Western Regional Modeling Plan – Spring 2019 update

Modeling Scenario	Timeframe	Objectives / Characteristics / Change from previous scenario(s)
2014 Shakeout v1 (actual emissions)	Dec. 2018 through early April 2019	• Compare Met and Biogenics datasets • Evaluate Boundary Conditions (BCs) • Uses 2014 NEIv2 data with limited corrections by states • Modeling Performance Evaluation • Identify Modeling Needs in Plan
2014 Shakeout v2 (actual emissions)	May through July 2019	• Finalize MPE results with improved inputs • Re-run GEOS-Chem global model for BCs with natural / anthro. sensitivity • Revised emissions – all CA anthro data, OGWG inputs • Will use recommended model configuration from v1
Current/Representative Baseline (planning rather than year-specific emissions, basis of all subsequent runs)	June through August 2019	• Apply v2 GEOS-Chem global model BCs • Revised emissions from 2014 actual, new EGU, OGWG, and FSWG inputs o reflective of current emission rates and "normal" operations o "representative" annual fire emissions to smooth out variation • Basis of all 2028 scenarios, will use model configuration from v1 / v2 • Best reflect current emissions profile for each source potentially impacting Class I area visibility [source(s) identified from Q/D analysis]
Dynamic Model Evaluations (02, 14, 28)	Start Summer 2019	• Use 2014 met, BCs, biogenics for all • Actual 02 and 14 emissions, OTB for 2028 • Provide modeled glide path, Regional Haze Progress for anthro emissions
2028 Emissions from Rules OTB / OTW	August through October 2019	• Model visibility impact / calculate Reasonable Progress Goal for each Class I area "if no additional controls" were adopted • 2028 OTB emissions may be same as Current/Representative Baseline rate • Add international anthro contributions from Shakeout V2 • Gridded emissions to be used for Weighted Emissions Potential analysis
2028 Source Apportionment / Sensitivity	October 2019 through early 2020	• 2 sensitivity runs: increased emissions separately for wildfire and Rx fire • PSAT/OSAT run for state/source sector groups
2028 Control Strategy Run	Jan. through March 2020	• SCC-level "potential additional" SO2, NOx, PM % decreases from each state • Model visibility impact / calculate RPG for each Class I area "if additional controls" were to be adopted