

Aggregate Production and Climate Change in California: A State Government Perspective

LEAGUE OF CALIFORNIA CITIES
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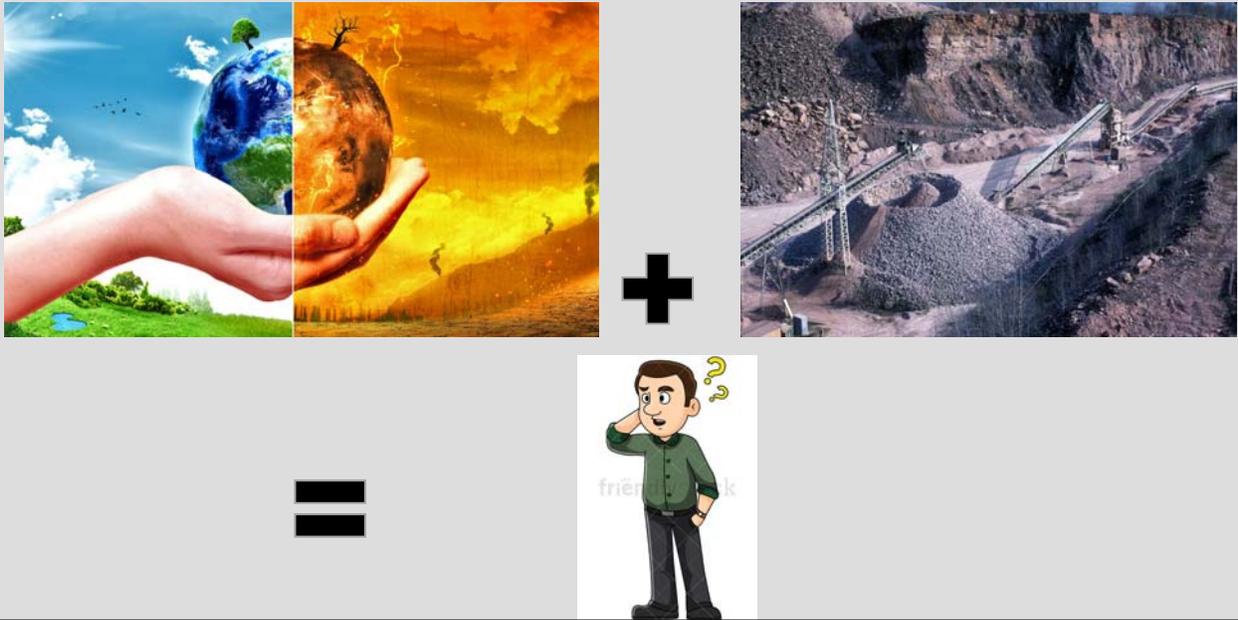


California in 2045

- ▶ **SB 100 – sponsored by State Senator Kevin De Leon (9/10/18)**
 - ▶ Puts CA on path to 100% renewable electricity by 2045
 - ▶ This is only 16% of all of CA's emissions
- ▶ **Executive Order B-55-18 (9/10/18)**
 - ▶ Achieve overall C neutrality no later than 2045
 - ▶ CNRA, CalEPA, CA ARB, and CDFA shall include sequestration targets consistent with this goal
 - ▶ **All pathways to achieve this must also:**
 - ▶ Improve air quality, support health and economic resilience, esp of low-income and disadvantaged communities
 - ▶ And support climate adaptation, biodiversity, and protect the state's water supply, water quality, and native flora and fauna



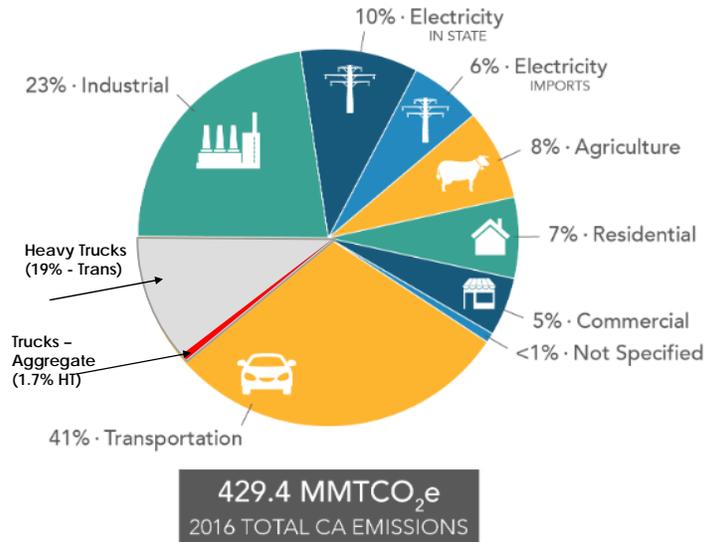
So...What does this have to do with aggregate mining?



A LOT!

- ▶ Non-fuel, non-metal mining itself doesn't produce much GHGs (around 146K MT in 2016)
- ▶ However, it's transport definitely does
- ▶ Right now, it produces around 570K MT of CO₂e a year
- ▶ Without remedial action (i.e., more reserves) these emissions could increase five fold in 50 years
 - ▶ Rail, Barge, and Ship from long distances
- ▶ This will make it difficult for us to achieve our overall GHG reduction targets

Emissions by Economic Sector 2016



Emissions by Economic Sector 2066

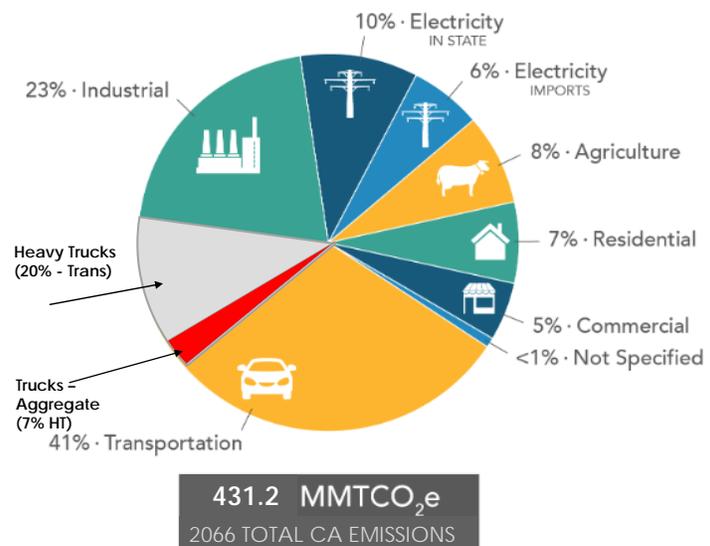
With Projected Demand and no additional permitted aggregate mining this scenario could take place by 2066

Aggregate Transport Emissions - Up 323%

Heavy Truck Emissions - Up 6%

Transportation Emissions - Up 1%

All Emissions - Up 0.4%



Assumes future projected demand and that all aggregate must be brought in by rail (1/3), barge (1/3), and ship (1/3) first before being trucked - (uses figures from CGS Map sheet 52 report.)

Governor's Climate Change Pillars

CALIFORNIA CLIMATE STRATEGY

An Integrated Plan for Addressing Climate Change

VISION

Reducing Greenhouse Gas Emissions to 40% Below 1990 Levels by 2030

GOALS

- 50% renewable electricity
- 50% reduction in petroleum use in vehicles
- Double energy efficiency savings at existing buildings
- Carbon sequestration in the land base
- Reduce short-lived climate pollutants
- Safeguard California



Transportation Strategies to support these goals

Cleaner Vehicle Technologies

Lower Carbon Fuels

Reduction of Vehicle Miles Traveled



The Department of Conservation



Our Mission:

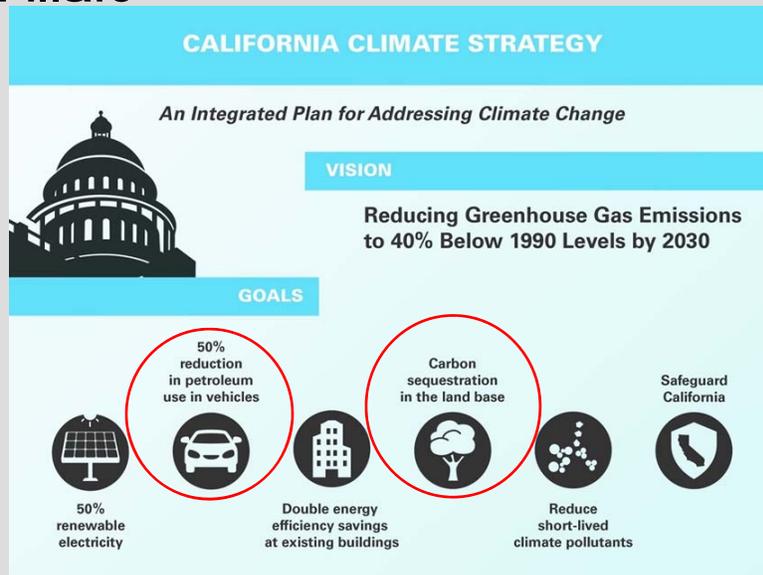
The Department of Conservation balances today's needs with tomorrow's challenges and fosters intelligent, sustainable, and efficient use of California's energy, land, and mineral resources.

Our Vision:

A safe, sustainable environment for all Californians.

Director: Dr. David Bunn

Governor's Climate Change Pillars





- ▶ In his 2015 inaugural address, Governor Brown called for support to manage natural and working lands, including forests, rangelands, farms, wetlands, and soils, so they can store carbon.
- ▶ These lands have the ability to remove carbon dioxide from the atmosphere through biological processes, and to then sequester carbon in above- and below-ground matter.

Carbon Sequestration in the Land Base



Strategic Agricultural Lands Conservation Program (SALC)

SALC

- ▶ DLRP works with partners at Strategic Growth Council and Natural Resources Agency.
- ▶ Aims “to reduce greenhouse gas emissions through projects that implement land use, housing, transportation, and agricultural land preservation practices to support infill and compact development...”
- ▶ Funded with Greenhouse Gas Reduction Funds from California Climate Investments.

