



2021 Arizona Regional Haze SIP Revision 6th Stakeholder Meeting

September 22nd, 2020

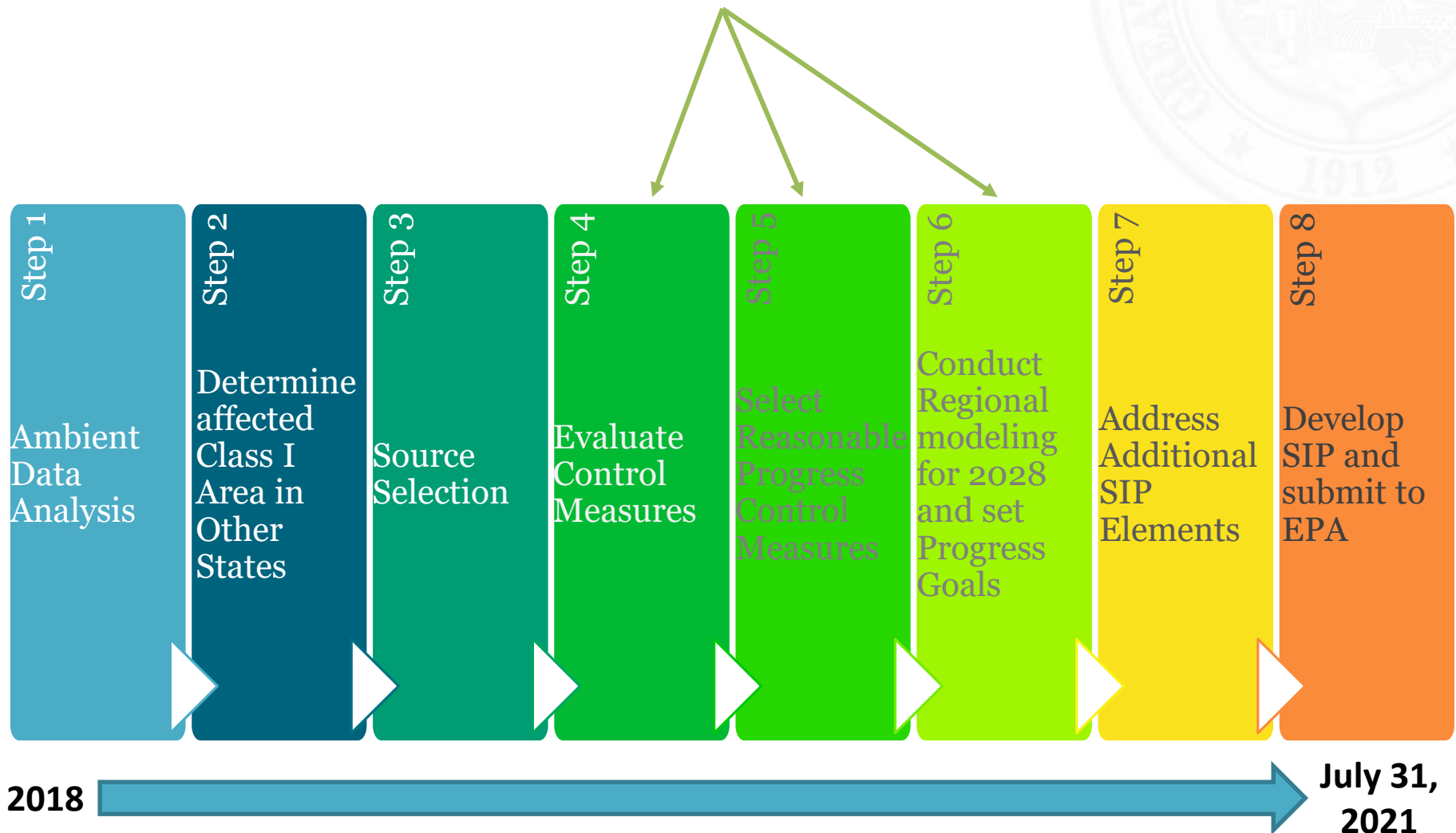


Stakeholder Values	Design Principles
Reasonable progress toward visibility goals	Develop a control strategy that ensures continued progress towards State visibility goals.
EPA approval of SIP	Involve EPA early and often in development cycles for controls and SIP revision.
Produce accurate modeling	Perform model evaluation and calibration using the most recent, complete, and accurate datasets available.
Consider visibility improvement as focus of control analysis	When developing a control analysis methodology, evaluate visibility as a potential screening and/or reasonable progress consideration.
Follow the goals of the Regional Haze roadmap	Where reasonable, ensure the State process is in-line with EPA's recommendations.
Take credit for existing programs	Include existing controls and emission reduction programs in modeling and control analysis.
Affordability for industry and general public	Collect stakeholder feedback on and evaluate the cost of controls during the control analysis. Choose those controls that balance environmental benefit with cost.
Account for international transport	Evaluate available modeled international impacts and attempt to account for transport in visibility analysis.
Cost equity between sources	Stakeholders to lead conversations considering cost equity.
Reach out to sources for future emissions projections	Allow stakeholders ability to evaluate projected emissions and methodologies and provide feedback.

- Control Analysis – 4 Factor Analysis
- Modeling Efforts
- Timeline



We Are Here



Control Analysis – Point Sources

Facility	Emission Processes Evaluated
ASARCO – Mission Complex	Hauling & Grading
ASARCO – Ray Complex	Hauling, Blasting, Vehicular Travel, Wind Erosion, & Dozing
CalPortland – Rillito Cement Plant	Materials Transport & Handling, Wind Erosion, Vehicular Traffic, & Blasting
Drake Cement	One Kiln
EPNG – Williams Compressor Station	Three Engines & One Turbine
EPNG – Willcox Compressor Station	Two Turbines
Freeport-McMoRan – Morenci Mine	Vehicular Travel & Material Handling
Freeport McMoRan – Sierrita Mine	Vehicular Travel, Wind Erosion, Blasting, & Material Handling
Phoenix Cement – Clarkdale Plant	Materials Handling & Storage, Blasting, Vehicular Traffic
TEP– Springerville Generating Station	Four Boilers
TEP– Sundt Generating Station	One Boiler

Control Analysis – Status Update



Control Analysis – Status Update

Facility	Review Status
ASARCO – Mission Complex	ADEQ Internal Review
ASARCO – Ray Complex	ADEQ Internal Review
CalPortland – Rillito Cement Plant	ADEQ Reevaluation Phase
Drake Cement	ADEQ Reevaluation Phase
EPNG – Williams Compressor Station	ADEQ Internal Review
EPNG – Willcox Compressor Station	ADEQ Internal Review
Freeport-McMoRan – Morenci Mine	ADEQ Internal Review
Freeport McMoRan – Sierrita Mine	ADEQ Internal Review
Phoenix Cement – Clarkdale Plant	ADEQ Reevaluation Phase
TEP– Springerville Generating Station	EPA and FLM Review In Progress
TEP– Sundt Generating Station	EPA and FLM Review In progress

Point Source Coordination

July 2019

- Source notification

Sept 2019

- Identification of processes for control analysis

Dec 2019

- Source control analysis submittal

Feb–Sep 2020

- DEQ/source coordination

Oct 2020

- Initial control decision by ADEQ

Dec 2020

- Final control decision by ADEQ

Nonpoint Source Sectors - Status

Source Sector	SCC	2014 Emissions (tpy)			
		NO _x	PM ₁₀	SO ₂	Q
Non-Residential Construction Dust	2311020000	0	15,536	0	15,536
Mining & Quarrying	2325000000	0	44,753	0	44,753
Paved Road Dust	2294000000	0	14,501	0	14,501
Unpaved Road Dust	2296000000	0	107,924	0	107,924

Source Sector	Review Status
Non-Residential Construction Dust	Internal Review
Mining & Quarrying	Internal Review
Paved Road Dust	Internal Review
Unpaved Road Dust	Internal Review

Nonpoint Source Coordination

Apr
2019

Six
sectors
presented
based on
Q analysis

Aug
2019

Four
sectors
identified
for
control
analysis

Sept
2019

Sector
specific
stakeholder
meetings

Oct 2019 –
Mar 2020

ADEQ
literature
analysis

Mar - Oct
2020

DEQ &
sectors
coordinate

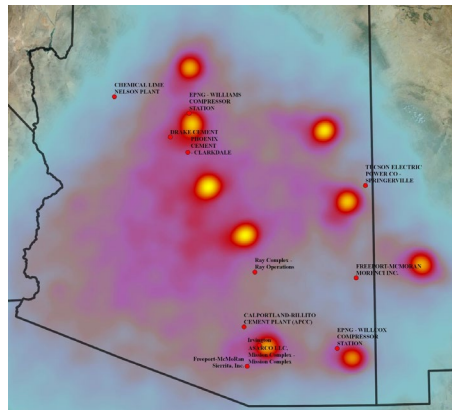
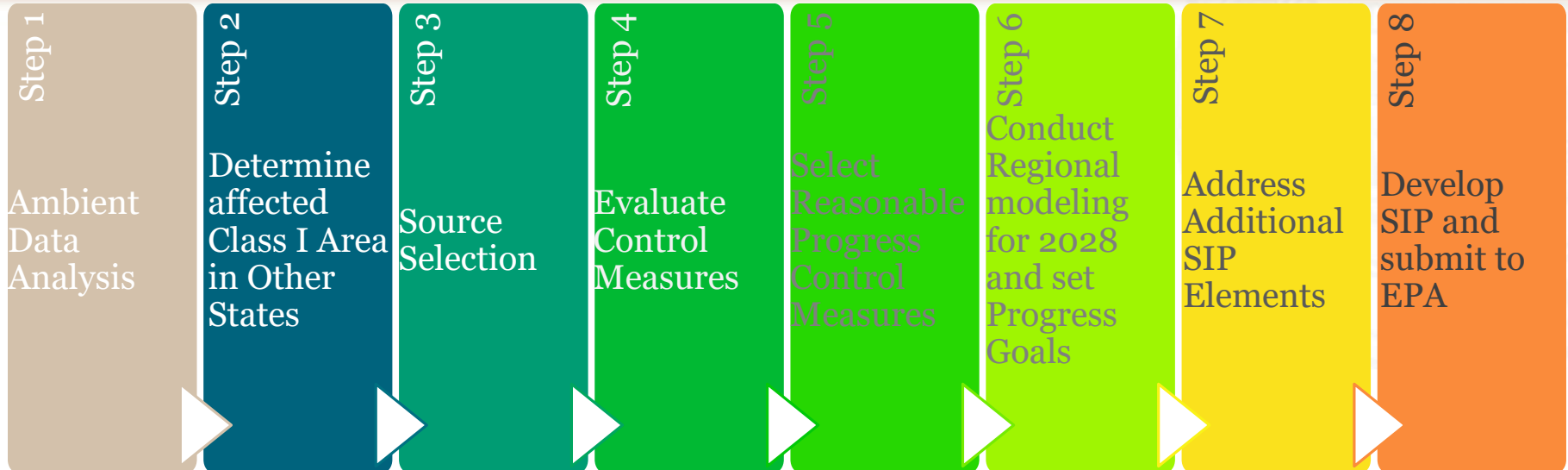
Oct
2020

Initial
control
decision
by ADEQ

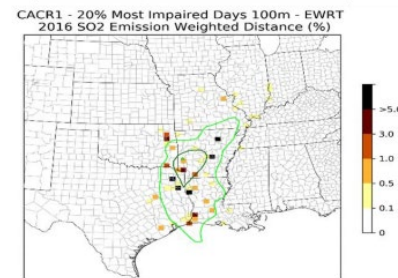
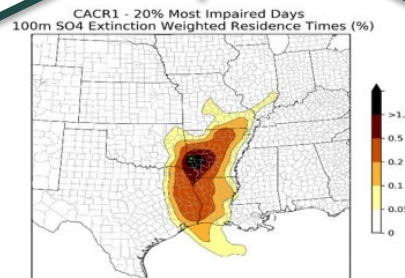
Dec
2020

Final
Control
decision
by ADEQ

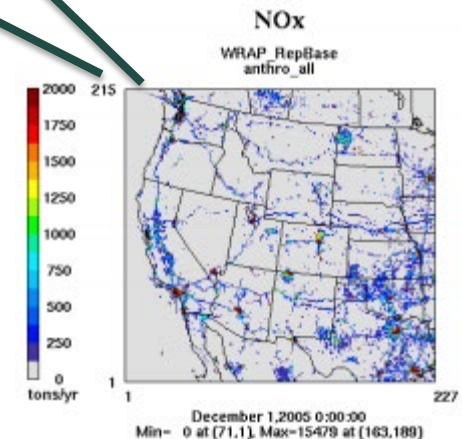
Modeling Products



HYSPLIT trajectory analysis
Complete



Weighted Emission Potential
Underway



Photochemical modeling
Underway

WRAP Tentative Modeling Timeline



September 18, 2020 status - delivery/display of Emissions and Modeling results for Regional Haze planning (mid-August through October)

Task	Description	Schedule	Comment
<i>Re-do / Existing Tasks</i>			
A	RepBase2 & 2028OTBa2 EI Updates (Duplicate Point Sources; other QA) Draft RepBase2 emissions Send to RepBase2 change workbook to States for review Receive comments on RepBase2 from States RepBase2 emissions ready Draft 2028OTBa2 emissions Send 2028OTBa2 Rank_Point to States for review Receive comments on 2028OTBa2 from States States provide comments on 2028OTBa2 changes workbook 2028OTBa2 emissions ready	Aug 24 Aug 26 Aug 31 Sep 1 Sep 2 Sep 2 Sep 4 Sep 14 Sep 14	<ul style="list-style-type: none"> time for state review of RepBase2 inputs time for state review of 2028OTBa2 inputs
B	Emissions Processing of RepBase2 and 2028OTBA2 SMOKE Processing of RepBase2 SMOKE Processing of 2028OTBa2 WEP/AOI and Rank_Point Analysis and Transfer to CIRA State/County summary annual emissions cell mask transfer to CIRA	Sep 3 Sep 18 Sep 25 Sep 25	<ul style="list-style-type: none"> Load time at CIRA – completion target of Oct. 1 to implement for WEP/AOI webpage updates with new data Load time at CIRA to implement – completion target of Oct. 5 in in TSS Emissions Express tools
C	CAMx RepBase2 High-Level Source Apportionment (H-L SA) CAMx RepBase2 High-Level SA Run Completed Post-Processing SA and Transfer to CIRA	Oct 9 Oct 19	<ul style="list-style-type: none"> Dashboard with all RepBase2 SA categories provided to CIRA. Load time at CIRA to implement – completion target of Oct. 23. Need to collapse to categories in Modeling Express tools as before, adding Mex/Can fires as 6th category
D	CAMx 2028OTBa2 High-Level Source Apportionment Simulation Complete CAMx 2028OTBa2 High-Level SA run SMAT 2028 Visibility Projections Transfer to CIRA Processed SA data (Dashboard) to CIRA	Oct 12 Oct 15 Oct 19	<ul style="list-style-type: none"> CIRA to target Oct. 23 to implement all 3 projection methods' results which are calculated from B and C deliverables, above Dashboard with data for all 2028OTBa2 SA categories. Load time at CIRA to implement by Oct. 23. For express tool combine WRAP and non-WRAP U.S. Anthro to be consistent and side-by-side with RepBase2
E	Nominal Glidepath Adjustment and Modeled Progress Slope Data to adjust Glidepath (Intl. Anthro and Rx Fires from 2028OTBa2 H-L SA) Dynamic Evaluation US Anthro Modeled Progress Slope Data to CIRA Dynamic Evaluation Visibility Projection Evaluation PPT	Oct 23 Oct 31 Oct 31	<ul style="list-style-type: none"> Next step is to review results for 5 alternatives to adjust Glidepath so RTOWG to recommend one(s) for final implementation. Next steps are to review display of Slope results and present, followed by CIRA implementation on Modeling Express tools.

WRAP Tentative Modeling Timeline

<i>Existing Subsequent Tasks</i>			
4.9	CAMx 2028OTBa2-PAC2 Modeling Receive 2028 Potential Additional Controls 2 (PAC2) from States Complete review of data summary by States and SMOKE emissions modeling CAMx 2028OTBa2-PAC2 Standard Model Simulation Post-process and SMAT 2028OTBa2-PAC2 Visibility Projections	Sep 18 Oct 7 Oct 15 Oct 19	<ul style="list-style-type: none"> Assume 2ish weeks for interaction with States and SMOKE modeling Deliver 2028OTBa2-PAC2 visibility projections to CIRA at same time as adjusted URP Glidepath data
4.5	CAMx 2028OTBa2 Fire Sensitivity Modeling Process 2028 Fire WF Sensitivity CAMx 2028 Fire WF Sensitivity Process 2028 Rx Fire Sensitivity ...CAMx 2028 Rx Fire Sensitivity Post-process 2028OTBa2 WF & Rx Fire Sensitivity	Oct 8 Oct 19 Oct 19 Oct 31 Nov.	<ul style="list-style-type: none"> Visibility projection approach(es) to be decided
6.1	CAMx 2014v2 Transfer and Verification Copy 2014v2 modeling files to hard drive FedEx hard drive to CIRA CIRA loads data on IWDW modeling server Ramboll conducts CAMx 2014v2 verification run	Sep 17 Sep 18 Sep 28 Oct 12	<ul style="list-style-type: none"> Hard drive has CAMx 2014v2 inputs and outputs and unmerged emissions Hard drive arrive at CIRA Sep 21 Marco access to IWDW server
4.7	CAMx 2028OTBa2 Low-Level WESTAR-WRAP State-by-Source Sector Apportionment Simulation Description, schedule, comments to be added		

Upcoming Project Milestones

Planning Task	End Date	Tentative Stakeholder Feedback Deadline	Stakeholder Input
Initial Control Determination	Oct 2020	--	--
Final Control Determination ADEQ reassesses controls based on modeling results and Stakeholder/EPA/FLM/Other State's feedback	Dec 2020	Oct-Nov 2020	Facility emission, control information, & general stakeholder feedback
2028 Control Scenario Modeling	Oct-Nov 2020	--	Modeling Inputs
Official Federal Land Manager Consultation Meeting	Feb 2021	120-60 days prior to SIP public comment period	Control Determinations, Reasonable Progress Goals, Long Term Strategy
File Notice of Proposed Rulemaking with Secretary of State	Feb 2021	Jan 2021	Feedback on rule language and structure
Finalize Notice of Final Rulemaking, Governors Reg. Review Council, & SIP Public Comment	Jun -July 2021	May 2021	Feedback on rule language and structure

Thank you

Questions?

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ADEQ RH 2021 Planning Webpage - <http://www.azdeq.gov/2021-regional-haze-sip-planning>

