



# DRAFT TRANSPORTATION CONFORMITY ANALYSIS

A Presentation to the Transportation Conformity Working Group  
November 17, 2015

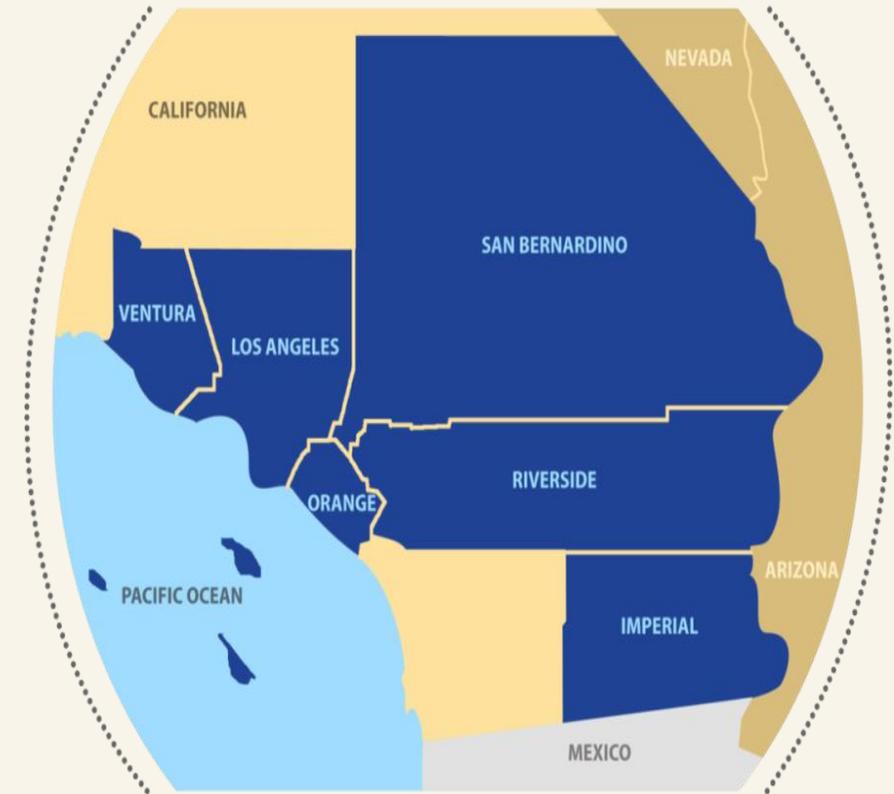
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# Presentation Outline

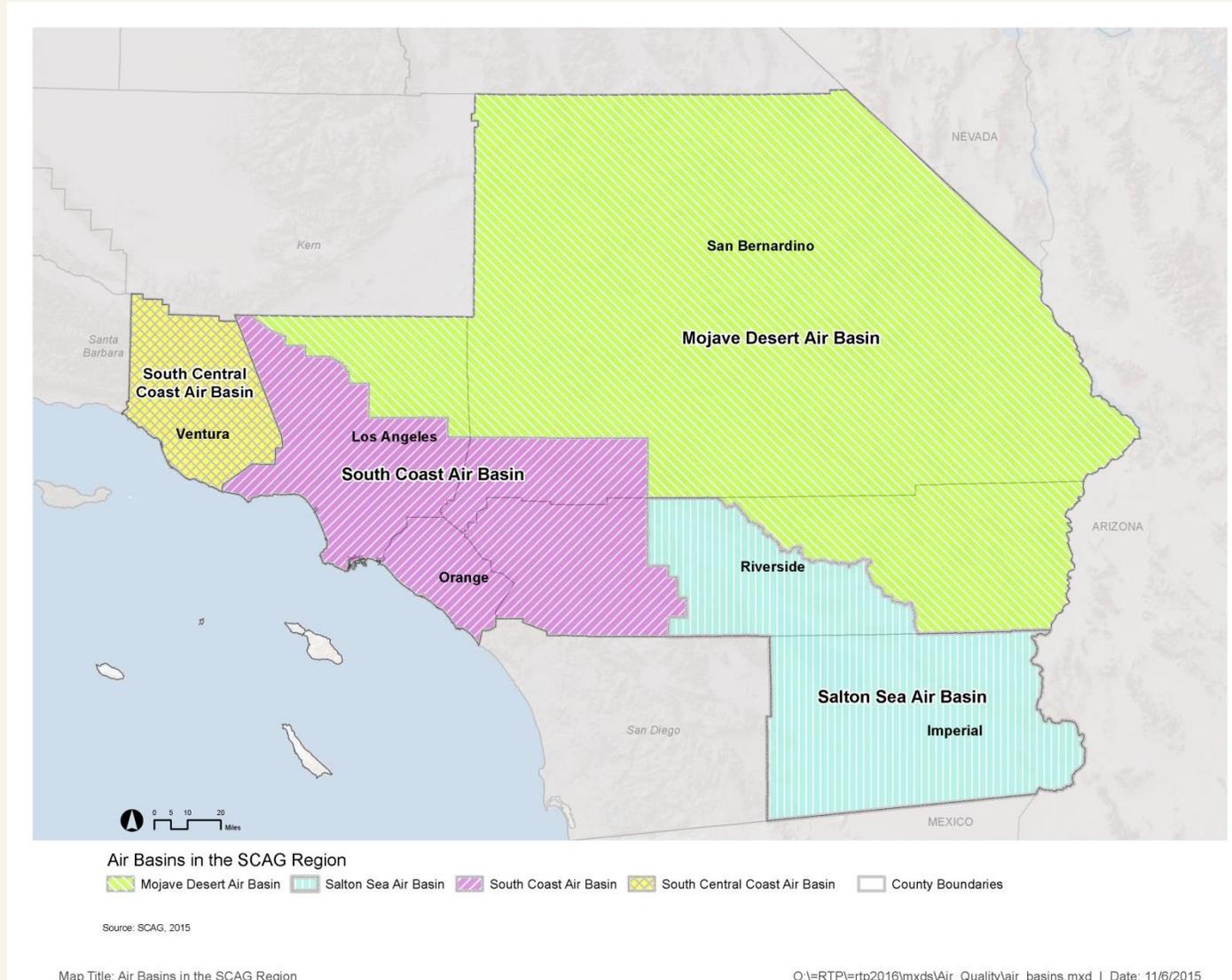
- **Background**
- Regional Emissions Analysis
- Fiscal Constraint Analysis
- Timely Implementation of TCMs Analysis
- Interagency Consultation and Public Involvement Analysis
- Transportation Conformity Findings
- Next Steps

# SCAG Region

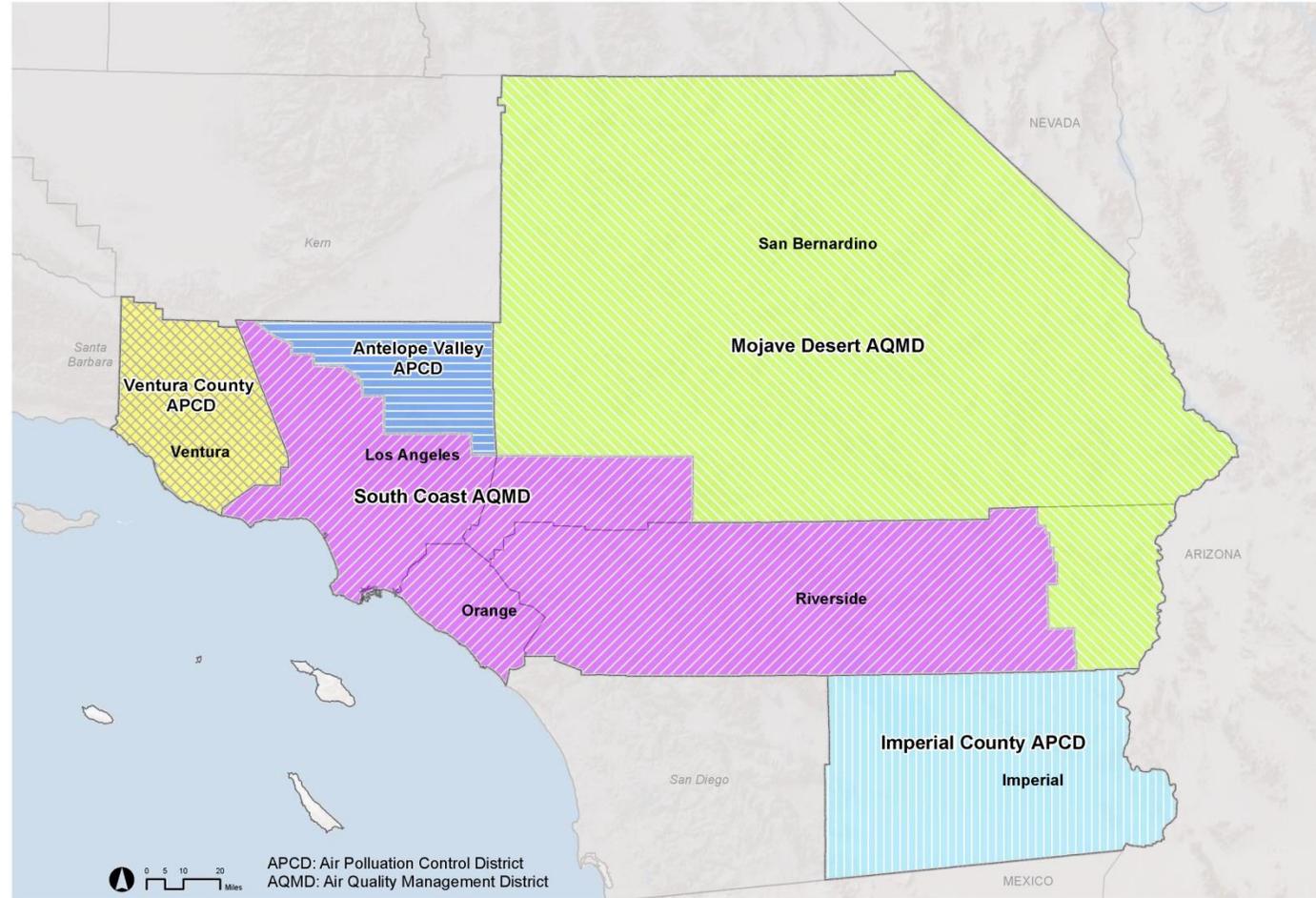
- **Six Counties, 15 Subregions, and 191 Cities**
- **Four Air Basins**
- **Five Air Districts**
- **19 Nonattainment and Maintenance Areas**



# Four Air Basins



# Five Air Districts



## Air Districts in the SCAG Region

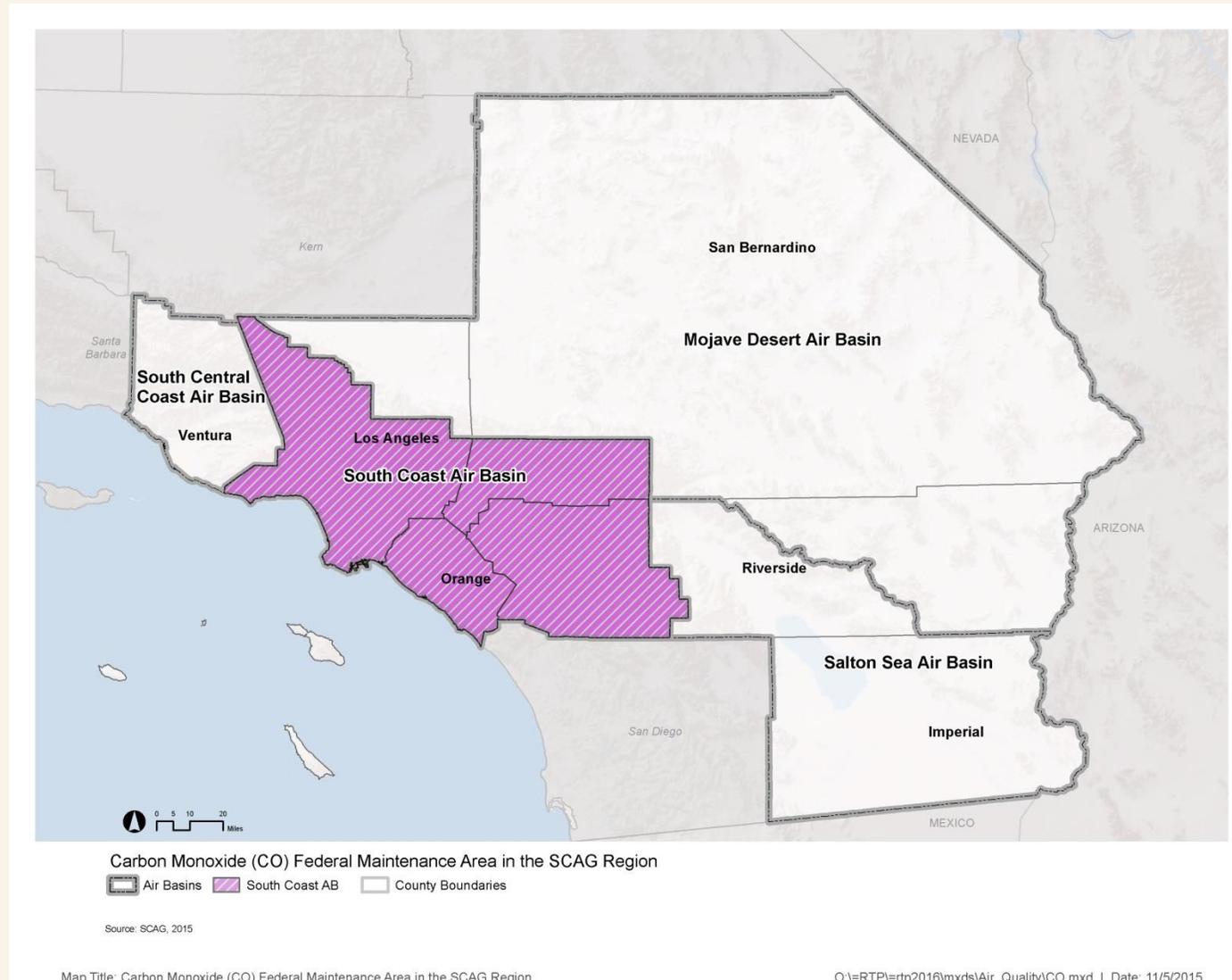
AVAPCD ICAPCD MDAQMD SCAQMD VCAPCD County Boundaries

Source: SCAG, 2015

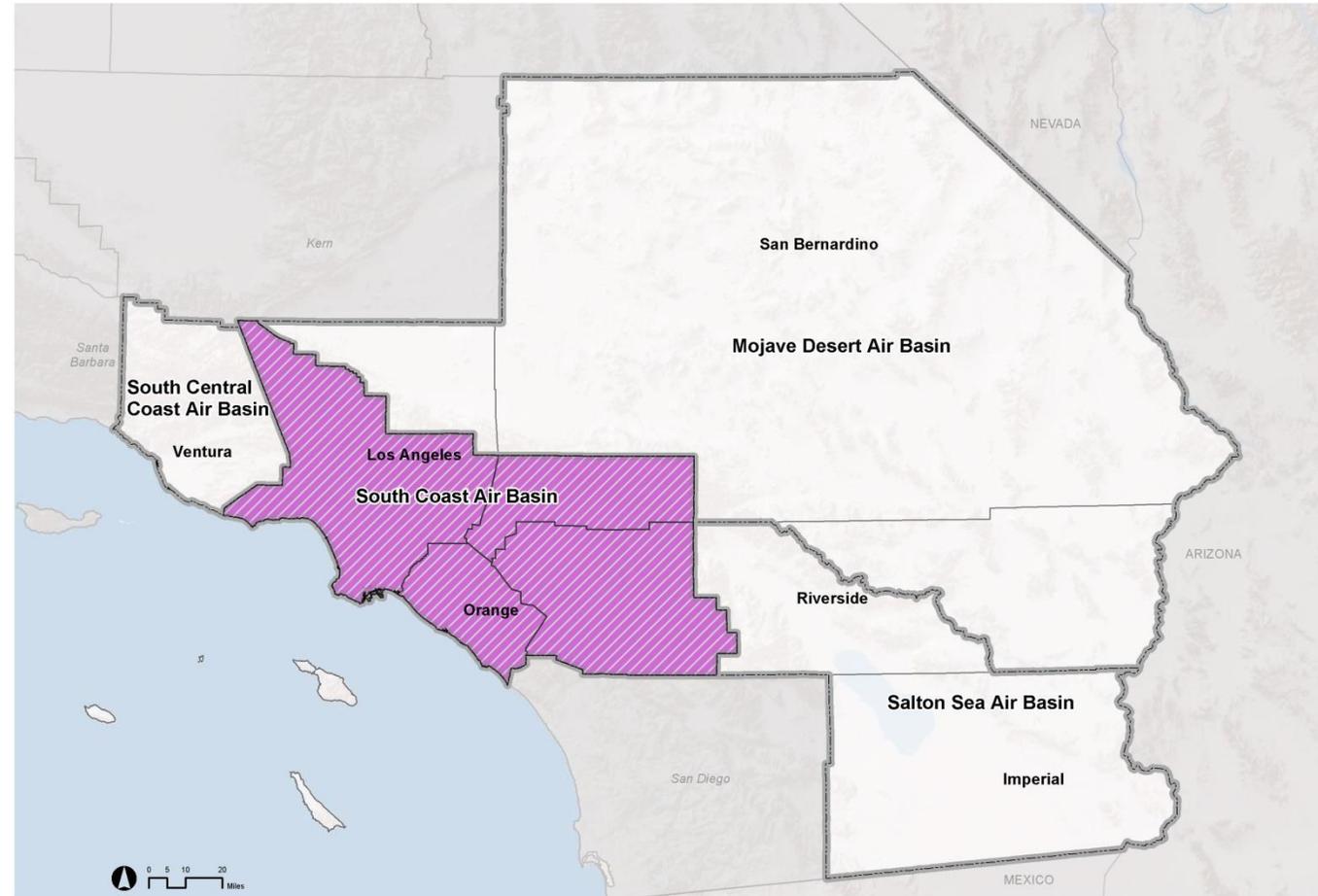
Map Title: Air Districts in the SCAG Region

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# One CO Maintenance Area



# One NO<sub>2</sub> Maintenance Area

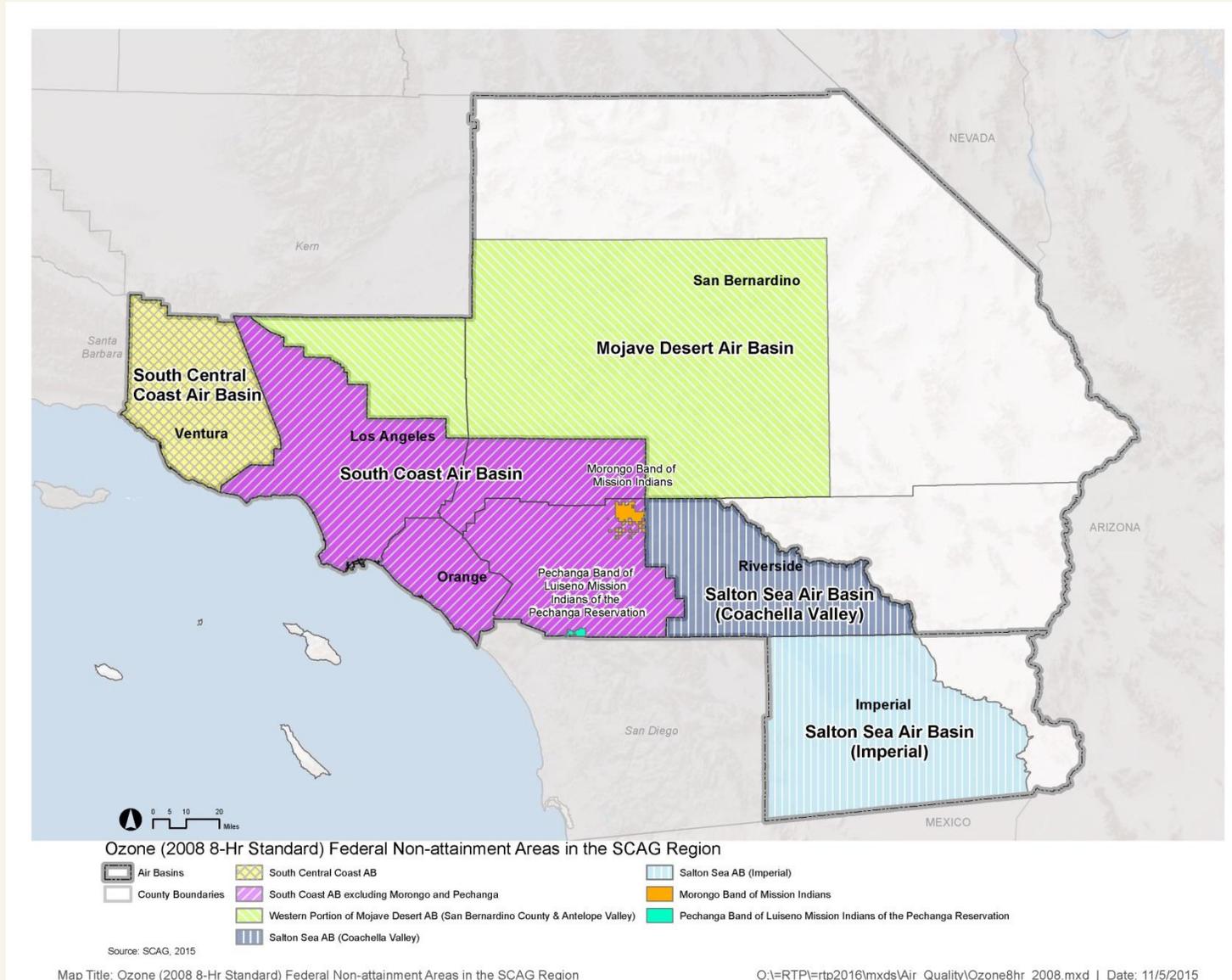


Nitrogen Dioxide (NO<sub>2</sub>) Federal Maintenance Area in the SCAG Region

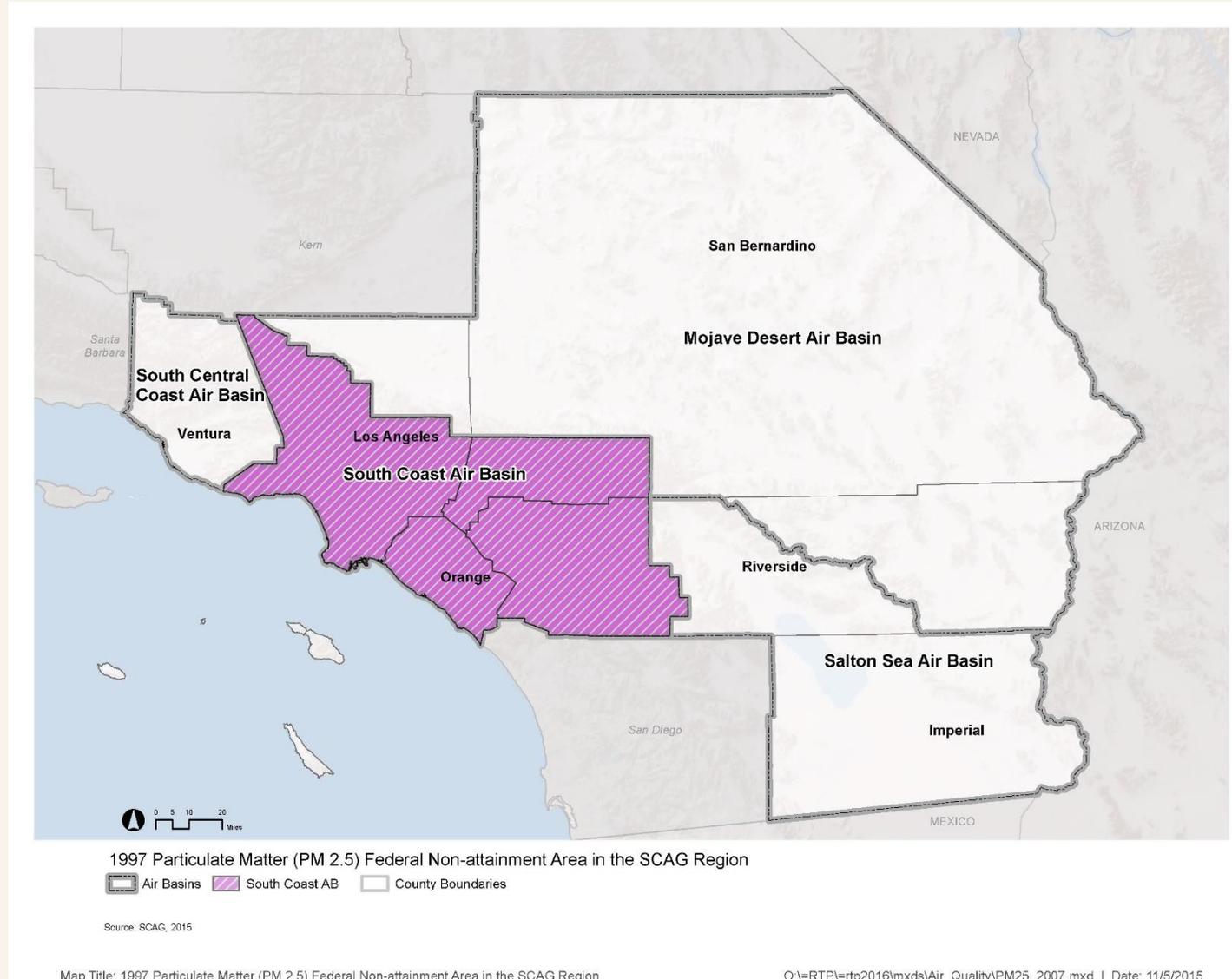
□ Air Basins    ▨ South Coast AB    □ County Boundaries

Source: SCAG, 2015

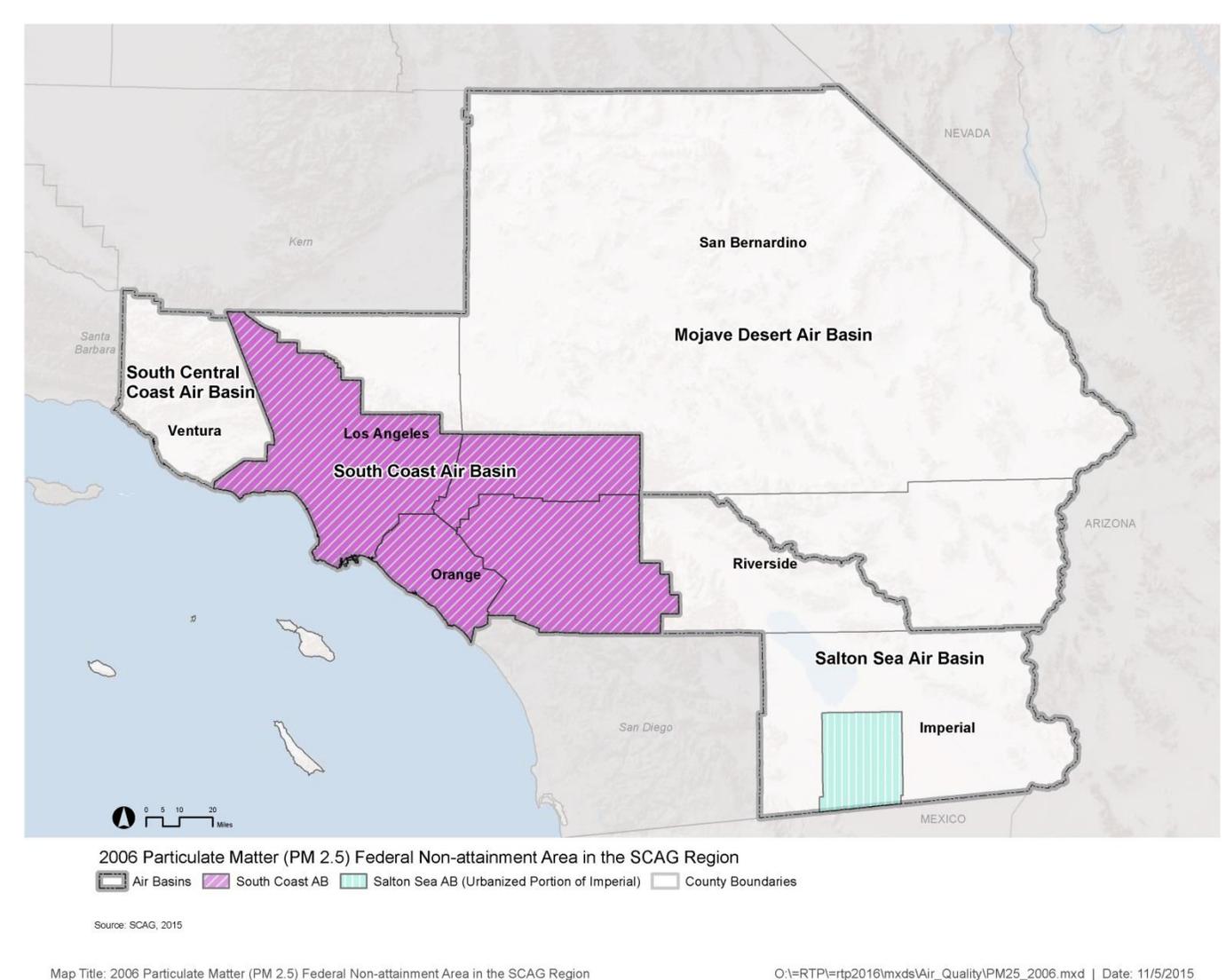
# Seven Ozone Nonattainment Areas



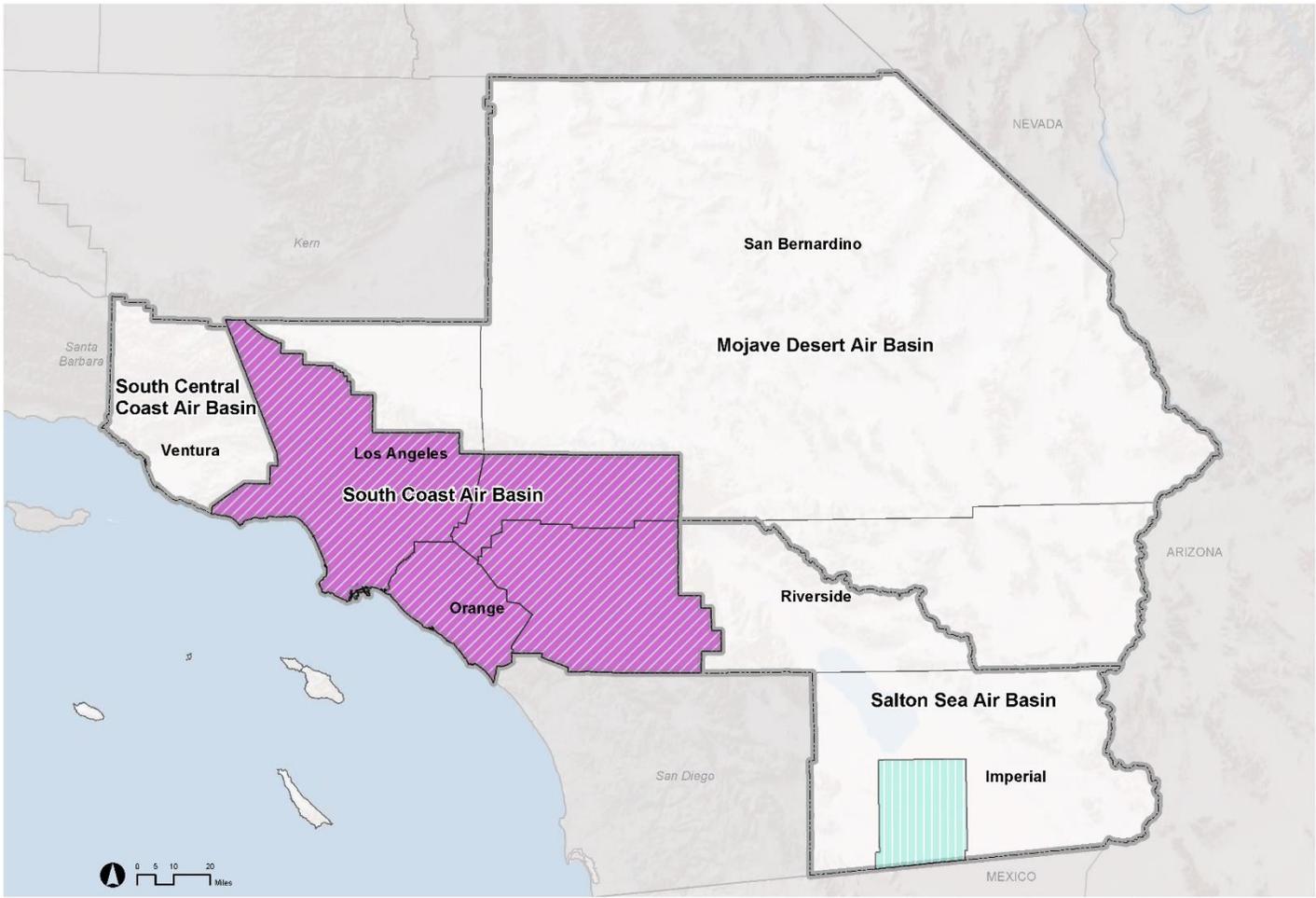
# One 1997 PM<sub>2.5</sub> NAAQS Nonattainment Area



# Two 2006 PM<sub>2.5</sub> NAAQS Nonattainment Areas



# Two 2012 PM<sub>2.5</sub> NAAQS Nonattainment Areas

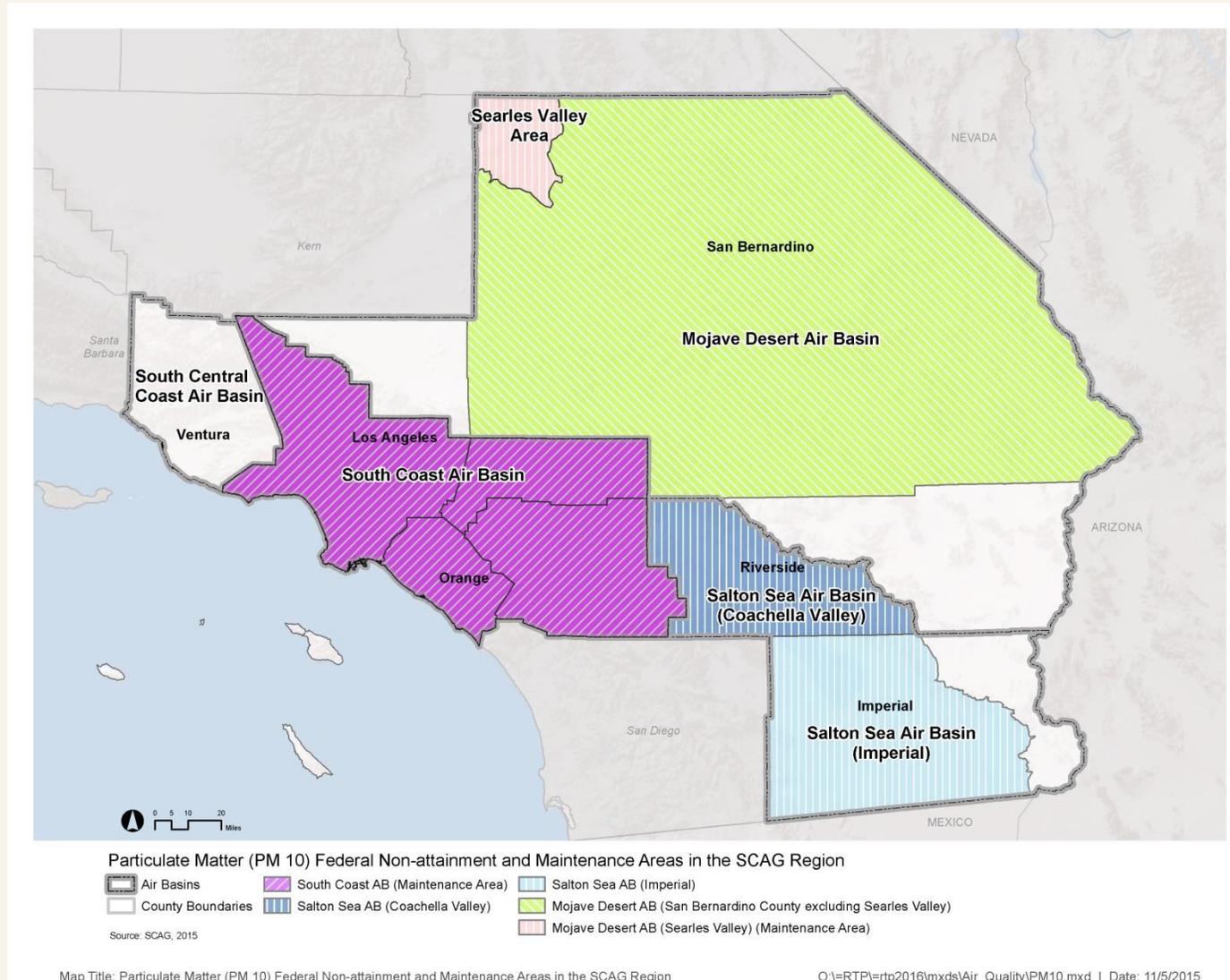


2012 Particulate Matter (PM 2.5) Federal Non-attainment Area in the SCAG Region

Legend:  
Air Basins (black outline)  
South Coast AB (purple hatched)  
Salton Sea AB (Urbanized Portion of Imperial) (green hatched)  
County Boundaries (grey outline)

Source: SCAG, 2015

# Five PM<sub>10</sub> Nonattainment/Maintenance Areas



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- Background
- **Regional Emissions Analysis**
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# Planning Assumptions and Modeling

- **Draft Plan Growth Forecast**
- **Draft Plan Transportation Policies, Programs, and Projects**
- **Regional Travel Demand Model**
- **EMFAC2014 (Anticipated EPA Approval by End of 2015)  
(EMFAC2011)**

# Regional Emissions Analysis

- **Emissions Budget Test Is Required for Each Nonattainment and Maintenance Area with Emissions Budget**
- **Interim (Build vs. No-Build) Emissions Test Is Required for Each Nonattainment and Maintenance Area without Emissions Budget**
- **Plan Emissions Values Follow Rounding Convention Used by ARB to Set the Budget**

# Applicable Emissions Budgets

- **Ventura County Portion of SCCAB:**
  - ✓ **2008 8-hour Ozone Early Progress Plan**
- **SCAB:**
  - ✓ **2007 Ozone SIP (budgets effective 4/30/2012)**
  - ✓ **2007 PM2.5 SIP (budgets effective 1/9/2012)**
  - ✓ **2007 CO SIP (Maintenance Plan) (budgets effective 6/11/2007)**
  - ✓ **2007 NO2 SIP (Maintenance Plan) (budgets effective 1/4/2010)**
  - ✓ **2010 PM10 SIP (Maintenance Plan) (budgets effective 7/26/2013)**

# Applicable Emissions Budgets (cont.)

- **Riverside County Portion of SSAB (Coachella Valley):**
  - ✓ **2008 8-Hour Ozone Early Progress Plan (using budgets found adequate by EPA May 2008)**
  - ✓ **2003 PM10 SIP**
- **Western MDAB:**
  - ✓ **2008 8-Hour Ozone Early Progress Plan**
- **Imperial County Portion of SSAB:**
  - ✓ **2008 8-Hour Ozone Early Progress Plan**

# Areas without Emissions Budgets

- **San Bernardino County Portion of MDAB (PM10)**
- **Searles Valley Portion of MDAB (PM10)**
- **Imperial County Portion of SSAB (PM2.5 and PM10)**

# Summary of Regional Emissions Analysis

- **Regional Emissions Analysis Has Been Performed with Both EMFAC2014 and EMFAC2011**
- **Once EMFAC2014 Is Approved by U.S. EPA, EMFAC2014 Emissions Tables Supersede EMFAC2011 Emissions Tables**
- **Summary Emissions Tables Presented Are Based on EMFAC2014**

# Ventura County Portion of SCCAB

Pollutant		2020	2030	2040			
ROG*	Budget	13	13	13			
	RTP	5	3	2			
Budget – RTP		8	10	11			
NOx	Budget	19	19	19			
	RTP	6	3	3			
Budget – RTP		13	16	16			
* Reactive Organic Gases							
South Central Coast Air Basin – Ventura County Portion							
Table 21 2008 8-Hour Ozone (Summer Planning Emissions [Tons/Day])							

# South Coast Air Basin (Ozone)

Pollutant		Nonattainment Area	2017	2020	2023	2031	2040
ROG	Budget	SCAB	119	108	99	99	99
	RTP	Morongo	0.5	0.4	0.3	0.2	0.2
		Pechanga	0.1	0.1	0.1	0.0	0.0
		SCAB excluding Morongo and Pechanga	102.1	79.3	67.3	49.2	36.5
		Sum	102.7	79.8	67.7	49.4	36.7
		SCAB	103	80	68	50	37
		Budget – Plan	16	28	31	49	62
NOx	Budget	SCAB	224	185	140	140	140
	RTP	Morongo	2.3	1.8	1.1	0.7	0.6
		Pechanga	0.9	0.7	0.5	0.3	0.2
		SCAB excluding Morongo and Pechanga	180.9	137.6	86.3	63.9	59.2
		Sum	184.1	140.1	87.9	64.9	60.0
		SCAB	185	141	88	65	60
		Budget – Plan	39	44	52	75	80

South Coast Air Basin

Table 22

2008 8-Hour Ozone (Summer Planning Emissions [Tons/Day])

# South Coast Air Basin (1997/2006/2012 PM<sub>2.5</sub>)

Pollutant		2019	2021	2030	2040		
ROG	Budget	132	132	132	132		
	RTP	76	72	48	35		
Budget – RTP		56	60	84	97		
NO <sub>x</sub>	Budget	290	290	290	290		
	RTP	165	135	71	64		
Budget – RTP		125	155	219	226		
PM <sub>2.5</sub>	Budget	35	35	35	35		
	RTP	10	8	4	2		
Budget – RTP		25	27	31	33		
South Coast Air Basin							
Table 23		1997, 2006, and 2012 PM <sub>2.5</sub> (Annual Emissions [Tons/Day])					

# South Coast Air Basin (PM<sub>10</sub>)

Pollutant		2020	2030	2040
ROG	Budget	110	81	81
	RTP	73	47	32
Budget – RTP		37	34	49
NO <sub>x</sub>	Budget	180	116	116
	RTP	149	71	64
Budget – RTP		31	45	52
PM <sub>10</sub>	Budget	164	175	175
	RTP	85	90	89
Budget – RTP		79	85	86
South Coast Air Basin				
Table 24	PM10 (Annual Emissions [Tons/Day])			

# South Coast Air Basin (CO)

Pollutant		2020	2030	2040
CO	Budget	2,137	2,137	2,137
	RTP	572	318	233
Budget – RTP		1,565	1,819	1,904
South Coast Air Basin				
Table 25	CO (Winter Emissions [Tons/Day])			

# South Coast Air Basin (NO<sub>2</sub>)

Pollutant		2020	2030	2040
NO <sub>2</sub>	Budget	680	680	680
	RTP	148	70	62
Budget – RTP		532	610	618
South Coast Air Basin				
Table 26	NO <sub>2</sub> (Winter Emissions [Tons/Day])			

# Western Mojave Desert Air Basin (WMDAB)

Pollutant		2020	2026	2031	2040		
ROG	Budget	22	22	22	22		
	RTP	8	6	6	5		
Budget – RTP		14	16	16	17		
NO <sub>x</sub>	Budget	77	77	77	77		
	RTP	18	10	9	11		
Budget – RTP		59	67	68	66		

Western Mojave Desert Air Basin – Antelope Valley  
 Portion of Los Angeles County and San Bernardino  
 County Portion of MDAB

Table 27 2008 8-Hour Ozone (Summer Planning Emissions [Tons/Day])

# MDAB – SB County Portion Excluding Searles Valley

		2021	2031	2040
PM <sub>10</sub>	No Build	9.9	12.3	14.3
	Build	8.9	10.9	12.7
No Build – Build		1.0	1.4	1.6

Mojave Desert Air Basin – San Bernardino County Portion Excluding Serles Valley

Table 28 PM<sub>10</sub> (Annual Emissions [Tons/Day])

# MDAB – Searles Valley

		2021	2031	2040	
PM <sub>10</sub>	No Build	0.0	0.0	0.0	
	Build	0.0	0.0	0.0	
No Build – Build		0.0	0.0	0.0	
Mojave Desert Air Basin – Searles Valley Portion					
Table 29	PM <sub>10</sub> (Annual Emissions [Tons/Day])				

# SSAB – Coachella Valley (Ozone)

Pollutant		2021	2026	2031	2040		
ROG	Budget	7	7	7	7		
	RTP	4	3	3	3		
Budget – RTP		3	4	4	4		
NO <sub>x</sub>	Budget	26	26	26	26		
	RTP	8	5	4	5		
Budget – RTP		18	21	22	21		
Salton Sea Air Basin – Coachella Valley Portion							
Table 30 2008 8-Hour Ozone (Summer Planning Emissions [Tons/Day])							

# SSAB – Coachella Valley (PM<sub>10</sub>)

		2021	2031	2040	
PM <sub>10</sub>	Budget	10.9	10.9	10.9	
	RTP	5.1	5.6	5.8	
Budget – RTP		5.8	5.3	5.1	
Note: budget set to one decimal place by 2003 Coachella SIP.					
Salton Sea Air Basin – Coachella Valley Portion					
Table 31	PM <sub>10</sub> (Annual Emissions [Tons/Day])				

# SSAB – Imperial County (Ozone)

Pollutant		2017	2021	2031	2040	
ROG	Budget	7	7	7	7	
	RTP	4	3	3	2	
Budget – RTP		3	4	4	5	
NO <sub>x</sub>	Budget	17	17	17	17	
	RTP	7	5	4	4	
Budget – RTP		10	12	13	13	
Salton Sea Air Basin – Imperial County Portion						
Table 32	2008 Ozone (Summer Planning Emissions [Tons/Day])					

# SSAB – Imperial County (2006/2012 PM<sub>2.5</sub>)

Pollutant		2021	2031	2040		
NO <sub>x</sub>	No Build	2.4	1.6	1.6		
	Build	2.4	1.5	1.6		
No Build – Build		0.0	0.1	0.0		
PM <sub>2.5</sub>	No Build	0.3	0.3	0.3		
	Build	0.2	0.2	0.2		
No Build – Build		0.1	0.1	0.1		
Salton Sea Air Basin – Imperial County Portion						
Table 33	2006 and 2012 PM <sub>2.5</sub> (Annual Emissions [Tons/Day])					

# SSAB – Imperial County (PM<sub>10</sub>)

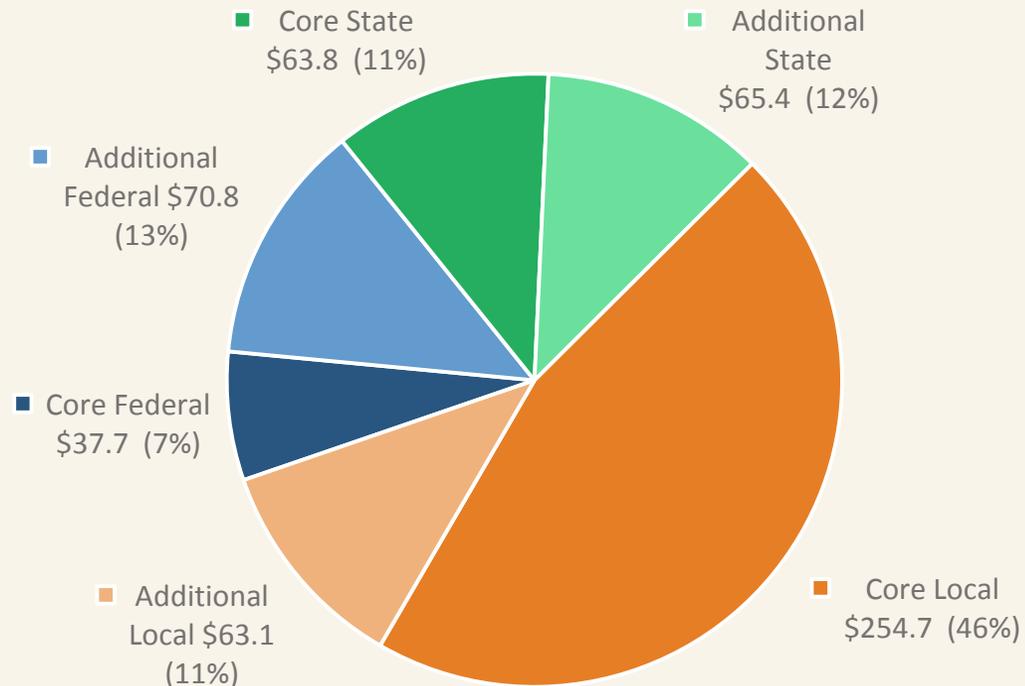
Pollutant		2021	2031	2040	
PM <sub>10</sub>	No Build	1.4	1.6	1.8	
	Build	1.0	1.2	1.4	
No Build – Build		0.4	0.4	0.4	
Salton Sea Air Basin – Imperial County Portion					
Table 34	PM <sub>10</sub> (Annual Emissions [Tons/Day])				

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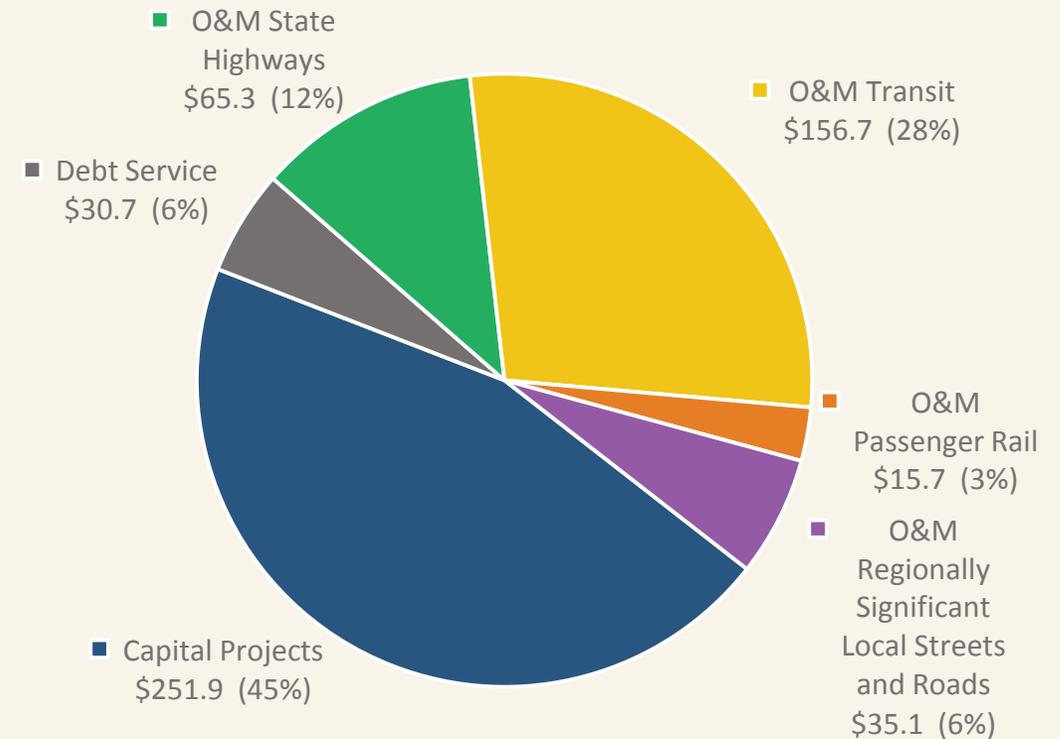
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# Financial Constraint Analysis

FY16-FY40 RTP/SCS Revenue Sources  
(\$555.4 billion in nominal dollars)



FY16-FY40 RTP/SCS Expenditures  
(\$555.4 billion in nominal dollars)



Documented in Draft 2016-2040 RTP/SCS Transportation Finance Appendix

Note: numbers may not sum to total due to rounding

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- Background
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- **Timely Implementation of TCMs Analysis**
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# Timely Implementation of TCMs

- **Applicable TCM SIPs:**

- SCAB Ozone SIP

- a. HOV & HOT lanes and pricing alternatives
    - b. Transit, intermodal transfer, & active transportation
    - c. Information-based transportation strategies

- Ventura County Ozone SIP

- a. Ridesharing
    - b. Non-motorize strategies
    - c. Traffic flow improvement strategy
    - d. Land use strategy transit strategy

# Timely Implementation of TCMs (cont.)

- **TCMs Are Included in 2015 FTIP:**
  - ✓ **with fund programmed for right-of-way or construction in first two years**
- **Implementation Status Documented for Each TCM**
  - ✓ **On schedule**
  - ✓ **Overcoming implementation obstacles**
  - ✓ **Under substitution**

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# Interagency Consultation and Public Involvement

- **TCWG – Ongoing RTP and FTIP Interagency Consultation**
- **Extensive Public Outreach**
- **Public Hearings by SCAG’s RC and Policy Committees**
- **Documented in Draft 2016-2040 RTP/SCS  
Public Participation and Consultation Appendix**

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- **Transportation Conformity Findings**
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# Transportation Conformity Determination

- **Draft 2016-2040 RTP/SCS and 2015 FTIP Consistency Amendment #15-12 Demonstrate Conformity:**
  - ✓ **Meet Regional Emissions Tests**
  - ✓ **Meet Financial Constraint Test**
  - ✓ **Meet Timely Implementation of TCMs Test**
  - ✓ **Meet Interagency Consultation and Public Involvement Test**

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# Next Steps

- **December 3, 2015: RC Approval of Release for a 55-day Public Review**
- **April 7, 2016: RC Adoption**
- **June 4, 2016: FHWA/FTA Approval**

**Questions?**



Thank you!

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