

			AZ	CA	CO	ID	MT	NM	ND	NV	OR	SD	UT	WA	WY	CEN	CAN	MEX
....																		
CO	WEMI1	Black Canyon of the Gunnison NM																
CO	WHRI1	Eagles Nest Wilderness																
CO	WHRI1	Flat Tops Wilderness																
CO	GRSA1	Great Sand Dunes NM																
CO	WEMI1	La Garita Wilderness																
CO	WHRI1	Maroon Bells-Snowmass Wilderness																
CO	MEVE1	Mesa Verde NP	X		X			X					X					
CO	MOZI1	Mount Zirkel Wilderness																
CO	MOZI1	Rawah Wilderness																
CO	ROMO1	Rocky Mountain NP			X								X		X			
CO	WEMI1	Weminuche Wilderness																
CO	WHRI1	West Elk Wilderness																
....																		
SD	BADL1	Badlands NP			X		X		X			X			X	X		
....																		

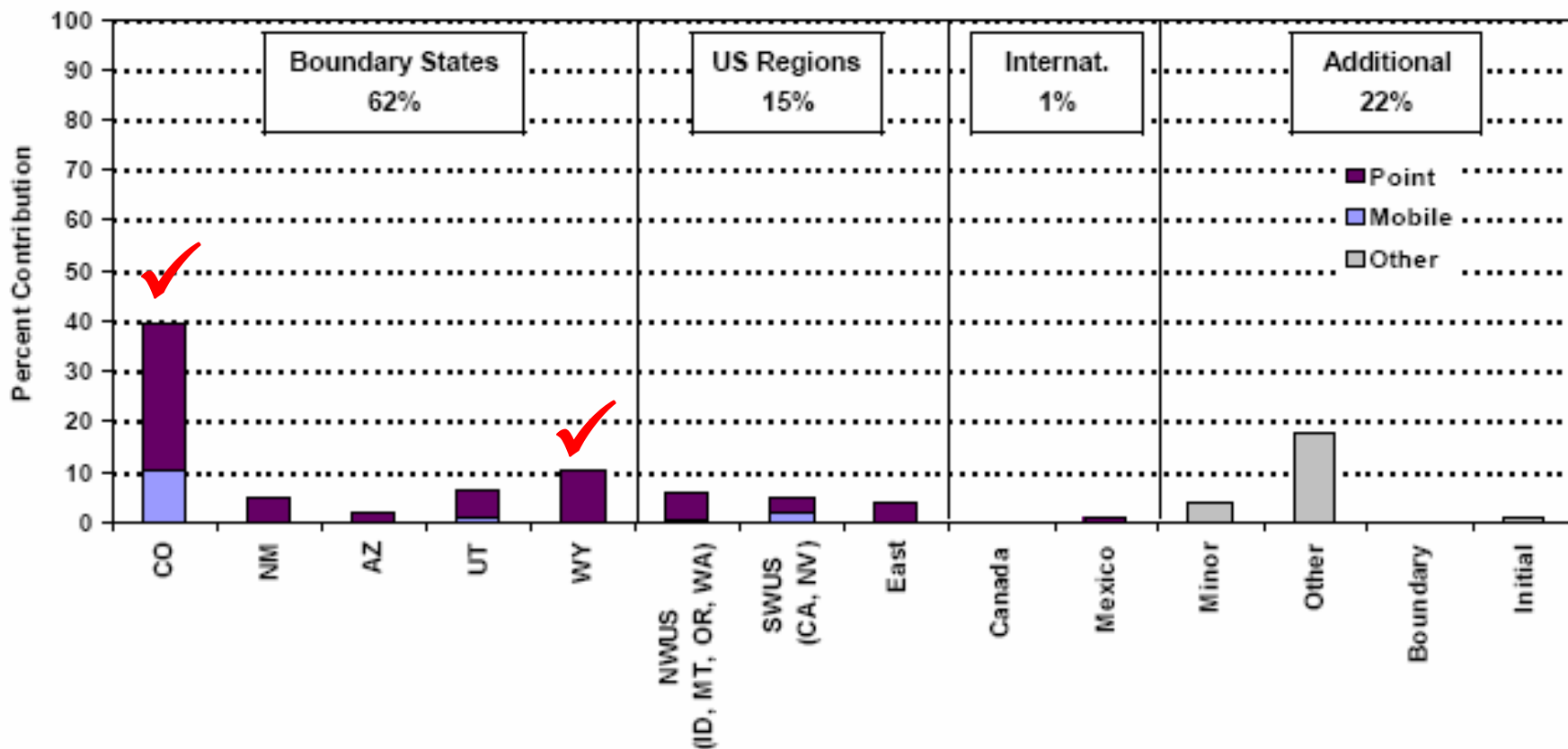
- This table shows what a “contribution matrix” might look like.
- It would use various WRAP technical results to identify which states contribute sufficiently to which Class I areas.
- Contributing states would be expected to “formally consult” with the downwind state and FLM/tribe in order to establish RPGs and to determine its “emission reduction obligation.”
- Examples of WRAP technical results which could be used to develop this matrix are provided in the following slides.

Upwind Contributing States Based on CAMx/PSAT Model Results for SO₄ and NO₃

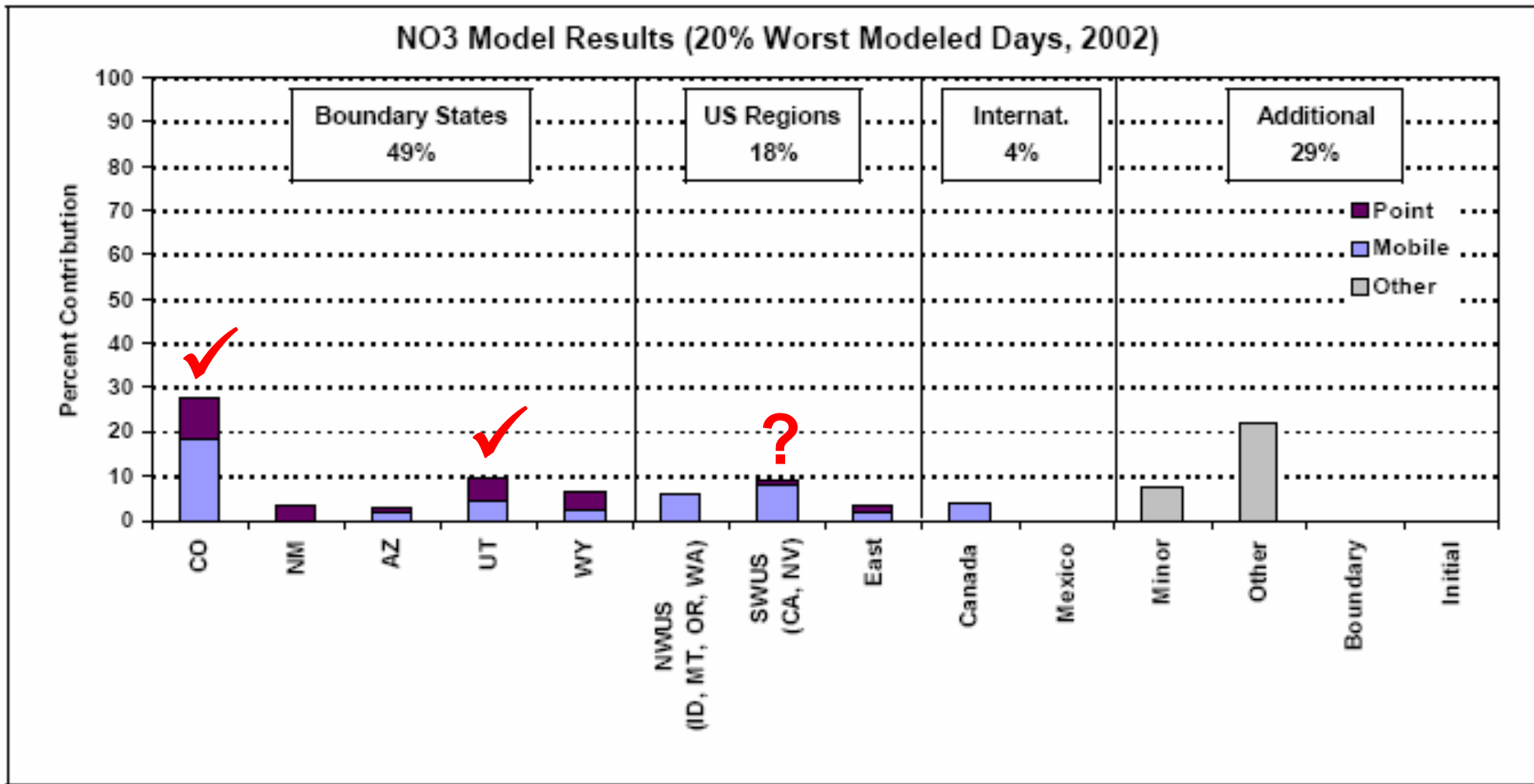
The following slides use outdated modeling results and are presented for illustration purposes only.

Rocky Mountain SO4 Modeled Attribution

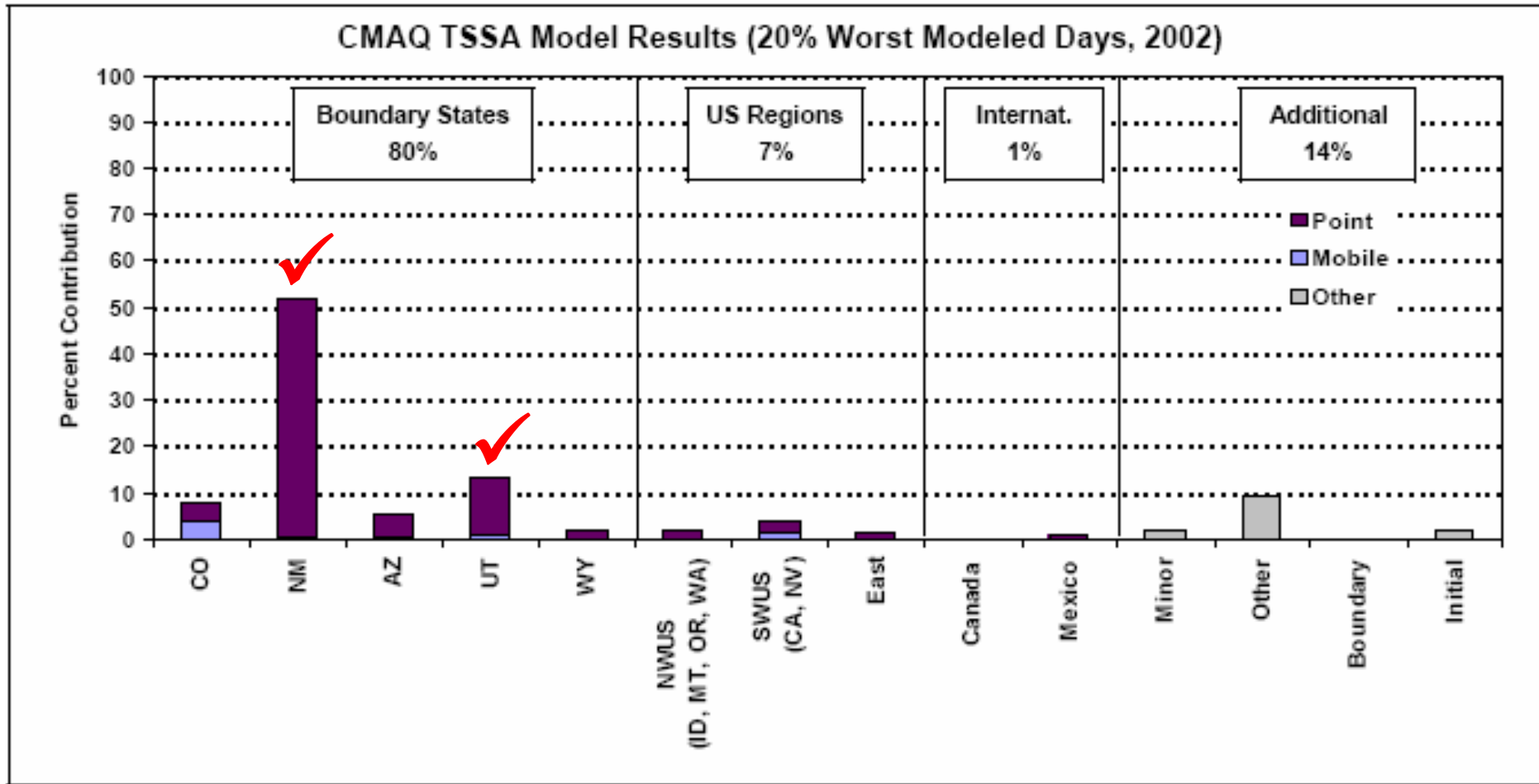
CMAQ TSSA Model Results (20% Worst Modeled Days, 2002)



Rocky Mountain NO3 Modeled Attribution



Mesa Verde SO4 Modeled Attribution



Mesa Verde NO3 Modeled Attribution

NO3 Model Results (20% Worst Modeled Days, 2002)

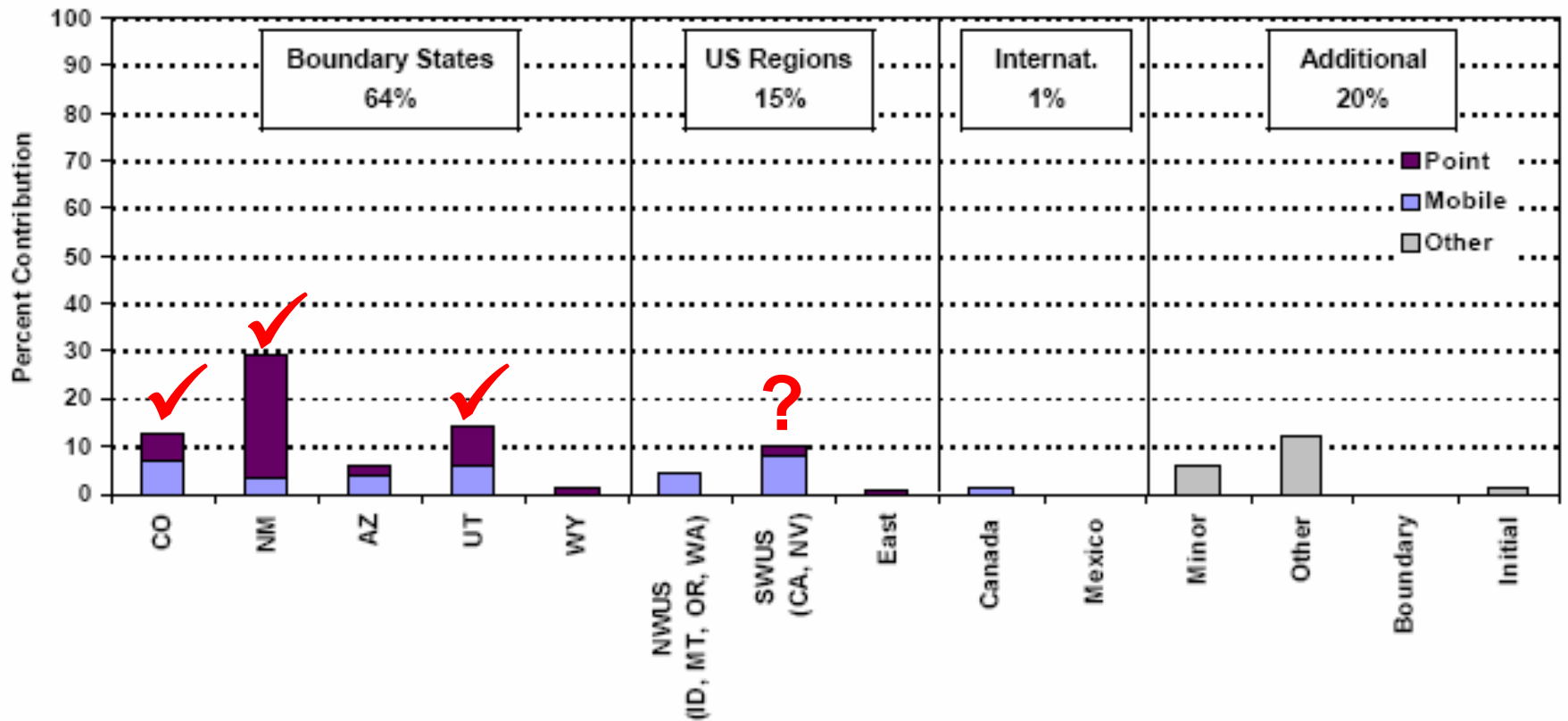
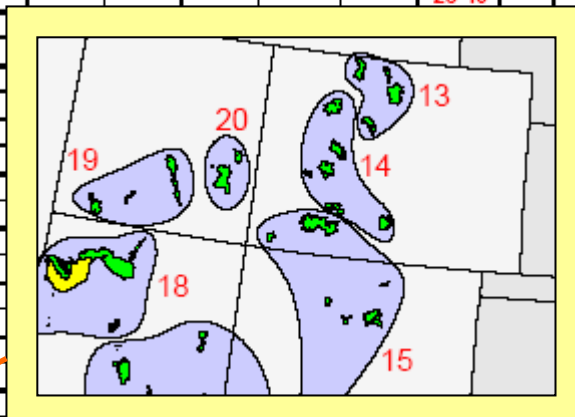


Table 4-1
 Class I Area Group Characteristics
 Range of TSSA Sulfate and Nitrate Contributions in Percent (Rounded to Nearest 5%)

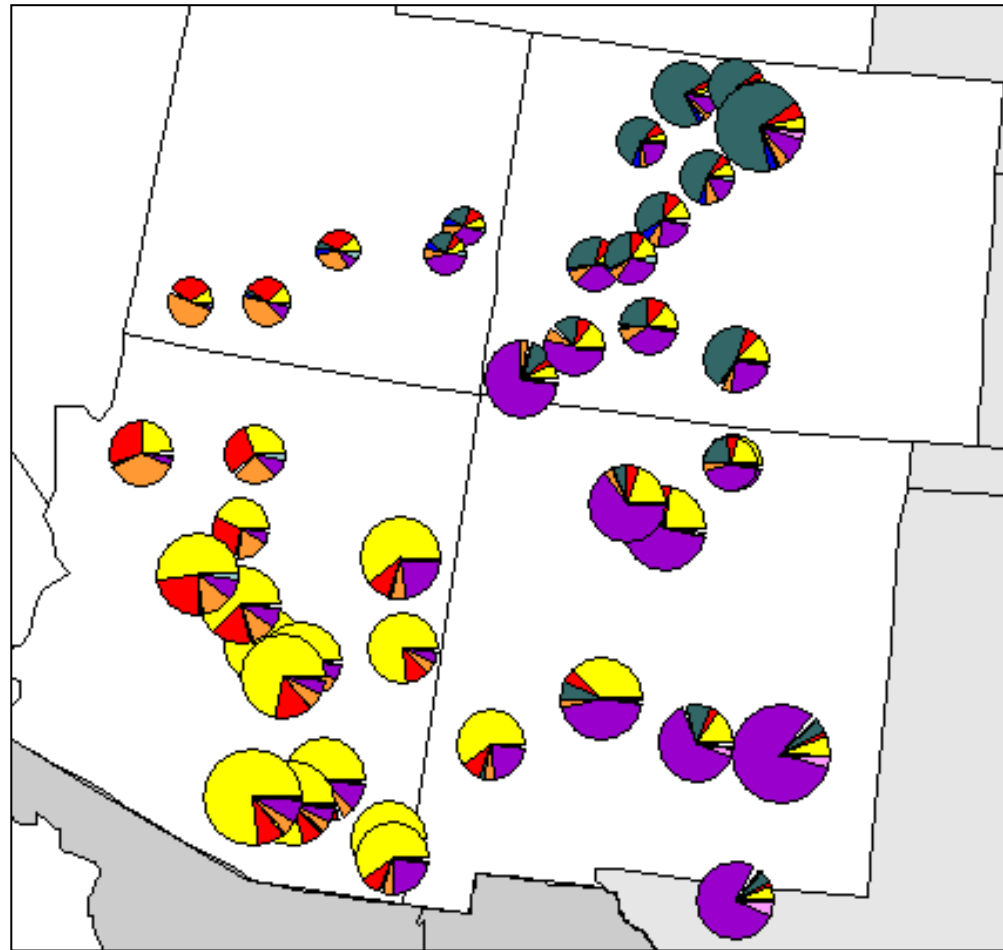
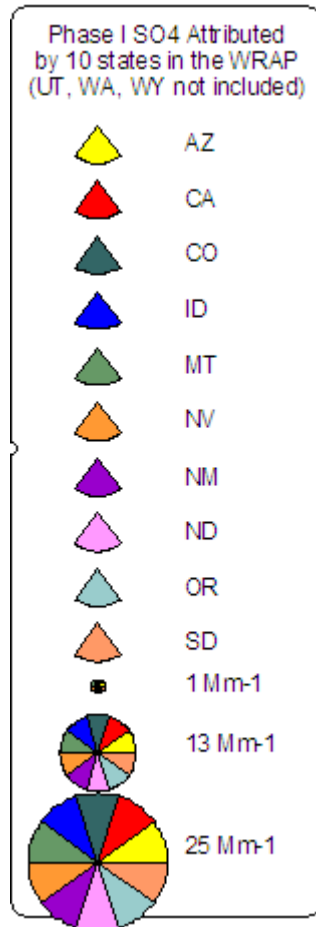
Group	Species	AZ	CA	CO	ID	MT	NV	NM	ND	OR	SD	UT	WA	WY	Mex	Can	EA US	Other
Group 1	SO4									0-10			30-70					25-65
	NO3									5-10			30-65			5-10		20-30
Group 2	SO4									30-40			15-20					35-45
	NO3		5-25							25-40			15-25					15-20
Group 3	SO4		5-15										10					55
	NO3		35-40															25-45
Group 4	SO4												10					65-70
	NO3		5-10										5-10					55-65
Group 5	SO4		15-45															40-55
	NO3		30-65															25-55
Group 6	SO4		50-85															10-40
	NO3		55-75															15-25
Group 7	SO4												10-15					30-45
	NO3		5-10										10					30
Group 8	SO4											0-10	0-10	0-20				25-40
	NO3		5-10									0-20	5-10			0-10		25-30
Group 9	SO4												10-30					30-35
	NO3												10-25			5-10		25-30
Group 10	SO4												5-10					15-20
	NO3					15-20							10-15			10		25-30
Group 11	SO4					5-35			10-40					0-10				25-45
	NO3					5-15			5-10				5-10			15-25		30-35
Group 12	SO4								10-20					20			10	30-40
	NO3													10		10	10	30
Group 13	SO4			30-45				5-10				5-10	10-15					20
	NO3		5-10	20-30								10-15	5-10					20-25
Group 14	SO4	5-10		15-25				10-20				5-15	5-10				0-10	15-25
	NO3		10	10-15				5-10				10-20						15-25
Group 15	SO4	5-20		0-10				20-50				0-15					0-15	10-20
	NO3	10	10-15	10-15				15-30				10-15					0-10	10-25
Group 16	SO4							15-25								5-15		35-50
	NO3							10-15										20-25
Group 17	SO4	30-50	0-15					0-15									0-10	0-15
	NO3	20-40	15-20														0-10	25-35
Group 18	SO4	15-20	15-20				10-20					5-10						25-30
	NO3	20-30	30-35									5-15						20-25
Group 19	SO4		10-15				10-20					15-25						25-30
	NO3	5-10	15-20				5-10					25-35						15-20
Group 20	SO4							10-15				30		10				20-25
	NO3			10				10				30-35						15



BLUE text indicates ranges ~10 – 25%

RED text indicates ranges exceeding 25%

Modeled SO4 Extinction Attributed to WRAP States

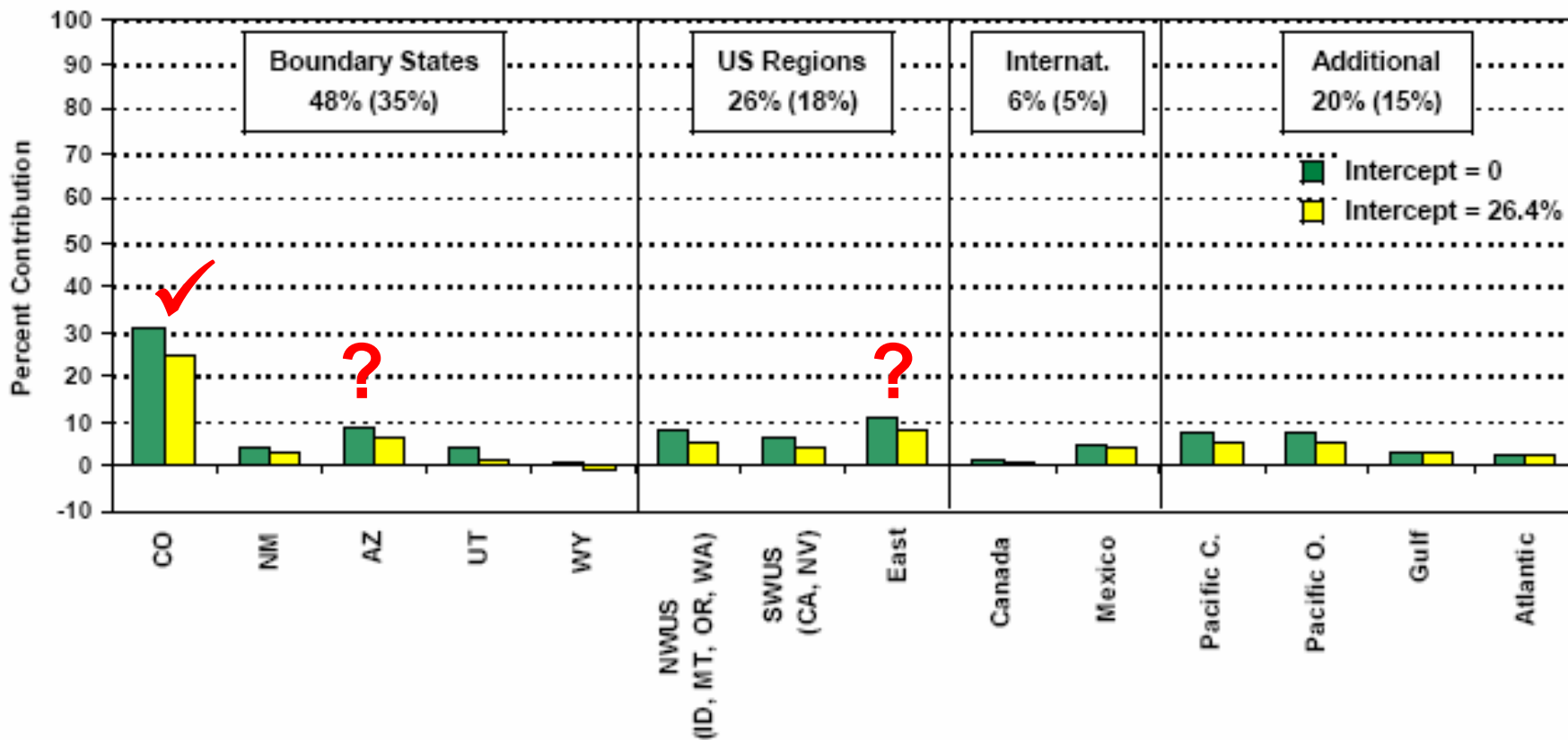


Contributions from UT, WY, and areas outside the WRAP not included.

Upwind Contributing States
Based on Back Wind Trajectory
Regression Results for SO₄

Rocky Mountain SO4 Trajectory Regression

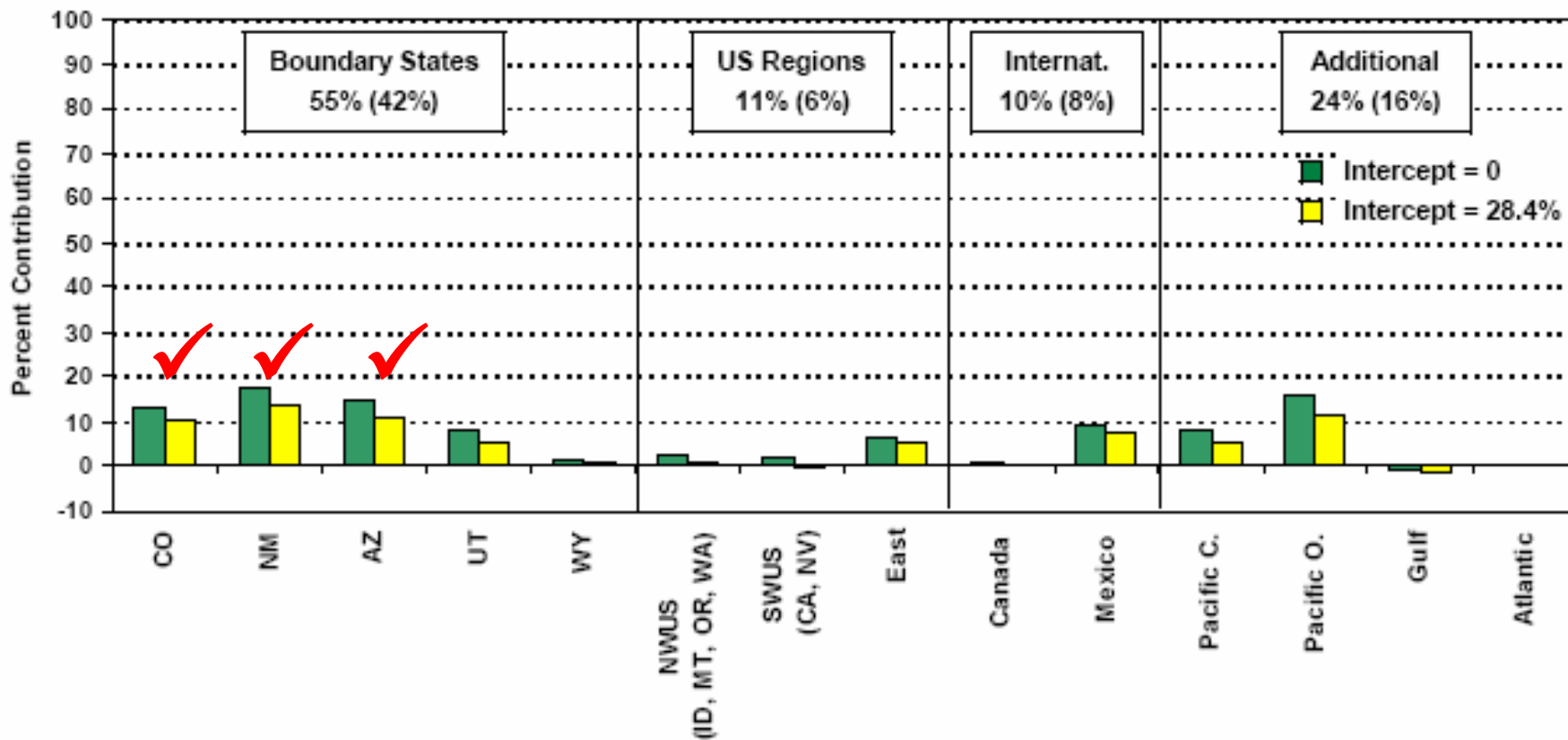
Trajectory Regression Analysis for ROMO1 Site (20% Worst Monitored Days, 2000-2002)



Mesa Verde

SO4 Trajectory Regression

Trajectory Regression Analysis for MEVE1 Site (20% Worst Monitored Days, 2000-2002)



Upwind Contributing States Based on Weighted Emission Potential for Dust and Carbon

