastructure resources is greater than the available pool of resources.*

As a starting point, the IRIS has defined infrastructure needs in terms of available resources, using existing capital improvement programs and operations and maintenance budgets as a reasonable estimate of infrastructure need determined in an environment of limited public resources. SANDAG's research shows that infrastructure agencies in the San Diego region spent \$3.4 billion on capital projects and another \$8 billion on operations and maintenance during FY 2003. However, the need for some of the infrastructure areas is not adequately represented by capital and operations and maintenance (O&M) budgets; these needs, preceded by a general discussion on infrastructure financing are discussed below.

Most finance professionals agree that infrastructure can be financed in three basic ways: pay-as-you-go, long-term financing, and private provision, including leasing. In the first two options, the government or the community purchases the assets and facilities that provide the infrastructure service. In the third option, the government leases the facility providing the service or procures the service from a nongovernmental provider.

Policymakers must decide which combination of these methods is most appropriate. In general, a balance of pay-as-you-go and long-term financing, with some limited emphasis on private provision, most closely describes the current way infrastructure is financed. For services generating user and beneficiary fees, long-term financing or private provision is useful because of the predictable cash flow. Services that generate no income streams are generally financed from general funds on a pay-as-you-go or on a debt-financed basis.

In addition to the three basic choices available to policymakers, there are municipal finance fund groups and revenue categories. The basic fund groups are listed and described below:

- § *General funds* are unrestricted, and account for all revenues that are not placed in other funds; examples of general fund revenues include property and sales taxes.
- § *Special revenue funds* account for revenues that are earmarked for a specific purpose; examples include the gas tax used for streets and roads.
- § *Enterprise funds* pay for a majority of local governments' infrastructure facilities and services, including sewer, water, electric utilities, and parking facilities.⁵
- § *Debt service funds* repay indebtedness.

The basic sources of municipal revenue categories are:

- § General taxes
- § Special taxes
- § Special assessments and development impact fees for infrastructure
- § Fees and charges for current services
- § Intergovernmental

In California, as elsewhere, local governments have been shifting infrastructure capital costs from general fund sources to user and beneficiary groups. This shift is occurring for many reasons, including predictable funding levels, clarity of responsibility, and incentive for users to adjust their usage to the real costs of the facility and services.

Smart Growth Incentive Program

In addition to the revenue sources identified above, as part of the RTP, SANDAG established a \$25 million Smart Growth Incentive Program. The purpose of the program is to provide incentives to communities to implement smart growth. To qualify for funding, any proposed improvement must be within one of the smart growth areas that will be identified in the first phase of RCP implementation. These smart growth areas will be designated based on land use and transportation criteria included in the RCP, and on guidelines



⁵ The Governmental Accounting Standards Board defines enterprise funds as those funds used "to account for operations (a) that are financed and operated in a manner similar to private business enterprises - where the intent of the governing body is that the cost (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges; or (b) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and /or net income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes." <http://www.gasb.org/>

for collaboration between local and regional plans that are part of the regional framework plan. The greater the number of infrastructure providers that participate in the Smart Growth Incentive Program the greater the resources available and the more important the program becomes as a tool to implement smart growth.

The fund would help the region's municipalities and infrastructure providers collaborate in developing a competitive process to implement smart growth and strengthen the relationship between local and regional plans. Establishing a smart growth incentive fund for infrastructure improvements needed by smart growth projects would be useful in implementing the goals and core values of the RCP, especially if those infrastructure improvements intended to support smart growth cannot be funded through prioritization of existing CIP projects. By rewarding smart growth project areas through a competitive grant process, local jurisdictions would be able to help bring needed (supplemental) capital improvement resources to communities willing to accept change (smart growth). Introducing competition serves a number of purposes. Perhaps most importantly, having communities compete for smart growth resources allows for flexibility and for greater levels of smart growth planning. This proposed process is representative of the approach currently used by the City of San Diego's City of Villages Pilot Program, which judges developments in a competitive fashion to receive prioritized infrastructure expenditures and fast-track permit processing.⁶

Filling Revenue Gaps

The IRIS identifies ways to begin to implement the urban form and smart growth goals of the RCP. These strategies include using transportation funds as an incentive to closer link regional and local plans, providing incentives to help local jurisdictions match smart growth and smart growth opportunity areas, implementing best practices techniques that focus on integrating strategic plans with capital budgets, and moving away from primarily supply-side infrastructure planning and embrace more of a demand management approach.

But what about those infrastructure areas that do not have a stable funding source? Unpredictable funding levels or lack of funding prohibits an infrastructure authority from acting on strategic needs and approaches, prioritizing expenditures and maintaining the system. In this section, we identify which of the eight infrastructure areas require funding for this purpose.

Among the eight infrastructure systems reviewed by IRIS, water, wastewater, and energy have clear benefit-based revenues (enterprise funds/rates), while storm water management, public education, and parks and open space rely substantially on general taxes or intergovernmental assistance. Solid waste collection with the exception of the City of San Diego is financed through user fees.

Transportation systems differ in the types of revenues used. Highways are generally constructed and maintained using general revenues or federal/state funds. Arterial streets are also constructed with general revenues or intergovernmental funds, although development exactions and impact fees play a significant role in investments by local jurisdictions. Transit systems are often constructed with federal or state funds, but maintained through fares supplemented by other revenues. In the San Diego region, transportation facilities and operations also are supported by funds from a ½

⁶ For more information on the City of Villages Pilot Program, please refer to: <http://www.sannet.gov/cityofvillages/index.shtml>

cent sales tax, a 20-year measure implemented during 1988 and administered by SANDAG as the Regional Transportation Authority. Air and maritime port facilities utilize federal and state funds and bonds financed with revenues from operations, which are also used for operation and maintenance.

Facility master plans of infrastructure service providers identify improvements needed to serve the future growth in service demand. In many cases, continuation or gradual increases in existing revenue sources, such as charges for services, would provide adequate funding to implement the master plans. However, there are funding shortfalls for some of the infrastructure systems, as shown in Table 7.1. The following is a discussion on infrastructure areas in need of revenue to fill such shortfalls and possible revenue candidates.

Transportation — Streets, Highways, and Transit. SANDAG's Regional Transportation Plan, *MOBILITY 2030*, is based on the adopted "Reasonable Expected Revenue" financing option. This funding option includes current sources and levels of federal, state, and local transportation revenue, as well as, additional revenue from three sources: an extension of the *TransNet* ½-cent local sales tax, higher levels of state and federal discretionary funds, and increases in state and federal gas taxes based on historical trends. The three additional revenue sources account for \$12 billion of the \$42 billion plan.

There is growing concern in the region that development is not paying its "fair share" of the cost of constructing new regional transportation facilities. To address this concern, SANDAG is analyzing a program of regional transportation impact fees. A development impact fee is required by state law to be proportional to impact. Local jurisdictions would cooperate in the establishment, collection, and use of a regional impact fee by identifying the impacts of new development on transportation facilities that serve multiple jurisdictions or that may be located outside the boundaries of a jurisdiction that is levying the fee. A local example of a regional infrastructure fee is the capacity charge currently levied by the San Diego County Water Authority (Water Authority) on new water meter hookups. The charge is paid to a local jurisdiction, or water agency, which then transfers it to the Water Authority. A regional transportation impact fee would be structured in a similar manner, but used to implement the RTP.

Storm Water Management. While substantial progress has been made by local agencies acting as "Copermittees" of the Unified Watershed Urban Runoff Management Program in preparing various watershed plans, much work still remains to be done. In particular, the region needs a comprehensive master plan for storm water management, including specific programs of storm drain and water management facilities required to control and clean runoff water which is discharged directly into the region's lakes, rivers, and the Pacific Ocean. These plans are part of a comprehensive approach, which should include an assessment of implementation costs or identification of appropriate revenue sources.

Thus, the key revenue gap associated with the region's storm water management programs is the funding required to prepare a comprehensive, watershed-based storm water master plan, identifying actions and facilities necessary to improve the region's water quality. The cost of preparing such plans should be shared among local jurisdictions, special districts, and state and federal governments. Local jurisdictions and special districts are responsible for storm water runoff generated by land uses under their jurisdiction, and state and federal governments have an important public interest in maintaining the quality of waters under their jurisdiction.

Among these agencies, transportation agencies, such as Caltrans and SANDAG, have special interests and responsibilities, since transportation projects and the urban development they make possible are the primary generators of urban runoff. Thus, it is recommended that Caltrans and SANDAG cooperate with the Regional Water Quality Control Board in initiating and coordinating the preparation of a comprehensive storm water master plan.

When a comprehensive master plan has been completed and needed facility improvements are identified, funding sources adequate to undertake these improvements should then be identified. These funding sources could include a regional storm water impact fee, special assessment, or special tax, together with federal and state assistance. The appropriate mix of funding sources should be determined during the planning process.

Solid Waste. Long-term planning for the disposal of municipal solid waste in the San Diego region is the responsibility of San Diego County, which prepares the Integrated Waste Management Plan. The final draft of the current plan (issued in September 2003) indicates that the region has sufficient capacity to manage solid waste through 2015, if waste diversion (i.e., recycling) is increased to 50 percent (from the current 48 percent) and landfill capacity is secured at two sites — expansion of Sycamore Canyon landfill and opening of Gregory Canyon landfill. However, neither site has been permitted and significant unresolved issues remain regarding the financing of landfill construction and opposition by local agencies and nearby residents.

A key source of uncertainty lies with the fact that, except in the City of San Diego, private companies perform waste collection and disposal in the region. Although the County is responsible for preparing the Integrated Waste Management Plan, it lacks the means to undertake the necessary investment and other actions to implement the plan's recommendations.

The "gap" with respect to solid waste infrastructure has less to do with funding and more with an appropriate authority to implement the long-term plan, although, a revenue source is needed to exercise such authority. The most suitable revenue source is a fee or charge for solid waste collection, which is already levied by most jurisdictions. It is recommended that jurisdictions that do not currently charge fees for solid waste collection do so and that a portion of the fee revenues be used to implement the goals of the Integrated Waste Management Plan. As recommended in the City of San Diego's Facilities Financing Study (July 2002), implementing a user fee for residential refuse collection could generate over \$32 million every year.

Education — K-12 and Community Colleges. New K-12 schools and community college facilities are funded from a combination of state and local funds. In order to generate local matching funds and, in some cases, to supplement state funding, local bond issues will be needed. Proposition 39, passed in 2000, reduced the voting requirement for bonds to finance construction of K-12 schools and community colleges from two-thirds to 55 percent. School districts, as well as other infrastructure and service providers, will likely be affected by the general plan changes called for under the RCP. Channeling growth into existing urban communities will likely increase school enrollment, where land is scarce and expensive. School districts should consider different kinds of sites, more vertical and shared resources, to cope with a more urban setting.

Beach Sand Replenishment. Currently no revenue source exists to implement the beach sand replenishment program, although the start of a strategic plan and capital budget do exist. SANDAG's Shoreline Preservation Committee initiated the plan and has proposed several funding

options. In one option, the Shoreline Preservation Committee has proposed dedicating a portion of revenues from the transient occupancy tax (hotel/motel visitor's tax) to fund the program. The transient occupancy tax (TOT) would provide a reliable source and is consistent with the goal of improving visitor-serving facilities. However, any specific allocation of TOT funds to beach sand replenishment would have to be considered and evaluated by each jurisdiction responsible for allocating those funds.

Habitat Conservation. The regional habitat conservation plans, the MSCP and MHCP (see RCP Appendix section on Parks and Open Space and the Healthy Environment chapter for more information), have estimated the local jurisdictions' cost to assemble and manage a regional preserve system in perpetuity at \$1.3 billion (discounted present value), but the local jurisdictions have not established a funding source to cover this cost.

Construction of transportation facilities for the RTP will require mitigation of impacts to biological resources, such as habitat of protected species, according to federal, state, and local environmental guidelines. Traditionally, mitigation programs have been designed and implemented on a project-by-project basis, subject to competition from other users for lands or natural resources to be conserved in compensation for identified impacts.

Under the IRIS it is proposed that a mitigation banking program be established, where important habitat lands and natural resources identified by the regional habitat conservation plans would be conserved and managed in advance of need by future transportation projects. Purchasing and managing land earlier and in larger quantities than would be the case under a project-by-project mitigation should result in substantial cost savings. The RTP and *TransNet* can thus help achieve some of the key conservation goals of the regional conservation programs.

Table 7.1 summarizes types of revenues that are currently used to fund operations and maintenance or capital investment (currently used revenues are indicated with a "-") or that are proposed as new funding sources to meet the infrastructure needs of the RCP (indicated with a "+").

TABLE 7.1—SOURCES OF EXISTING OR NEW REVENUES FOR INFRASTRUCTURE¹

| INFRASTRUCTURE | REVENUE FOR OPERATION AND MAINTENANCE | REVENUE FOR CAPITAL INVESTMENT |
|------------------------|---|---|
| TRANSPORTATION | <ul style="list-style-type: none"> - Continuation of existing general revenues (streets and highways) - Continuation of existing fare/user charges (transit) - Continuation of income from operations (air and maritime ports) + User charges (land ports of entry) | <ul style="list-style-type: none"> + <i>TransNet</i> extension (1/2-cent sales tax; highways and transit) + Gas tax increase (highways and transit) - Development Impact Fees - Continuation of bond financing based on income from operations and federal and state funds (air and maritime ports) + Bond financing based on user charges (land ports of entry) |
| WATER | <ul style="list-style-type: none"> - Continuation of existing rate/user charges | <ul style="list-style-type: none"> - Continuation of pay-as-you-go or bond financing based on rate revenues and fees - Development Impact Fees |
| WASTEWATER | <ul style="list-style-type: none"> - Continuation of existing rate/user charges | <ul style="list-style-type: none"> - Continuation of pay-as-you-go or bond financing based on rate revenues and fees - Development Impact Fees |
| STORM WATER MANAGEMENT | <ul style="list-style-type: none"> - Continuation of existing general revenues | <ul style="list-style-type: none"> + Regional storm water impact fee, special assessment, or special tax |
| SOLID WASTE | <ul style="list-style-type: none"> + User charge | <ul style="list-style-type: none"> + User charge and bond financing based on user charges |
| ENERGY | <ul style="list-style-type: none"> - Continuation of existing rate/user charges | <ul style="list-style-type: none"> - Continuation of pay-as-you-go or bond financing based on rate revenues |
| EDUCATION | <ul style="list-style-type: none"> - Continuation of existing general revenues and state funding (K-12) - Continuation of existing tuition/user charges, donations, and state funding (CSU, UC) | <ul style="list-style-type: none"> + Local bond financing (K-12, community colleges) - Continuation of state funding (K-12, community colleges) - Continuation of local funding (donations) and state funding (CSU, UC) - Development Impact Fees |
| PARKS AND OPEN SPACE | <ul style="list-style-type: none"> - Continuation of existing general revenues + Special assessment or special tax (beach sand replenishment, habitat) | <ul style="list-style-type: none"> - Continuation of existing pay-as-you-go based on impact fees (local parks) + RTP / <i>TransNet</i> mitigation bank (habitat) + Special assessment or special tax. One possible source could be the Transient Occupancy Tax (beach sand replenishment, habitat) - Development Impact Fees |

¹ Revenues that are currently used to fund operations and maintenance or capital investment are indicated with a minus sign "-". Revenues that are proposed as new funding sources to meet the infrastructure needs of the RCP are indicated with a plus sign "+".

INFRASTRUCTURE NEEDS AND EXPENDITURES

The IRIS evaluated infrastructure expenditures and needs through two types of documents: capital improvement programs and long-range strategic plans. As mentioned, capital improvement programs (CIPs) represent a balancing of short-term need and available resources. Long term needs for the region are addressed in strategic plans such as SANDAG's Regional Transportation Plan (RTP), and the San Diego County Water Authority's Regional Water Facilities Master Plan.

In addition, the IRIS categorizes infrastructure facilities and needs broadly into two groups, regional and subregional. Aggregate supply or capacity is the primary focus of regional infrastructure; distribution and service delivery are functions of subregional infrastructure. Although regional and subregional facility needs are different, they must be integrated to incrementally move towards an ultimate goal or objective.

Given the urban form and design goals that connect the IRIS with the RCP, the following are important considerations in assessing infrastructure needs and expenditures:

1. An infrastructure needs assessment should include a realistic estimate of available financial resources. In particular, total investment in infrastructure must be consistent with the region's commitments of resources for this purpose.
2. Regional and subregional infrastructure projects generally serve different needs and differ in the scale of investment and service population.
3. The location of regional and subregional infrastructure facilities influences urban development patterns. Need and location for subregional facilities is tied closely to the urban form and design goals of the RCP.

All infrastructure needs cannot be met immediately. Timing is the key to ensuring the adequacy of infrastructure services and funding. The IRIS recommends a phased and incremental approach to meeting the region's infrastructure needs emphasizing questions such as, "Over time are capital improvement expenditures incrementally addressing a long term goal or strategic objective?" If expenditures are working towards a long-term goal, then we are making progress toward addressing our needs in an efficient and targeted manner.

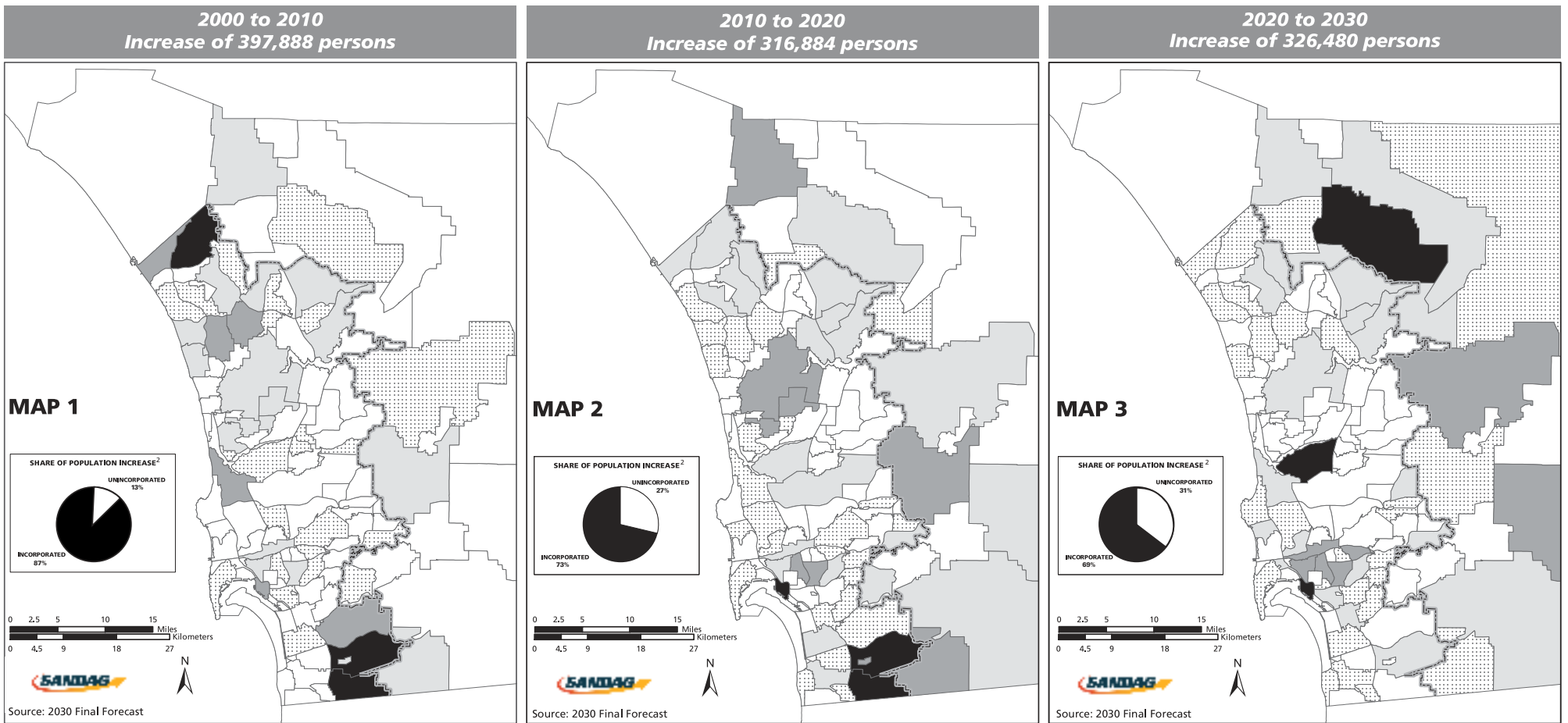
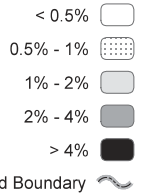
Population Growth

Demand for infrastructure has always been driven by population growth. On one hand, in the next 30 years, the San Diego region is expected to add more than one million people, bringing the total population to just less than four million. On the other hand, local jurisdictions, acting together as SANDAG, have endorsed an urban form that channels much of the region's future growth into existing urban (primarily incorporated) communities, preserving and protecting the lifestyle and sensitive environment of our rural (primarily unincorporated) areas.

Focusing on the characteristics and location of population growth provides important information about future demand for many of the region's infrastructure services. Because subregional infrastructure is designed to serve a particular community, it also suggests where many of the region's subsequent rounds of expenditures on infrastructure facilities are most likely to be located.

Figure 7.7
Distribution of Population Growth
in the San Diego Region¹

One of the goals of the RCP is to create an urban form that channels much of the region's future growth into existing urban (incorporated) communities, preserving and protecting the lifestyle and sensitive environment of our rural (unincorporated) areas. By examining the population growth maps and pie charts from 2000 to 2030, we can see that without action much of the region's future growth will increasingly occur in the unincorporated areas where existing services and facilities are not in place.



¹The 2030 Final Forecast is based on current general plans and policies, except for the county of San Diego, which provided population targets for communities in the unincorporated portions of the region.
²Data source for pie charts is the 2030 Final Forecast. CIPA map geographies reflect the final forecast and are based on spheres of influence. They do not directly correspond to jurisdiction boundaries.

As shown in Figure 7.7 and Table 7.2, without a change in current general plans and policies, an increasing amount of population growth in the San Diego region is expected to occur in unincorporated areas.⁷ For example, Map 1 in Figure 7.6, Population Growth from 2000 to 2010, shows that most population growth over the next decade (approximately 87 percent) will occur in the urban (incorporated) areas of the region. Over this time period, most new development will be located in the north county coastal areas, in central San Diego, and in the south county areas around Chula Vista. Map 2, Growth from 2010 to 2020, shows a general eastward movement as new growth occurs on the edges of the previous decade's development locations. In Map 2, approximately 73 percent of growth still occurs in the incorporated area. Finally, Map 3 shows population growth from 2020 to 2030 pushing further eastward into unincorporated communities. Between 2020 and 2030, over 30 percent of future growth is projected to occur in the rural, unincorporated communities.

TABLE 7.2—SHARE OF POPULATION INCREASE

| | 2000-2010 | 2010-2020 | 2020-2030 |
|-----------------------|-----------|-----------|-----------|
| Incorporated (Cities) | 87% | 73% | 69% |
| Unincorporated Area | 13% | 27% | 31% |

Source: SANDAG Final 2030 Forecast

The distribution of future population growth relates to a larger issue regarding infrastructure needs. Additional growth in the rural (unincorporated) communities will require new capital projects, facilities, and services that are currently not in place. Additional facilities will increase the operations and maintenance budgets for most, if not all infrastructure providers because there will be additions to service areas and potentially more facilities to manage. By growing outside of the urbanized areas, the total cost of maintaining the system is likely to increase more than it would if more of the growth occurred in existing urban communities. The growth trend also speaks to the importance of channeling future growth into the existing, urbanized areas of the region because these locations already have facilities, services, and support infrastructure in place.

Operations and Maintenance

Over the course of an infrastructure investment's lifecycle, total costs include the sum of the initial investment, operations and maintenance (O&M) for the upkeep of the investment, and the eventual costs to replace old, outdated, or insufficient buildings, equipment, and facilities. It is important to note that O&M expenditures are recurring and must be spent every year.

⁷ *Source:* SANDAG Final 2030 Forecast, 2004. The final forecast is based on current general plans and policies, except for the County of San Diego, which provided population targets for communities in the unincorporated portion of the region. The percent change is relative to the existing population in each CIPA area.

**TABLE 7.3—OPERATION AND MAINTENANCE BUDGETS,²
SEVEN INFRASTRUCTURE AREAS,³ SAN DIEGO REGION,
FY 2002-03 (\$ MILLIONS)**

| INFRASTRUCTURE | REVENUE | EXPENDITURE | REVENUES OVER OR (UNDER) EXPENDITURES |
|---|-------------------|-------------------|---|
| Transportation | | | |
| Cities and County ¹ | \$ 164.1 | \$ 164.0 | \$ 0.1 |
| Transit Districts (MTDB and NCTD) | 222.6 | 222.0 | 0.6 |
| Airport (SDIA) and Maritime Port (SDUPD) | 304.9 | 190.6 | 114.3 |
| Total | 691.6 | 576.6 | 115.0 |
| Water | | | |
| Local Water Agencies | 623.5 | 603.9 | 19.6 |
| San Diego County Water Authority | 312.6 | 293.7 | 18.9 |
| Total | 936.1 | 897.6 | 38.5 |
| Wastewater | | | |
| Local Wastewater Agencies | 194.8 | 191.2 | 3.6 |
| San Diego Metropolitan Wastewater Department | 284.9 | 284.9 | 0.0 |
| Total | 479.7 | 476.1 | 3.6 |
| Storm Water Management | | | |
| Cities and County | 20.8 | 20.8 | 0.0 |
| Total | 20.8 | 20.8 | 0.0 |
| Solid Waste | | | |
| City of San Diego | 83.5 | 84.3 | (0.8) |
| County of San Diego | 12.5 | 12.5 | 0.0 |
| Total | 96.0 | 96.8 | (0.8) |
| Education | | | |
| K-12 School Districts | 3,389.1 | 3,445.8 | (56.7) |
| High Education (Community Colleges, CSU, UC) | 2,505.2 | 2,315.0 | 190.3 |
| Total | 5,894.4 | 5,760.8 | 133.6 |
| Parks and Open Space | | | |
| Cities and County | 178.8 | 178.8 | 0.0 |
| Total | 178.8 | 178.8 | 0.0 |
| Total All Infrastructure | \$ 8,297.3 | \$ 8,007.5 | \$ 289.8 |

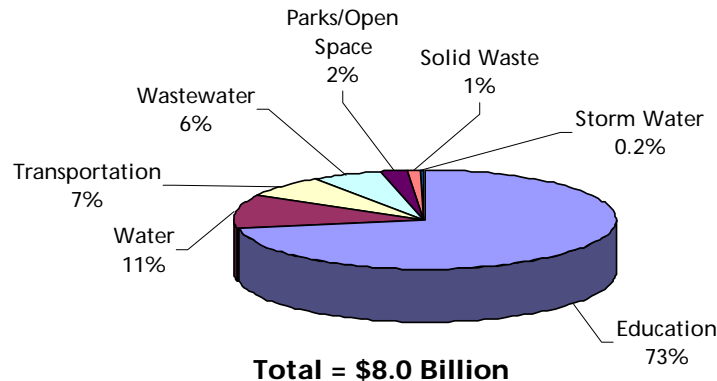
¹ Financial transactions of local jurisdictions on streets and roads, FY 2000-01 (published 2003).

² Figures may not add due to rounding.

³ Energy was not included in this table. O&M information was not available for review.

Source: Local jurisdictions and special districts, Operating Budgets, FY 2002-03.

FIGURE 7.8—OPERATION AND MAINTENANCE EXPENDITURES, BY INFRASTRUCTURE AREA, FY 2002-03



As shown in Table 7.3 and Figure 7.8, total O&M revenues for seven of eight infrastructure areas during FY 2003 were \$8.3 billion and total expenditures were \$8 billion.⁸ Revenues for operations and maintenance slightly exceed expenditures; some of these revenues are saved while others are used to fund capital projects (provided the infrastructure provider has the flexibility to do this).

A majority of the expenditures (\$5.8 billion, or 73 percent) are attributed to education. Personnel costs (salaries and benefits) are the reason for the substantially larger costs experienced in the education sector. If education costs are removed from the total, the region still spends over \$2 billion each year to operate and maintain the existing infrastructure systems of the seven remaining providers.

Over the next 30 years, the region will spend a significant amount of money for operations and maintenance for upkeep of the current system. Even more may be spent if we build additional capital facilities and continue to develop in newly urbanizing areas. If the benefits of a more efficient and compact urban form occur as described in the RCP, we may be able to help reduce some of these maintenance costs. For example, by channeling growth into incorporated areas, there will be fewer acres of school facilities to manage, fewer miles of pipelines, streets, and wires to maintain, and less service area to cover for many of the region's infrastructure providers.

Capital Improvement Programs

The Capital Improvement Programs (CIP) are a reflection of an established need within a limited set of resources and can be viewed as a prioritized list of the most immediately needed capital investments from the perspective of the infrastructure provider. As such, CIP expenditures provide a guide to where the region has prioritized its resources over the next five to ten years. Furthermore, because infrastructure investments often require large capital outlays at the beginning of a project's lifecycle and are amortized over many years, the investment is also expected to provide benefits over the long term. The location of the projects should be consistent with the system needs of the infrastructure (e.g. to resolve capacity issues or upgrade aging facilities) and address the demands of future population growth, as envisioned in the region's general plans.

⁸ *Source:* Local Jurisdictions and special districts operating budgets, FY 2002-03. Financial transactions of local jurisdictions on streets and roads, FY 2001 (Published 2003)

**TABLE 7.4—CAPITAL IMPROVEMENT PROGRAMS,² SEVEN OF EIGHT INFRASTRUCTURE AREAS,³
SAN DIEGO REGION, FY 2003-07 (\$ MILLIONS)**

| INFRASTRUCTURE ¹ | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | TOTAL |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| Transportation | | | | | | |
| Regional | \$ 916.4 | \$ 524.5 | \$ 286.6 | \$ 178.0 | \$ 186.5 | \$ 2,092.0 |
| Subregional | 705.3 | 565.6 | 410.4 | 249.4 | 132.0 | 2,062.6 |
| Total | 1,621.7 | 1,090.1 | 697.0 | 427.4 | 318.5 | 4,154.6 |
| Water | | | | | | |
| Regional | 210.9 | 163.5 | 171.6 | 145.4 | 160.7 | 852.2 |
| Subregional | 242.5 | 157.5 | 168.7 | 96.7 | 66.7 | 732.2 |
| Total | 453.4 | 321.1 | 340.3 | 242.2 | 227.4 | 1,584.4 |
| Wastewater | | | | | | |
| Regional | 20.3 | 25.8 | 22.9 | 19.8 | 7.3 | 96.0 |
| Subregional | 256.1 | 184.4 | 162.4 | 181.1 | 175.5 | 959.5 |
| Total | 276.4 | 210.1 | 185.2 | 200.9 | 182.8 | 1,055.5 |
| Storm Water | | | | | | |
| Regional | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Subregional | 21.0 | 20.5 | 7.0 | 6.7 | 5.0 | 60.3 |
| Total | 21.0 | 20.5 | 7.0 | 6.7 | 5.0 | 60.3 |
| Energy | | | | | | |
| Regional | 121.5 | 137.3 | 168.7 | 189.3 | 166.4 | 783.2 |
| Subregional | 85.7 | 75.6 | 22.5 | 2.7 | 0.4 | 186.8 |
| Subreg. - Non-alloc. ² | 77.7 | 80.7 | 86.6 | 98.9 | 112.2 | 456.1 |
| Total | 284.8 | 293.6 | 277.8 | 290.9 | 279.0 | 1,426.1 |
| Education | | | | | | |
| Regional | 106.6 | 186.8 | 137.0 | 260.2 | 167.8 | 858.5 |
| Subregional | 530.1 | 704.8 | 394.2 | 136.3 | 96.3 | 1,861.7 |
| Total | 636.7 | 891.7 | 531.3 | 396.5 | 264.1 | 2,720.2 |
| Parks / Open Space | | | | | | |
| Regional | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Subregional | 145.2 | 96.6 | 8.8 | 25.9 | 9.5 | 285.9 |
| Total | 145.2 | 96.6 | 8.8 | 25.9 | 9.5 | 285.9 |
| All Infrastructure | | | | | | |
| Regional | \$ 1,375.7 | \$ 1,037.9 | \$ 786.8 | \$ 792.7 | \$ 688.8 | \$ 4,681.9 |
| Subregional | 1,985.8 | 1,804.9 | 1,173.9 | 698.9 | 485.4 | 6,149.0 |
| Subreg. - Non-alloc. ⁴ | 77.7 | 80.7 | 86.6 | 98.9 | 112.2 | 456.1 |
| Total | \$ 3,439.2 | \$ 2,923.5 | \$ 2,047.3 | \$ 1,590.5 | \$ 1,286.4 | \$ 11,287.0 |

¹ IRIS infrastructure sectors. "Regional" facilities serve all or substantial portions of the region, such as the international airport, the maritime port, and importation of water into the region. "Subregional" facilities are those which serve individual communities; subregional facilities require close coordination with the pattern of urban development in the region. Subregional investments in various infrastructure sectors are shown in the respective appendix sections.

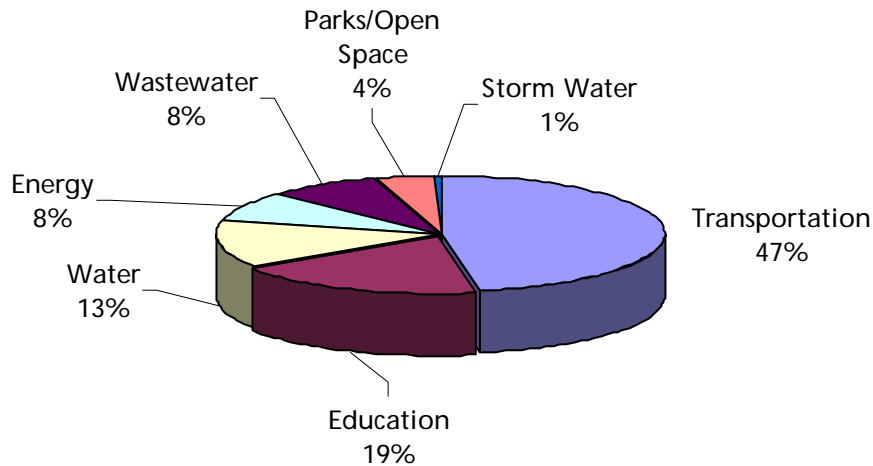
² Figures may not add due to rounding

³ Solid waste was not included in this table. CIP information was not available for review.

⁴ Some energy-related investments, while subregional in nature, cannot be allocated to specific communities ahead of actual need. They have been excluded from the mapped distribution of subregional investments.

Source: Local jurisdictions and special districts, Capital Improvement Programs, FY 2003.

**FIGURE 7.9—CAPITAL IMPROVEMENT PROGRAMS,
BY INFRASTRUCTURE AREA, FY 2003**



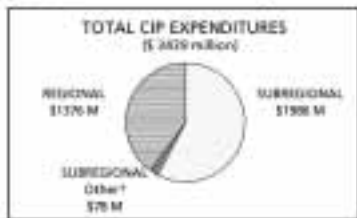
Total = \$3.4 Billion

As summarized in Table 7.4 and Figure 7.9, the CIP's for the seven of eight infrastructure areas analyzed showed project specific expenditures of \$3.4 billion in FY 2003 and more than \$11 billion between FY 2003 and FY 2007. The largest single capital investment program expenditure category is transportation, which plans to spend more than \$4 billion over the five year time period. Within transportation, RTIP-related projects account for nearly 90 percent of the total expenditures. This is significant because the IRIS recommends using transportation project funding to provide incentives to help implement the smart growth urban form and design of the RCP.

Subregional CIP Expenditures

The region's capital improvement expenditures have been divided into regional and subregional totals. Nearly \$2 billion of the total expenditures in FY 2003 (\$3.44 billion) are subregional in nature. Figure 7.10 shows the location of the region's subregional expenditures on capital improvements for FY 2003.

Figure 7.10
All Infrastructure Systems
Distribution of Subregional
CIP Expenditures FY 2003
(\$1,986 million)



* Some subregional expenditures cannot be assigned to specific communities ahead of actual need

- : > 4% (> \$79.4 million)
- : 2% - 4% (\$39.7M to \$79.4 million)
- : 1% - 2% (\$19.9M to \$39.7 million)
- : 0.5% - 1% (\$9.9M to \$19.9 million)
- : < 0.5% (< \$9.9 million)
- Incorporated Boundary



As shown in Figure 7.10, much of the infrastructure investment for FY 2003 is programmed to occur in coastal areas or in proximity to coastal areas in the western third of the region. This expenditure pattern is consistent with the urban form called for in the RCP, which recommends preparing our urban areas to accommodate a greater amount of future growth. However, there are some expenditures in outlying areas, such as Valley Center and Ramona, which may be viewed as preparing those rural communities for future urban growth.

The FY 2003 pattern of the expenditures is consistent with the RCP goals and objectives. However, if the pattern of growth projected in the forecast is not redirected, the growth in these rural communities will direct future expenditures outwards and will likely require increasing amounts of infrastructure, such as schools, water, energy, transportation, and sewage treatment. This emphasizes the inter-related nature of infrastructure spending, where one investment leads to others and almost all capacity planning is linked to the growth envisioned in the region's general plans.

Infrastructure Summary

Most of the region's infrastructure providers have a system in place to address their needs and prioritize their expenditures. However, not all share the same issues driving their planning processes (beyond population growth). In addition, some of the infrastructure providers do not have vertical integration between their long term, visionary, and strategic planning and their capital budgeting. Also, some providers are dependent upon sources of funding or behavioral changes that must take place in order for them to implement their strategic plans and accomplish their goals. For example, implementation of the RTP requires an extension of the *TransNet* ½-cent sales tax program, and meeting the energy, water, and solid waste needs of the region will require additional levels of recycling and conservation beyond what occurs today. If these assumptions do not occur as hoped, the implementation of the strategic planning and capital budgeting may fail.

If growth in demand for capacity outpaces growth in population, it may have several implications for the RCP. Perhaps most notably with respect to infrastructure financing, development impact fees and other population-based sources of revenue may not be sufficient to handle the infrastructure requirements. This will likely entail the need for identifying funding sources beyond impact fees, such as higher user fees, increased use of bond measures, or application of special assessment districts.⁹ Demand exceeding population growth also signals the need for efficient management of existing facilities and a prioritization of improvements designed to gain the most impact for the least cost. To complement this goal, the RCP recommends a more compact and efficient urban form as a way to maximize the use of existing resources.

The following is a highlight of some of the more significant findings from the IRIS research. For more detail on any particular infrastructure provider, please refer to the IRIS Technical Appendices

⁹ The San Diego Local Agency Formation Commission (LAFCO) is responsible for coordinating, directing, and overseeing changes to local governmental boundaries, including annexation and detachment of territory, incorporation of cities, formation of special districts, and consolidation, merger, and dissolution of districts. LAFCO conducts Municipal Service Reviews and Sphere of Influence studies for a variety of infrastructure areas. These reviews and studies examine each infrastructure provider's CIP and Sphere of Influence to determine if there are any improvements that can be made. In addition, LAFCO is charged with reviewing ways to reorganize, simplify, and streamline governmental structure. The Municipal Service Review process is required by the Cortese-Knox-Hertzberg Local Government Reorganization act of 2000. For more information about LAFCO, refer to their website at www.sdlafco.org.

available at www.sandag.org. For an overview of major issues and a graphic comparison of projected population growth and demand for infrastructure services, please refer to Figure 7.11.

Transportation — Streets, Highways, and Transit

The forecast increase in vehicle miles traveled is projected to outpace growth in population. This emphasizes the need for an urban form that makes the most efficient use of existing streets and highways. It also suggests a need to reduce the demand for trips and encourage the use of alternative travel modes, particularly transit, biking, and walking.

Aviation. San Diego International Airport (SDIA) at Lindbergh Field, as it currently exists, will not be able to meet the projected demand for air travel and cargo. To meet the demand, a new airport or expansion of the existing facility will be required. The San Diego Regional Airport Authority is analyzing a number of options, but no site has been identified and no specific cost estimates developed.

Maritime Port. Because all airport-related functions were transferred from the San Diego Unified Port District (Port) to the new airport authority, real estate and maritime port-related planning and operations are now the port district's primary functions. The Port continues to develop its long term planning processes and restructure itself after the separation from SDIA. The maritime industry is projected to grow, and the economic opportunities it will provide could be considerable.

Land Ports of Entry. The international border with Mexico is still experiencing severe congestion from the growth in NAFTA-related goods movement. Furthermore, local workers commuting to and from San Diego experience significant delays crossing the border. The existing ports of entry may not be able to handle the projected growth in passenger and cargo without investments in facilities, staff, and technology.

Water

The San Diego County Water Authority's Draft Regional Water Facilities Master Plan is designed to meet the water supply needs of the region. It emphasizes the role of two sources of water that previously did not exist locally: seawater desalination, and the Imperial Irrigation District transfer. According to preliminary estimates, these new sources could contribute up to 30 percent of the region's water supply by 2030. The plan also suggests an increase in conservation above current levels. In order to secure a reliable water supply into the future, those key sources must be developed and conservation efforts must be successful.

Because water agencies respond to the land use changes in the region's general plans, channeling growth into the incorporated areas will have implications for the region's water districts. Implementation of the smart growth goals of the RCP may require changes to some water agencies' facility master plans. A capital improvement planning and funding mechanism is in place, providing a method for accommodating this growth. Fee- and exaction-based facility construction will follow new development or redevelopment and charges for services to existing users would continue to provide debt service payments for outstanding bonds.

Wastewater

Most of the region's proposed sewage treatment facility upgrades are intended to achieve secondary and tertiary treatment capacities. The capacities of the facilities, as well as pipe diameters, will need to expand in order to accommodate the increased flow volume and to arrest sewer overflows. Implementation of the smart growth urban form called for in the RCP is likely to place additional demands on the existing system and will require capacity upgrades at these facilities.

Most cities and districts in the San Diego region have some form of wastewater capital improvement plans, capital planning documents, or long-term master plans. But these plans, with the exception of the City of San Diego, are created without reference to a regional master plan or an integrated strategy.

Storm Water

The County of San Diego Board of Supervisors initiated Project Clean Water's Strategic Plan in July 2000 to develop a framework to guide solutions to shared water quality issues and concerns. Another strategic planning document is the Copermittees' Unified Watershed Urban Runoff Management Program (WURMP), which establishes a programmatic framework for the continued development and implementation of various programs and activities that meet or exceed regulatory obligations. The Unified WURMP is an integration of the individual watershed plans.

Although these strategic plans establish a framework for development and implementation of various programs, they do not outline or refer to any capital improvement plans to meet these goals. They do not identify a regional need or capacity requirement for storm water and urban runoff or identify a secure funding source. In the absence of an adopted plan, agreed-upon need, and regionally accepted strategy, it is difficult to quantify capacity requirements or to determine the cost of meeting the region's goals. Furthermore, there are a variety of potential approaches available to address the region's needs. However, due to the lack of a regional, implementable strategy, it is difficult to determine if the expenditures represented in the region's capital improvement programs adequately work towards addressing a long-term vision for storm water. As a result of limited regional planning, there are no reliable estimates of long-term need or cost.

Solid Waste

With the exception of the City of San Diego, solid waste collection and disposal is a privatized system (both landfill owners and haulers are run by private companies) and capital improvement plans (CIP) are unavailable for public review. Because a majority of the region's waste collection and disposal facilities are privately owned and operated, it is difficult for the local jurisdictions to influence or affect the decisions made by these companies. Also, it is difficult to plan other infrastructure facilities designed to serve the landfills because of this lack of coordination, such as transportation facilities to accommodate the waste haulers.

Energy

San Diego Gas and Electric (SDG&E), a subsidiary of SEMPRA utilities, operates the electricity transmission lines in the San Diego region. The San Diego Regional Energy Office (SDREO) provides information, research, analysis and long-term planning on energy issues for the San Diego region. Both agencies are involved in the long-term planning for San Diego's energy needs and agree that the long-term demand for electric energy will be met through a combination of local generation, increased amounts of conservation and continued reliance on imported power. An additional shared objective is to increase generation through alternative, non-fossil, fuel sources.

The energy plans from SDG&E and SDREO agree on the long-term need for energy and on a broad outline of strategies to meet that need. However, they advocate different emphases on local and imported power and on the extent of power generated from alternative sources that will become available by 2030.

Education

K-12. Although the annual growth rate of K-12 student enrollment is expected to slow over the next decade, the costs of continued maintenance, new school construction, and modernization will continue to pose serious problems for many school districts. Class size reduction may also create additional funding issues for educational providers.¹⁰ With funding sources extremely unpredictable and cuts related to the current state budget deficit being passed on to the local school districts, costly decisions will have to be made even though smaller teacher-student ratios have been implemented in many districts. Many school districts also face growing backlogs of deferred maintenance.

Channeling future population growth into the incorporated areas and increasing levels of urbanization will impact school districts and require facility upgrades and additional capacity. Appropriate measures will have to be taken in order to fully address the impacts created from increased enrollment at existing facilities. To make room for more students, school districts will either have to increase capacity at current facilities (through measure such as development of multistory structures) or build new schools. Because school construction typically requires a significant amount of land, innovative approaches to funding construction will have to be explored in order to keep the costs of new school construction in urban areas reasonable.

There are opportunities to fund projects locally. For example, as a result of Proposition 39 school districts have the ability to pass bonds with 55 percent of voter approval, lower than the two thirds required for other infrastructure providers. Urban districts facing increasing levels of enrollment could take advantage of this opportunity to fund some of the improvements, similar to the way San Diego Unified School District passed Proposition MM, a local ballot initiative to fund school construction, to address its existing infrastructure needs.

¹⁰ California's state legislature passed the Class Size Reduction Initiative (SB 1777) in 1996. SB 1777 is a reform measure aimed at cutting class size in the early school grades from what had been an average of 28 students to a maximum of 20. It is a voluntary program that reimburses school districts \$800 for each K-3 student enrolled in a class of 20 or fewer students and costs the State approximately \$1.5 billion per year.

Higher Education. The San Diego region contains three public universities: University of California, San Diego, San Diego State University, and Cal State University, San Marcos; and several community college districts: San Diego, Grossmont-Cuyamaca, Southwestern, and Mira Costa. The drivers of facility demands for the UC and CSU systems are similar to those for the state's community college districts: increasing enrollment and aging infrastructure. These two factors combined with the current budget issues have also contributed to an increasing deferred maintenance backlog.

**Parks and Open Space - Local Parks and Open Space
(including Habitat Conservation, and Shoreline Preservation)**

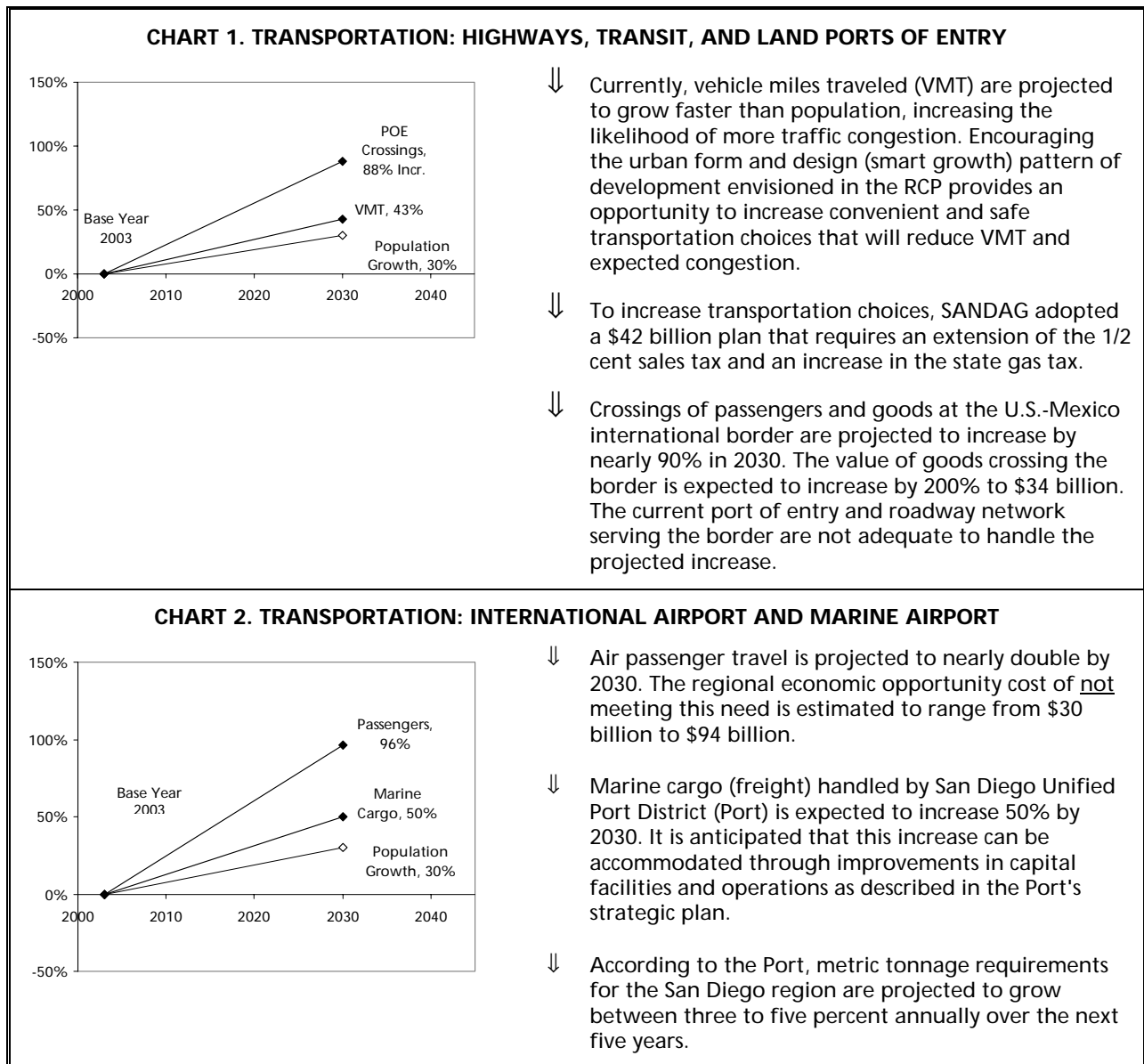
The application of park standards contained in local jurisdictions' general plans indicates that a substantial increase in new local, active parks will be needed to serve the region's projected increase in population. Local parks represent a subregional infrastructure, serving the adjacent communities. Similar to K-12 Education, increasing levels of urbanization will also require additional park lands in the incorporated areas of the region.

A three-pronged approach to meeting some of the need for parks and recreation might include: joint use of school playgrounds and athletic fields, development of new parks and facilities, and shoreline preservation as a way to address active park requirements. As additional growth occurs in the urbanized areas, the availability of new parkland will need to be considered in conjunction with planning for smart growth and implementation of the RCP.

Shoreline Preservation. Sand replenishment at the region's beaches is needed to counter the effects of erosion and lack of deposits from rivers. Currently, the region has a shoreline preservation strategy, but no funding sources to implement it. The strategy encompasses both capital improvement plans and operations and maintenance expenditures.

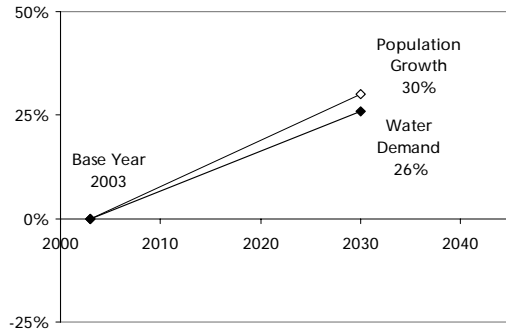
Habitat Conservation. The San Diego region has several subregional habitat conservation plans and programs. Accordingly, habitat needs and cost estimates have been articulated. However, while various options for funding programs have been identified, no comprehensive capital and O&M program has been adopted at this time.

FIGURE 7.11—PROJECTED POPULATION GROWTH AND DEMAND FOR INFRASTRUCTURE SERVICES ¹¹



¹¹ Detailed source information for each of the charts in Figure 7.11 is available in the IRIS Technical Appendices.

CHART 3. WATER

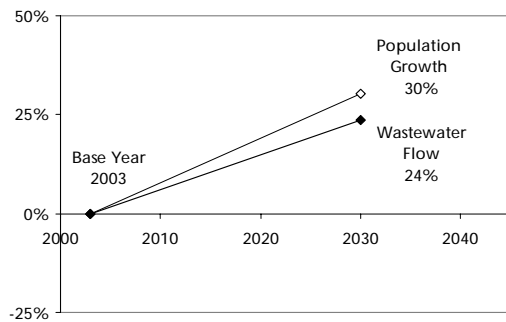


⇓ The capital and operating costs to meet the region's water supply needs through 2050 is approximately \$31.6 billion.

⇓ The overall growth in demand for imported water from MWD is less than the growth in population; which is accomplished primarily through implementation of demand and system management techniques and development of local supplies.

⇓ Approximately 40 percent of the region's water supply will come from sources we have historically not relied upon; the Imperial Irrigation District transfer water, conserved water from canal lining projects, and Seawater Desalination.

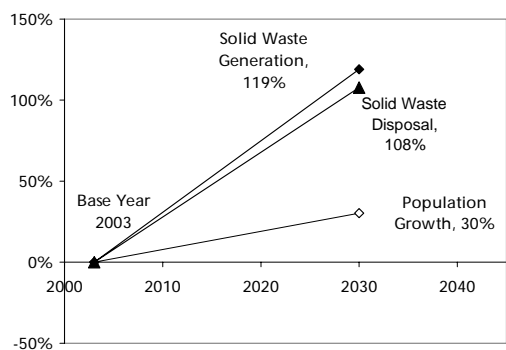
CHART 4. WASTEWATER



⇓ The future increase in the flow of wastewater treated at the Point Loma Facility is less than population growth.

⇓ The region will add approximately 16% to total treatment capacity between 2000 and 2020, from 364 million gallons a day (MGD) to 422 MGD. Tertiary treatment will increase 123% from 44 to 98 MGD in 2020. This estimate does not include any tertiary treatment at the Point Loma facility.

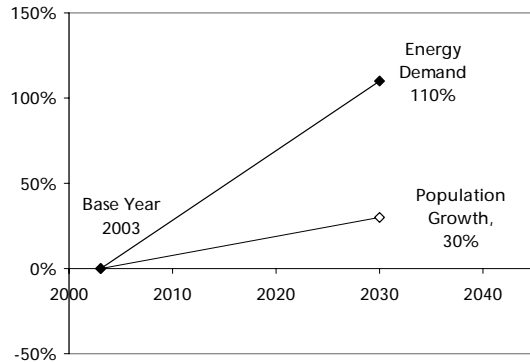
CHART 5. SOLID WASTE



⇓ Solid waste generated in the region is projected to increase nearly four times faster than population. Recycling will reduce the waste stream disposed of in the region. However, disposal will also continue to significantly outpace population growth.

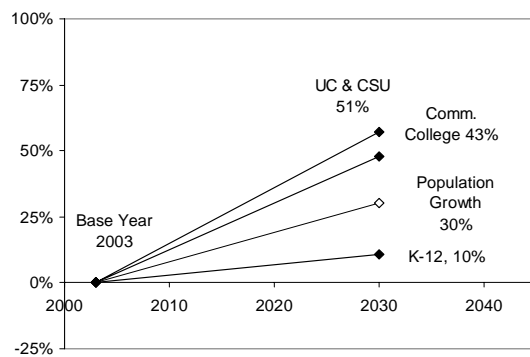
⇓ A combination of recycling, new landfill capacity, and access to disposal sites outside the region will likely be used to meet demand; however, the costs of increasing collection and disposal capacity are not available.

CHART 6. ENERGY



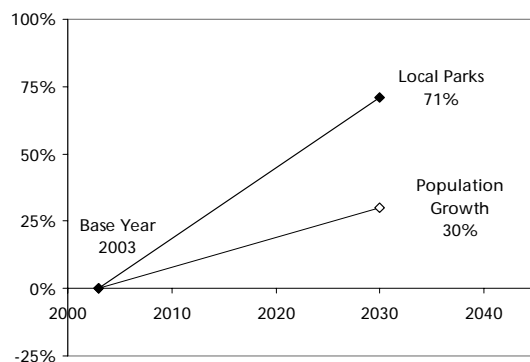
- ⇓ Peak electric energy demand (in megawatts (MW)) is projected to increase 110% through 2030.
- ⇓ A combination of local generation, imported power, and conservation will be needed to meet the rising energy demand.
- ⇓ Current plans advocate a different emphasis on local and imported power and on the extent of power generated from alternative sources; yet no information is available on the cost of selecting one energy source over another.

CHART 7. EDUCATION (ENROLLMENT)



- ⇓ Enrollment in K-12 schools is projected to increase 11% by 2030, substantially slower than the projected increase in population.
- ⇓ Enrollment in higher education (community colleges, CSU, and UC) is projected to increase faster than population.

CHART 8. LOCAL/ACTIVE PARKS



- ⇓ A substantial increase in new local active parks will be needed to serve the projected increase in population.
- ⇓ Availability of new parkland will need to be considered in conjunction with planning for smart growth. Accommodating more of our population through urban infill and redevelopment will require more urban parks.
- ⇓ The cost of sand replenishment at the region's beaches is \$7.5 million per year for 20 years, then \$2 million per year thereafter.
- ⇓ The region's goal is to preserve and manage approximately 400,000 acres of natural habitat. The local jurisdictions' share of costs to implement these programs is \$1.3 billion.

GOALS, POLICY OBJECTIVES, AND RECOMMENDED ACTIONS

Goals

1. Regularly assess the ability of our infrastructure to handle change and maintain our quality of life.
2. Align our infrastructure plans and investments with our RCP goals and objectives.
3. Address infrastructure needs in the region in a comprehensive manner, not piecemeal.
4. Create a planning framework that coordinates and links long term visionary goals with short term capital expenditures across service providers.
5. Provide adequate infrastructure improvements prior to or concurrent with the population growth occurring in smart growth opportunity areas.
6. The San Diego region should accept more responsibility for addressing our regional and subregional infrastructure needs, rather than relying on the State and Federal government.

Policy Objectives

1. Provide an integrated infrastructure planning and programming framework to strengthen the relationship between local and regional plans and policies.
2. Directly link transportation and other infrastructure capital improvement programming to land use decisions that support the urban form and design goals envisioned in the RCP.
3. Develop incentive based methods for prioritizing transportation and other infrastructure improvements to encourage changes that support the smart growth goals and objectives of the RCP.
4. Consolidate independent districts if service delivery can be made more efficient and effective. Efforts should be coordinated with San Diego LAFCO.

Recommended Actions - General

Planning and Design

1. Local jurisdictions, acting individually and collectively through SANDAG, should use funding for transportation projects to provide incentives for changes in land use to achieve the urban form and design goals of the RCP. This action provides a link to other infrastructure providers.
2. Infrastructure providers should develop and implement strategic plans to bridge annual expenditures of a capital improvement program to long-term goals of a facilities master plan. The facility master plans of each infrastructure provider should be linked to each other and to other infrastructure providers.

3. Local jurisdictions and infrastructure providers should formally establish procedures and mechanisms, such as memorandums of understanding (MOUs) or compacts, to coordinate planning and investment in regional infrastructure facilities to support the RCP.

Programs and Project Implementation

1. Local jurisdictions, acting through SANDAG, should incorporate smart growth / land use criteria into a competitive and incentive-based program for evaluating and prioritizing expenditures under the Regional Transportation Improvement Program (RTIP). This action provides a link to other infrastructure providers. This program will influence general plans, and provide a link to other non-transportation infrastructure providers.

Funding

1. Local jurisdictions and regional and local infrastructure providers should adopt the following process in the financing of infrastructure investment and operation:

First, make efficient use of existing funding by prioritizing expenditures according to smart growth objectives and synchronizing, or coordinating, expenditures in different infrastructure services.

Second, undertake demand management, system management, and changes in policies to ensure that effective incentives are in place to make efficient use of the existing infrastructure systems and services to achieve smart growth.

Third, seek new funding only when the first two steps have been completed and essential goals remain unmet.
2. In cases where there is no significant funding, local jurisdictions or infrastructure providers should first secure a regular funding source, even if small, then apply the process of prioritization, synchronization, and policy change as described above.
3. Local jurisdictions and service providers should seek funding for infrastructure investment and operation primarily from user fees and other charges to the beneficiaries of those services.
4. The region should make a concerted effort to treat all infrastructure providers equally by supporting legislation that reduces the voter requirement for bond approval to 55 percent. This approval level would be consistent with the level currently required for education bond measures (Proposition 39).

Recommended Actions - Specific**Transportation**

1. Local jurisdictions, acting through SANDAG, should secure funding for the implementation of *MOBILITY 2030* (the Regional Transportation Plan), including extension of the *TransNet* program and increase in the State and Federal gas tax at a rate consistent with historical trends.
2. Local jurisdictions, acting through SANDAG, should research the benefits and costs of cooperatively adopting a regional traffic impact fee program to mitigate the effects of new development on the regional transportation system.
3. San Diego County Regional Airport Authority (Airport Authority) should improve access through air travel to domestic and international markets, which is adequate for the region's economy and residents. To this end, the Airport Authority should work with local, as well as other governments in southern California to ensure access to the international airport.
4. SANDAG should cooperate with the U.S. Department of Homeland Security and General Services Administration to secure funds to accommodate the projected increase in border crossings by people and goods. In the event that these funds are inadequate, other funding sources, including user fees, should be considered.

Water

1. San Diego County Water Authority (Water Authority) should promote establishment of a statewide water market to facilitate efficient distribution and use of water resources.
2. The Water Authority should place immediate priority on effectively implementing the water transfer agreement with the Imperial Irrigation District (IID).
3. Since reliability of water supply is essential for the proper functioning of the local economy, the Water Authority should promote and develop seawater desalination as a significant, future source of water for the region, as envisioned in the Regional Water Facilities Master Plan.
4. To further improve water supply and reliability, the region should maximize water recycling and reclamation efforts, linking recycling opportunities to new and existing development and reviewing the possible use of incentives.

Wastewater

1. City of San Diego should develop and adopt a *contingency plan* to upgrade the Point Loma Wastewater Treatment Plant to meet secondary and tertiary treatment standards, in the event that the City is unable to renew the current waiver from the requirements of the Clean Water Act.

Storm Water

1. State, regional, and local agencies should cooperatively develop a comprehensive and detailed *master plan* for storm water management in the region and an associated implementation plan, similar to regional programs for habitat conservation and shoreline sand replenishment. (For additional discussion of storm water planning and its relationship to watershed planning, refer to Chapter 4D).
2. State, regional, and local agencies should identify a funding mechanism that would make feasible an on-going program of *strategic planning, prioritization, and implementation* of storm water facility improvements.

Solid Waste

1. County of San Diego in cooperation with other local jurisdictions should develop a *strategic plan* to bridge near-term facility improvement programming and long-term goals of the Countywide Integrated Waste Management Plan and to establish and implement specific goals for waste diversion, export, and in-county disposal.
2. Local jurisdictions should collect solid waste collection fees and dedicate a portion of the revenues to implement the goals of the strategic plan described above.

Energy

1. SDREO and SDG&E, with participation by SANDAG, should cooperatively refine and implement the Regional Energy Strategy to serve as a *single, long-range energy master plan* for the San Diego region.

Education

1. K-12 school districts should evaluate opportunities for and implement the expansion, renovation, and/or reconstruction of existing schools in urbanized areas, including, if appropriate, development of multistory structures, to support the smart growth and urban form goals of the RCP.
2. K-12 school districts should make effective use of the provisions of Proposition 39 to obtain 55 percent voter approval of bond financing to expand, renovate, or reconstruct schools in urbanized areas.
3. K-12 school districts should work with local jurisdictions to maximize the joint use of school playgrounds and athletic fields to serve the local residents' need for active parks.
4. The community colleges of the San Diego Imperial Counties Communities College Association should work to achieve parity with other regions in the allocation of state funds by the California Community Colleges.

5. In order to meet the region's increasing need for post-secondary education, community colleges should secure additional funding for operation through increased tuition and fees and for capital investment through 55 percent voter approval of bond financing.

Parks and Open Space (including Habitat Conservation, and Shoreline Preservation)

1. Local jurisdictions, acting through SANDAG, should consider the feasibility of leveraging a portion of transportation funding (RTP and *TransNet*) required for the biological mitigation of transportation projects to maximize benefits for the region's habitat conservation programs. To this end, the local jurisdictions should:
 - § Establish a regional habitat *mitigation bank* consisting of priority habitat acquisition lands identified by the region's habitat conservation programs (MSCP and MHCP) and use its credits to mitigate the biological impacts of transportation projects.
 - § Consolidate the mitigation budgets of separate transportation projects to fund the establishment and management of the regional mitigation bank.
 - § Allocate a portion of the consolidated mitigation budget for the long-term management and monitoring of other preserve lands that currently do not have funding for those purposes.
 - § Establish an entity, such as a conservancy, which will conduct the management and monitoring and obtain additional funds for habitat acquisition, management, and monitoring.
 - § Work with other regional infrastructure providers, such as for water, wastewater, or energy, to consolidate mitigation banking needs, thus improving the efficiency and effectiveness of mitigation actions to further the goals of the regional conservation plans.
2. Local jurisdictions should consider the availability of local, active parks and the possibility of obtaining additional park resources, such as through joint-use of school playgrounds and athletic facilities, in identifying and prioritizing smart growth opportunity areas.
3. Local jurisdictions should take advantage of the strategic plan that they have prepared, acting through SANDAG's Shoreline Preservation Committee, to finance shoreline sand replenishment. One possible funding source might include dedicating a portion of the transient occupancy tax collected throughout the region.

CONCLUSION

As our region continues to grow and change, we must regularly assess the ability of our infrastructure to keep pace and maintain our quality of life. The IRIS provides a forward-looking investment and financing strategy that will help the San Diego region meet its collective infrastructure needs. The IRIS emphasizes collaboration, relying on incentives and competition to achieve our urban form and design goals. One of the goals of the RCP is to create an urban form that channels much of the region's future growth into existing urban (incorporated) communities

where infrastructure facilities and services are already in place. Channeling growth in these areas will help preserve and protect the lifestyle and sensitive environment of our rural (unincorporated) areas. The IRIS provides a strategy for accomplishing this goal by helping to enable sustainable, smart growth development.

PERFORMANCE MONITORING

Measuring Our Progress

INTRODUCTION

Thousands of people collaborated to produce the Regional Comprehensive Plan over a nearly two-year period. Individuals, stakeholders, planning directors, public works directors, city managers, community-based organizations, elected officials, and representatives from tribal governments, state and federal agencies, neighboring counties, and the Republic of Mexico all contributed to the plan's formation.

The result is a consensus statement of the region's vision, core values, key issues, goals, objectives, and needed actions. It is a comprehensive summary of where we are today, where we want to be tomorrow, and what we need to do to get there.

But how will we track our progress? In many cases, we are talking about making major changes in our current ways of doing business, looking out 30 years and beyond. Many of the actions and paradigm shifts discussed in the plan may take years to develop, fund, and implement. Some short-term impacts are likely to be subtle. Some will be more noticeable. Over time, however, smart decisions and the cumulative effects of our actions will result in the future that the plan envisions.

Monitoring our progress is not just a good idea, it's a legal requirement. Assembly Bill 361 (Kehoe) was signed into law in September 2003. It declares that the intent of the legislature is that SANDAG shall "complete the public process of preparing and adopting a regional comprehensive plan...by June 30, 2004." And it contains specific language regarding monitoring:

"To ensure that the vision and goals of the regional comprehensive plan are implemented, the consolidated agency [SANDAG] must monitor its progress through realistic measurable standards and criteria, which must be included in the regional comprehensive plan itself and made available to the public."

DEVELOPING INDICATORS

From January through April 2004, SANDAG's Regional Planning Committee and the Regional Planning Technical and Stakeholders Working Groups discussed and developed a set of performance indicators to monitor the region's progress toward achieving the goals and objectives of the RCP. A primary prerequisite for all of the annual indicators was that



they must be based on data that is available, consistent, and reliable. In addition, the groups clarified other characteristics for the indicators:

- § **Regional:** The indicators are intended to focus on the region as a whole, not on individual jurisdictions or subregions.
- § **Quality of Life:** The indicators are to be used for monitoring the region's quality of life and are not intended to be used as the criteria for distributing incentives. Overall, the indicators are intended to answer the questions: "Is the RCP being implemented?" and "Is RCP implementation having a positive impact on the region?"
- § **Flexibility:** Some of the indicators may evolve. As new technologies and data resources become available, the list of indicators could be updated and indicators that were once the best available could be replaced by better, more representative, or more informative indicators.
- § **Annual and Periodic Indicators:** While it is the intent to update the indicators on an annual basis, the final project monitoring could include both a core group of annually-updated indicators and a set of periodic, more comprehensive indicators updated every three to five years. For example, specific habitat monitoring projects may only be feasible every few years, but would yield valuable information.

In addition, the indicators must interrelate with the "three Es" of sustainability: the Economy, the Environment, and social Equity. Sustainability is a key theme of the RCP, and is defined as "simultaneously meeting our current economic, environmental, and community needs while also ensuring that we are not jeopardizing the ability of future generations to meet their needs."

It is also important to note that the indicators for monitoring the Regional Comprehensive Plan will interrelate with other monitoring efforts. Other SANDAG monitoring efforts include the I-15 Interregional Partnership, the Sustainable Competitiveness Index, and the State of the Commute Report. In addition, data from projects such as the County's Child and Family Health and Wellbeing Report Card will be incorporated. RCP monitoring will focus specifically on indicators that relate to the goals and objectives of the plan, but also will be complemented by these other resources.

Table 8.1 presents the final list of annual indicators developed by the three groups. They are grouped by RCP subject category:

- § Urban Form / Transportation
- § Housing
- § Healthy Environments – Natural Habitats, Water Quality, Shoreline Preservation, Air Quality
- § Economic Prosperity
- § Public Facilities – Water Supply, Energy, Waste Management
- § Borders

**TABLE 8.1—ANNUAL INDICATORS FOR MONITORING
THE REGIONAL COMPREHENSIVE PLAN**

| |
|--|
| 1. URBAN FORM / TRANSPORTATION |
| <ul style="list-style-type: none"> A. Share of new units and jobs located in Smart Growth Opportunity Areas B. Share of new housing units within County Water Authority water service boundary C. Annual weekday transit ridership D. Commute mode shares (single occupancy vehicles, carpool, transit, walking, biking, etc.) E. Travel times and volumes for key auto corridors and key transit corridors F. Miles of deficient roads on Congestion Management Program network G. Annual hours of delay per capita H. Regional crime rates |
| 2. HOUSING |
| <ul style="list-style-type: none"> A. Housing Affordability Index (compares median home ownership costs to median income) B. Percent of households with housing costs greater than 35 percent of income C. Ratio of new jobs to new housing units D. Share of new and existing units by structure type (single family, multifamily) and income category E. Vacancy rates F. Percent of households living in overcrowded conditions G. Number of households on the waiting list for Section 8 (housing assistance) Vouchers |
| 3. HEALTHY ENVIRONMENT |
| <p>Natural Habitats</p> <ul style="list-style-type: none"> A. Habitat conserved within designated preserve areas (acres and percent of preserve area) B. Percent of preserve area actively maintained (removal of invasive species, trash removal, fence repairs) <p>Water Quality</p> <ul style="list-style-type: none"> A. Number of beach closures and advisories per rainfall inch measured at Lindbergh Field B. Impaired waterbodies (miles or acres) based on Federal Clean Water Act 303(d) criteria <p>Shoreline Preservation</p> <ul style="list-style-type: none"> A. Beach widths B. Lagoon health (salinity, dissolved oxygen levels) <p>Air Quality</p> <ul style="list-style-type: none"> A. Air Quality Index (number of days "unhealthy for sensitive groups" with AQI > 100) |
| 4. ECONOMIC PROSPERITY |
| <ul style="list-style-type: none"> A. Regional unemployment rate compared to state and nation B. Real per capita income C. Regional poverty rate compared to state and nation D. Employment growth in high-wage economic clusters E. Educational attainment (Share of adult population with high school, college, and graduate education) |

Continued...

| |
|---|
| 5. PUBLIC FACILITIES |
| <p>Water Supply</p> <ul style="list-style-type: none"> A. Water consumption per capita and total B. Diversity of water supply (share of regional water supply, by source) C. Amount of reclaimed water used <p>Energy</p> <ul style="list-style-type: none"> A. Kilowatthours of electricity used per capita at peak hours B. Share of energy produced in-county vs. imported C. Share of energy produced from renewable resources <p>Waste Management</p> <ul style="list-style-type: none"> A. Percent of waste that is recycled B. Landfill space available |
| 6. BORDERS |
| <ul style="list-style-type: none"> A. Border wait times for Secure Electronic Network for Travelers Rapid Inspection (Sentri) lanes, and non-Sentri lanes B. Interregional commute volumes into San Diego from surrounding counties and Baja California C. Participation in Sentri Lanes, pedestrian commuter program, Free and Secure Trade (FAST) program |

Table 8.2 lists some proposed periodic indicators. These types of analyses may not be available on an annual basis but they can provide relevant information for assessing the region's quality of life and progress toward implementing the RCP.

TABLE 8.2—PROPOSED PERIODIC INDICATORS FOR MONITORING THE REGIONAL COMPREHENSIVE PLAN

| |
|--|
| 1. URBAN FORM / TRANSPORTATION |
| <ul style="list-style-type: none"> A. Change in acreage of parks and agricultural land B. Measure of quality of urban design (relative to walking, biking, etc.) C. Miles of regional arterials with Level of Service "F" D. Vehicle occupancy (average number of persons per vehicle) |
| 2. HOUSING |
| <ul style="list-style-type: none"> A. Number of homeless persons |
| 3. HEALTHY ENVIRONMENT |
| <ul style="list-style-type: none"> A. Bird, plant and mammal atlases B. Satellite imagery analysis of impervious surfaces (relative to urban runoff and water quality) |
| 4. ECONOMIC PROSPERITY |
| <ul style="list-style-type: none"> A. Income distribution (percent of households considered to be in the low income category) B. Socio-economic statistics by race/ethnicity (unemployment rate, poverty rate, educational attainment) |

Continued...

5. BORDERS

A. Number of commuters into San Diego from surrounding counties and Baja California as a share of total workforce

BASELINE REPORT AND TARGETS

In the fall of 2004, a baseline monitoring report will be published to create a benchmark by which to measure future performance. The baseline report will feature data on each of the annual indicators listed in Table 8.1, including historical trends and current conditions.

Specific targets to be used as performance measures will be developed with the Regional Planning Committee and its two working groups after the publication of the baseline monitoring report. Where possible, both a short-range target — probably five years — and a year 2030 target will be developed for each indicator. The baseline monitoring report will serve as our starting point, and subsequent annual reports will describe our progress. If progress is not made over time, the Regional Planning Committee or the SANDAG Board of Directors may wish to re-evaluate the Strategic Initiatives described in the Implementation chapter of the RCP, as well as the effectiveness of those entities responsible for carrying them out.

**CONCLUSION**

By establishing a comprehensive set of performance indicators, we can begin to measure our success as we realize the goals of the Regional Comprehensive Plan.

The previous chapters of the RCP have outlined specific policy objectives, proposed actions and, now, a framework for measuring our progress. The next step is to define who will do what, and how. The following chapter, Implementation, offers an action plan that will bring the RCP to life.

IMPLEMENTATION

Translating Vision into Action

2030 VISION

While the number of people in our region has grown, we have improved our quality of life. We have strengthened collaborations between governments and stakeholders within our region and with surrounding areas. All voices are heard in the decision-making process. We are spending taxpayers' money more effectively through an improved infrastructure investment decision-making process, and local governments have enough money to fund important community services. We are now stronger as an international and interregional metropolis than we were as separate communities, and we have achieved a balance between economic prosperity, environmental health, and social equity.

INTRODUCTION

Effective plans — developed in the public or private sector — include detailed implementation strategies. They specify follow-up actions, identify responsible parties, establish timelines, and provide specific benchmark criteria for measuring success. Without strong implementation strategies, well-crafted and well-intentioned plans are left to gather dust on a shelf. To avoid such a fate, the Regional Comprehensive Plan (RCP) includes an implementation strategy based on two fundamental themes: *collaboration* and *incentives*.

The RCP acknowledges that cooperation and consensus-building among all jurisdictions and stakeholders are key to realizing our shared vision of the future. Successful implementation will depend, in part, on the extent to which local decision-makers, including elected officials, take ownership of the plan. The RCP will only succeed with strong partnerships that include local governments, public agencies at all levels, community interest groups, the private sector, and the public.



The RCP also recognizes that, because success breeds success, "carrots," or financial incentives, serve as a critical implementation tool in fostering smart growth.

This chapter outlines how we will implement the RCP. It describes specific collaborative efforts, including guidelines for strengthening the relationship between local and regional plans and efforts to enhance subregional planning, and discusses incentive programs. The chapter culminates in a list of "Strategic Initiatives" – an initial work program for the RCP that organizes the recommended actions and concepts in each chapter into related sets of work elements that focus on those most in need of priority attention.

COLLABORATION

It is important to emphasize that the RCP was not designed as a *regulatory* plan, but rather as a *guidance* plan. SANDAG does not have authority over local land use decisions and is not a regulatory agency. As such, the preferred implementation strategy for the RCP does not follow a conventional approach. That is, the RCP is not based upon a “top down” approach of consistency and conformity, and does not include mandates regarding local staffing positions or committees. Instead, it is a collaborative planning approach that builds up from the local level into a regional framework to establish stronger connections between transportation and land use, connect local and regional plans, and foster cooperative approaches to implementing the actions identified in the plan.

FIGURE 9.1—
ITERATIVE PLANNING PROCESS



This collaborative planning approach is also an “iterative” process (Figure 9.1). In other words, updates to local general plans will feed into the regional growth forecast, the Regional Comprehensive Plan, and the Regional Transportation Plan, which, in turn, will affect the other plans as they, themselves, are updated.

Strengthening the Connection between Local and Regional Plans

A key goal of the RCP is to strengthen the connection between local and regional plans, particularly between land use and transportation. The guidelines provided in Table 9.1 starting on page 360 serve as a tool for local jurisdictions to consider how they can incorporate the goals and policy objectives of the RCP into their own plans as they update their general and community plans. This relationship is illustrated conceptually in Figure 9.2.

Because of the RCP’s focus on encouraging smart growth land uses in key locations, local jurisdictions should consider how their plans can reflect the RCP goals and objectives at two levels:

1. Which RCP goals and policy objectives are applicable to the *entire planning area*, and how they might be connected in their plan; and
2. Which RCP goals and policy objectives are applicable to *specific Smart Growth Opportunity Areas*, and how they might be supported in specific plans, or reflected directly through general plans, community plans, development regulations, and adopted policies.

The guidelines serve as a tool to better link local land use plans, zoning ordinances, design standards, and the Regional Comprehensive Plan. They can be used by local jurisdictions as they update their plans and policies, and by SANDAG as it considers the development of incentive programs.

FIGURE 9.2—GUIDELINES FOR STRENGTHENING THE LOCAL / REGIONAL CONNECTION



Additionally, the RCP includes actions and Strategic Initiatives to implement the plan's goals and policy objectives. In the spirit of collaboration, the following entities are called upon to help implement the actions contained in the plan as they update their own plans and pursue their own programs:

- § Federal and state agencies: U.S. Fish and Wildlife Service, California Department of Fish and Game, California Coastal Commission, Caltrans, etc.;
- § Regional planning and/or regulatory agencies: SANDAG, Local Agency Formation Commission (LAFCO), Air Pollution Control District (APCD), San Diego County Water Authority (Water Authority);
- § The region's eighteen cities and the County of San Diego;
- § Regional and local service providers (local water/wastewater districts, SDG&E, etc.); and
- § Other stakeholders (public interest groups, private sector entities and organizations, foundations, etc.)

This concept is discussed in additional detail in the section entitled "Strategic Initiatives."

Subregional Planning Programs

In addition to the guidelines referenced above, the RCP calls for strengthening the connection between local and regional plans through new subregional planning programs. The RCP contains a number of issues that may best be addressed at a subregional level – at a geographic level that is smaller than the San Diego region, but larger than a single local jurisdiction or service provider. Subregional plans should be focused on particular areas where transportation and land use issues cross jurisdictional boundaries, and where subregional evaluation and planning strategies can lead to improved inter-jurisdictional coordination and more effective solutions.

For example, many of the planned regional and commuter transit service corridors in *MOBILITY 2030* cross jurisdictional boundaries. These future transit services should be integrated into existing and planned smart growth opportunity areas to make the most of these regional transit

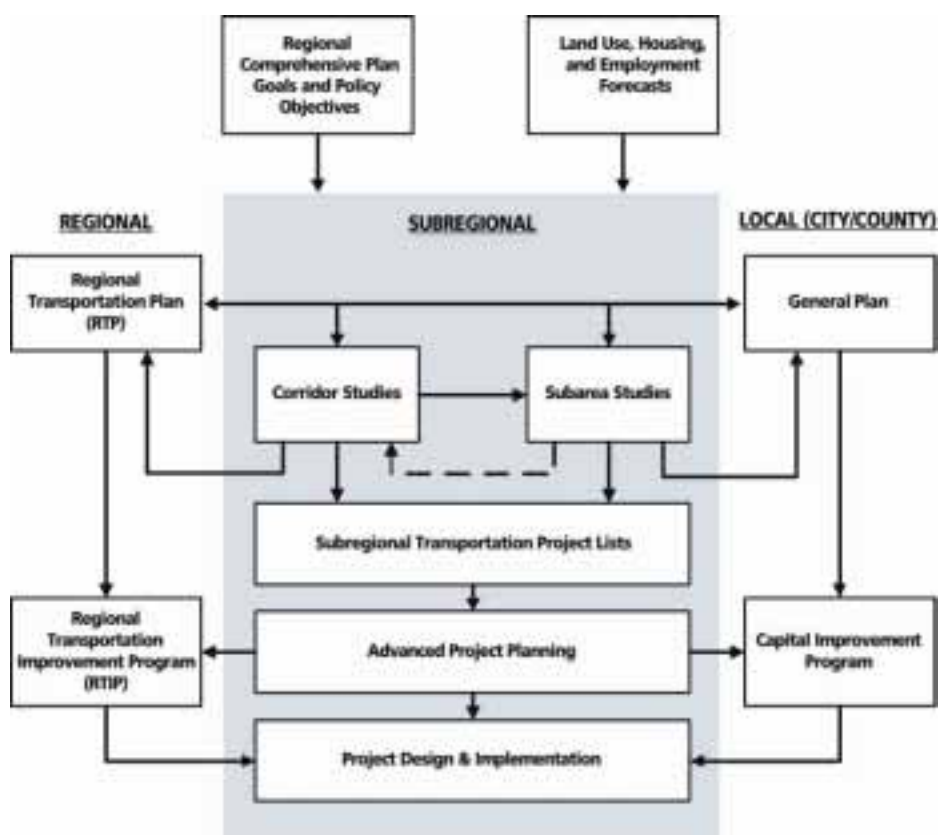
investments. Subregional plans focused at the community level would help to identify preferred transit alignments and station locations relative to proposed developments. Other crosscutting issues best evaluated at a subregional level include jobs and housing accessibility, or completing regional arterial networks through multiple jurisdictions.

In order to deal more effectively with these issues in the future, the RCP recommends the use of a subregional planning and implementation framework that is closely coordinated with existing planning and implementation processes at the regional and local levels.

The framework (Figure 9.3 below) includes two types of subregional plans: (1) *corridor studies* that focus on major regional highway and transit improvements at a broader level, and (2) *subarea studies* that hone in on local and community improvements that support regional transportation investments.

The framework also demonstrates the progression from the long-range plans (RCP, RTP, and general plans) to shorter-term funding, project development, design, and implementation activities that result in new regional and local transit and roadway improvements. Table 9.2 starting on page 367 summarizes the main elements of corridor studies, subarea studies, and project development and implementation activities.

FIGURE 9.3—SUBREGIONAL LAND USE AND TRANSPORTATION PLANNING AND IMPLEMENTATION FRAMEWORK



The subregional planning framework was developed with the assistance of the several of the region’s planning directors, public works directors, and members of the Regional Planning Stakeholders Working Group. This group also helped to identify how to prioritize the development of future subregional plans (Figure 9.4)

FIGURE 9.4—PRIORITIES FOR DEVELOPING FUTURE SUBREGIONAL PLANS

New subregional plans should:

- § Target areas where local jurisdictions are conducting general plan or specific plan updates that have the potential to affect regional transportation projects and services and/or other RCP priorities (e.g., affordable housing, social equity, habitat conservation).
- § Address deficient segments identified in the most recent update of the Congestion Mitigation Program.
- § Increase coordination between transit and existing and planned activity centers (help designate appropriate locations of Smart Growth Opportunity Areas).
- § Implement short-range and mid-range list of transportation projects in the currently-adopted Regional Transportation Plan (RTP).
- § Be identified in the current RTP or subsequent studies as a subregional area needing further evaluation.
- § Provide matching funds from local sources or specialized grants for particular subregional studies.

Private Sector Participation

To successfully realize the goals and objectives of the RCP, the private sector must be an integral partner in its implementation.

As stated before, one of the objectives of the RCP is to better integrate transportation and public infrastructure investments with land use and urban development. Transportation improvements and public infrastructure development are largely the province of governmental entities. On the other hand, the private sector is responsible for the production of nearly all of the region’s new housing, and a significant portion of its job creation. Accordingly, government must continually engage with the private sector and seek to promote opportunities for the type of growth the RCP seeks to guide.

Creative public sector solutions often come from private individuals and non-governmental organizations. From local businesses, chambers of commerce, and neighborhood business improvement districts, to non-profit organizations, to for-profit entities, corporations, and developers, the private sector must be considered a partner in the implementation of the RCP. SANDAG and its partner agencies should continue to engage private sector representatives in

the planning and implementation process through effective participation programs and innovative partnerships.

Traditional approaches have included incentives (e.g., density bonuses for housing projects), and public/private partnerships. Private developers seek opportunities that provide limited risk and predictable and profitable outcomes. Reducing risk reduces finance costs, and ultimately the cost of providing housing and other development. Providing predictable and profitable outcomes harnesses the significant resources the private sector can bring to bear. When these are aligned toward smart growth, the paradigm shift the RCP seeks will be in place.

Compacts

To implement the Strategic Initiatives and other actions recommended in the RCP in a timely and cost-effective manner, SANDAG will work with local jurisdictions and other parties to develop agreements or “compacts” among the participants in the plan’s implementation. These compacts will define responsibilities, resources, and timelines for completion of key initiatives and actions identified in the RCP, and will include monitoring components to ensure progress toward implementation.

Initially, these compacts will be linked directly to the Strategic Initiatives in which the participants are involved. Typical components of these compacts may include:

- § Identification of initial goals and desired outcomes of the planning process;
- § An organizational structure for the planning process, including policy oversight, management, make-up of the project team, stakeholder participation, and public participation;
- § Work program, budget, and schedule for the work effort; and
- § Provisions for monitoring progress on the project and for amending the compact, as needed. Over time, the compacts will be expanded, as appropriate, to include additional coordination among participating agencies. SANDAG's FY 2005 work program sets the stage for the development of the first several compacts to implement key concepts in the RCP.

INCENTIVES

Because SANDAG is the transportation planning and implementation agency for the San Diego region, the RCP calls for using regional transportation funds, in conjunction with local land use incentives, as catalysts to promote smart growth development in key areas throughout the region. The Urban Form chapter discusses a number of approaches to providing incentives to communities that pursue smart growth, and provides a list of principles for establishing smart growth incentive programs in the San Diego region (Figure 4A.4). The principles focus on four major concepts:

1. Regional funding for transportation investments that support smart growth;
2. Regional funding for smart growth infrastructure and planning;
3. Local incentives for smart growth; and
4. Funding for other smart growth activities.

As indicated in the Urban Form chapter, implementing smart growth will be an on-going, collaborative process, involving local policymakers, local and regional planners, community leaders, and other stakeholders. Implementation of the incentive program will take place under a three-pronged approach:

- § **Smart Growth Area Concept Map.** First, upon adoption of the RCP, SANDAG will work with local jurisdictions to identify and map the seven types of smart growth areas around the region, discussed in the Urban Form chapter. These smart growth areas will include places where existing development reflects the smart growth characteristics described in Table 4A.2 and where planned land uses will allow smart growth development to occur. They will also include areas where existing plans do not currently provide for smart growth development, but where local jurisdictions identify a potential for smart growth in the future if appropriate changes are made to the local plan. Such areas might exist, for example, where regional transit services are planned, and the potential for redevelopment would provide an opportunity to reshape the community. Such opportunities will be identified in consultation with local jurisdictions and through subregional planning studies that coordinate regional and local planning efforts. The map would then serve as input to the next update of the Regional Transportation Plan, to help strengthen the link between local land use plans and regional transportation plans. The map would also serve as the foundation for showing eligible locations for certain smart growth incentives, as well as establishing where SANDAG should prioritize infrastructure investments and deploy transit services to support smart growth development.
- § **Smart Growth Incentives.** Second, working with local jurisdictions and stakeholders, SANDAG will use the principles described in Figure 4A.6 to develop the Smart Growth Incentive Program called for in *MOBILITY 2030*, and anticipated in the extension of the *TransNet* local transportation sales tax. Program development will include determining the specific types of projects to support, the project selection process, and program administrative requirements. In addition, SANDAG will continue to refine the process it uses to prioritize transportation project funding to ensure that that process supports smart growth development to an appropriate extent.
- § **Urban Design Guidelines.** Third, SANDAG will assemble a manual of urban design best practices focused on smart growth development principles as an implementation resource. As smart growth incentive programs are developed and funding is allocated, jurisdictions can use the guidelines as necessary to enhance local planning and implementation efforts.



As local communities and SANDAG work together to develop the Smart Growth Incentive Program, it will be important to recognize that smart growth incentives come from many sources. Local jurisdictions can provide incentives for appropriate development in smart growth opportunity areas, such as priorities for infrastructure improvements, fee reductions, priority processing of development plans, and others. The principles referenced above call for SANDAG to provide greater weight in its funding decisions to jurisdictions that offer local incentives. Additionally, other sources should be pursued, ranging from funding provided by state and federal agencies to private foundations. Smart growth incentives come in many shapes and sizes, and implementation will require the pooling of funds from many sources to achieve the desired goals.

OTHER KEY COMPONENTS OF RCP IMPLEMENTATION

Public Participation

Public participation will continue to be a key component of RCP implementation. Effective public participation strategies, ranging from broad general outreach for larger-scale regional or subregional projects to more targeted outreach for smaller-scale localized projects, will be developed and pursued in order to continue the inclusive planning process that has been the hallmark of the preparation of the RCP.



Social Equity and Environmental Justice

The RCP calls for SANDAG, its member agencies, and other planning agencies and service providers to place high importance on pursuing the four key next steps outlined in the Social Equity and Environmental Justice Assessment chapter. These include performance monitoring in relation to social equity; expanding current social equity and environmental justice analysis efforts; evaluating future plans, programs, and projects with respect to social equity and environmental justice-related impacts; and expanding public involvement to ensure meaningful involvement of a wide range of residents, including lower income and minority residents, seniors, tribal government representatives, persons with disabilities, and others.

Intergovernmental Review

Collaboration between many governmental agencies, at many levels, will be necessary to better coordinate land use and transportation decisions. To achieve these goals, the RCP recommends the development and implementation of an improved intergovernmental review process where SANDAG and other public agencies assess proposed local development projects that have significant regional impacts within the context of RCP goals and policy objectives. The improved process will seek to better define “regionally significant” projects, which should be reviewed for compatibility with regional plans, including the RCP, RTP, CMP, and habitat conservation plans.

As described in the Transportation chapter, some review of large-scale development projects already is underway. To address future congestion, local jurisdictions must take their development review processes a step further, and conduct enhanced CEQA review for large development projects (generating 2,400 or more average daily trips or 200 or more peak period trips). In these cases, local agencies must look at the potential problems on a regional level and find ways to minimize them. An expanded intergovernmental review process will provide an opportunity to address issues beyond transportation, providing a more comprehensive planning approach, as advocated by the RCP.

Performance Monitoring Baseline Report and Targets

For successful RCP implementation, we need reliable indicators as described in the Performance Monitoring chapter. While the Performance Monitoring chapter includes a list of the annual and periodic indicators that will be tracked to monitor RCP implementation, short- and long-term numeric targets must still be developed. In fall 2004, a baseline monitoring report will be published. The baseline report will feature data on each of the annual indicators, including historical trends and current conditions.

Targets for the performance measures will be developed with the Regional Planning Committee and its Regional Planning Technical and Stakeholders Working Groups after the initial baseline report is released. The timeline for determining five-year and 2030 targets is outlined in the Performance Monitoring chapter.

Additionally, SANDAG will report on "periodic" indicators, indicators collected once every several years, to measure the more qualitative aspects of the progress being made toward achieving a higher quality of life. The Performance Monitoring chapter includes a more detailed description of these efforts.



Analytical Tools

In addition to implementing a performance monitoring program, some existing analytical tools should be refined, and other additional reliable and consistent analytical tools should be developed. While SANDAG and its member agencies already have sophisticated modeling and analytical capabilities related to transportation, land use, economic, and environmental issues, a number of enhancements should be considered including:

- § Agreement on a consistent approach among the County and cities in the region for analyzing the traffic impacts of new development, including consistent standards for measuring "level of service;"
- § Development of traffic forecasting models to better predict trip generation rates and trip lengths, specifically as they relate to jobs and housing availability within defined regional and subregional areas;
- § Development of models that can be used to evaluate the effectiveness of smart growth urban design strategies and mixed land uses in relation to a number of different quality of life indicators, such as vehicle miles traveled, trip generation rates, energy consumption, and air quality impacts; and



- § Acquisition of visual simulation software that can be used to illustrate various land use scenarios and their related outcomes vis a vis transportation, walkability, air quality, energy, water, and the like.

SANDAG will coordinate development of these and other analytical tools with other participating agencies.

STRATEGIC INITIATIVES

Because of the wide range of actions included in the Regional Comprehensive Plan, RCP participants developed a list of "Strategic Initiatives," that is, sets of priority actions to be undertaken by various groups to implement the recommended actions and concepts contained in the plan (see Figure 9.6). The Strategic Initiatives allow for the recommended actions to be organized into manageable units of work and prioritized by timeframe, helping ensure implementation.

The list of Strategic Initiatives includes (1) the responsible lead agency charged with implementing the initiative, (2) supporting agencies that can assist with implementation, and (3) proposed start date and duration times by fiscal year.



Several "Early Actions" are included in the list. These are actions that have already been initiated in conjunction with the preparation of the RCP, or actions that will begin immediately upon adoption. (The early actions are identified by the initials "EA" in the left hand column of the table).

The Strategic Initiatives that are slated to begin in Fiscal Year 2005 are based on policy direction provided by the Regional Planning Committee and anticipated resources, as reflected in SANDAG's fiscal year 2005 Overall Work Program and Budget. Recognizing that local budgets fluctuate and are closely tied to the economy as well as the health of the state and federal budget cycles, SANDAG will review the Strategic Initiatives on an annual basis in order to coordinate both internal and external agency work programs and budget cycles.

Borders-Related Strategic Initiatives

SANDAG's Borders Committee provided direction on the Strategic Initiatives for the Borders chapter, with an emphasis on the top priorities for Fiscal Year 2005. As a result, the Borders section only includes Strategic Initiatives that begin in Fiscal Year 2005. Other Strategic Initiatives will be coordinated by the Borders Committee on a yearly basis, and integrated into the RCP as the RCP is updated.

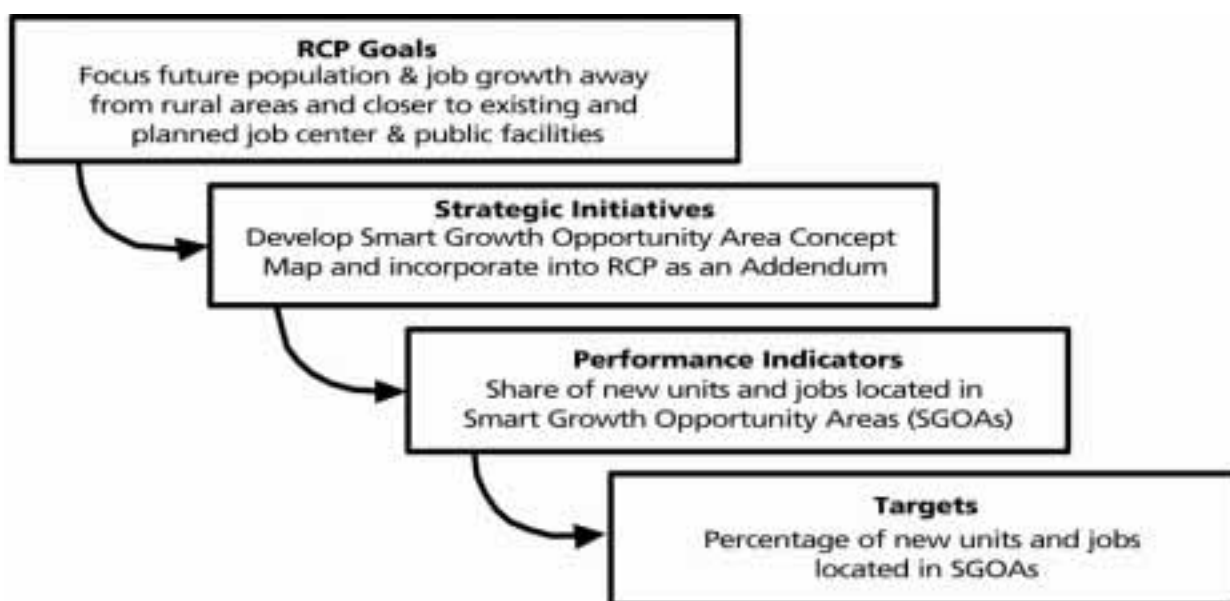
Performance Monitoring and Strategic Initiatives

Performance monitoring and the Strategic Initiatives are related in two ways. First, SANDAG will monitor progress made on implementing the Strategic Initiatives on an annual basis to ensure that participating agencies within the region are following through on implementation ("Did we do

what we said we would do in the plan?"). A report on our progress, and areas in need of improvement, will be made to the SANDAG Board of Directors on an annual basis.

Second, the performance indicators relate back to both the plan's goals and the Strategic Initiatives, serving as quantifiable measures that help us to determine, "Is RCP implementation having a positive impact on the region?" If progress is not made over time, the Regional Planning Committee or the SANDAG Board of Directors may wish to re-evaluate the Strategic Initiatives of the RCP, as well as the effectiveness of those entities responsible for carrying them out. The relationship between the plan's goals, Strategic Initiatives, performance indicators, and targets is illustrated by the example provided below.

FIGURE 9.5—EXAMPLE OF RELATIONSHIP BETWEEN GOALS, STRATEGIC INITIATIVES, PERFORMANCE INDICATORS, AND TARGETS



The Strategic Initiatives (Figure 9.6) form the heart of the RCP implementation program. A list of acronyms for lead agencies and other participants is provided with the Initiatives. Note that because SANDAG is the lead agency or a participating agency in so many of the Strategic Initiatives, specific SANDAG divisions and departments have been identified. RCP implementation is a collaborative effort with participants ranging from all levels of government to non-profit entities to non-governmental organizations to the private sector. The Strategic Initiatives serve as an initial work program for implementing the recommended actions and concepts contained in the RCP, and will be revisited on an annual basis to review implementation priorities with respect to local budget cycles and work programs.

ABBREVIATIONS FOR LEAD AGENCIES AND OTHER PARTICIPANTS

| | | | |
|--------|--|-----------------|---|
| EA | Early Actions | CPUC | California Public Utilities Commission |
| S-LU | SANDAG Land Use and Environmental Planning Division | DHS | Department of Homeland Security |
| S-TP | SANDAG Transportation Planning Division | EDC | Economic Development Corporations |
| S-B | SANDAG Borders Division | EWG | SANDAG Energy Working Group |
| S-Econ | SANDAG Chief Economist | IOU | Investor Owned Utilities |
| S-MM | SANDAG Mobility Management and Project Implementation Department | IRP | Interregional Partnership |
| S-TS | SANDAG Technical Services Department | LAFCO | San Diego Local Agency Formation Commission |
| S-Leg | SANDAG Legislative Program | MEX | Mexican agencies, as identified in consultation with the Mexican Consul General |
| S-AFC | SANDAG Administration, Finance, and Communications | NGOs | Nongovernmental Organizations |
| APCD | San Diego Air Pollution Control District | Port | Unified Port of San Diego |
| BEIG | Border Energy Infrastructure Group | PS | Private Sector |
| CIWMB | California Integrated Waste Management Board | SDG&E | San Diego Gas and Electric |
| CEC | California Energy Commission | SDREO | San Diego Regional Energy Office |
| | | Water Authority | San Diego County Water Authority |
| | | WRCOG | Western Riverside Council of Governments |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|------------|--|-------------------|---|--------------------------------------|----|----|----|----|----|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 |
| 1 | LAND USE / TRANSPORTATION | | | | | | | | |
| 1.1 | Smart Growth Planning Program | | | | | | | | |
| EA | a. Develop Smart Growth Area (SGOA) Concept Map and incorporate into RCP as Addendum | S-LU | S-TP, S-MM, County, cities, SWG, Caltrans | | > | | | | |
| | b. Revise SANDAG's "Transportation Project Evaluation Criteria" to consolidate transportation project categories, to incorporate land use-related criteria, and to provide incentives for smart growth where appropriate | S-TP, S-MM | S-LU, S-Econ, County, cities, SWG, Caltrans | | > | | | | |

| CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|---|-------------------|--|--------------------------------------|----|----|----|----|----|
| | | | 04 | 05 | 06 | 07 | 08 | 09 |
| c. Develop and implement the Smart Growth Incentive Program as funding becomes available | S-LU | S-TP, S-MM, County, cities, Caltrans | | > | > | > | > | > |
| d. Develop and initiate smart growth community education program | S-LU | County, cities, Caltrans, C-3, AIA, ULI, APA, WTS, Others | | > | > | | | |
| 1.2 Smart Growth Urban Design Guidelines | | | | | | | | |
| a. Monitor and update information on Smart Growth trip generation rates | S-MM, S-TS | S-LU, County, cities | | > | > | > | > | > |
| b. Prepare Smart Growth Parking Guidelines | S-MM | S-LU, S-TS, County, cities, Caltrans | | | > | > | | |
| c. Prepare Urban Design Best Practices Manual which addresses: § Transportation design guidelines for SGOAs § Transit facility guidelines for new development § Guidelines for public/private partnerships to fund enhanced transit facilities § Crime prevention § Universal design and accessibility § Bike and pedestrian access, and other urban design issues § Guidelines for schools in urbanized areas, and guidelines for joint use of school and park facilities in smart growth areas | S-LU | S-TP, S-MM, County, cities, AIA, County Board of Education, school districts, others | | > | > | | | |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|------------|--|-------------------|--------------------------------------|--------------------------------------|----|----|----|----|----|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 |
| 1.3 | Subregional Transportation / Land Use Planning Program | | | | | | | | |
| | a. Prepare selected corridor and subarea studies consistent with the guidelines outlined in Table 9.2 (includes subregional analyses of jobs and housing for effects on regional and subregional travel) | S-TP | S-MM, S-LU, County, cities, Caltrans | | > | > | > | > | > |
| 1.4 | Updated Growth and Development Forecast | | | | | | | | |
| | a. Prepare updated growth and development forecast, based on transportation / land use priorities from RCP as reflected in local general plans, to provide a guide for service providers | S-TS | S-LU, S-TP, S-Econ, County, cities | | > | > | > | | |
| 1.5 | Regional Transportation Plan Update | | | | | | | | |
| | a. Incorporate RCP's smart growth goals and policy objectives into the Regional Transportation Plan during the next RTP update | S-TP | S-LU, County, cities, Caltrans | | > | > | > | | |
| | b. Identify transportation improvement needs at inter-modal connection points at key locations | S-TP | S-LU, County, cities, Caltrans | | > | > | > | > | > |
| | c. Develop plans for regional airport | Airport Authority | S-TP, S-Econ, County, cities | | > | > | > | > | > |
| | § Improve access to international and domestic markets at regional airport facilities. | Airport Authority | S-TP | | > | > | > | > | > |
| | § Address multi-modal access for existing or new regional airport | Airport Authority | S-TP, County, cities, Caltrans | | > | > | > | > | > |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|------------|---|-------------------|---|--------------------------------------|----|----|----|----|----|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 |
| | d. Address multi-modal access to other goods movement centers | S-TP | Port of SD, County, cities, Caltrans | | > | > | > | > | > |
| | e. Address relationship of intercity conventional rail and interregional high speed rail service to RTP plan objectives, and amend plan as appropriate | S-TP | S-Econ, County, cities, Caltrans | | > | > | > | > | > |
| 1.6 | Transportation Implementation Programs / Project Development | | | | | | | | |
| | a. Develop strategy for completing the regionally significant arterials in the 2030 Mobility Network | S-MM | S-TP, County, cities, Caltrans | | > | > | | | |
| | b. Ensure that appropriate transportation projects incorporate pedestrian and bicycle access | S-MM | S-LU, County, cities, Caltrans | | > | > | > | > | > |
| | c. Develop and implement local and regional strategies for Transportation Demand Management (TDM) | S-MM | County, cities, Caltrans | | > | > | > | > | > |
| | d. Develop and implement local and regional strategies for Transportation Systems Management (TSM) | S-MM | S-TP, County, cities, Caltrans | | > | > | > | > | > |
| | e. Develop guidelines for use of integrated systems management programs that facilitate transit use, car sharing, shuttle services, bike lockers, and other programs for transit stations/ activity centers | S-MM | S-TP, Caltrans, MTS, NCTD | | | > | | | |
| | f. Update annual Short-Range Transit Plan (ensure transit is accessible, available, and affordable) | S-TP | S-LU, County, cities, Caltrans, MTS, NCTD | | > | > | > | > | > |
| | g. Implement special transit programs for seniors and persons with disabilities | S-TP | cities, County, MTS, NCTD | | > | > | > | > | > |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|------------|---|-------------------|--|--------------------------------------|----|----|----|----|----|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 |
| | h. Plan, define, obtain environmental clearance, design, and implement select transit, highway, and managed lane projects included in the RTP. | S-TP, S-MM | S-LU, County, cities, Caltrans, MTS, NCTD | | > | > | > | > | > |
| 1.7 | Regional Transportation Funding Program | | | | | | | | |
| EA | a. Develop and implement regional funding program for 2030 Mobility Network (Including finishing <i>TransNet</i> Expenditure Plan) | S-AFC | S-TP, S-Econ, S-MM, S-LU, County, cities, Caltrans, regional interests, MTS, NCTD | > | > | > | > | | |
| EA | b. Evaluate use of transportation development impact funding | S-AFC, S-Econ | S-LU, S-TP, County, cities, Caltrans, regional interests, developers | > | | | | | |
| | c. Evaluate use of transportation user fees/ private investment funding | S-Econ | S-TP, County, cities, developers, others | | | > | | | |
| 1.8 | Local Smart Growth Implementation | | | | | | | | |
| | a. Incorporate smart growth concepts into local plans and policies, and process development projects in conformance with the plans | County, cities | S-LU, S-TP, S-Econ, EDC's | | > | > | > | > | > |
| 2 | HOUSING | | | | | | | | |
| 2.1 | Regional Housing Needs Allocation Update | | | | | | | | |
| EA | a. Utilize policy objectives in draft RCP Regional Planning and Policy Framework, Urban Form, Transportation and Housing Chapters to guide preparation of draft Regional Housing Needs Assessment process | S-LU | S-Econ, County, cities, non-profits | > | > | | | | |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|------------|--|-------------------|-----------------------------------|--------------------------------------|----|----|----|----|----|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 |
| EA | b. Adopt updated Regional Housing Needs Assessment process | S-LU | County, cities | > | > | | | | |
| 2.2 | Regional Housing Implementation Programs | | | | | | | | |
| | a. Hold forums on local and regional housing planning issues | S-LU, S-Econ | County, cities, non-profits | | > | > | > | > | > |
| | b. Implement affordable housing public education program | S-LU | County, cities, non-profits | | > | > | > | > | > |
| | c. Explore moderate income housing incentives, e.g., location-efficient mortgages, employer assisted housing programs | S-LU, S-B | County, cities, state, federal | | | > | > | | |
| 2.3 | Local Housing Planning and Implementation Programs | | | | | | | | |
| | a. Update general plan housing and land use elements and zoning to reflect updated regional housing needs allocations and address other regional and local housing policy issues | County, cities | Coastal Commission | | > | > | > | | |
| | § Identify and rezone appropriate sites for new housing close to public transit, employment, and other services | County, cities | S-TS, S-LU | | > | > | > | > | > |
| | § Identify underutilized sites for housing, such as vacant and/or deteriorated shopping centers | County, cities | S-LU, S-TS | | > | > | > | > | > |
| | § Identify and rezone sites for special needs housing | County, cities | S-TS, S-LU | | > | > | > | > | > |
| | § Develop and implement local affordable housing programs and incentives | County, cities | S-LU | | > | > | > | > | > |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|------------|---|----------------------|--|--------------------------------------|----|----|----|----|----|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 |
| | § Develop and implement housing conservation and rehabilitation programs | County, cities | State, Federal | | > | > | > | > | > |
| | § Implement homeownership programs | County, cities | State, Federal | | > | > | > | > | > |
| | § Provide replacement housing as redevelopment / infill development occurs | County, cities | | | > | > | > | > | > |
| | § Ensure efficient use of existing housing funds | County, cities | | | > | > | > | > | > |
| | § Develop new funding programs for affordable housing | County, cities | State, federal | | > | > | > | > | > |
| | b. Develop guidelines for incorporating "green building" techniques and universal design principles for accessibility into new and existing housing | S-LU, County, cities | State, Federal | | | > | > | | |
| | c. Develop and implement programs to eliminate environmental and health hazards in existing housing | County, cities | Environmental Health Coalition, State, Federal | | | > | > | | |
| 3 | HEALTHY ENVIRONMENT/ NATURAL HABITATS | | | | | | | | |
| 3.1 | Regional Habitat Management Program | | | | | | | | |
| EA | a. Develop regional habitat funding program | S-LU, S-Econ, S-AFC | S-MM, County, cities, USFWS, DFG | > | > | > | > | | |
| | b. Develop and implement regional habitat management and monitoring plan | S-LU | County, cities, USFWS, DFG, S-MM | | > | > | > | > | > |
| | c. Coordinate regional habitat monitoring databases | S-LU | County, cities, USFWS, DFG | | > | > | > | > | > |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|------------|--|-------------------------------|--------------------------|--------------------------------------|----|----|----|----|----|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 |
| | d. Prepare guidelines for protecting natural habitats in urbanized areas, and for use of native vegetation in urban landscapes | S-LU | S-MM, County, cities | | | > | | | |
| | e. Prepare fire management strategies compatible with the preservation of biological resources. | County, cities | USFWS, DFG, S-LU | > | > | > | > | > | > |
| | f. Coordinate the planning of future transportation and wildlife corridors | S-LU, S-TR | County, cities, Caltrans | > | > | > | > | > | > |
| 4 | HEALTHY ENVIRONMENT / WATER QUALITY | | | | | | | | |
| 4.1 | Regional Water Quality Management Program | | | | | | | | |
| | a. Evaluate Water Quality Best Management Practices, and revise programs as needed | County, cities, RWQCB | Caltrans | | > | > | > | > | > |
| | b. Develop and implement a watershed-based water quality planning process | County, cities, RWQCB | S-LU, S-MM, Caltrans | | > | > | > | > | > |
| | c. Develop and maintain water quality assessment database | County, cities, RWQCB | S-TS | | > | > | > | > | > |
| | d. Continue to implement water quality public education programs | County, cities, RWQCB | | | > | > | > | > | > |
| | e. Prepare urban runoff design guidelines | County, cities, RWQCB | S-LU | | > | > | | | |
| | f. Develop regional funding program for water quality planning and implementation | S-Econ, County, cities, RWQCB | S-LU | | | > | > | | |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|------------|--|---|---|--------------------------------------|----|----|----|----|----|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 |
| 5 | HEALTHY ENVIRONMENT / SHORELINE PRESERVATION | | | | | | | | |
| 5.1 | Regional Shoreline Preservation Program | | | | | | | | |
| | a. Evaluate opportunities for beach sand natural systems restoration | S-LU, Coastal cities | Shoreline Preservation Committee | | > | > | > | > | > |
| | b. Develop and implement near-shore habitat conservation plan | S-LU, Coastal cities | Shoreline Preservation Committee | | | > | > | > | > |
| | c. Continue to implement and improve existing beach sand replenishment programs | S-LU, Coastal cities | Shoreline Preservation Committee | | > | > | > | > | > |
| | d. Develop regional funding program for beach sand replenishment and other shoreline preservation activities | S-LU | County, cities, Shoreline Preservation Committee | | > | > | > | > | > |
| 6 | HEALTHY ENVIRONMENT / AIR QUALITY | | | | | | | | |
| 6.1 | Regional Air Quality Management Program | | | | | | | | |
| | a. Continue to update and implement Regional Air Quality Strategy | APCD | S-TP, County, cities | | > | > | > | > | > |
| | b. Continue to implement strategies to reduce industrial air pollution and other stationary sources | APCD | County, cities | | > | > | > | > | > |
| 7 | ECONOMIC DEVELOPMENT | | | | | | | | |
| 7.1 | Regional Economic Development Program | | | | | | | | |
| | a. Expand access to international trade infrastructure. | S-Econ, S-TP, Regional Airport Authority, Port, Caltrans | EDC's, Other Regional Infrastructure Providers | | > | > | > | > | > |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|------------|--|---|---|--------------------------------------|----|----|----|----|----|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 |
| | b. Develop and implement workforce training and development programs consistent with the economic goals and objectives of the Regional Economic Prosperity Strategy. | Workforce Development and Training Agencies | S-Econ, community colleges, trade schools, unions | | > | > | > | > | > |
| | c. Continue to update and implement the Regional Economic Prosperity Strategy and address major economic development infrastructure needs. | S-Econ, EDC's | Members of Economic Prosperity Advisory Committee | | > | > | | | |
| | d. Develop and implement state-local fiscal reform proposal that reflects regional consensus on these issues. | S-Econ, County, cities | S-LU, State of California | | > | > | | | |
| | e. Update regional employment and residential lands inventory and compare to RTIP expenditures. | S-Econ, EDC's | BIA, County, cities, Industrial Land Users | | > | > | | | |
| | f. Implement programs to attract venture capital resources to the region. | EDC's, Regional Technology Alliance, Chambers of Commerce, UCSD Connect | S-Econ | | > | > | > | > | > |
| | g. Conduct regional review of regulatory barriers and implement improvements as needed. | EDC's | S-Econ, County, cities, Industrial Land Users | | > | > | | > | > |
| 8 | PUBLIC FACILITIES / WATER SUPPLY | | | | | | | | |
| 8.1 | Regional Water Supply Plans and Programs | | | | | | | | |
| | a. Update and implement regional water supply and facility plans | Water Authority | Local water districts and agencies | | > | > | > | > | > |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|------------|---|------------------------------|--|--------------------------------------|----|----|----|----|----|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 |
| | b. Develop seawater desalination facilities to serve the region, and coordinate with bi-national and interregional areas to expand development of seawater desalination | Water Authority | Carlsbad | | > | > | > | > | > |
| | c. Implement water conservation programs and related public education efforts | Water Authority | Local water districts and agencies | | > | > | > | > | > |
| | d. Develop funding program for local water conservation activities | Water Authority | Local water districts and agencies | | > | > | > | > | > |
| | e. Continue to develop funding programs for regional water projects | Water Authority | Local water districts and agencies | | > | > | > | > | > |
| | f. Seek funding for bi-national and interregional water projects | Water Authority, S-B | Local water districts and agencies | | > | > | > | > | > |
| 9 | PUBLIC FACILITIES / ENERGY | | | | | | | | |
| 9.1 | Regional Energy Strategy Implementation | | | | | | | | |
| | a. Coordinate planning and updating of Regional Energy Strategy | S-LU | SDREO, SDG&E, IOU's, County, cities, State CEC, Energy Working Group | | > | > | > | > | > |
| | b. Develop renewable energy resource projects | IOU's, SDREO, SDG&E, BEIG | S-LU, County, cities, EWG | | > | > | > | > | > |
| | c. Increase use of renewable energy resources throughout the bi-national and interregional area | S-B, IOU's, SDREO, BEIG | EWG | | > | > | > | > | > |
| | d. Develop energy generation and transmission facilities | SDREO, SDG&E, IOU's | S-LU, CPUC, EWG, CEC | | > | > | > | > | > |
| | e. Develop and implement energy conservation programs | SDREO, IOU's, SDG&E | S-LU, CPUC, EWG, CEC | | > | > | > | > | > |
| | f. Develop guidelines and incentives for energy-efficient building design | SDREO, Cities, County, State | S-LU, EWG | | > | > | > | > | > |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|-------------|---|-------------------|--|--------------------------------------|----|----|----|----|----|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 |
| | g. Develop programs promoting energy-efficient vehicles and necessary transportation-related infrastructure | APCD | S-LU, S-TP, Caltrans, cities, County | | | | > | > | > |
| 10 | PUBLIC FACILITIES / WASTE MANAGEMENT | | | | | | | | |
| 10.1 | Regional Solid Waste Management Program | | | | | | | | |
| | a. Implement County Integrated Waste Management Plan, including Siting Element and funding strategies | County | County, cities, CIWMB | | > | > | > | > | > |
| | b. Implement solid waste recycling programs | County | Cities, service providers | | > | > | > | > | > |
| 11 | BORDERS | | | | | | | | |
| 11.1 | Borders Comprehensive Project | | | | | | | | |
| | a. Continue to strengthen existing, and develop new, partnerships with neighboring jurisdictions and tribal governments from a binational and interregional perspective | S-B | Caltrans, WRCOG, MEX, Tribal Governments | | > | > | > | > | > |
| 11.2 | I-15 Interregional Partnership (Western Riverside) | | | | | | | | |
| | a. Continue partnership to address planning issues with an emphasis on transportation, jobs/housing, and energy | S-B | S-LU, S-TP, S-MM, Caltrans | | > | | | | |
| | b. Implement the I-15 IRP short- and long-range housing and transportation strategies | S-B | S-LU, S-TP, S-MM, Caltrans | | > | > | > | > | > |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | | |
|-------------|---|-------------------|----------------------------|--------------------------------------|----|----|----|----|----|--|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 | |
| | c. Contingent upon funding, implement a joint economic cluster analysis study for San Diego and Western Riverside | | Caltrans | | > | | | | | |
| 11.3 | Imperial County | | | | | | | | | |
| | a. Strengthen collaboration with elected officials in Imperial County to develop an interregional partnership to address regional planning issues with a focus on: transportation, access to jobs/housing, and homeland security. | S-B | S-MM, S-TP, S-LU, Caltrans | | > | | | | | |
| 11.4 | Tribal Governments | | | | | | | | | |
| | a. Expand communication and coordination with tribal governments regarding regional planning issues. | S-B | S-LU, S-Econ | | > | > | > | > | > | |
| | b. Work with tribal governments, Caltrans, and County of San Diego to assess and propose solutions to reservation transportation needs | S-B | S-TP, County, Caltrans | | > | > | | | | |
| 11.5 | Mexico | | | | | | | | | |
| | a. Create a partnership with the Republic of Mexico to address binational border planning issues with a focus on: transportation and infrastructure; energy/water; homeland security; and the environment. | S-B, S-LU | S-TP, S-MM, Caltrans, MEX | | > | | | | | |
| | b. Continue to support the Border Energy Issues Group (BEIG) as a forum for discussion and development of strategies regarding binational energy issues | S-B | S-LU, MEX, EWG | | > | > | > | > | > | |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|-------------|--|------------------------------|---|--------------------------------------|----|----|----|----|----|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 |
| c. | Facilitate a dialogue among jurisdictions and agencies to maximize border region water resources through diversification strategies | Water Authority; LAFCO; S-B | MEX | | > | > | > | > | > |
| d. | Monitor progress on the implementation of security measures that protect our binational border, while enabling the growth of a prosperous economy within the greater border region (ie. SENTRI and FAST lanes at POE, USVISIT Program, etc.) | S-B | Caltrans, DHS, Chambers of Commerce | | > | > | > | > | > |
| e. | Establish a dialogue with the Republic of Mexico to link habitat corridors within San Diego County and the Baja California region to create interregional and international preserve systems | S-B, S-LU | NGOs, Conservancies | | > | > | > | | |
| 12 | INTEGRATED REGIONAL INFRASTRUCTURE STRATEGY | | | | | | | | |
| 12.1 | IRIS Implementation | | | | | | | | |
| a. | Develop guidelines for linking annual expenditures of capital improvement programs to the long term goals of facility master plans that incorporate RCP goals | S-Econ, S-LU | LAFCO, service providers, S-MM | | | > | > | > | > |
| b. | Promote coordination of plans and capital investments between local jurisdictions and infrastructure providers. Utilize Memorandums of Understanding (MOU) or compacts where appropriate. | County, cities, S-Econ, S-LU | LAFCO, service providers, S-MM, MTS, NCTD | | | > | > | > | > |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|-------------|---|---------------------------------------|--|--------------------------------------|----|----|----|----|----|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 |
| | c. Implement demand and systems management strategies to maximize efficient service provision | County, cities, service providers | S-TP, S-LU, S-Econ, S-MM | | > | > | > | > | > |
| | d. Secure stable funding sources for all local services. Utilize user fees to fund local services whenever possible | County, cities, service providers | S-Econ, S-LU | | > | > | > | > | > |
| | e. Support legislation that reduces voter requirement for bond approval to 55 percent | State, local governments | S-Econ | | | | > | > | > |
| 12.2 | Strategic Initiatives for Specific Infrastructure Providers | | | | | | | | |
| | a. Develop and adopt contingency funding plan to upgrade Point Loma Wastewater Treatment Plant | City of San Diego | | | | | | | |
| | b. Seek bond funding for K-12 school renovation and expansion | School districts | S-Econ | | > | > | > | > | > |
| | c. Identify joint-use opportunities and collaborate to expand or improve schools in existing urbanized areas | School districts, local jurisdictions | S-LU | | | > | > | > | > |
| | d. Seek fair share of state funding for community colleges in San Diego region | Community college districts | | | > | > | > | > | > |
| | e. Seek bond funding for community college renovation and expansion | Community college districts | | | > | > | > | > | > |
| 13 | OTHER | | | | | | | | |
| 13.1 | Intergovernmental Review Program | | | | | | | | |
| | a. Implement enhanced environmental review of large-scale projects for consistency with RCP, RTP, and CMP, provisions, including social equity considerations | S-LU | S-MM, S-TP, S-B, County, cities, Caltrans, MTS, NCTD, stakeholders | | > | > | > | > | > |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|-------------|---|--------------------|--|--------------------------------------|----|----|----|----|----|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 |
| | b. Develop social equity guidelines for large-scale projects that will address applicable RCP policy objectives in areas such as transportation, housing, air quality, water supply, water quality, energy, and solid waste | S-LU | S-TP, S-B, S-TS County, cities, Caltrans, MTS, NCTD, stakeholders, APCD, Water Authority, Local water districts and agencies | | | > | > | | |
| 13.2 | RCP Performance Monitoring Program | | | | | | | | |
| | a. Implement RCP performance monitoring program | S-Econ, S-TS, S-LU | S-TP, S-MM | | > | > | > | > | > |
| 13.3 | RCP Public Participation Program | | | | | | | | |
| | a. Develop and implement strategies to ensure effective public participation in RCP implementation | S-LU | S-AFC | | > | > | > | > | > |
| 13.4 | Enhanced Analytical Tools | | | | | | | | |
| | a. Develop a consistent approach for analyzing traffic impacts of development, including consistent standards for measuring “level of service” | S-TS | S-LU, S-TP, S-MM, County, cities, Caltrans | | | > | > | | |
| | § Develop model that can be used to evaluate effectiveness of smart growth urban design strategies | S-TS | S-LU, S-TP, S-Econ, County, cities | | | > | > | | |
| | § Acquire visual simulation software that can be used to illustrate the outcomes of various transportation and land use strategies | S-TS | S-LU, S-TP, S-MM | | | > | > | | |

| | CATEGORY Strategic Initiative Project / Activity | LEAD AGENCIES* | OTHER PARTICIPANTS* | START DATE & DURATION BY FISCAL YEAR | | | | | |
|--|--|-------------------|--|--------------------------------------|----|----|----|----|----|
| | | | | 04 | 05 | 06 | 07 | 08 | 09 |
| | b. Develop traffic forecasting models to better predict trip generation rates and trip lengths, specifically as they relate to jobs and housing availability within defined regional and subregional areas | S-TS | S-TP, S-MM, S-LU, County, cities, Caltrans | | | > | > | | |

NEXT STEPS AND TOPICS TO CONSIDER IN FUTURE UPDATES TO THE RCP



As stated previously, the Regional Comprehensive Plan, although comprehensive as the title indicates, does not address all issues raised by citizens and agencies during the course of its preparation. A number of these remaining issues should be addressed in future updates to the RCP. A primary example is the relationship between schools and smart growth. As discussed in the Public Facilities chapter, while the planning and siting of

elementary and secondary schools and community colleges is primarily a responsibility of local school districts, and the planning and siting of public universities is primarily a state responsibility, these land use decisions have regional impacts and affect the viability of the success of smart growth. As a result, future updates to the RCP should address or expand upon peripheral issues related to land use and transportation that were not included in this initial version of the RCP.



Other topics that were raised for discussion in the planning and public review process that were not incorporated into this initial RCP but could be considered in future updates include the preparation of a public safety chapter addressing fire prevention, fire protection facilities, and crime prevention issues; an urban community forest chapter; greater coordination with school, fire, sewer, and water districts and emergency personnel; archaeological and cultural resources; communication technology; agriculture, as related to our economy, land use patterns, and transportation networks; and noise pollution and mitigation issues.

TABLE 9.1—GUIDELINES FOR STRENGTHENING THE LOCAL/ REGIONAL PLAN CONNECTION

| RCP GOALS AND POLICY OBJECTIVES | GENERAL PLAN / COMMUNITY PLAN | SMART GROWTH OPPORTUNITY AREAS (SGOA) |
|---|--|---|
| TRANSPORTATION | | |
| <ul style="list-style-type: none"> € Develop a flexible, sustainable, and well integrated transportation system that focuses on moving people and goods – not just vehicles € Implement the Regional Transportation Plan 2030 Mobility Network € Provide a wide range of convenient, efficient, and safe travel choices € Reduce traffic congestion on freeways and arterials | <ul style="list-style-type: none"> € Incorporate 2030 Mobility Network plans into Circulation Element € Include policies and strategies regarding transportation demand management (TDM) and transportation systems management (TSM) | <ul style="list-style-type: none"> € Incorporate all Circulation Element transportation facilities into specific plan for the SGOA € Include specific programs such as TDM and TSM strategies for SGOAs |
| <ul style="list-style-type: none"> € Develop a network of fast, convenient, high-quality transit services € Improve service levels and quality of transit service | <ul style="list-style-type: none"> € Include policies and strategies promoting use of transit priority measures | <ul style="list-style-type: none"> € Where appropriate, include plans for transit priority measures in SGOAs |
| <ul style="list-style-type: none"> € Create more walkable and bicycle-friendly communities consistent with good urban design concepts | <ul style="list-style-type: none"> € Include policies and strategies promoting pedestrian and bicycle use | <ul style="list-style-type: none"> € Include design guidelines and strategies to promote pedestrian and bicycle use in SGOAs |
| <ul style="list-style-type: none"> € Give priority to regional roadway and transit investments in Smart Growth Opportunity Areas (SGOAs), while recognizing the need for transportation improvements elsewhere in the region | <ul style="list-style-type: none"> € Include policies and strategies that give priority to transportation system improvements in SGOAs | <ul style="list-style-type: none"> € Include strategies to finance and construct necessary transportation system improvements concurrent with development in SGOAs |
| <ul style="list-style-type: none"> € Provide improved access to goods movement centers and intermodal facilities | <ul style="list-style-type: none"> € Include policies and strategies addressing goods movement | |
| <ul style="list-style-type: none"> € Improve connectivity of different transportation modes | <ul style="list-style-type: none"> € Include policies and strategies to improve intermodal connectivity | |

| RCP GOALS AND POLICY OBJECTIVES | GENERAL PLAN / COMMUNITY PLAN | SMART GROWTH OPPORTUNITY AREAS (SGOA) |
|---|--|---|
| URBAN FORM | | |
| <ul style="list-style-type: none"> € Focus future population and job growth away from rural areas and closer to existing and planned job centers and public facilities to preserve open space and to make more efficient use of existing urban infrastructure € Integrate the development of land use and transportation, recognizing their interdependence € Protect agricultural areas, natural systems, high-value habitat areas (as reflected in adopted habitat plans), and other open space areas that define the character of our communities | <ul style="list-style-type: none"> € Designate appropriate urban land uses in areas that are most accessible to existing and planned regional transportation facilities and other public facilities (i.e., SGOAs), using the smart growth categories included in the final RCP € Include policies and strategies to protect natural biological communities and wetlands from adverse effects of urban land uses, and to preserve natural features, such as canyons, and small parks in our urban areas | <ul style="list-style-type: none"> € Include policies and strategies to ensure that the appropriate mix and intensity of land use is achieved in SGOAs € Preserve urban habitat areas, such as canyons, in specific plans. € Provide for open space and nearby recreational opportunities in SGOAs |
| <ul style="list-style-type: none"> € Create safe, healthy, walkable, and vibrant communities that are designed and built to be accessible to people of all abilities € Preserve the positive aspects and unique sense of place of existing communities, while allowing flexibility for change | <ul style="list-style-type: none"> € Include policies and strategies that promote development of walkable communities, while recognizing the importance of preserving existing community character | <ul style="list-style-type: none"> € Include policies and guidelines to ensure that urban design within the SGOA meets regional and local goals within the context of local community character |
| <ul style="list-style-type: none"> € Place high priority on public facility investments that support compact, mixed use, accessible, walkable neighborhoods that are conveniently located to transit € Improve existing public facilities in Smart Growth Opportunity Areas to mitigate the impact of higher intensities of use € Facilitate redevelopment and infill development | <ul style="list-style-type: none"> € Include policies and strategies that place a high priority on providing adequate public facilities and services to SGOAs € Include policies and strategies to encourage redevelopment and infill development in SGOAs | <ul style="list-style-type: none"> € Include policies to ensure that adequate public facilities can be provided in or near the SGOA € Include policies that provide incentives for development or redevelopment in the SGOA |
| <ul style="list-style-type: none"> € Protect public health and safety by avoiding and/or mitigating incompatible land uses | <ul style="list-style-type: none"> € Include policies and strategies to address land use compatibility | |

| RCP GOALS AND POLICY OBJECTIVES | GENERAL PLAN / COMMUNITY PLAN | SMART GROWTH OPPORTUNITY AREAS (SGOA) |
|--|--|---|
| HOUSING | | |
| <ul style="list-style-type: none"> € Provide a variety of affordable and quality housing choices for people of all income levels and abilities throughout the region € Increase the effectiveness of housing element law, creating a more meaningful regional housing allocation process € Increase the supply and variety of housing choices, especially higher density multi-family housing, for residents of all ages and income levels € Provide incentives for local jurisdictions to meet their housing needs € Provide an adequate supply of housing for our region’s workforce to minimize projected interregional and long distance commuting € Increase opportunities for homeownership € Minimize the displacement of lower income and minority residents as housing costs rise when redevelopment and revitalization occurs | <ul style="list-style-type: none"> € Include an updated Housing Element that demonstrates consistency with the most recently adopted Regional Housing Needs Assessment € Include policies and strategies to provide housing for people of all income levels and abilities € Include policies and strategies to minimize displacement of residents when redevelopment and revitalization occurs € Include an updated Land Use Element that provides adequately planned and zoned land to meet housing needs identified in the Housing Element | <ul style="list-style-type: none"> € Provide incentives for additional housing capacity in SGOAs |
| <ul style="list-style-type: none"> € When developing both vacant land and redevelopment and infill sites, integrate housing with jobs, transit, schools, recreation, and services, creating more livable neighborhoods and diverse mixed use communities | <ul style="list-style-type: none"> € Include policies and strategies to ensure that an appropriate number and mix of housing units affordable to all income categories is included in plans for SGOAs | <ul style="list-style-type: none"> € Provide an adequate number and mix of housing units in the SGOA to help the jurisdiction meet its share of regional housing needs for all income categories |
| <ul style="list-style-type: none"> € Conserve and rehabilitate the existing housing stock € Provide safe, healthy, environmentally sound, and accessible housing for all segments of the population | <ul style="list-style-type: none"> € Include policies and strategies that promote maintenance of safe, healthy, environmentally sound, and accessible housing | |

| RCP GOALS AND POLICY OBJECTIVES | GENERAL PLAN / COMMUNITY PLAN | SMART GROWTH OPPORTUNITY AREAS (SGOA) |
|--|---|--|
| HEALTHY ENVIRONMENT | | |
| <ul style="list-style-type: none"> € Preserve and maintain natural biological communities and species native to the region € Protect agricultural lands for future crop production and for functions described in habitat conservation plans € Promote fire management techniques that are compatible with preservation of biological resources and reduce hazards to humans and their property | <ul style="list-style-type: none"> € Include policies, ordinances, and standards to regulate the use of land and conserve public resources, including open space and biological resources. € Include policies and strategies to preserve agricultural lands € Include fire management strategies to protect life and property while minimizing degradation of natural habitats | <ul style="list-style-type: none"> € Where applicable, provide for preservation of on-site natural biological communities and wetlands in accordance with adopted plans |
| <ul style="list-style-type: none"> € Restore, protect, and enhance the water quality and the beneficial uses of local coastal waters, inland surface waters, groundwaters, and wetlands € Reduce or eliminate pollutants at their source before they enter our region's water bodies € Protect local drinking water sources | <ul style="list-style-type: none"> € Include policies and strategies to minimize impact of new development and redevelopment on water quality € Include policies and strategies to eliminate or reduce existing sources of water pollution | <ul style="list-style-type: none"> € Provide for mitigation of water quality impacts |
| <ul style="list-style-type: none"> € Preserve and enhance the region's beaches and nearshore areas as environmental and recreational resources | <ul style="list-style-type: none"> € Where applicable, designate beaches and near shore areas for appropriate land uses € Include policies and strategies to preserve and enhance beaches and near shore areas | <ul style="list-style-type: none"> € Where applicable, ensure appropriate uses for designated beach and near shore areas |
| <ul style="list-style-type: none"> € Achieve and maintain federal and state clean air standards | <ul style="list-style-type: none"> € Include policies and strategies to minimize air pollution from stationary sources € Include policies and strategies to encourage energy-efficient design in new development and redevelopment | <ul style="list-style-type: none"> € Include strategies to implement regional and local air quality policies |

| RCP GOALS AND POLICY OBJECTIVES | GENERAL PLAN / COMMUNITY PLAN | SMART GROWTH OPPORTUNITY AREAS (SGOA) |
|--|---|--|
| ECONOMIC PROSPERITY | | |
| <ul style="list-style-type: none"> € Ensure a rising standard of living for all of our residents € Position the San Diego regional to better compete in the global economy € Produce more high-quality jobs in the region € Foster growth in the region’s emerging and high technology industries € Provide an adequate supply of housing for our region’s workforce and adequate sites to accommodate business expansion and retention | <ul style="list-style-type: none"> € Designate adequate land with appropriate zoning and services to meet future employment needs € Include policies and strategies that strengthen the connection between jobs and housing within a subregional or local context | <ul style="list-style-type: none"> € Ensure that the mix of residential and non-residential land uses within the SGOA is consistent with general plan goals and policies regarding jobs and housing connections |
| <ul style="list-style-type: none"> € Offer broad access to education and workforce development opportunities for all residents, with an emphasis on the economically disadvantaged, to foster shared economic prosperity | <ul style="list-style-type: none"> € Include policies that facilitate coordination with educational institutions in siting appropriate educational facilities | |
| <ul style="list-style-type: none"> € Improve the business environment | <ul style="list-style-type: none"> € Include policies and strategies that promote efficient regulatory processes and fee structures | <ul style="list-style-type: none"> € Provide incentives for development in SGOAs |

| RCP GOALS AND POLICY OBJECTIVES | GENERAL PLAN / COMMUNITY PLAN | SMART GROWTH OPPORTUNITY AREAS (SGOA) |
|--|--|---|
| PUBLIC FACILITIES | | |
| <ul style="list-style-type: none"> € Ensure a safe, sufficient, reliable, and cost-efficient water supply for the region | <ul style="list-style-type: none"> € Include policies and strategies to reduce water use and to use recycled water to the maximum extent possible | |
| <ul style="list-style-type: none"> € Meet the region’s energy needs in a fiscally and environmentally sound manner | <ul style="list-style-type: none"> € Include policies and strategies to reduce energy consumption | |
| <ul style="list-style-type: none"> € Minimize the need for additional landfills and provide economically and environmentally sound resource recovery, management, and disposal facilities € Exceed the state-mandated 50 percent waste stream diversion rate and work toward a 75 percent diversion rate | <ul style="list-style-type: none"> € Include policies and strategies to increase waste stream diversion in accordance with regional goals | <ul style="list-style-type: none"> € Provide bicycle and pedestrian paths in SGOAs |

| RCP GOALS AND POLICY OBJECTIVES | GENERAL PLAN / COMMUNITY PLAN | SMART GROWTH OPPORTUNITY AREAS (SGOA) |
|---|---|---|
| PUBLIC FACILITY FINANCING | | |
| <ul style="list-style-type: none"> € Regularly assess the ability of our infrastructure to handle change and maintain our quality of life € Align our infrastructure plans with our RCP goals and objectives | <ul style="list-style-type: none"> € Include general plan policies that include performance standards, an assessment of existing and projected deficiencies, and policies and strategies to mitigate deficiencies over time | |
| <ul style="list-style-type: none"> € Create a planning framework that coordinates and links long term visionary goals with shorter term capital expenditures across service providers € Directly link transportation and other infrastructure capital improvement programming to land use decisions that support the urban form and design goals in the RCP € Provide adequate infrastructure improvements prior to or concurrent with the population growth occurring in Smart Growth Opportunity Areas € Develop incentive based methods for prioritizing transportation and other infrastructure improvements to encourage changes that support the smart growth goals and objectives of the RCP € Ensure adequate funding to cover the capital, operational, and maintenance costs of the regional transportation system | <ul style="list-style-type: none"> € Include policies and strategies to ensure that capital improvement programs are consistent with priorities established in the general plan and community plans € Include policies and strategies that encourage capital improvement projects serving SGOAs € Include policies and strategies that require that adequate facilities be provided concurrent with need resulting from new development and redevelopment € Include policies and strategies to ensure that new development pays its fair share for regional transportation facilities through development impact fees or other measures set forth in regional plans and implementing programs | <ul style="list-style-type: none"> € Include policies to ensure that adequate public facilities can be provided in or near the SGOA € Include policies that provide incentives for development or redevelopment in the SGOA |

TABLE 9.2—ELEMENTS OF COORDINATED TRANSPORTATION / LAND USE STUDIES

| ITEM | CORRIDOR STUDY | SUBAREA STUDY | PROJECT DEVELOPMENT & IMPLEMENTATION |
|-----------------------|--|--|--|
| <p>Purpose</p> | <ul style="list-style-type: none"> (a) Refine 2030 Regional Transportation Plan (RTP) Network <ul style="list-style-type: none"> € High occupancy vehicle (HOV)/managed lanes (ML), general purpose lanes (GP), direct access ramps (DAR), regional grade separations (b) Refine Regional & Corridor transit routes (Yellow & Red Car services) (c) Identify deficient Congestion Management Program (CMP) freeway segments and determine capital improvement needs (d) Identify deficient or incomplete CMP arterial segments and deficient regional arterial system (RAS) segments (e) Utilize regional transportation demand management (TDM) assumptions (f) Determine 2030 needs and proposed phasing of improvements (2010/2020/2030) (g) Perform sensitivity analysis of Smart Growth Opportunity Areas (SGOAs) (h) Perform preliminary jobs-housing analysis | <ul style="list-style-type: none"> (a) Identify operational improvements for main lanes and interchanges <ul style="list-style-type: none"> € Auxiliary/passing lanes, ramp metering (b) Develop transit network plan (Yellow, Red, Blue, & Green Car services) and phasing priorities, station locations, bicycle facilities, and walkable community concepts (c) Determine operational improvements for deficient CMP freeway segments (d) Determine capital and operational improvements for deficient CMP arterial segments and deficient RAS segments (e) Identify local TDM programs and assumptions (f) Determine 2030 needs and proposed phasing of improvements (2010/2020/2030) (g) Perform sensitivity analysis of SGOAs (h) Perform sensitivity analysis of proposed changes to general and specific plans (i) If jobs-housing issues are identified, conduct jobs-housing accessibility analysis | <ul style="list-style-type: none"> (a) Perform advance planning, environmental/preliminary engineering, final design (b) Determine funding sources (c) Determine project phasing, based on need, financing and timing of related transportation projects and land use development (d) Develop detailed transit service plan (including feeder services) based on network plan and budget constraints |

| ITEM | CORRIDOR STUDY | SUBAREA STUDY | PROJECT DEVELOPMENT & IMPLEMENTATION |
|---|--|---|---|
| Growth Forecasts and Land Use Inputs | (a) 2030 Adopted Growth Forecast (b) Smart Growth Opportunity Areas (SGOA) | (a) 2030 Adopted Growth Forecast (b) Smart Growth Opportunity Areas (SGOA) (c) Proposed land use changes to general and specific plans | Commitments for specific SGOA land use development proposals |
| Environmental Analysis | Preliminary Environmental Assessment Report (PEAR) | Level of environmental review to be defined in consultation with study participants on a case-by-case basis | Final environmental analysis and required documents |
| Public Involvement & Outreach | (a) Technical Working Group includes members from community planning, business, major activity center, & environmental interest groups, local jurisdictions, and transportation providers (b) Public outreach to minority & low income groups (c) Open houses held at initial screening of alternatives and at selection of preferred strategy | (a) Technical Working Group includes members from community planning, business, major activity center, environmental interest groups, user groups, local jurisdictions, and transportation providers (b) Public outreach to minority & low income groups (c) Community workshops held at key milestones | (a) Project Development Group includes members from community planning, business, major activity center, & environmental interest groups, user groups, local jurisdictions, and transportation providers (b) Public outreach to minority & low income groups (c) Community workshops held at key milestones |
| Deliverable(s): Primary | Recommended Corridor Transportation Improvement Strategy € Caltrans Project Initiation Document (PID) € Update to future RTP € Freeway Deficiency Plans | (a) Refined subregional/local land use and transportation improvement strategy € Caltrans Advanced PID (b) Proposed Land Use changes/ refinements/ commitments (c) Subarea implementation plan | (a) Environmental documents/approvals (b) Preliminary engineering/final design plans (c) Financing plan |

| ITEM | CORRIDOR STUDY | SUBAREA STUDY | PROJECT DEVELOPMENT & IMPLEMENTATION |
|-------------------------|---|---|--------------------------------------|
| <p>Secondary</p> | <p>(a) Recommendations for issues/projects to be addressed in subregional studies (b) Recommendations for short-term projects for implementation</p> | <p>(a) List of projects eligible for evaluation with regional criteria (b) Priority inputs to the Regional Transportation Improvement Program (RTIP) and Short Range Transit Plan (S RTP) (c) Project feedback into future RTP or corridor analyses</p> | |

APPENDIX 1

RCP Glossary of Terms

2030 Mobility Network

The highway and arterial network in the **MOBILITY 2030** Regional Transportation Plan, which completes the missing links in the freeway system and provides a system of connected and free-flowing managed/high occupancy vehicle lanes integrated with new or improved high-quality transit services.

Acre

43,560 square feet (about the size of a football field).

Acre Foot (AF)

The volume of water necessary to cover one acre to a depth of one foot, equal to 43,560 cubic feet or 325,851 gallons, or 1,233 cubic meters.

Action

Activities or strategies carried out to achieve a **goal** or **policy objective**.

Affordable Housing

Homes that are built with the assistance of state, federal, and local subsidies and that have rents or sales prices that are “affordable” to **low, very low, and extremely low income households**. Typically, to be affordable, the housing costs (including utilities) should not exceed 30 percent of household income.

Agricultural Land

Land that is designated for growing crops or raising livestock.

Air Basin

A land area with generally similar meteorological and geographic conditions throughout.

Air Quality

A measure of health and visibility-related characteristics of air.

Aqueduct

A pipe or channel for moving water, often across a great distance.

Aquifer

A layer of permeable rock, sand, or gravel through which groundwater flows, containing enough water to supply wells and springs.

Arterials

Signalized streets that serve primarily through traffic and provide access to abutting properties as a secondary function.

Beneficial Uses

Uses of water necessary for the survival or well-being of humans, plants, and animals.

Best Management Practices (BMPs)

Conservation practices or systems of practices and management measures that control soil loss and reduce water quality degradation caused by nutrients, animal waste, toxins, and **sediment**.

Binational

Issues related to the San Diego border with Mexico, the State of Baja California, and its municipalities.

Biota

The combined **flora and fauna** of a region.

Borders Region

The San Diego region and its surrounding Counties of Orange, Riverside, and Imperial, the tribal government reservations, and Mexico.

Buffer

An area of land designed or managed for the purpose of separating and insulating two or more land areas whose uses conflict or are incompatible.

Bus Rapid Transit

Corridor-level services providing fast, frequent transit service, with priority treatment on highways and arterials to achieve higher speeds. Service, quality, speed, and customer amenities are similar to the San Diego Trolley.

Capital Improvement

A non-recurring expenditure or any expenditure for physical improvements that typically have a useful life of multiple years.

Capital Improvement Program (CIP)

A list of **capital improvement** projects, usually over a five to seven year period, to be undertaken by a local jurisdiction or agency.

Carpool

An arrangement in which two or more people share the use and cost of privately-owned automobiles in traveling together to and from prearranged destinations, typically between home and work or home and school.

Carsharing

Organized short-term auto rental, often located in downtown areas near public **transit** as well as near residential communities and employment centers. Car sharing organizations operate fleets of rental vehicles that are available for short trips by members who pay a subscription fee plus a per trip charge.

Community Based Organization

A nonprofit organization, which is representative of a community or significant segments of a community.

Community Plan

More specific versions of **General Plans**, generally dealing with smaller geographical areas, but having the same force of law.

Commute

A trip between home and work or school.

Commuter

A person who travels regularly between home and work or school.

Commuter Rail

Conventional rail passenger service within a metropolitan area, usually operating over existing, inter-city railroad tracks. Service is normally provided by a diesel locomotive pulling three (or more) passenger coaches, with service primarily in the morning and afternoon home-to-work travel periods.

Compacts

Agreements among RCP **stakeholders** to implement key actions identified in the plan.

Composting

The transformation of organic material (such as kitchen or garden waste) through decomposition into a soil-like material called compost. Invertebrates (insects and earthworms), and microorganisms (bacteria and fungi) help in transforming the material into compost, which can be used as a soil fertilizer.

Condominiums

For-sale **multifamily housing**.

Congestion

Travel time or delay in excess of that normally experienced under free-flow traffic conditions.

Congestion Management Agency (CMA)

A countywide agency responsible for preparing and implementing a **Congestion Management Program** (CMP). SANDAG is the San Diego region's CMA.

Congestion Management Program (CMP)

Required of every county in California with a population of 50,000 or more to qualify for certain state and federal funds. CMPs set performance standards for roads and **public transit**, and show how local agencies will attempt to meet those standards. The CMP is required to be adopted by the **Congestion Management Agency** (CMA) and must be consistent with the adopted **Regional Transportation Plan** (RTP).

Conservation

The protection, preservation, management, or restoration of wildlife and of natural resources such as forests, soil, and water.

Council of Governments (COG)

A voluntary organization of local governments that strives for comprehensive, regional planning. SANDAG is the COG in the San Diego region.

Density

The number of housing units built on a site. Density is usually defined by the number of “dwelling units per acre (du/**acre**),” meaning the number of dwelling units (houses, condominiums, or apartments) that are built or can be built on one **acre**.

Density Bonus

The allocation of development rights that allows a parcel to accommodate additional square footage or additional residential units beyond the maximum for which the parcel is zoned, given when the developer agrees to set aside a portion of the development for **affordable** or senior housing.

Developable Land

Land that is suitable as a location for structures and that can be developed free of hazards to, and without disruption of, or significant impact on, natural resource areas.

Development Impact Fee

A fee charged to private developers, usually on a per dwelling unit or per square foot basis, to help pay for **infrastructure** improvements necessitated as a result of the development.

Distributed Generation

Involves small amounts of generation located on a utility’s distribution system for the purpose of meeting local (substation level) peak loads and/or displacing the need to build additional (or upgrade) local distribution lines.

Energy Portfolio

The types of energy sources that are available to a region.

Ecosystem

A system formed by the interaction of a community of organisms with their physical environment

Environmental Impact Report (EIR)

A detailed statement prepared under the California Environmental Quality Act (CEQA) describing and analyzing the significant environmental effects of a project and discussing ways to mitigate or avoid the effects. The term EIR may mean either a draft or a final Environmental Impact Report depending on the context.

Environmental Justice

Ensuring that plans, policies, and actions do not disproportionately negatively affect **low income** and **minority** communities.

Estuary

The wide lower course of a river where the tide flows in, causing fresh and salt water to mix.

Fine Particulates

Airborne particles that are 10 micrometers or less in diameter, including naturally occurring dust as well as soot, smoke, liquid droplets and other particles emitted by vehicles, factories, power plants, construction and other human activities.

Flex-Time

An arrangement by which employees may set their own work schedules, especially their starting and finishing hours.

Flora and Fauna

Plants and animals particular to a region.

Freeway

Multi-lane divided roadway, grade separated from other roadways, with full control access and egress.

General Plan

A policy document required of cities and counties by state law that describes a jurisdiction's future development in general terms in text and map form. It is the document from which all local **land use** decisions must derive. The General Plan contains a set of broad policy statements about the goals for the jurisdiction and must contain seven mandatory elements: Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety. Optional elements also are identified by law.

Geothermal Energy

Natural heat from within the earth, captured for production of electric power, space heating, or industrial steam.

Goal

A general, overall, and ultimate purpose.

Goods Movement Centers

Transfer center for containers or bulk products, such as a marine terminal, where goods are loaded from ships to rail or truck.

Green Building

Practices that consider the effects of buildings on the local, regional, and global environment, energy and water efficiency, reduction of operation and maintenance costs, minimization of construction waste, and eliminating the use of harmful building materials.

Groundwater

Water that is found below the Earth's surface within **aquifers** and extracted for potable use either for demineralization treatment or directly through residential wells.

Growth Management

The use by a community of a wide range of techniques in combination to determine the amount, type, and rate of development desired by the community and to channel that growth into designated areas.

Habitat

The combination of environmental conditions of a specific place occupied by a **species** or a population of such **species**.

Habitat Corridor

A component of the preserve system established under the **habitat** conservation plans, consisting of large blocks of conserved habitat capable of sustaining species over time.

Heavy Rail

Railroad services that operate on conventional railroad tracks. Heavy rail services include freight trains, Amtrak, Commuter Rail, and most conventional rail transit systems.

High Occupancy Vehicle (HOV)

A vehicle that carries more than one occupant. Examples include **carpools**, **vanpools**, shuttles, and buses.

High Occupancy Vehicle Lane (HOV Lane)

Exclusive road or traffic lane limited to **HOVs** that typically has a higher operating speed and lower traffic volumes than a general purpose or mixed flow lane. In California, vehicles that typically can use HOV lanes include carpools, vanpools, buses, other multi-passenger vehicles, and motorcycles and emergency vehicles.

High Speed Rail

Railroad passenger service that, as defined by California state law, operates at maximum speeds of over 200 miles per hour. Because of the speed, high speed rail normally operates on inter-city (longer) routes and HSR vehicles may not meet federal heavy rail crash standards.

Highway

A general term usually referring to a state or federally-designated urban or rural route, designed to accommodate longer trips in the region.

Horizontal Integration

When a company expands its business into different products that are similar to current lines. For the IRIS, horizontal integration refers to the coordination and collaboration across, and between multiple infrastructure providers.

Household

All people living in a housing unit, regardless of whether they are related to each other.

Household Formation Rates

The proportion of the population heading households in each age group.

Housing, Market Rate

Housing that is not price or income restricted. Although some market rate housing may be affordable to **lower income households**, there is no guarantee of this affordability and the rent or sales price can increase or decrease with changes in the housing market.

Housing, Multifamily

A structure that houses three or more families, living independently of each other, in which each unit has its own kitchen.

Housing, Single Family

A detached structure, including a mobile home or manufactured dwelling unit, containing only one kitchen and used to house not more than one family.

I-15 FasTrak™

The I-15 FasTrak Program uses electronic toll collection technology to employ dynamic pricing that allows solo drivers to use the lanes for a fee. The net revenues generated by the program are used to improve **transit** and **carpool** services in the I-15 corridor.

I-15 Interregional Partnership (IRP)

The I-15 IRP is a voluntary partnership of local officials representing SANDAG and the Western Riverside Council of Governments (WRCOG). The I-15 IRP is working to identify and prioritize issues as well as recommend short- and long-term solutions related to the jobs/housing imbalance and traffic congestion along the north I-15 corridor.

Impervious Surface

Any surface which cannot be effectively (easily) penetrated by water; examples include sidewalks, roads, parking lots, rooftops, and compact soils.

Imported Water Supplies

A water supply which lies outside the region of San Diego County and that requires transport into San Diego County.

Income, Extremely Low

The income category of a **household** earning 30 percent or less of area median income.

Income, Lower

Includes **Low**, **Very Low**, and **Extremely Low income households**.

Income, Low

The income category of a **household** earning between 51 – 80 percent of area median income, adjusted for household size.

Income, Moderate

The income category of a **household** earning between 81 – 120 percent of area median income, adjusted for household size.

Income, Very Low

The income category of a **household** earning 50 percent or less of area median income, adjusted for **household** size.

Indicators

A measure of accomplishment or lack of accomplishment.

Industry Clusters

Groups of complementary, competing, and interdependent industries that drive wealth creation in a region. Traded, export-oriented clusters are the economic engine of the local economy, bringing new money in from outside of the region.

Infill Development

Development that intensifies the existing use of a site. For instance, infill development occurs when new homes are built on a lot that already has housing sited on it.

Infrastructure

Infrastructure refers to the basic facilities, services, and installations needed for a community to function, such as transportation and communications systems, water and power lines, **transit** systems, roads, schools, parks, libraries, housing, **open space**, and others.

Intermodal

Passenger or freight transportation services that involve or use more than one type of transportation facility (or mode). Aviation, automobile, rail, and **transit** are travel modes.

Intermodal Facilities

Transfer center between transportation **modes** for people or goods. For example, a center where a person would transfer from train to **trolley** or train to truck.

Interregional

For the purpose of the RCP this term refers to those issues related to the San Diego neighboring counties of Orange, Riverside, and Imperial.

Jurisdiction

A local government entity; either an incorporated city or a county.

Lagoon

A coastal body of shallow water formed where low-lying rock, sand, or coral presents a partial barrier to the open sea.

Land Use

The types of buildings and activities existing in an area or on a specific site.

Level of Service (LOS)

A qualitative measure describing operational conditions within a traffic stream and motorists' perception of those conditions. LOS ratings typically range from LOS A, which represents free flow conditions to LOS F, which is characterized by forced flow, heavy congestion, stop and go traffic, and long queues forming behind breakdown points.

Light Rail Transit (LRT)

A type of **transit** vehicle and service that uses steel wheels and operates over railroad tracks. LRT systems generally serve stations averaging one-mile apart, are not remotely controlled, and can operate in a separated right-of-way or on public streets. The San Diego Trolley is a LRT system.

Managed Lanes

Freeway lanes on which the number of vehicles using the facility can be limited, and/or where the direction of the lanes can be changed. Examples include the Coronado Bay Bridge and the I-15 median.

Maquiladora

Usually a U.S. or foreign owned manufacturing facility operating in Mexico. The maquiladora industry was established in Mexico in the late 1960s to create jobs demanded by the increasing border population and to bring the Mexican national production system to the international market, by allowing the temporary importation of supplies, machinery, and equipment necessary to produce goods and services.

Metropolitan Planning Agency (MPO)

A federally-designated agency that is responsible for regional transportation planning in each metropolitan area. SANDAG is the MPO for the San Diego region.

Migration, Domestic

Movement of people from one place to another within a country where the move crosses an administrative boundary such as a state or county.

Migration, Foreign

Movement of people from one country to another.

Minority

According to federal guidelines, minority groups include the following populations: Black or African American, Asian, American Indian or Alaskan Native, and Native Hawaiian or Other Pacific Islander. In addition, persons of Hispanic ethnicity also are considered a minority group.

Mitigation

Actions taken to avoid or minimize a development's impacts.

Mixed Use Development

Projects where more than one use is located within a building or development area. Mixed use projects may include any combination of houses, **condominiums**, apartments, as well as offices, shops, recreational facilities, and medical, commercial, or light industrial buildings.

MOBILITY 2030

SANDAG's \$42 billion long range **Regional Transportation Plan (RTP)**, which lays out a proposed regional transportation network to the year 2030 that includes **highways, regional arterials**, and regional **transit** service, as well as **transportation system management** and **transportation demand management** programs.

Mode

One of various forms of transportation, including automobile, **transit**, bicycle, walking, aviation, and rail.

Multi-Modal

Corridors or locations involving several **modes** of travel.

Multiple Habitat Conservation Program

A comprehensive **habitat** preservation planning program which addresses multiple species habitat needs and preservation of natural communities in northwestern San Diego County.

Multiple Species Conservation Program

A comprehensive habitat preservation planning program which addresses multiple species **habitat** needs and preservation of natural communities in central, southwestern, and southeastern San Diego County.

Nonmotorized Transportation

Transportation that does not involve a motorized vehicle, such as bicycling and walking.

Non-Potable Water

Water not treated to a level for drinking purposes.

North American Free Trade Agreement (NAFTA)

A formal agreement between Canada, Mexico, and the United States to promote means for improved and increased free trade between the three countries.

Open Space

Areas of land not covered by structures, driveways, or parking lots.

Off-Peak Periods

The times of day when the least concentration of vehicles or **transit** riders are on the road or using transit. These times are generally before 6:00 a.m., between 9:00 a.m. and 3:00p.m., and after 6:00 p.m.

Paratransit

Specialized, curb-to-curb transportation service, typically geared toward seniors and people with disabilities who are not able to ride fixed-route **transit**.

Park and Ride

A travel option where commuters park their personal vehicles in a publicly provided lot or other location, and continue their trip via **carpool, vanpool, or transit**.

Particulate Matter (PM)

Particulate matter is the generic term used for a type of air pollution that consists of complex and varying mixtures of particles suspended in the air including dust, dirt, soot, smoke, and liquid droplets.

Peak Periods

The times of day when the highest concentration of vehicles or **transit** riders are on the road or using transit, generally between 6:00 and 9:00 a.m. and 3:00 and 6:00 p.m.

Per Capita Income

The mean income computed for every man, woman, and child in a geographic area. It is derived by dividing the total income of all people 15 years old and over in a geographic area by the total population in that area.

Policy Objective

A specific statement of principle or of guiding actions that imply clear commitment.

Pollutants, Non-Point Source

Pollutants that originate from diffuse sources and are the result of man's use or disturbances of land. The two most important non-point sources of pollution are urbanization and agriculture.

Pollutants, Point Source

Any discernable or discrete conveyance (e.g., pipe, channel, or outfall) from which pollutants are, or may be, discharged. In other words, point source pollution originates from an identifiable "point" of waste release.

Potable Water

Water suitable for drinking water purposes.

Public Facility

A facility that is financed by public revenues and available for use by the public.

Public Transportation

See **Transit**

Reclaimed Water

Municipal **wastewater** that has been treated and disinfected for non-potable reuse. Also known as recycled water.

Recreation, Active

A type of recreation or activity that requires the use of organized play areas including, but not limited to, softball, baseball, football and soccer fields, tennis and basketball courts, and various forms of children's play equipment.

Recreation, Passive

Type of recreation or activity that does not require the use of organized play areas.

Redevelopment

Development that is different than the existing or planned use for a site. For instance, redevelopment occurs when housing is built on a site that was previously in a commercial use.

Regional Air Quality Strategy (RAQS)

The San Diego County Air Pollution Control District developed the Regional Air Quality Strategy (RAQS) pursuant to California Clean Air Act requirements. It identifies emission control measures to provide expeditious progress toward attaining the state ozone standard.

Regional Arterial System (RAS)

A 777-mile network of arterials defined in *MOBILITY 2030*.

Regionally Significant Transportation Network

A 343-mile subset of the RAS defined in *MOBILITY 2030*.

Reservoir

A large tank or natural or artificial lake used for collecting and storing water for human consumption or agricultural use.

Ridesharing

A **mode** of travel where at least two individuals share the same vehicle to get to their destination. Rideshare vehicles include private automobiles and privately owned and operated vans and buses, as well as **public transportation**.

Regional Transportation Improvement Program (RTIP)

A three- to seven-year listing of major **highway, transit, and nonmotorized** projects including project costs, funding sources, and development schedules. Compiled from priority lists submitted by local jurisdictions and transportation agencies.

Regional Transportation Plan (RTP)

A minimum 20-year plan that is required by state and federal law to guide the development of the region's transportation system. The RTP is updated every three years. SANDAG's current RTP is *MOBILITY 2030*.

Runoff, Stormwater

Stormwater that enters water conveyance systems or water bodies.

Runoff, Urban

All discharges from **stormwater** conveyance systems into water bodies. Urban runoff usually includes **stormwater** as well as wastes generated by human activities.

Salinity

Containing salt.

Seawater Desalination

The overall treatment process by which highly pressurized seawater is taken through a series of membrane filters to remove salts and produce a **potable** water supply.

Sector, Private

Privately owned businesses and organizations.

Sector, Public

Businesses and organizations controlled by the government.

Sediment

Solid fragments of inorganic or organic material that come from the weathering of rock and are carried and deposited by wind, water, or ice.

Smart Growth

A compact, efficient, and environmentally-sensitive pattern of development that provides people with additional travel, housing, and employment choices by focusing future growth away from rural areas and closer to existing and planned job centers and **public facilities**, while preserving open space and natural resources.

Smart Growth Opportunity Areas

Locations where compact urban development makes sense from a local and regional transportation/land use perspective.

Smog

A form of air pollution produced by the photochemical reaction of sunlight with hydrocarbons and nitrogen oxides that have been released into the atmosphere, especially by automotive emissions.

Social Equity

Ensuring that all communities are treated fairly and are given equal opportunities to participate in the planning process.

Solid Waste

Any unwanted or discarded material that is not a liquid or gas. Includes organic wastes, paper products, metals, glass, plastics, cloth, brick, rock, soil, leather, rubber, yard wastes, and wood, but does not include sewage and hazardous materials.

Species

A class of individuals having common attributes and designated by a common name

Stakeholders

Persons or organizations with an interest in the development or outcome of the Regional Comprehensive Plan (RCP) or other regional planning programs.

State Transportation Improvement Program (STIP)

A multi-year program of major transportation projects to be funded by the state. The California Transportation Commission (CTC) adopts the STIP every two years based on projects proposed in

Regional Transportation Improvement Programs and from the California Department of Transportation (Caltrans).

Stormwater

Water from rain or melting snow that doesn't soak into the ground. The key factor in determining if a discharge is a "stormwater" or "non-stormwater" is based entirely on whether or not the discharge originated from a precipitation event. Only discharges originating from precipitation events are stormwater.

Strategic Initiatives

Prioritized sets of related actions that could be undertaken by various groups of **stakeholders** to implement some of the key concepts contained in the Regional Comprehensive Plan (RCP).

Subregion

A geographic area that is smaller than the San Diego region but larger than a single local **jurisdiction** or service provider.

Surface Transportation Program (STP)

A federal program that provides flexible funding allocated by regional agencies like SANDAG for a wide range of projects including highways, transit, local streets and roads, and bicycles.

Sustainability

Simultaneously meeting our current economic, environmental, and community needs while also ensuring that we aren't jeopardizing the ability of future generations to meet their needs.

Telecommuting or Telework

Conducting paid work activities from home or a remote site other than at the normal work site in order to avoid commuting during **peak periods**.

Transit

Travel by **bus**, **light rail**, **heavy rail**, or other vehicle, either publicly or privately owned, which provides general or specialized service on a regular or continuing basis.

Transit Oriented Development (TOD)

A compact land use pattern with housing, public parks and plazas, jobs, and services located along key points on a **transit** system in order to maximize transit use.

TransNet

A half-cent local sales tax approved by San Diego region voters in 1987. Administered by SANDAG, this 20-year program provides billions of dollars in revenue to help fund **public transit**, **highways**, and local streets and roads projects. The current *TransNet* sales tax expires in 2008.

Transportation Corridor

A broad geographical band that follows a general directional flow connecting major trip origins and destinations. A corridor may contain a number of streets, **highways**, and **transit** route alignments.

Transportation Demand Management

Programs to reduce demand by automobiles on the transportation system, such as **telecommuting**, **flextime**, bicycling, walking, **transit** use, staggered work hours, and **ridesharing**.

Transportation System Management

Strategies that allow transportation systems to operate to maximize the number of persons traveling in a corridor or facility. These strategies include traffic flow improvements, ramp metering, and park-and-ride lots.

Universal Design

The practice of designing all products, buildings, and exterior spaces to be usable to all people to the greatest extent possible, regardless of age or physical ability. Examples include placing light switches in a location where they can be reached by both a sitting and a standing user, presenting information both visually and audibly, and designing all hallways to be wide enough to accommodate a wheelchair or walker.

Urban Form

How and where the region grows, characterized by both the spatial distribution of development and the design features of development and neighborhoods.

Vacancy Rates

The percentage of units that are vacant within a housing market.

Vanpool

A vehicle operating as a **ridesharing** arrangement, providing transportation to a group of individuals traveling directly between their homes and a regular destination within the same geographic area. Vanpool vehicles have a minimum seating capacity of seven passengers, including the driver.

Vehicle Miles Traveled (VMT)

The total number of miles traveled on all roadways by all vehicles.

Vertical Integration

When a company participates in more than one successive stage of the production or distribution process. For the IRIS, vertical integration refers to the coordination between long term planning strategies and short term capital improvement budgets.

Vision

An ideal about what we want to become.

Wastewater

Water that has been used, as for washing, flushing, or in a manufacturing process, and so contains waste products; sewage.

Water Conveyance System

Systems that move water from one place to another

Water Recycling

The treatment and disinfection of municipal **wastewater** to provide a water supply suitable for **non-potable** reuse.

Watershed

A hydrologic geographic area in which waters, solids, and dissolved materials flow to a common outlet such as a point on a larger stream, a lake or underlying aquifer, an enclosed bay, and estuary, or the Pacific Ocean.

Zoning

The division of a city or county by legislative regulations into areas, or zones, which specify allowable uses for real property and size restrictions for buildings within these areas; a program that implements policies of the General Plan.

APPENDIX 2

RCP Acronyms and Abbreviations

ACT: All Congregations Together

A-DA: Able Disabled Advocacy

ADMICARGA: *Administradora de la Via Corta Tijuana-Tecate* (Administrator of the Tijuana-Tecate Short Line)

AEA: American Electronics Association

AF: Acre-feet of water

AIM: *Asociación de la Industria Maquiladora* (Maquiladora Industry Association)

APCD: Air Pollution Control District

ARCB: Air Resources Control Board

BECC: Borders Environment Cooperation Commission

BEIG: Border Energy Issues Group

BIA: Bureau of Indian Affairs

BIA: Building Industry Association

BICE: Bureau of Immigration and Customs Protection

BLM: Bureau of Land Management

BMPs: Best Management Practices

BNSF: Burlington Northern Santa Fe

BRASS: Border Release Advance Screening and Selectivity

BTSD: Border and Transportation Security Directorate

BTTAC: Bi-State Transportation Technical Advisory Committee

CaIHFA: California Housing Finance Agency

Caltrans: California Department of Transportation

CARB: California Air Resources Board

CBP: Bureau of Customs and Border Protection of the Department of Homeland Security

CEA: *Comisión Estatal del Agua* (Baja California's State Water Commission)

CEQA: California Environmental Quality Act

CESPT: *Comisión Estatal de Servicios Públicos de Tijuana* (Tijuana's State Water Utilities Commission)

CHSRA: California High Speed Rail Authority

CIP: Capital Improvement Program

CMA: Congestion Management Agency

CMP: Congestion Management Plan

CNA: *Comisión Nacional del Agua* (Mexico's National Water Commission)

COBRO: Committee on Binational Regional Opportunities

COG: Council of Governments

CSU: California State University

CTC: California Transportation Commission

CWA: San Diego County Water Authority

DFG: California Department of Fish and Game

DHS: U.S. Department of Homeland Security

DOD: U.S. Department of Defense

DOI: U.S. Department of the Interior

DOT: U.S. Department of Transportation

EDC: San Diego Regional Economic Development Corporation

EDD: California Employment Development Department

EPA: U.S. Environmental Protection Agency

EPRD: Emergency Preparedness and Response Directorate

FAA: Federal Aviation Administration

FAST: Free and Secure Trade

FHWA: Federal Highway Administration

FTA: Federal Transit Administration

GAO: U.S. General Accounting Office

GRP: Gross Regional Product

GSA: General Services Administration

HCD: California Department of Housing and Community Development

HOI: Housing Opportunity Index

HOV: High Occupancy Vehicle

HUD: U.S. Department of Housing and Urban Development

IAIP: Information Analysis and Infrastructure Protection

I-Bank: California Infrastructure and Development Bank

IBWC: International Boundary and Water Commission

IID: Imperial Irrigation District

IRIS: Integrated Regional Infrastructure Strategy

IRP: I-15 Interregional Partnership between San Diego and Western Riverside Counties

IRR: Indian Reservation Roads Program

IWTP: International Wastewater Treatment Plant

LAO: California Legislative Analyst's Office

LAFCO: Local Agency Formation Commission

LOSSAN: Los Angeles-San Diego-San Luis Obispo Rail Corridor Agency

LRT: Light Rail Transit

MHCP: Multiple Habitat Conservation Program

MCAS Miramar: Marine Corps Air Station Miramar

MCRD: Marine Corps Recruit Depot Group

MOBILITY 2030: SANDAG's Regional Transportation Plan

MPO: Metropolitan Planning Organization

MSCP: Multiple Species Conservation Program

MS4: Municipal Separate Storm Sewer Systems

MTDB: Metropolitan Transit Development Board

MWD: Metropolitan Water District

NAACP: National Association for the Advancement of Colored People

NAAQS: National Ambient Air Quality Standards

NADBank: North American Development Bank

NAFTA: North American Free Trade Agreement

NCCP: Natural Community Conservation Planning Act

NCTD: North County Transit District

NEPA: National Environmental Policy Act

NPDES: National Pollutant Discharge Elimination System

O&M: Operations and Maintenance

OES: Unified San Diego County Emergency Services Organization, Office of Emergency Services

PUC: Public Utilities Commission

RAQS: Regional Air Quality Strategy

RCP: Regional Comprehensive Plan

REPS: Regional Economic Prosperity Strategy

RES: Regional Energy Strategy

RGMS: Regional Growth Management Strategy

RIS: Regional Information System

RWQCB: Regional Water Quality Control Board

RTA: San Diego Regional Technology Alliance

RTC: Regional Transportation Commission

RTIP: Regional Transportation Improvement Program

RTP: Regional Transportation Plan

RTPA: Regional Transportation Planning Agency

RTV: Regional Transit Vision

SANDAG: San Diego Association of Governments

SCAG: Southern California Association of Governments

SD&AE: San Diego & Arizona Eastern Railway

SDCRAA: San Diego County Regional Airport Authority

SDCWA: San Diego County Water Authority

SDG&E: San Diego Gas and Electric

SDIV: San Diego and Imperial Valley Railway

SDIA: San Diego International Airport

SDREO: San Diego Regional Energy Office

SDSU: San Diego State University

SDUPD: San Diego Unified Port District

SENTRI: Secure Electronic Network for Traveler's Rapid Inspection

SIDUE: *Secretaría de Desarrollo Urbano y Ecología de Baja California* (Baja California's Secretary of Urban Development and Ecology)

SRTP: Short Range Transit Plan

STD: Science and Technology Directorate

STP: Surface Transportation Program

STIP: State Transportation Improvement Program

SWG: SANDAG's Regional Planning Stakeholders Working Group

SWMP: Storm Water Management Plan

TAZ: Traffic Analysis Zone

TWG: SANDAG's Regional Planning Technical Working Group

UCSD: University of California, San Diego

UPAC: Union of Pan Asian Communities

USD: University of San Diego

U.S. FWS: U.S. Fish & Wildlife Service

VMT: Vehicle Miles Traveled

WFP: San Diego Workforce Partnership

WRCOG: Western Riverside Council of Governments

WURMP: Watershed Urban Runoff Management Program

APPENDIX 3

Public Involvement and Outreach

INTRODUCTION

Public participation and public involvement have served as the foundation for the development of SANDAG's Regional Comprehensive Plan (RCP). SANDAG developed and implemented a program to ensure diverse and extensive input to the RCP from people throughout the region including the region's residents, elected officials, city and county representatives, and other stakeholders.

The goals of the public involvement program were to raise awareness of the Regional Comprehensive Plan, secure feedback on the vision and core values, and engage the public in providing input on policies and actions to be included in the plan.

A five pronged approach was implemented:

- § Create a Regional Planning Committee consisting of local elected officials from throughout the region to spearhead the preparation of the RCP, provide policy direction on key planning issues, and make recommendations to the SANDAG Board of Directors.
- § Establish a Stakeholders Working Group to compliment the existing Technical Working Group (planning directors from throughout the region) to provide recommendations to the Regional Planning Committee on RCP issues.
- § Hold public workshops throughout the region at key stages of the plan.
- § Issue grants to community-based organizations to extend the community outreach effort.
- § Inform stakeholders and interested residents through newsletters, workshop invites, Web site updates, e-mail outreach, and presentations.

REGIONAL PLANNING COMMITTEE AND ITS STAKEHOLDERS AND TECHNICAL WORKING GROUPS

In early 2002, the SANDAG Board of Directors created a Regional Planning Committee to spearhead the preparation of the RCP. The Regional Planning Committee, which consists of elected officials and appointed advisory members from throughout the region, initially received recommendations primarily from the Technical Working Group, a long-standing working group consisting of planning directors from throughout the region. In November 2002, the Regional Planning Committee established the Stakeholders Working Group, which included representatives from business, community, environmental, social service, and other organizations. The Stakeholders and Technical Working Groups provided recommendations on key aspects of the RCP and provided assistance in preparing the draft chapters of the RCP. The chairs of both working groups represented their groups at the Regional Planning Committee meetings. Additionally, both groups were instrumental in planning for and assisting with the second and third rounds of RCP workshops discussed below.

The Regional Planning Committee and Working Groups help monthly public meetings during the preparation of the RCP to provide input and direction as the plan evolved. The three groups met jointly twice toward the end of the preparation process to ensure issues, topics, and concerns from each group were reflected and addressed in the final RCP. During the two-year preparation of the RCP, together the planning committee and two working groups held more than 75 public meetings that included agenda items, reports, or discussion of major concepts, policies, and strategies for preparing the Regional Comprehensive Plan. Representatives of each of these groups made regular presentations at SANDAG Board meetings to keep Directors informed and to solicit feedback on the direction of the RCP.

PUBLIC WORKSHOPS

A first round of public workshops was held in January through March 2003 and attracted nearly 600 residents, leaders and members of advocacy groups, elected officials, and representatives from Mexico. The seven workshops were designed to solicit input regarding the content of the RCP, and encouraged workshop attendees to consider essential questions and issues that affect our region's land use, transportation, environment, housing, jobs, and economy. Participants' input resulted in a significantly-improved regional vision and set of core values for the San Diego region, included in the Vision and Core Values chapter of the RCP.

A second round of workshops was held in September and October 2003 to secure input on draft policies and actions for the Regional Comprehensive Plan. More than 500 people attended the series of six workshops.

A third round of workshops was held in April 2004 for residents to provide public comment on the Regional Comprehensive Plan and the draft Environmental Impact Report.

First Round of Public Workshops (January – March 2003)

SANDAG enlisted consultant assistance from Jane Mobley and Associates (JMA), a full-service advertising and public relations agency that specializes in developing and implementing public involvement programs. JMA was involved with staff in developing and implementing seven workshops held from January through March 2003. JMA created a comprehensive, strategic public outreach and involvement program with public workshops, public involvement training for SANDAG staff and the Stakeholders Working Group, and strategic consulting on the public outreach process. JMA also developed advertising to announce the public workshop schedule which was placed in key community and regional newspapers.

A customized, interactive workshop was developed that included a Question and Answer session where the audience used electronic devices similar to a television remote control to offer their opinions about key regional issues, including a proposed draft regional vision and core values. The electronic results were tabulated instantly allowing the participants and SANDAG to gauge public opinion. Each workshop also included roundtable sessions and collateral, interactive workshop materials to engage participants in critical thinking and problem solving on six key regional issues: Housing, Transportation, Healthy Ecosystems, Borders, Economy and Public Facilities, Urban Form. Workshop materials were provided in English and Spanish. Bilingual (English/Spanish) staff participated in each workshop and translation services were provided at two of the workshops. The final workshop was conducted in both English and Spanish.

Second Round of Public Workshops (September – October 2003)

The second round of workshops was held in September and October. The workshops focused on obtaining input on the draft goals, policy objectives, and potential actions to be included in the RCP. Attendees at the workshops included local elected officials, members of the Stakeholders and Technical Working Groups, participants from community-based organizations, youth ambassadors, and the public. More than 400 residents participated in this round of workshops.

The workshops were hosted in partnership with SANDAG member agencies and local organizations including: All Congregations Together, American Institute of Architects – San Diego Chapter, American Planning Association – San Diego Section, Barrio Station, Cal State San Marcos, Council of Design Professionals, El Cajon Community Development Corporation, Endangered Habitats League, League of Women Voters of San Diego County, North San Diego County NAACP, San Diego Housing Federation, San Diego Regional Economic Development Corporation, San Diego State University, Sierra Club, and University of California, San Diego.

Youth ambassadors made introductory speeches about their generation's viewpoints and hopes for the future. Workshop attendees were then asked to participate in two exercises. The first exercise requested participants to place "blue dots" next to the draft goals and policy objectives that they felt were the most important in the regional context. Participants also were asked to add goals and policy objectives that they felt were needed to help meet the vision and core values, or to comment on the proposed goals and policy objectives.

The second exercise featured group discussions on the potential actions to be included in the RCP. Participants were given a "Feedback Form" that contained the potential actions and were requested to participate in at least two of the following station discussions: Housing and Urban Form, Healthy Environment, Transportation, or Economic Prosperity and Public Facilities. Actions on borders issues were integrated into each of the stations, as appropriate. All materials were provided in both English and Spanish. Comments were compiled and were incorporated into chapters of the draft RCP where applicable.

Results of the "Blue Dot" Exercise

The purpose of the "blue dot" exercise was to see if the general public agreed with the goals and policy objectives, to determine if any goals and policy objectives needed to be added, and to see if any goals or policy objectives did not resonate well with the public.

The cumulative results of the workshops indicated that the goals and policy objectives were accepted by most of the workshop participants; and that additional policy objectives should be included in the RCP. The participants did not reject any of the proposed goals and policy objectives.

The results also indicated that the participants placed a particularly high priority on resolving transportation and environmental issues in conjunction with addressing urban form and housing issues. These results are consistent with the results of Quality of Life Surveys that SANDAG has conducted in recent years.

Results of the “Feedback Form” Exercise

The purpose of the “feedback form” exercise was to solicit comments on the actions proposed for the RCP. The actions were rated on a scale between 1 and 5, with 1 being not at all effective and 5 being most effective. The results indicated an overall validation of the proposed actions by the workshop participants, since all of the actions scored at least a 3; no action scored a 1 or a 2. The participants also were asked to provide comments on each proposed action, and provide new actions that they felt should be included in the RCP.

Summary of Written Responses

The following major themes or ideas emerged from comments that were brought up at more than one station:

1. *Outreach.* A running theme throughout the workshops was the need to educate the public on the advantages of smart growth and various smart growth principles. Government cannot do it all; individuals have responsibilities as well.
2. *Seniors.* Our population is aging; the needs of seniors need to be considered in decisions regarding housing and transportation.
3. *Population growth.* We need to discuss the impacts of additional people in the region.
4. *Schools and Universities.* The availability and quality of schools affects smart growth decisions. Also, the hours of operation affect traffic; changing school and university hours could help with traffic congestion.
5. *Leadership.* Smart growth principles need leadership to be implemented.
6. *Timing.* Workshop participants were reluctant to support smart growth principles without guarantees that infrastructure (schools, transit, etc.) will be in place when the development is built.
7. *Infrastructure is costly.* Government does not have the resources to build and maintain infrastructure; with this knowledge, it was difficult for the public to support new private development without additional revenues to meet the infrastructure needs of new development.
8. *Comprehensive approach.* The RCP should develop actions that integrate housing, transit, jobs, economic prosperity, and the preservation of open space. These actions have a better chance of success if it is shown how they can accomplish more than one objective.

This feedback was incorporated into chapters and actions of the draft RCP. Other comments received through public involvement efforts have been posted on the SANDAG Web site.

Third Round of Public Workshops (April 2004)

The third, and final, round of workshops was held in April 2004 and focused on receiving input from the public on the draft RCP and the draft Environmental Impact Report (EIR). The Regional Planning Committee and its Stakeholders and Technical Working Groups (SWG and TWG) helped design the workshop content and organization and were present at the workshops to interact with the public. The third round of workshops was designed in an “open house” format to provide an informal setting where residents could ask questions, discuss issues, and offer comments and feedback on the draft RCP and draft EIR. These workshops presented another opportunity for residents to come together as a community to weigh in on important issues that will affect our region’s future.

Six workshops were held throughout the region in the cities of Encinitas, Vista, San Diego, Chula Vista, El Cajon, and Oceanside. Attendance by local elected officials, members of the SWG and TWG, and the public was approximately 100 participants.

Four stations were set up to help guide the public to particular areas of interest. The “ABCs of the RCP” station was designed to provide general information about the RCP for those residents who were new to the process and not familiar with the RCP. A PowerPoint presentation was provided to guide participants through the document. The “Vision for the Future” station provided an overview of the many different topics covered by the RCP. The station covered the heart of the RCP and how the plan addresses major regional issues in the future. The “How Do We Get There?” station focused on the implementation program; how the region will put the plan in action. And finally, a station was set up to answer questions and receive input on the draft EIR. Comment cards were available at each station for participants to provide written comments. Also, a court reporter was at each workshop to record residents’ oral comments. Approximately 70 comments were received at the workshops. Staff reviewed the comments and modified the draft RCP, as necessary, to reflect the comments.

COMMUNITY BASED OUTREACH

Another key component of the public involvement program was the distribution of mini-grants to five community-based organizations to assist SANDAG in outreach to residents that traditionally have not been involved in regional planning (e.g., minorities, seniors, low income, and other selected populations). The organizations conducted outreach activities to secure public involvement from stakeholders in their communities, to engage community-based participation in setting regional priorities, and to generate feedback on the Regional Comprehensive Plan.

A Request for Proposals was conducted in early 2003 and minigrants were awarded based on innovativeness of proposal and community served resulting in regional representation. The grants ranged from \$5,000 to \$7,000, and were funded through an Environmental Justice/Social Equity grant from Caltrans.

The objectives of the community-based outreach program were to:

- § Collaborate with community based organizations to extend public outreach and involvement with groups that traditionally have not been involved in the regional planning process,
- § Increase participation of minorities, low income, disabled, and other communities in the preparation of the Regional Comprehensive Plan, and

- § Identify and address priorities of a broad range of communities in the Regional Comprehensive Plan.

Organization representatives received orientation on key areas of the Regional Comprehensive Plan, the RCP development process, and the issues where SANDAG was requesting feedback from the communities. SANDAG also worked with the agencies to develop presentation materials for the community outreach efforts. These organizations conducted outreach activities from June through October 2003.

The five community-based organizations are established leaders within the communities they serve and throughout the region. The organizations work directly with persons with disabilities, Hispanic, African-American, Asian, low-income, and other communities throughout the San Diego region.

A number of activities were coordinated by the organizations to secure involvement from residents. Public workshops, small group meetings, computer-based surveys, and other activities resulted in feedback from more than 1,100 residents throughout the region.

Many of the responses supported the proposed actions and policy objectives. While some recommendations were focused on a particular challenge in that community, they have regional application. A clear message from all the groups was to expand opportunities for community members to participate in planning and decision-making in their communities, with their schools, and with other elected officials and decision-makers.

Comments and feedback also emphasized that the high priority issues in the RCP may not respond to the immediate physical, social, economic, and environmental challenges facing communities in the region.

Following is a description of each organization and the communities they serve, and a summary of comments received through the organizations' public involvement efforts. Complete reports are available from SANDAG.

Able-Disabled Advocacy (A-DA)

Outreach to persons with disabilities in Central/Metro San Diego, South County, North County, and East County. A-DA received 131 responses to a survey prepared for the clientele they work with. A-DA surveyed clients at its four intake centers in the region and distributed the survey via the Internet to reach a wider audience. A-DA also conducted four focus groups at its intake centers to secure input on the RCP.

Transportation

Remote areas of North and East County provide challenges for residents with disabilities. North County residents must walk great distances to catch a bus. Those who do own a car cannot afford the current high gas prices.

In East County, feedback from Native Americans showed that transportation "affordability" was secondary to public transportation "availability." Native Americans living in Santa Ysabel have to drive into Ramona (more than 35 miles away). Very few own cars. Lack of public transportation in

rural communities severely affects their ability to find work, or pursue higher education or advanced job training.

Healthcare

Most agreed that Healthcare should be a stand-alone Core Value. For individuals with severe disabilities, the lack of healthcare is the major deterrent to them seeking work and becoming employed.

Telecommuting

Too few people have computers or access to computers to make this a reasonable option. They also do not have sufficient training to use a computer.

Employment

North and East County residents have difficulty accessing employment services. An electronic One-Stop center is not close to public transportation for rural folks. And if you can access an electronic center, you still need computer experience.

Accessibility

Most felt it should be a stand-alone Core Value. Accessibility includes:

- § Availability of services close to housing
- § Physical barrier-free access for all
- § Job site accommodations
- § Transportation availability and technology to transport all disability groups

Recommendations

- § As the plan evolves, continue to reach out to new audiences
- § Keep language simple
- § Make information accessible in alternative and bilingual formats
- § Establish a bilingual hotline; many people are more comfortable voicing their opinions and concerns privately

All Congregations Together (ACT)

Outreach to lower income communities in National City, Lemon Grove, and the city of San Diego neighborhoods of Webster, Lincoln Park, Oak Park, Chollas View, Emerald Hills, North Encanto, South Encanto, Valencia Park, and Mt. Hope.

ACT held community meetings with youth, seniors, and the general public. One of the key issues that emerged from the meetings was the need to have “voices heard” by elected officials at cities, transit agencies, and school district. Participants at these workshops also reported an interest in hearing more directly from appropriate agencies about changes and plans for the community. A summary of issues is listed below.

Housing

- § Rent control
- § Security deposits reduced for seniors
- § Low income subsidized housing
- § More housing
- § Wheel chair access in housing
- § Child play area/Larger recreation facilities staffed by city personnel
- § Schools in community

Urban Form

- § Community needs assessment surveys
- § Transportation system to meet community needs
- § More jobs in community
- § Libraries with more computers
- § Accessibility to public restrooms
- § More restaurants and history museums, movie theaters, bowling alleys, motels, hotels in local communities

Economy/Public Facilities

- § More Post Offices
- § Livable wages on jobs
- § Technical/Vocational schools in community
- § Need for high tech technology libraries in the community

Healthy Ecosystems

- § Utilize recycled water for community greenery
- § Maintain a healthy environmental balance
- § Cleaner water
- § Solar energy
- § Cleaner fuel efficiency

Transportation

- § Community survey to address transportation needs
- § Increase peak hours of bus/trolley service
- § Refurbish transportation hubs to include public restroom facilities, food courts, transit sites for purchasing bus passes, etc.
- § Affordable transportation other than for medical
- § More funding
- § Additional benches at the bus stops

Borders

- § Increase security
- § Analyze traffic conditions to establish carpool lanes and/or toll roads.
- § Better water systems/more sewage plants (work with Mexico)
- § Coordination with Mexico for better sewage through education
- § Coordinate laws with Mexico to allow Americans to purchase medications

Barrio Station

Outreach to residents in Barrio Logan, Logan Heights, and those involved in the Logan Heights Leadership Council, Guadalupe Area Residents Council, Guadalupe Parish Council, Padres Unidos del Barrio, Latino Youth Soccer League, Barrio Logan Cesar E. Chavez Committee, and Barrio Logan Project Advisory Committee (PAC). Outreach conducted in English and Spanish.

A committee was convened of stakeholders from the communities surrounding Barrio Station. They discussed and reviewed the vision and core values of the Regional Comprehensive Plan and developed recommendations that were discussed at a "Community Convention" with more than 150 participants. Following is a summary of the major comments. A summary of comments is listed below.

Housing

- § Rent control legislation
- § Research rent regulations in other states (cities) to explore possibilities
- § Stricter penalties for slumlords (landlords who do not provide repairs, keep building up to code, eliminate pest infestations)
- § Advocate for legislation to protect tenants from inhumane treatment, unlawful eviction, degenerating conditions
- § Develop smaller complexes
- § Establish funds and provide multilingual assistance to educate and assist first-time homebuyers

Transportation

- § Deter I-5 corridor freeway development through Barrio Logan.
- § Freeze public transportation fares
- § Discontinue 18-wheeler, gasoline, cement, and other trucks from entering Barrio Logan and Logan Heights

Urban Form

- § Stronger monitoring, security, and maintenance of public parks and restrooms

***National Association for the Advancement of Colored People (NAACP)
North San Diego County***

Outreach to African American, Latino, and low-income residents in Oceanside, Vista, San Marcos, and other North San Diego County communities. Outreach was conducted in English and Spanish. The NAACP established a team to work with minority-based organizations in Oceanside, Carlsbad, Vista, San Marcos, Escondido and Poway. The outreach team also solicited feedback from attendees and participants at community events.

Challenges/Issues

- § Lack of affordable housing
- § High rents
- § Unsafe conditions in our neighborhoods...sidewalks, crosswalks, bus lanes
- § Slow or no housing approval
- § Qualifying issues...understanding credit, requirements to buy, housing/rent conditions
- § Rent control
- § More parks and recreation
- § Traffic bad near schools
- § Fines for bad housing upkeep in our neighborhoods
- § More housing near jobs
- § Public transportation bad, not on time, not enough choices
- § No businesses in Fallbrook and Vista communities
- § Difficulty of border crossing
- § Exploiting cheap Mexican labor

Solutions

- § Offer incentives to developers to build affordable housing
- § Increase tax credits to developers of affordable housing
- § Walkable neighborhoods
- § Incentives for car pooling
- § More trees
- § Hold landlords accountable for slums
- § Create playgrounds
- § Stop discrimination
- § Offer small home business training
- § Wages to reflect housing cost
- § Toll roads

Following are the summarized comments from African American communities regarding the RCP topic areas. NAACP outreach reached 300 African-American residents.

Challenge/Issues

- § Lack of affordable housing
- § Rent control

- § Lack of street cleaning
- § Security deposits lowered for seniors
- § Faster public transportation, need for punctuality
- § More parks, Recreation centers, Team sports
- § Post office and DMV long lines
- § Technical and computer training for our seniors

Solutions

- § Provide home buying seminars in communities
- § Subsidize low rent buildings
- § Promote hiring in own communities
- § Raise wages to meet housing cost
- § Plant trees
- § Encourage working from home
- § Provide start up money for home business
- § Ticket landlords, home owners for slumming
- § Build public libraries in community
- § Encourage large stores to build in our neighborhoods
- § 24 hour public transportation
- § Free vocational training in our communities

Union of Pan Asian Communities (UPAC)

Outreach to Asian American and Pacific Islander communities including Cambodian, Chinese, Hmong, Lao, Pilipino, Samoan, and Vietnamese. Geographic areas include National City, City Heights, Linda Vista, Chollas View, Paradise Hills, Mira Mesa, and Kearny Mesa. Outreach conducted in English and Asian languages as appropriate.

UPAC conducted seven community forums in six Asian languages; Cambodian, Chinese (Cantonese and Chieu Chau), Hmong, Lao, Tagalog, Vietnamese, and English. The forums were held in Mid-City, City Heights, College Area, Linda Vista, and National City, and attended by 144 San Diego residents. A summary of comments is listed below.

Safe Communities

- § Without gangs, drugs, police harassment
- § All people are protected by our government leaders, communities where laws are respected and followed
- § Security guards at parks
- § Alcohol-free beaches

Beautiful Communities

- § More playgrounds, parks, blooming flowers, trees, recreational facilities
- § No power lines
- § Redevelop downtown San Diego

- § No visible power lines in National City
- § Preserve natural beauty of San Diego

Affordable Communities

- § Low cost housing
- § Attainable jobs
- § Senior housing
- § Rent control
- § Lower cost of living
- § Affordable, high quality child care
- § No additional cost for recycling

Social Equity

- § More and better educational and job opportunities
- § Interpreters to help people
- § Homeless shelters and services
- § Redevelop neighborhoods in decline
- § Low cost housing
- § Senior homes
- § More hospitals in neighborhoods
- § High quality childcare center
- § Equal opportunity for the poor

Clean Communities

- § No smog
- § Reduce traffic

ADVERTISING AND MEDIA RELATIONS

A coordinated advertising and media relations effort resulted in numerous editorials, news articles, and publicity for the Regional Comprehensive Plan and the public workshops. To promote the public workshops held in January to March 2003, advertising was placed in the Chula Vista Star News, Daily Transcript, East County Californian, Filipino Press, La Prensa, North County Times, Ramona Sentinel, San Diego Seniors, and San Diego Voice & Viewpoint. These publications were selected to reach key areas and ethnic communities in the region.

Continuum, a newsletter highlighting the RCP, announcing workshops, and promoting public input, was distributed in the Winter, Spring, and Fall 2003 and in Winter 2004. Each newsletter was distributed to more than 3,500 residents. The newsletter also is available on the SANDAG Web site.

From January 2003 to May 2004, more than 30 opinion pieces, news articles, and workshop notices appeared in local and regional newspapers including The San Diego Union-Tribune, North County Times, Daily Transcript, San Diego Business Journal, La Prensa, Chula Vista Star News, and the Riverside Press-Enterprise.

More than 3,000 stakeholders were reached electronically through “rEgion,” SANDAG’s monthly electronic newsletter as well as a custom listserv that is distributed to stakeholders interested in regional planning issues. Updates on the Regional Comprehensive Plan and opportunities to get involved are distributed regularly. In addition, Web pages on SANDAG’s Web site are dedicated to the Regional Comprehensive Plan and the public involvement effort. These pages are updated frequently with public meeting notices, workshop information, and feedback requests on elements of the Regional Comprehensive Plan.

PUBLIC PRESENTATIONS

SANDAG Board members and staff made numerous presentations about the Regional Comprehensive Plan to city councils, community, business, and education organizations, planning and design professionals, and other organizations. These presentations generated awareness of the plan, provided feedback on key concepts, and resulted in additional participation from stakeholders in the region.

From January to April, after the draft RCP was released for review and comment, SANDAG Directors, Regional Planning Committee members, and/or staff made presentations to city councils or committees in almost all 19 jurisdictions as well as to over forty groups and organizations throughout the region.

PUBLIC REVIEW AND COMMENT

Following a process of engaging the public in the preparation of the Regional Comprehensive Plan, in December 2003, SANDAG released the draft plan for formal public review and comment. In March 2004, SANDAG released the draft Program Environmental Impact Report (EIR). Feedback on these documents was solicited via direct mail, e-mail, as well as at public hearings, presentations, and other events. Over 700 comments were received on the draft RCP and over 350 comments were received on the draft EIR. All comments and responses are posted at www.sandag.org/rcp or are available by contacting SANDAG’s Public Information Office at (619) 699-1950.