NPS Formal Consultation Call with the California Air Resources Board (CARB), Attendees:

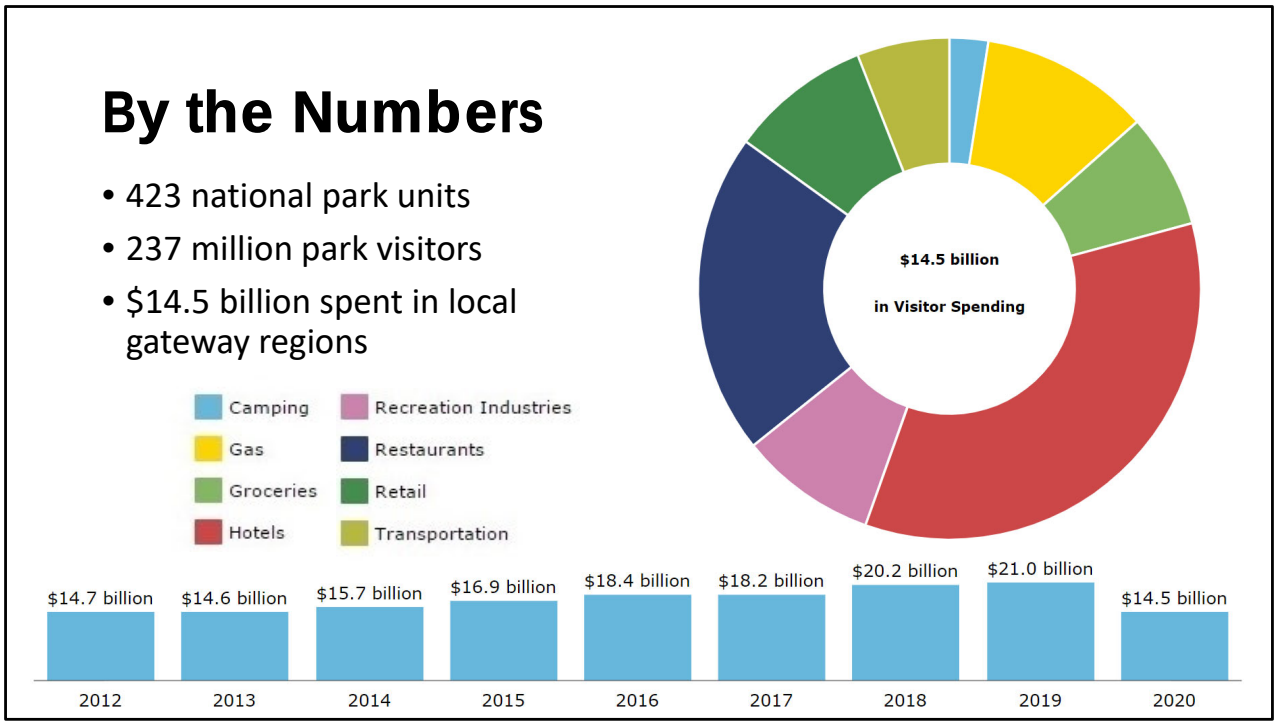
- National Park Service
    - David Smith—Joshua Tree National Park
    - Stacy Manson –Joshua Tree National Park
    - Michael Magnuson—Lassen Volcanic National Park
    - Jim Richardson—Lassen Volcanic National Park
    - David Hays—Lava Beds National Monument
    - Chris Mengel—Lava Beds National Monument
    - Erik Meyer—Sequoia and Kings National Parks
    - Christy Brigham—Sequoia and Kings National Parks
    - Jalyn Cummings—Interior Regions 8, 9, 10, & 12 –Seattle, WA
    - Dee Bardwick-- Interior Regions 8, 9, 10, & 12—San Franciso, CA
    - Erin Baer -- Interior Regions 8, 9, 10, & 12—San Franciso, CA
    - Melanie Peters – Air Resources Division—Denver, CO
    - Kirsten King—Air Resources Division—Denver, CO
    - Don Shepherd -- Air Resources Division—Denver, CO
    - Andrea Stacy -- Air Resources Division—Denver, CO
    - Debbie Miller-- Air Resources Division—Denver, CO
    - Jim Cheatham-- Air Resources Division—Denver, CO
    - Mike Barna—Air Resources Division—Ft. Collins, CO
- California
    - Alicia Adams
    - Rebekka Fine
    - Peishi Gu
    - Sylvia Vanderspek
- U. S. Forest Service
    - Ricardo Cisneros
    - Don Schweizer
- Environmental Protection Agency (EPA) Region 9
    - Eugene Chen
    - Panah Stauffer
    - Charlotte Withey
    - Scott Bohning

NPS photos from left to right: Yosemite NP, Denali NP, Yellowstone NP, Grand Canyon NP

Agenda

- Welcome & Introductions
- NPS Regional Haze Background
- NPS Class I Areas in California
  - Joshua Tree NP, Kings Canyon NP, Lassen Volcanic NP, Lava Beds NM, Pinnacles NP, Point Reyes NS, Redwood NP, Sequoia NP, and Yosemite NP
  - Recent visibility monitoring data
  - Impairment Status
- NPS SIP Feedback for California
  - California Stationary Sources are significant
  - Exclusion of SO_2
  - Source Selection
  - Discussion of excluded facilities
  - Four Factor Review - Collins Pine
- Recommendations
- Questions/Discussion Time
- Next-Steps

We welcome discussion at any time during this presentation. Please feel free to ask questions or add information along the way.



Nationally, in 2020 NPS visitation and spending numbers were down due to the pandemic. It is pretty amazing that even in 2020 there were 237 million park visitors who generated $14.5 billion for the economy – perhaps emphasizing more than ever the economic value of National Parks to our country.

For comparison in 2019:

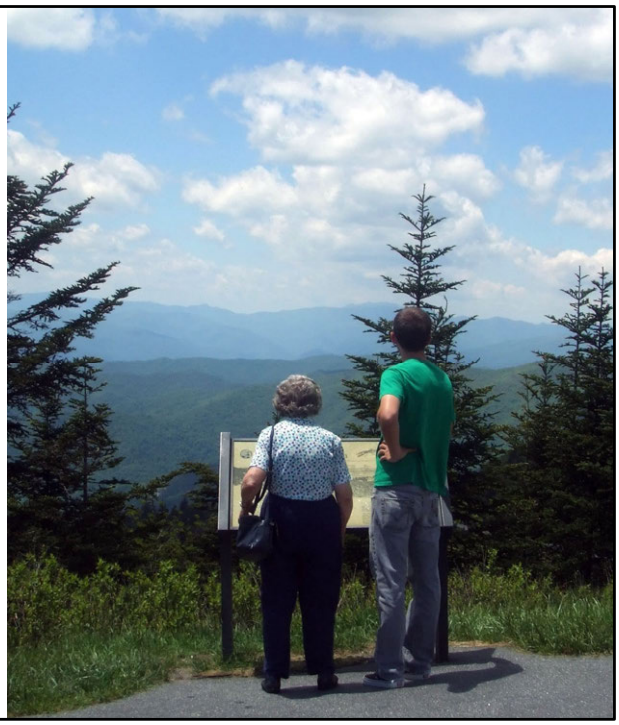
328 million park visitors spent an estimated $21 billion in local gateway regions while visiting National Park Service lands across the country.

These expenditures supported a total of
- 341 thousand jobs,
- $14.1 billion in labor income,
- $24.3 billion in value added, and
- $41.7 billion in economic output in the national economy.

https://www.nps.gov/subjects/socialscience/vse.htm

By the Numbers

- **48** Class I areas
- In **24** states
- **90%** of visitors surveyed say that scenic views are ***extremely*** to ***very*** important
- **100%** of visitors surveyed rate clean air in the **top 5** attributes to protect in national parks



List of Class I areas: https://www.nps.gov/subjects/air/npsclass1.htm

States with at least one Class I area:
AK, AZ, CA, CO, FL, HI, ID, KY, ME, MI, MN, MT, NC, ND, NM, OR, SD, TN, TX, UT, VA, VI, WA, WY

Statistics citation:
Kulesza C and Others. 2013. National Park Service visitor values & perceptions of clean air, scenic views, & dark night skies; 1988–2011. Natural Resource Report. NPS/NRSS/ARD/NRR—2013/622. National Park Service. Fort Collins, Colorado

NPS photo of Great Smoky Mountains NP, NC & TN

The NPS has an affirmative legal responsibility to protect clean air in national parks.

- 1916 NPS Organic Act: created the agency with the mandate to conserve the scenery, natural and cultural resources, and other values of parks in a way that will leave them unimpaired for the enjoyment of future generations. This statutory responsibility to leave National Park Service units "unimpaired" requires us to protect all National Park Service units from the harmful effects of air pollution.
- 1970 Clean Air Act: authorized the development of comprehensive federal and state regulations to limit emissions from both stationary (industrial) sources and mobile sources. The Act also requires the Environmental Protection Agency to set air quality standards.
- 1977 Clean Air Act Amendments: these amendments to the Clean Air Act provide a framework for federal land managers such as the National Park Service to have a special role in decisions related to new sources of air pollution, and other pollution control programs to protect visibility, or how well you can see distant views. The Act established a national goal to prevent future and remedy existing visibility impairment in national parks larger than 6,000 acres and national wilderness areas larger than 5,000 acres that were in existence when the amendments were enacted (Class I areas).
- 1990 Clean Air Act Amendments: created regulatory programs to address acid rain and expanded the visibility protection and toxic air pollution programs. The acid rain regulations began a series of regional emissions reductions from electric generating facilities and industrial sources that have substantially reduced air pollutant emissions.

NPS photo of Washington DC: https://npgallery.nps.gov/AirWebCams/wash

Visibility goal:

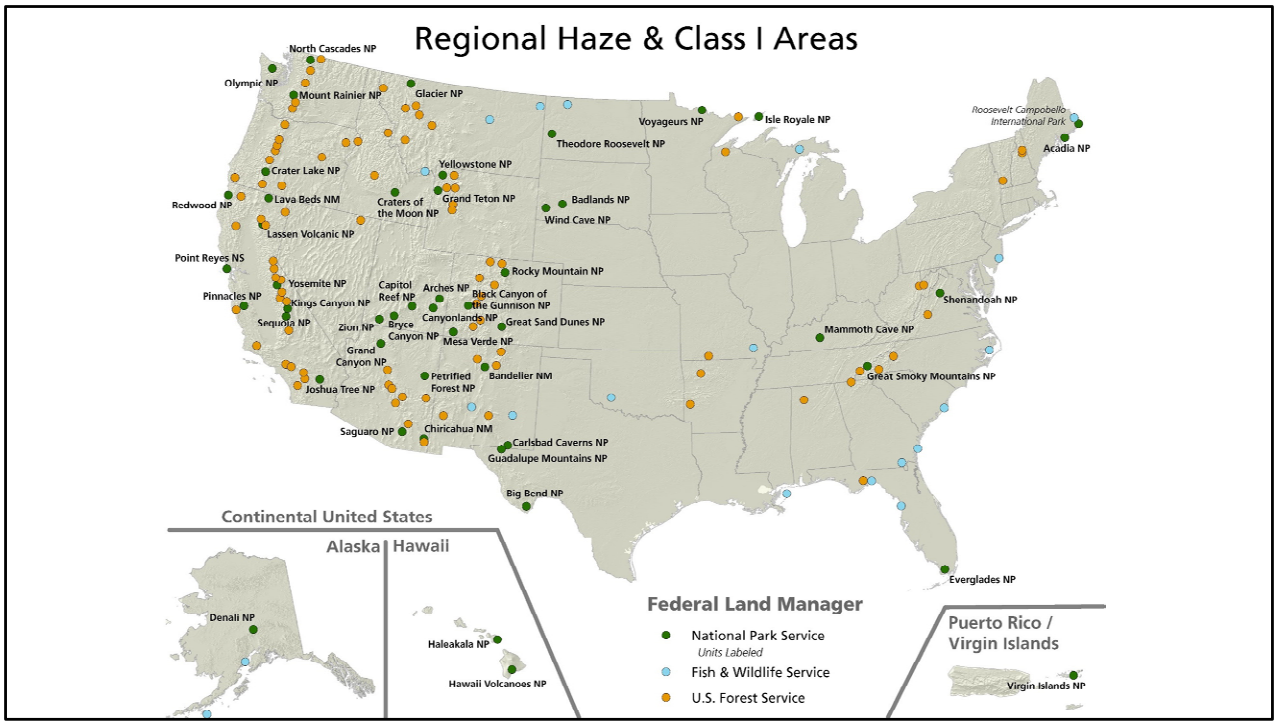
Restore natural conditions by 2064

Yosemite NP, California

Left to right images illustrate hazy to clear conditions.

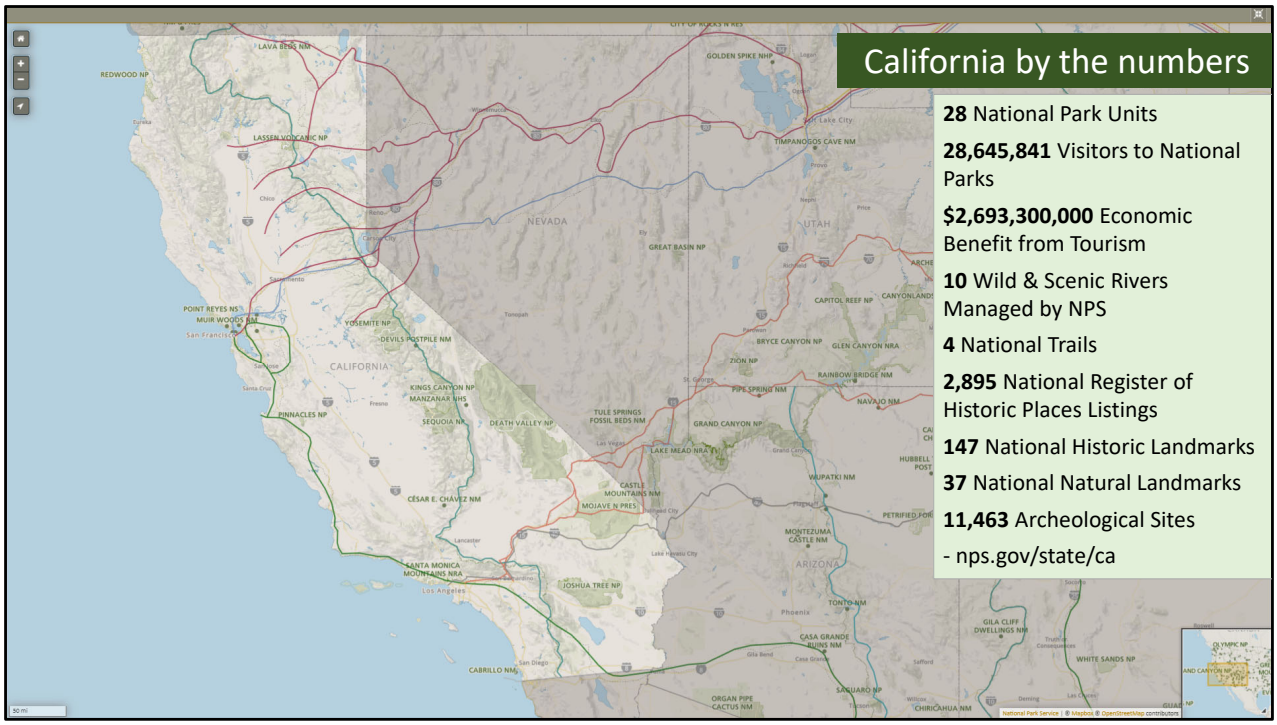
Haze obscures the color and detail in distant features.

NPS photos



As you know, the NPS is one of three Federal Land Managers (FLMs) with responsibility for the 156 Class I areas nationwide. The NPS manages 48 Class I areas. California is home to nine NPS-managed Class I areas.

NPS map of Class I areas, 2020



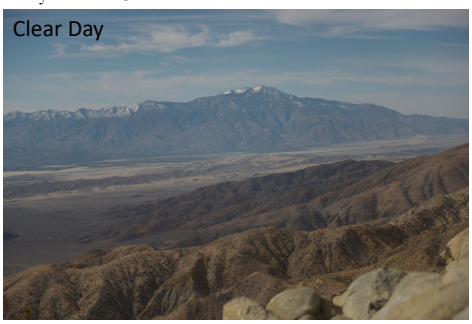
There are 28 official units of the NPS in California: ranging from Alcatraz from Manzanar to Whiskeytown. It's a breadth of historic, natural and cultural wonders.

NPS information and map, 2022; https://www.nps.gov/state/ca/index.htm

NPS Class I Areas
in California

Joshua Tree National Park	Sequoia & Kings Canyon National Parks	Lassen Volcanic National Park	Lava Beds National Monument
Pinnacles National Park	Point Reyes National Seashore	Redwood National Park	Yosemite National Park

Keys View Overlook



Joshua Tree National Park protects a fascinating variety of plants and animals that make their homes in a land sculpted by the surreal geology, strong winds, and the occasional torrents of rain. Two distinct desert ecosystems come together to create this vast and wonderous wilderness in southern California.

The open vistas of the Mojave and Colorado desert highlight the park's namesake and its unique geological features that draw millions of visitors each year. On a clear day visitors can see the Mexican boarder from the vantage point of Keys View. However, these days are limited by the haze that obscures these vistas which is the result of smog that blows into the park from surrounding urban areas (e.g., Los Angeles, Palm Springs, and other desert cities). It is important for Joshua Tree National Park to understand the role of air pollution in the ecosystem in order to effectively manage and protect park resources, its viewsheds and human health.

NPS photos (Right) are taken from Keys View overlooking the San Andreas fault in the Coachella Valley. (Left) is of Lost Horse Valley near sunset

Photo credits – Lost Horse Valley Brad Sutton / Clear Day Jesmira Bonoan / Hazy Day Robb Hannawacker

NPS photos views of Lassen Peak from Manzanita Lake

NPS photos views of Mt. Shasta from the summit of Lassen Peak.

Yosemite National Park

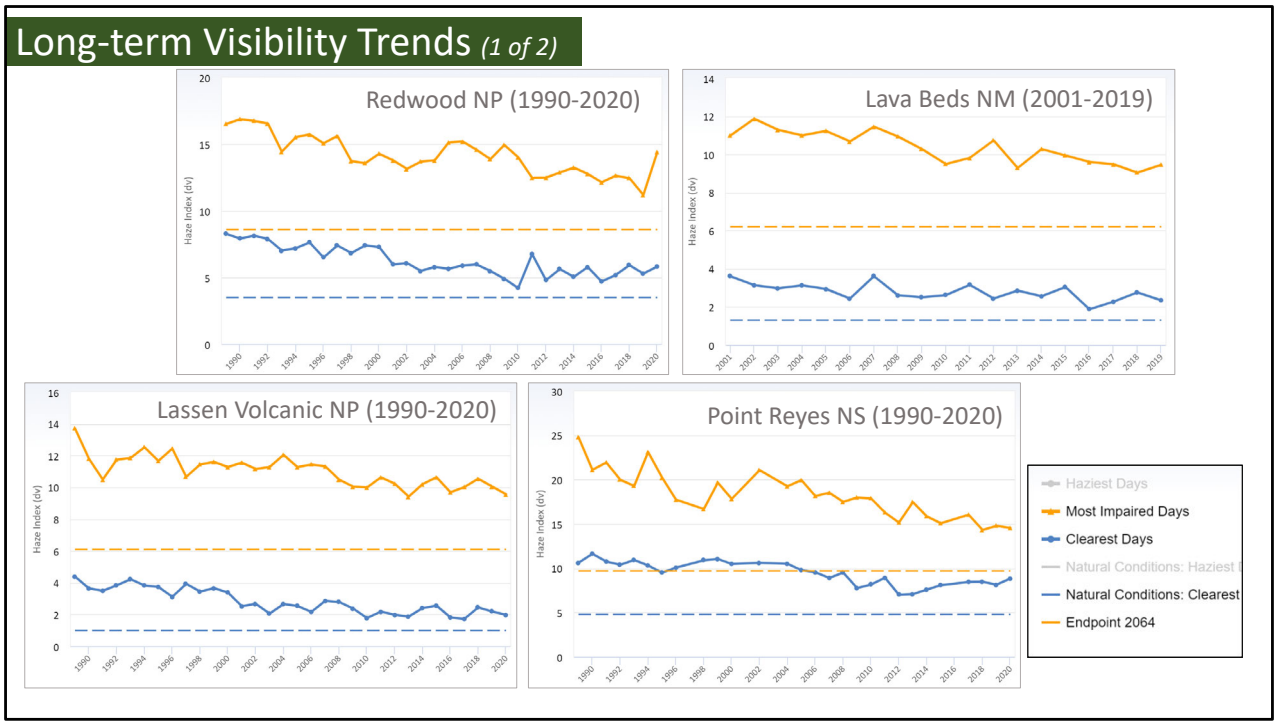
First protected in 1864, Yosemite National Park is best known for its waterfalls, deep valleys, grand views, scenic meadows, ancient giant sequoias, a vast wilderness area, and much more.

Looking out from almost any vantage point in Yosemite offers breath-taking scenic views. Views like those pictured here, seen by explorers like James Mason Hutchings and John Muir, these scenic vistas are part of the history that inspired the protection of the park in the late 1800s.

Nearly 95 percent of Yosemite is designated Wilderness. The wilderness is home to hundreds of wildlife species, and over a thousand plant species. The Park was designated as a World Heritage Site in 1984, as a result of its outstanding natural features and biodiversity. The Park also includes two Wild & Scenic Rivers, the Tuolumne and Merced rivers, which begin in the park and flow west to the Central Valley. In Yosemite, dark night skies have natural, cultural, and scenic importance. Clean air is critical to appreciate Yosemite's majestic views, to breathe deeply while hiking through its tall forests, to protect its soils and waters, and all the plants and animals that depend on them. Due to its largely unimpaired state, the park is a scientific laboratory of hydrology, geology and glaciology, amongst other sciences.

Yosemite Park managers aim to restore the park's historic scenic vistas using sound cultural and ecological practices and processes. A new multi-year project will identify historic and current park vistas using previous vista studies, historical records, and new surveys. The park's goal is to incorporate viewshed and vista management holistically into all applicable planning efforts. We appreciate the many collaborative efforts of our partners in state and local government to help us protect these values enjoyed by over 4 million visitors per year.

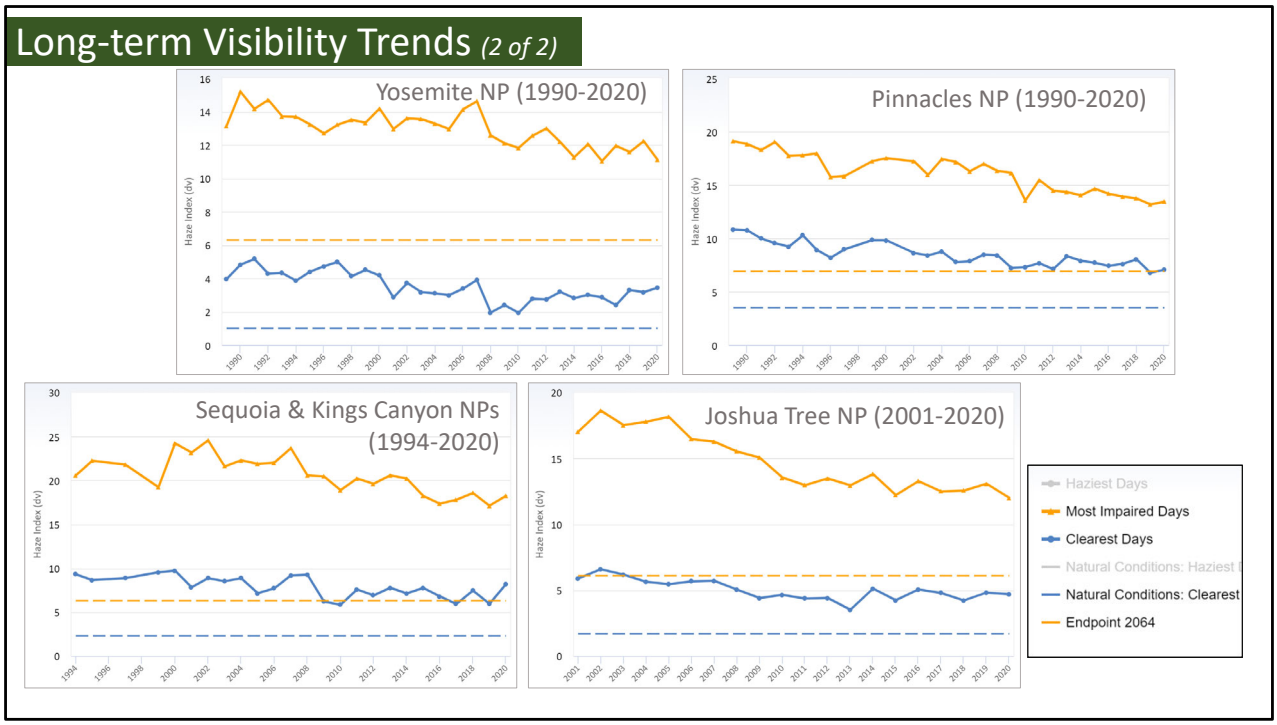
Creative commons photo, Insets are NPS webcam photos



There is a long history of visibility monitoring in our regional Class I areas.

- The monitor for Redwood NP, Lassen Volcanic NP, Point Reyes NS, Yosemite and Pinnacles NP all began operation in 1990. The monitor at Sequoia/Kings Canyon NPs began operation in 1994. The monitors at Lava Beds NM and Joshua Tree NPs date back to 2001. NPS staff support the operation of the IMPROVE monitoring network nationally and for many individual monitoring sites. This is how we keep track of the visibility conditions in our Class I areas and monitor progress.
- Graphs shown here highlight the annual average light extinction on most impaired days and on clearest days compared to the target condition (endpoint) for most impaired days and estimated natural conditions on clearest days. These charts show long-term improvement on most impaired days at all NPS Class I areas in California. However, in the past 10 years the trend is unchanging (not improving or degrading) for Lava Beds NM, Lassen Volcanic NP, Yosemite NP, and Joshua Tree NP. None of the NPS-managed Class I areas in California has reached the endpoint target condition which is the 2064 goal.

Long term visibility trend graphs generated from:
http://views.cira.colostate.edu/fed/Express/AqrvTools.aspx



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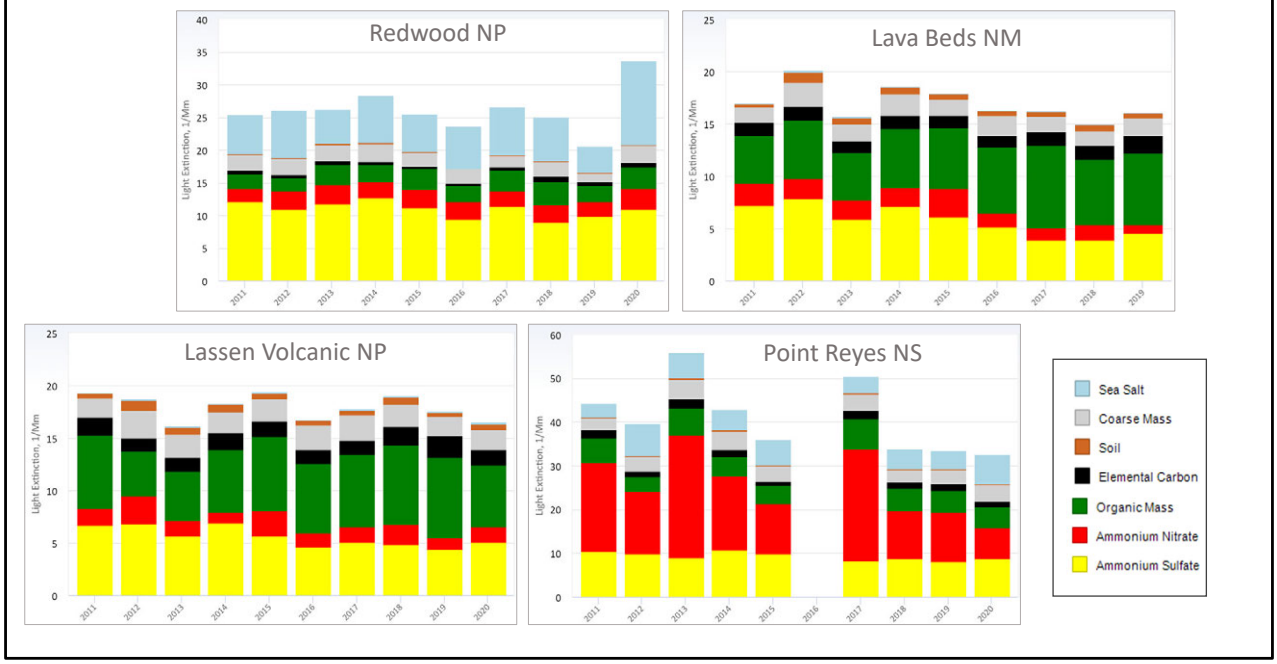
Haze Composition on Most Impaired Days, 2011-2020 *(1 of 2)*



Visibility composition charts for California Class I areas highlight the importance of ammonium sulfate and ammonium nitrate to light extinction on most impaired days. They also highlight the minimal improvements in the most recent 10-year period. Finally, it is important to note that the scale is not the same for all of the NPS Class I areas in California.

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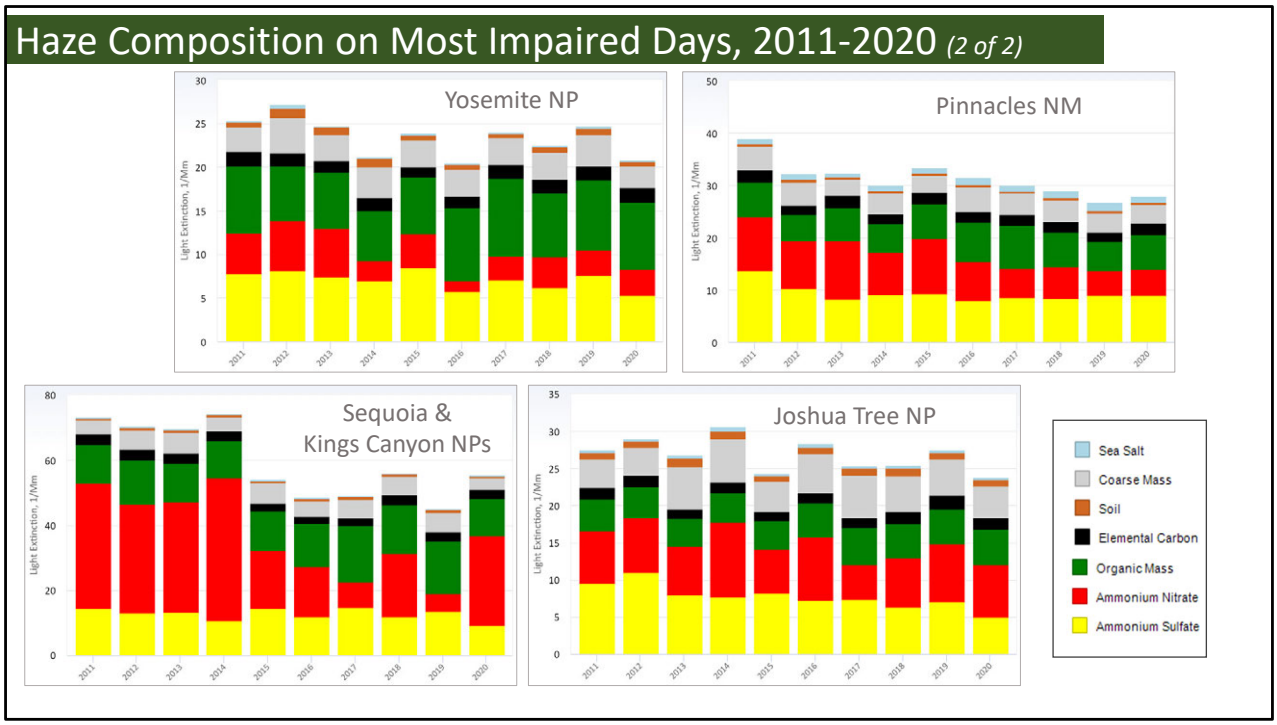

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Long term visibility composition charts generated from:
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California Draft SIP Feedback

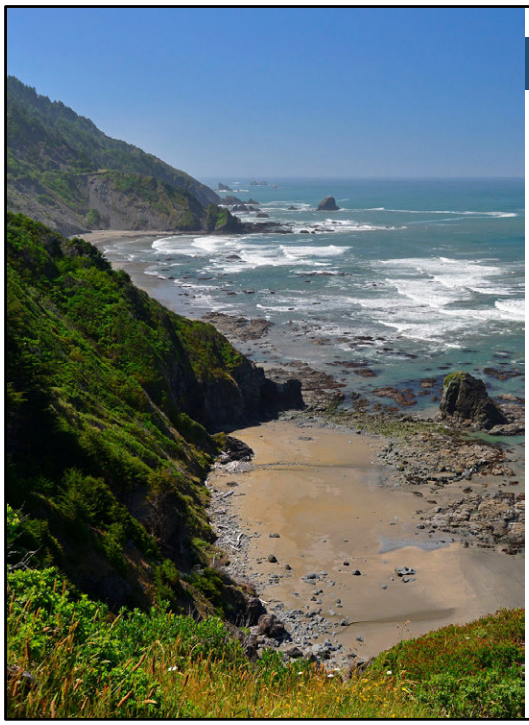
Source Determinations

- Overarching Feedback

- CARB eliminated Sulfate from source selection & analysis
- Initial screening list using Q/d>5 resulted in 42 stationary sources
  - Second step excluded sources using "detailed source information" that is not provided in SIP for review—resulted in 25 remaining sources
  - CARB deferred detailed review of controls until BARCT/AB 617 or excluded based on existing controls for 24 sources
  - One source was evaluated for 4 factor analysis
- NPS recommends revising the SIP and documenting source exemption determinations and/or conduct four-factor analyses required under the CAA

NPS requests that California provide detailed information in the SIP to support determinations to exclude sources from four-factor analysis.

Photo Credit: Brad Lucak, The General Sherman Tree, Sequoia National Park



California Draft SIP Feedback

Source Determinations

- BARCT (AB 617) Concerns

- BARCT is a separate program focused on NAAQS nonattainment
- Operates on a different timeline
- Removes the NPS review opportunity/obligation and public transparency that is part of required FLM consultation under Regional Haze
- The current draft SIP lacks adequate documentation of BARCT controls for technical review.

NPS Photo, Redwood National Park

California Draft SIP Feedback

California Emissions

- Need to consider Stationary Sources

Emissions from California's stationary sources are significant in the WRAP Region.

California stationary sources:

NOx

- **Rank #1** for NOx emissions in the future year 2028OTBa2 scenario
- **Rank #2** for NOx emissions in the current Repbase2 scenario

SO2

- **Rank #3** for SO2 emissions in the future year 2028OTBa2 scenario
- **Rank #6** for SO2 emissions in the current Repbase2 scenario
- Are projected to *increase* both SO2 and NOx emissions in 2028 relative to the Repbase2 scenario.

State	RepBase2 NO_x		2028OTBa2 NO_x		Point NO_x Emissions Change 2028OTB minus Repbase2
	All Point Sources TPY (NonEGU + EGU + Oil & Gas Point)	Point Rank	All Point Sources 2028 TPY (NonEGU + EGU + Oil & Gas Point)	Point Rank	
California	67,355	2	78,918	1	+ 11,563
New Mexico	51,244	6	61,077	2	+ 9,833
Wyoming	69,663	1	56,967	3	-12,696
Utah	59,578	3	46,095	4	-13,483
Colorado	54,766	4	46,040	5	-8,726
North Dakota	43,408	7	41,235	6	-2173
Arizona	52,039	5	32,140	7	-19,899
Washington	30,430	8	23,689	8	-6,741
Montana	26,688	9	19,967	9	-6,721
Oregon	18,368	10	16,078	10	-2,290
Nevada	12,654	11	12,213	11	-441
Idaho	9,884	12	9,743	12	-141
South Dakota	3,431	13	3,509	13	+ 78

State	RepBase2 SO_2		2028OTBa2 SO_2		Point SO_2 Emissions Change 2028OTB minus Repbase2
	All Point Sources TPY (NonEGU + EGU + Oil & Gas Point)	Point Rank	All Point Sources 2028 TPY (NonEGU + EGU + Oil & Gas Point)	Point Rank	
North Dakota	47,993	1	44,632	1	-3,361
Wyoming	47,974	2	37,622	2	-10,352
California	14,416	6	16,458	3	+ 2,042
New Mexico	12,933	9	15,949	4	+ 3,016
Arizona	40,886	3	13,801	5	-27,085
Colorado	15,282	5	13,136	6	-2,146
Utah	14,304	7	12,838	7	-1,466
Washington	14,111	8	12,610	8	-1,501
Montana	16,781	4	12,061	9	-4,720
Idaho	4,551	12	4,096	10	-455
Nevada	6,446	11	3,893	11	-2,553
Oregon	9,997	10	2,618	12	-7,379
South Dakota	662	13	662	13	0

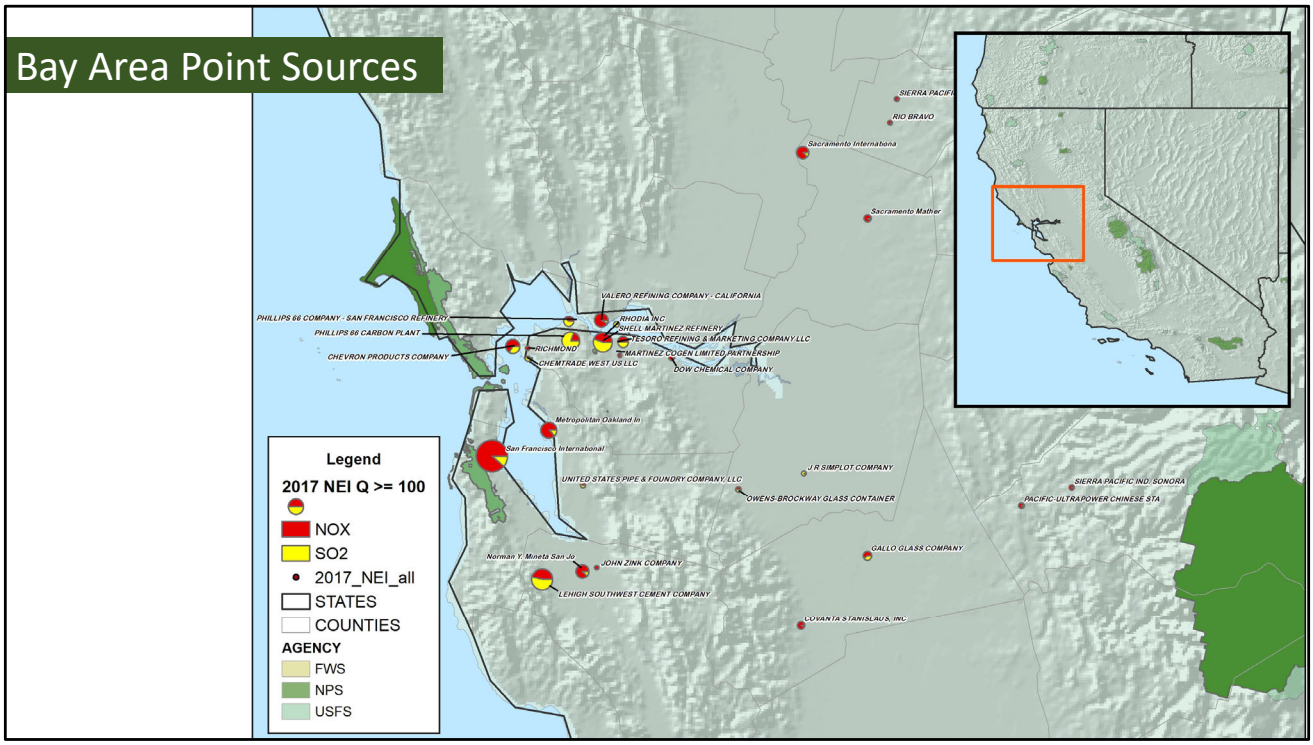
- We recognize and appreciate California's efforts aimed at reducing mobile source emissions. NOx emissions from mobile sources in the state are substantial and reducing those emissions is a vital piece of air quality management.

- However, as addressed previously in the presentation, review of point sources was deferred to other planning processes.

- Because of this NPS is interested in understanding how California point sources rank relative to other sources in Western states region.

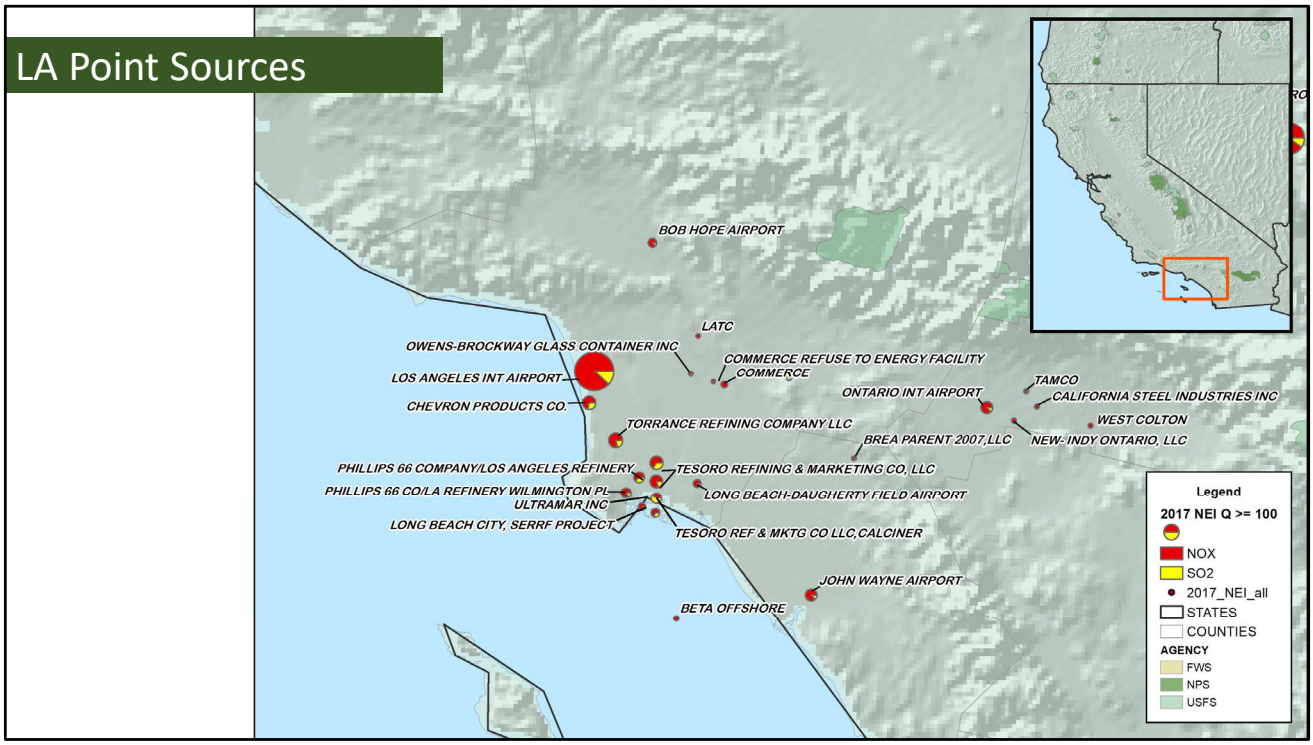
- NPS compared the modeling scenarios discussed in the draft SIP, the Repbase2 current year and the OTBa2 2028 future year emissions scenarios. What we found is that among the continental US WRAP states, California point sources rank pretty high in terms of total emissions. We also found that unlike many other western states, based on these two inventories, point source emissions are projected to increase between the base year and future year.

- All of this indicates that while mobile source emissions are a significant concern, point source emissions in California are also significant and warrant review.



Maps of California developed based on emissions reported in the 2017 NEI. The size of the pie represents total SO2 + NOx emissions (Q), and the color of the pie represents the SO2 versus NOx fraction of emissions. The maps focus on a couple of predominant point source regions in California, the Bay area and the Los Angeles area. They demonstrate that there are still large stationary sources of both SO2 and NOx emissions to address in California.

NPS Map, 2022



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NPS Map, 2022

California Draft SIP Feedback

Exclusion of SO_2

- from Selection and Analysis

- California excluded SO_2 based on CAMx source apportionment results & the modeled importance of international and natural sulfate to extinction.
- However, CAMx model performance evaluation shows an overall under-prediction of sulfate extinction at 6 of 8 sites (in yellow) representing NPS Class I areas.
- Despite this underprediction, U.S. anthropogenic sources account for about 20% of total sulfate impairment at PORE1, SEQU1, and JOSH1 as well as 10% at YOSE1 and PINN1.

NPS Class I areas in CA	Sulfate (Mm-1)		IMPROVE 2014 minus WRAP 2014	
	IMPROVE	CAMx		
	2014	2014v2	(Mm-1)	(%)
JOSH1	7.73	4.39	3.34	43%
LABE1	7.17	5.38	1.79	25%
LAVO1	6.90	4.89	2.01	29%
PINN1	9.11	8.32	0.79	9%
PORE1	10.70	19.88	-9.18	-86%
REDW1	12.66	36.23	-23.57	-186%
SEQU1	10.69	3.43	7.26	68%
YOSE1	6.94	3.55	3.39	49%

California Draft SIP Feedback

Exclusion of SO_2

- from Selection and Analysis

- Monitoring data show that over the last five years (on average) extinction from ammonium sulfate is greater than extinction from ammonium nitrate in California Class I areas.
- The impact of sulfate (yellow) exceeds the impact of nitrate (orange) at 13 of the 17 California monitoring sites.

CA Region	IMPROVE Site	Class I Area	IMPROVE 2015-2019 Average of Most Impaired Days		
			Sulfate (Mm-1)	Nitrate (Mm-1)	Total (Mm-1)
Northern	LABE1	Lava Beds National Monument South Warner Wilderness Area	4.7	1.5	16.2
Northern	REDW1	Redwood National Park	10.2	2.6	24.2
Northern	TRIN1	Marble Mountain Wilderness Area Yolla Bolly-Middle Eel Wilderness Area	6.1	2.9	19.5
Northern	LAVO1	Thousand Lakes Wilderness Area Lassen Volcanic National Park Caribou Wilderness Area	4.9	1.7	18.1
Northern	BLIS1	Desolation Wilderness Area Mokelumne Wilderness Area	4.3	1.3	14.6
Northern	PORE1	Point Reyes National Seashore	8.8	14.8	38.5
Northern	YOSE1	Emigrant Wilderness Area	7.0	2.9	23.1

** The first half of the IMPROVE data table highlighting the significance of ammonium sulfate at California Class I areas in recent years is shown on this slide*

California Draft SIP Feedback

Exclusion of SO_2

- from Selection and Analysis

- SO2 is a significant component of impairment in the California Class I areas.

CA Region	IMPROVE Site	Class I Area	Sulfate (Mm-1)	Nitrate (Mm-1)	Total (Mm-1)
Central	HOOV1	Hoover Wilderness Area	4.0	1.1	13.1
Central	KAIS1	Ansel Adams Wilderness Area John Muir Wilderness Area Kaiser Wilderness Area	6.8	3.6	22.2
Central	PINN1	Pinnacles National Park Ventana Wilderness Area	8.5	7.5	30.9
Central	SEQU1	Kings Canyon National Park Sequoia National Park	13.3	13.4	50.5
Central	RAFA1	San Rafael Wilderness Area	11.2	6.2	31.5
Southern	DOME1	Domeland Wilderness Area	9.9	5.8	35.5
Southern	SAGA1	San Gabriel Wilderness Area Cucamonga Wilderness Area	7.5	9.8	28.0
Southern	SAGO1	San Gorgonio Wilderness Area San Jacinto Wilderness Area	6.4	14.0	32.5
Southern	JOSH1	Joshua Tree Wilderness Area	7.3	6.6	26.3
Southern	AGTI	Agua Tibia Wilderness Area	13.8	9.0	39.7

** The second half of the IMPROVE data table highlighting the significance of ammonium sulfate at California Class I areas in recent years is shown on this slide*

California Draft SIP Feedback

Exclusion of SO_2

- from Selection and Analysis

- NPS recommends that CARB apply a weight of evidence approach when selecting pollutants to consider—this includes consideration of current monitoring and emissions information as well as model performance for sulfate.
- NPS recommends that California SO_2 point sources warrant evaluation through four-factor analyses.
- Do what you can where you can.

NPS Photo of Lava Beds National Monument.

California Draft SIP Feedback

Four-Factor Sources

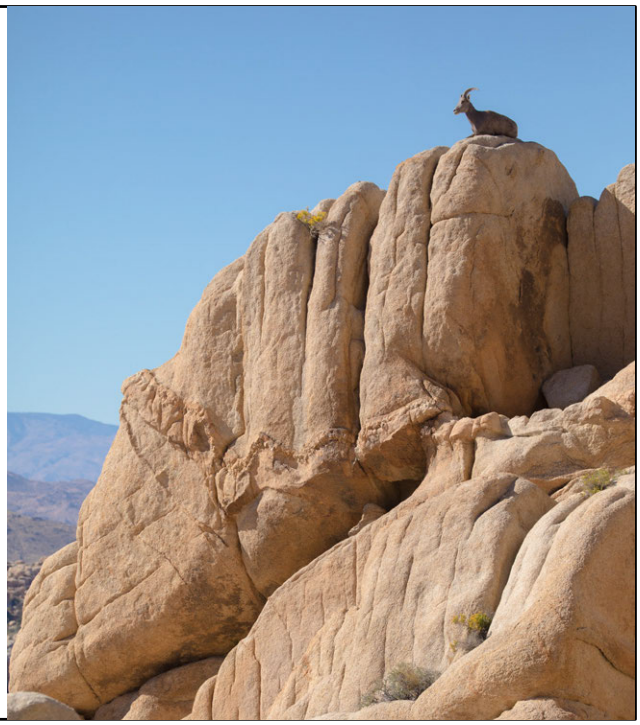
- Source Categories

Important California Source Sectors:

- Refineries
- Cement Plants
- Woodwaste burning plants
- Mobile sources

CARB Completed One Four Factor Analysis:

- Collins Pine - Chester



NPS Photo by Glauco Puig-Santana, Bighorn Sheep, Joshua Tree NP

California Draft SIP Feedback

Four-Factor Sources

- Refineries (1 of 2)

- NPS recommends CARB conduct four factor analysis on eight facilities.
  - These refineries emitted 6,223 tons of NO_x and 2,167 tons of SO_2

Site Name	City	NO_x (tons)	SO_2 (tons)	Q	Distance to NPS Class I Area (km)	Q/d	NO_x Q/d	SO_2 Q/d	NPS Class I Area
TESORO REFINING & MARKETING COMPANY LLC	MARTINEZ	360	344	703	58	12.13	6.20	5.93	PORE
CHEVRON PRODUCTS COMPANY	RICHMOND	737	374	1,111	28	39.67	26.33	13.35	PORE
Phillips 66 Rodeo Renewed Project	RODEO	210	295	505	43	11.74	4.88	6.86	PORE
SHELL MARTINEZ REFINERY	MARTINEZ	916	1,155	2,071	54	38.36	16.97	21.39	PORE
VALERO REFINING COMPANY - CALIFORNIA	BENICIA	1,013	95	1,108	52	21.31	19.48	1.83	PORE
Phillips 66 Carson + Wilmington		862	350	1,212	165	7.35	5.23	2.12	JOTR
Tesoro Carson + Wilmington		1,410	515	1,925	165	11.67	8.55	3.12	JOTR
TORRANCE REFINING COMPANY LLC	TORRANCE	924	242	1,165	175	6.66	5.28	1.38	JOTR

California Draft SIP Feedback

Four-Factor Sources

- Refineries (2 of 2)

- For NO_x, 4 of the CA refineries ranked among top 10 for tons/yr of emissions per 1,000 barrel per day(bpd) capacity.
- For SO_2, 4 of CA refineries ranked top ten in tons/yr of emissions per 1,000 bpd capacity. Top two are California refineries.
- See technical attachment for additional ranking and explanation

State	Company	NO_x	SO_2	1,000	NO_x tpy/1,000	NO_x tpy/1,000	SO_2 tpy/1,000	SO_2 tpy/1,000
		tpy 2014	tpy	BPD	BPD	BPD (rank)	BPD	BPD (rank)
CA	Tesoro Refining & Marketing Company (Martinez)	360	344	48	7.494	4	7.161	2
CA	Chevron Products Company (Richmond)	737	374	257	2.866	22	1.453	14
CA	Rodeo Renewed Project	210	295	118	1.780	26	2.500	8
CA	Shell Martinez Refinery	916	1,155	157	5.838	10	7.356	1
CA	Valero Refining Company (Benicia)	1,013	95	170	5.959	9	0.560	21
CA	Chevron Products Co. (El Segundo)	729	282	290	2.515	25	0.972	18
CA	Phillips 66 Co/Los Angeles Refinery – Carson+Wilmington	862	350	139	6.203	11	2.516	7
CA	Tesoro Refining and Marketing Co. – Carson and Wilmington	1,410	515	363	3.885	15	1.418	15
CA	Torrance Refining (formerly ExxonMobil)	924	242	155	5.958	8	1.561	12

This slide shows the ranking of the California refineries across the US on tons per year of emissions per 1,000 barrels per day. One of California's refineries is the 2nd worst in the country using this metric. See the technical attachment for the full table and the ranking explanation.

California Draft SIP Feedback

Four-Factor Sources

- Cement Plants

- In 2017, cement plants specifically excluded by CARB in its Step 3 emitted 11,156 tons of NO_x and 3,227 tons of SO_2.
- For NO_x (orange), 3 of the California cement plants above average limits and 6 Q/d>5 at 4 parks.
- For SO_2 (yellow), 2 above average limits and 4 exceeded Q/d values at 3 parks.
- NPS recommends CARB conduct four factor analysis on six cement plants.

Site Name and City	Hg (lb)	NOX (tons)	NOx (lb/ton clinker)	SO2 (tons)	SO2 (lb/ton clinker)	Distance to NPS Class I Area	NOx Q/d	SO2 Q/d	NPS Class I Area
LEHIGH SOUTHWEST CEMENT COMPANY--Cupertino	49.1	1,035	2.00	1,393	2.10	88	11.7	15.8	PORE
Cal Portland Mojave Plant-Mohave	4.6	1,013	2.50	457	1.70	150	6.8	3.0	SEQU
CEMEX - BLACK MOUNTAIN QUARRY PLANT-Apple Valley	270.4	5,420	1.95	569	0.35	86	63.0	6.6	JOTR
MITSUBISHI/CUSHENBURY PLANT-Lucerne Valley	72.7	1,944	2.80	344		49	39.7	7.0	JOTR
CALPORTLAND ORO GRANDE-Oro Grande	47.5	1,141	2.45	7		160	7.1	0.0	JOTR
LEHIGH SOUTHWEST CEMENT COMPANY-Redding	8.1	603	1.95	457	0.40	70	8.6	6.5	LAVO
	452.5	11,156	2.28	3,227	1.14				

This slide shows CA cement plant emissions on pounds per ton of clinker basis. Relative to plants across the U.S., 3 of the California cement plants have above average limits and 6 of them exceed CA's Q/d threshold.

California Draft SIP Feedback

Four-Factor Sources

- Woodwaste Burning Plants

- Woodwaste fire boilers excluded by California have achieved 20%-30% NO_x reduction through SNCR in other states.
- NPS recommends four factor analysis for 2 facilities that impact Lassen Volcanic NP
  - Sierra Pacific Industries
  - Wheelabrator Shasta E.C.I

Photo credit: NPS/Gavin Emmons –A fledgling California condors spreads its wings to absorb the sun's rays.

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Collins Pine

- Chester Facility

- Wood products manufacturing and cogeneration facility, 15 km southeast of Lassen Volcanic
- NO_x Q/d value of 8.6 exceeding CA threshold of 5
- NPS four factor analysis concludes additional NO_x controls warranted.

NPS Photo of Black bear cub climbing tree, Lassen Volcanic NP

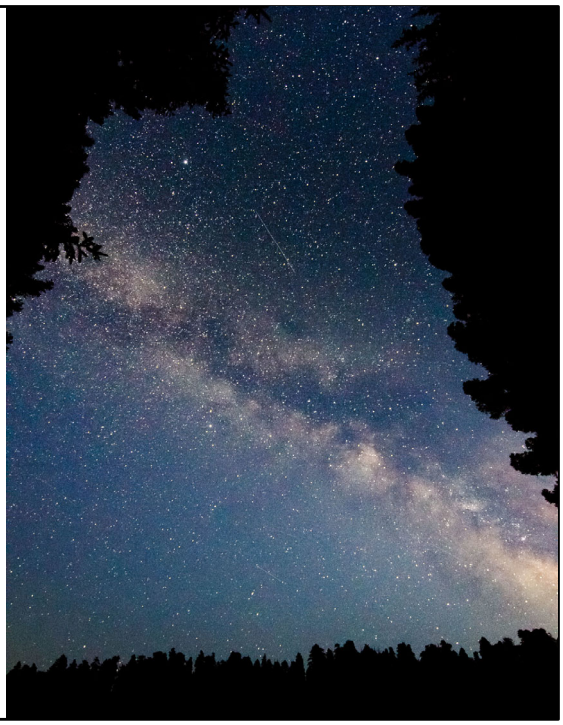
California Draft SIP Feedback

Recommendations

The NPS recommends that CARB amend the draft SIP and :

1. Assess opportunities to address haze causing SO_2 emissions for identified facilities.
2. Assess opportunities to address haze causing NO_x emissions or thoroughly document rational for screening individual emission units from full analysis for identified facilities.

Detailed NPS conclusions and recommendations are included in our written feedback summarizing this consultation meeting.



NPS Photo, Milky Way Redwood

Next Steps

- Thank you for meeting with us!
- Please share:
  - Anticipated SIP schedule
  - How you will respond to NPS comments
  - * Note – CAA requirement to summarize FLM conclusions in public notice
- Please let us know:
  - When public comment period opens
  - If/when a public hearing will be held
- The NPS will:
  - Email call summary & detailed comments
    - By **April 11, 2022**
  - Share our comments with EPA Region 9

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The NPS will submit an email summary of our April 7, 2022, consultation call along with final review comments by April 11, 2022.

Please note that the CAA requires states include a summary of FLM conclusions and recommendations in the public notice. We tuned in to this requirement in December, 2021 and are now sharing it with states. The CAA language is:

> *§7491. Visibility protection for Federal class I areas*
>
> *(d) Consultations with appropriate Federal land managers*
>
> *Before holding the public hearing on the proposed revision of an applicable implementation plan to meet the requirements of this section, the State (or the Administrator, in the case of a plan promulgated under section 7410(c) of this title) shall consult in person with the appropriate Federal land manager or managers and shall include a summary of the conclusions and recommendations of the Federal land managers in the notice to the public.*

https://www.govinfo.gov/content/pkg/USCODE-2013-title42/html/USCODE-2013-title42-chap85-subchapI-partC-subpartii-sec7491.htm

We ask that the state notify us when the draft SIP will be open for public review and comment, and alert us to any public hearing dates.

Please reach out to us with any questions.

For any formal notifications of public documents, please include the above list of NPS staff.

The NPS values clean air and clear views and recognizes these as essential to our visitor experience and the very purpose of our Class I areas. We recognize opportunities for significant progress to be made in this planning period as we strive toward the goal of unimpaired visibility. We welcome future opportunities to engage with CARB and work together on efforts to reduce haze causing pollution and address regional haze in our national parks.

NPS photo of Point Reyes National Seashore by ValeTerat1982