

DUDEK



LSA

GHG Emissions Thresholds: A Cautionary Tale From California

NAEP Webinar

Meet our Panel



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Overview

01 Introduction and Background

02 The Past

03 The Present

04 The Future

05 Next Steps

06 Questions



01

Introduction and Background

How it all started

Let's Go Back to the Beginning

Climate Change a hot topic

- Kyoto Protocol (1997)
- Senate Bill 1771 Establishes the California Climate Registry to develop GHG inventory protocols (2000)
- Assembly Bill 1493 Low Carbon Fuel Standards (2001)
- California GHG Inventories and Forecasts (2004)
- Executive Order S-3-05 (2005)
 - Reduce to year 2000 levels by 2010
 - Reduce to year 1990 levels by 2020
 - Reduce 80% below 1990 levels by 2050
- Film: Inconvenient Truth (2006)



Let's Go Back to the Beginning

First Comprehensive Legislative Mandate

- Assembly Bill 32 Global Warming Solutions Act of 2006 (AB 32)
 - Policy language says global warming poses a “serious threat” to the economic and environmental wellbeing of the state.
 - Requires that Statewide greenhouse gas (GHG) emissions be reduced to 1990 levels by 2020.



Let's Go Back to the Beginning

First CEQA Challenge

- October 2006: California Attorney General Jerry Brown challenges the San Bernardino County General Plan Update EIR because it did not address climate change.
- November 2006-March 2007: Association of Environmental Professionals (AEP) drafts White Paper addressing climate change in CEQA.
- SB 97



Let's Go Back to the Beginning

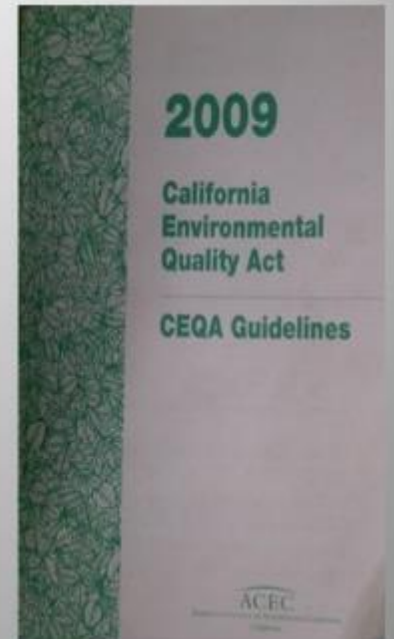
Senate Bill 97 (SB 97) CEQA: Greenhouse Gas Emissions:

- SB 97 (August 2007)
 - Requires the Governor's Office of Planning and Research (OPR) to prepare and transmit to the Resource Agency by July 1, 2009 guidelines for the analysis and mitigation of GHGs in CEQA.
 - Requires the Resource Agency to adopt guidelines by January 1, 2010.

SB97

Senate Bill 97

GHGs are explicitly required to be analyzed for CEQA



What the CEQA Guidelines Say

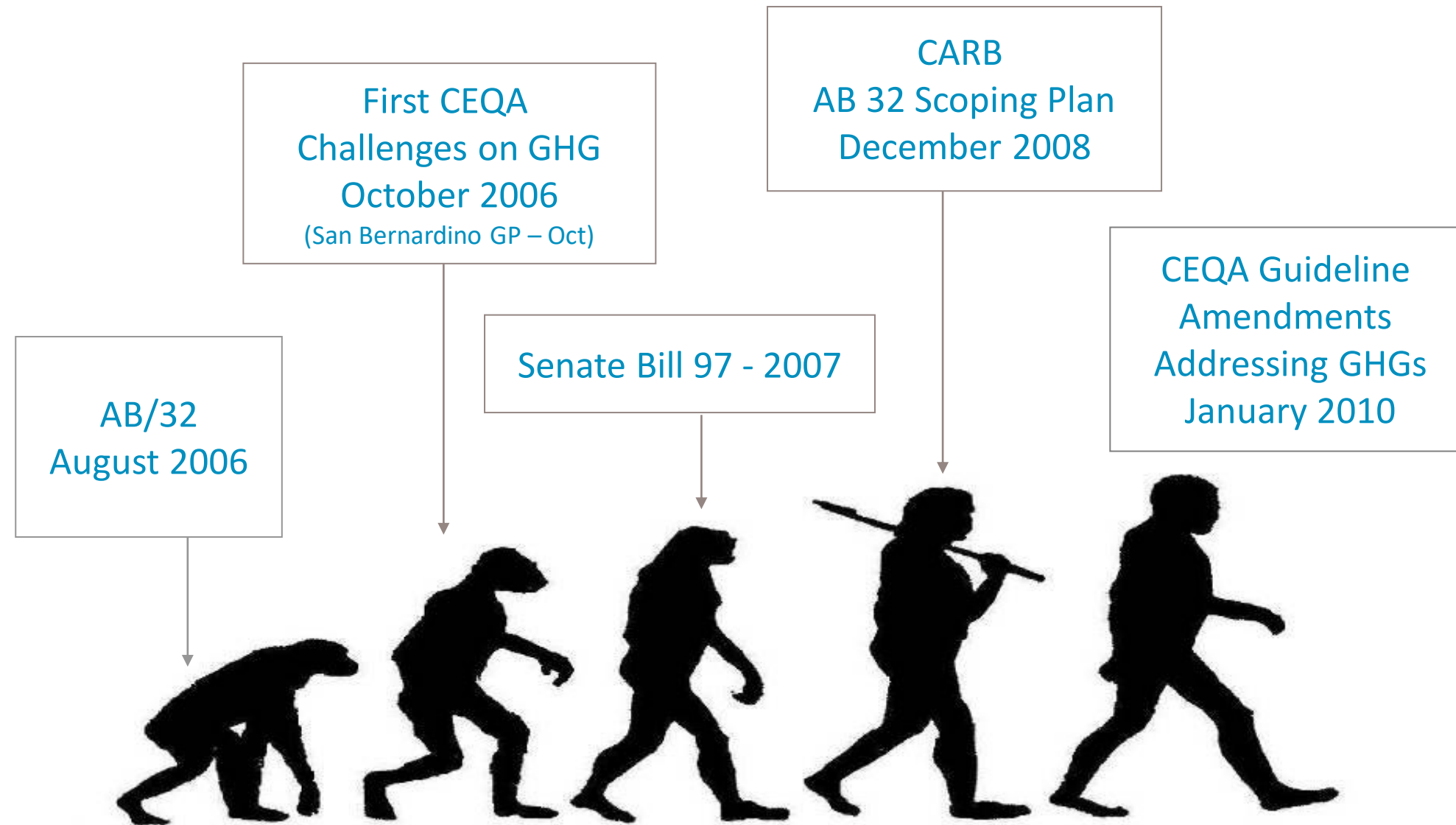
CEQA Guidelines Summary (January 2010):

- Sections and language added to CEQA Guidelines:
 - 15064.4: Determining the significance of impacts from GHG emissions.
 - 15130 (B): Cumulative GHG emissions impact analysis.
 - 15183.5: Tiering and streamlining of a cumulative GHG analysis.
 - Two Questions added to Appendix G:
 - Would the Project generate GHG emissions that may have a significant effect on the environment?
 - Would the Project conflict with a plan, program or regulation adopted for the purpose of reducing GHG emissions?



Let's Go Back to the Beginning

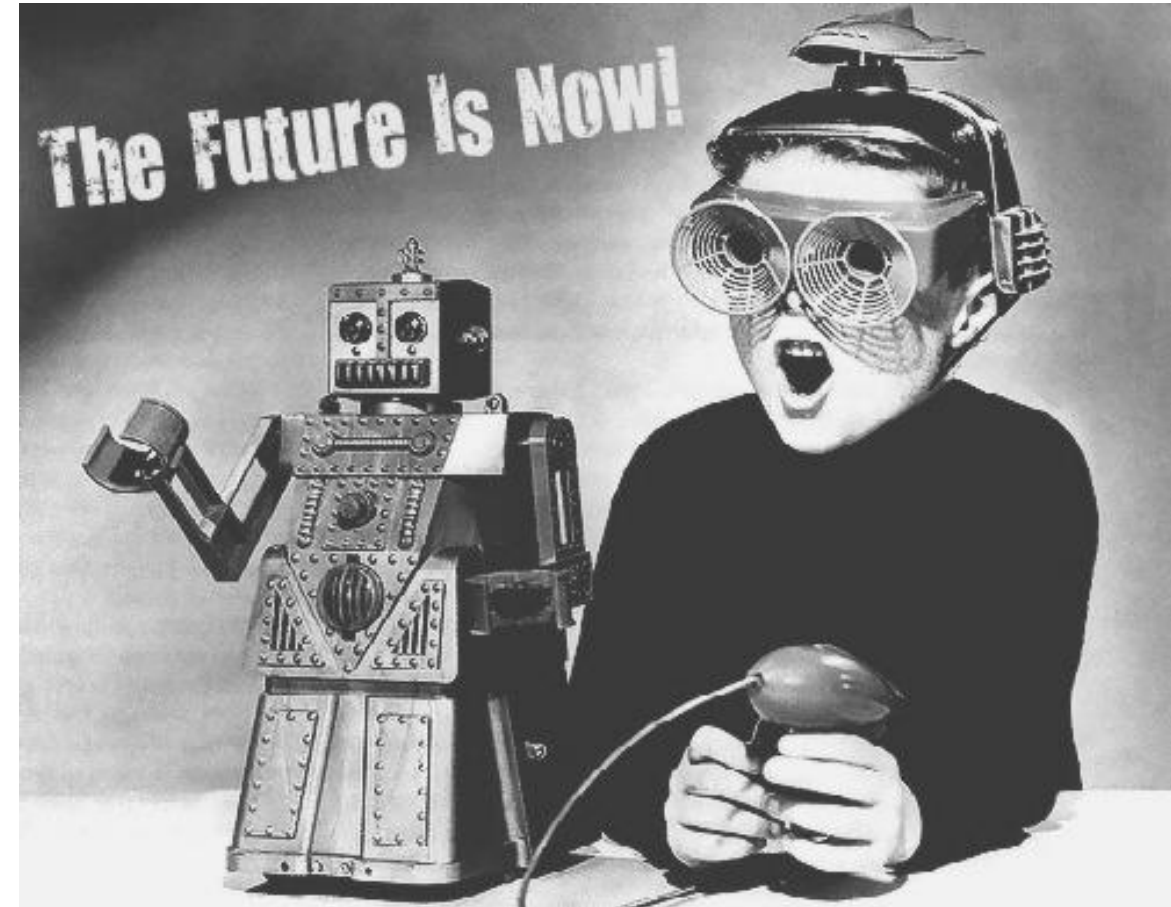
The Evolution of GHG/CEQA Regulations in California



What the CEQA Guidelines Say

The Judiciary Continues the Evolution

- Environmental Groups challenge CEQA Thresholds (2050 goal):
 - Supreme Court decision on Newhall Ranch (2015)
 - Supreme Court Decision on the San Diego Association of Governments (SANDAG) Regional Transportation Plan/Sustainable Communities Strategy (2017)
 - Other Appeals Court decisions



The Continued Push

Recent Legislation and Executive Orders

- SB 32 (2018)-Reduce GHG emissions 40 percent below 1990 levels by 2030.
- Executive Order B-55-18 (2018):
 - Net Carbon Neutrality Statewide by 2045.



An aerial view of a city skyline, likely Los Angeles, with a teal square overlay on the left side. The skyline features several prominent skyscrapers, including the US Bank Tower. The foreground shows a dense residential area with many smaller buildings and trees.

02

The Past

What was hip then
(and still used now)

Quantitative Pathways – Bright-Line Thresholds

Simple Absolute Numerical Value

- A bright-line threshold is a numerical value used to determine the significance of a project's annual GHG emissions.
- If project-generated emissions are estimated to be less than the bright-line threshold, impacts would be determined to be less than significant, and no additional analysis or implementation of mitigation would be required.
- Bright-line thresholds are intended to capture and mitigate the majority of GHG emissions from new development to ensure that growth within California is consistent with state climate goals.

Examples:

- 10,000 MT CO₂e/year for stationary sources (many air districts)
- 1,100 MT CO₂e/year for land use development (Bay Area AQMD, Mendocino County AQMD, Sacramento Metropolitan AQMD)
- 1,150 MT CO₂e/year for land use development (San Luis Obispo County APCD)
- 3,000 CO₂e/year for non-industrial projects (South Coast AQMD, proposed, never adopted)

Quantitative Pathways – BAU / NAT

Reduction below Business-As-Usual (BAU) Emissions or No-Action-Taken (NAT) levels

- The BAU or NAT threshold approach require a project to meet a percent reduction target based on the average reductions needed from the BAU or NAT emissions from all GHG sources to be considered less than significant.
- Early versions of this threshold aligned with the Assembly Bill 32 2020 GHG reduction target, by requiring a percent reduction from BAU consistent with state targets.

Examples:

- 29% Reduction from BAU (San Joaquin Valley APCD)
- 21.7% Reduction from BAU (if over 900 MT CO₂e/year, Sacramento Metropolitan AQMD, not in use)
- 16% Reduction from BAU (County of San Diego, withdrawn)

Quantitative Pathways – Efficiency Metric

Service Population Threshold

- The efficiency metric or “per capita” or “per service population” threshold represents the intensity of a project’s emissions normalized against its population or “service population”.
- A project’s “service population” refers to a project’s residents plus employees that would be generated by the proposed project’s development.

Examples:

- 4.6 MT CO₂e/SP/year for project-level and 6.6 MT CO₂e/SP/year for plan-level (Bay Area AQMD)
- 4.9 MT CO₂e/SP/year for all (San Luis Obispo County APCD)
- Placer County APCD:
 - Residential-Urban: 4.5 MT CO₂e/capita/year
 - Residential-Rural: 5.5 MT CO₂e/capita/year
 - Non-Residential-Urban: 26.5 MT CO₂e/ksf/year
 - Non-Residential-Urban: 27.3 MT CO₂e/ksf/year

Quantitative Pathways – Net Reduction or No Change

Net Reduction or No Change in Operational Baseline (No Threshold)

- For projects that would result in a net reduction or no change in GHG emissions compared to baseline conditions, the analysis does not need to compare GHG emissions to numeric thresholds.
- Best practice is to quantitatively demonstrate that the project would result in a net reduction.

Examples:

- Redevelopment of a site where proposed development would be less intensive and/or more efficient than existing land use(s).
- In-kind replacement

Quantitative Pathways – No Net GHG Emissions

Zero Threshold

- Similarly, for projects that would result in no net increase in GHG emissions compared to baseline conditions, the analysis does not need to compare GHG emissions to a non-zero threshold.
- A quantitative evaluation will usually be required to demonstrate that a project would result in no net increase in GHG emissions compared to baseline conditions.
- Current projects can result in net-zero emissions overall, but at present can only do so using GHG mitigation credits (commonly called “offsets”) due to the difficulty in avoiding all GHG emissions, especially those associated with transportation.

Qualitative Pathways

No fun math, but permitted under CEQA

- **Compliance with Qualified GHG Reduction Plans**

- Compliance with a qualified GHG emission reduction plan is a defensible strategy provided that an applicable plan is available, and that the plan covers the project's buildout year and accounts for growth that includes the project.

- **Compliance with CARB Scoping Plan**

- While the Scoping Plan currently does not provide a framework for how it applies to specific projects, a project that demonstrates that it fully implements every relevant strategy in the Scoping Plan *could* be argued to have less than significant GHG emissions.

- **Compliance with Cap-and-Trade**

- Court rulings have found that projects that are directly regulated under this program can be found to have less than significant GHG emissions

- **Compliance with Applicable MPO Regional Transportation Plan/Sustainable Communities Strategy**

Key Decisions Coming from California Courts

**CALIFORNIA COURT OF APPEALS
FOURTH APPELLATE DISTRICT
DIVISION THREE**



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.....

Newhall Ranch 2015

Center for Biological
Diversity v. California Dept.
of Fish & Wildlife (2017)
17 Cal.App.5th

- Validated “Hypothetical Baseline” as a means of comparison
- Invalidated the “Business as Usual” (BAU) approach applied because it was not supported by substantial evidence
- Numeric-based thresholds should be tailored to the local geography and project types.





Golden Door 2018

Golden Door Properties, LLC
/Sierra Club v. County of San
Diego (2018)
27 Cal.App.5th

Must link State Standards to a project based on:

- Location
- Project type
- "New" v. "Existing"

SANDAG 2017

Cleveland National Forest
Foundation v. San Diego Assn.
Of Governments (2017)
3 Cal.5th

- Long-range plans should consider long-term GHG reduction goals (i.e., EO S-03-05)
- But Executive Orders are not mandatory CEQA thresholds





Mission Bay 2016

Mission Bay Alliance, et al. v. Office of Community Investment and Infrastructure, (2016) 6 Cal.App.5th 160

- “Teiring” off a Climate Action Plan is a valid approach
- If you tier off a CAP you may not need to quantify project-level GHG emissions.

Note: Environmental Leadership Project requires no “net increase” in GHG emissions



Long Beach 2018

City of Long Beach v. City of Los Angeles (2018),
Case No. A148993

- Qualitative Analysis of Consistency with GHG Reduction Plans is okay

Contra Costa County 2018

Rodeo Citizens Association v. County of
Contra Costa (2018) Cal.App.5th

Lifecycle emissions are not necessary if upstream / downstream use is speculative.



Kern County 2017

Association of Irrigated Residents v. Kern
County Bd. of Supervisors (2017) 17
Cal.App.5th

Permitted sources directly regulated under Cap-and-Trade can
rely on the Cap-and-Trade



03

The Present

What we know now

The "Safe Harbor"

- **Net reduction** in GHG emissions
- **Zero net** GHG emissions
- **Cap-and-Trade** direct regulation
- **"Qualified" GHG reduction plan consistency**



The Open Ocean

- Mass Emissions Thresholds
- Efficiency Thresholds
- Percent below BAU Thresholds
- Compliance with Cap and Trade (for land use developments)



The "Five-Part Test"

- Test 1: State Reduction Target Test
- Test 2: New Development Test
- Test 3: Local/Regional Conditions Test
- Test 4: Project Type Test
- Test 5: Cap and Trade Test





Test 1: State Reduction Target Test

- ***A GHG threshold should be related to state GHG reduction target(s)***
- Newhall Ranch says it is a "legally permissible criterion of significance" to assess "whether the project was consistent with meeting statewide emission reduction goals"
- However, must be substantial evidence that this target is appropriate for the project





Test 2: New Development Test



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- *A GHG threshold should be appropriate for new development*
 - GHG reduction amount may be different for each project
 - Each region, city, and economy has a unique profile
 - Newhall said "a greater degree of reduction may be needed from new land use projects than from the economy as a whole" to reach state-wide GHG emission reduction targets



Test 3: Local/Regional Conditions Test

- ***A GHG threshold should consider local/regional context***
- Newhall said GHG threshold should consider “efficiency and conservation measures incorporated in a specific land use development proposed for a specific location” and that “transportation emissions are affected by the location and density of residential and commercial development.”
- Golden Door criticized San Diego's GHG threshold because it relied on “statewide data without evidence supporting its relationship to countywide reductions fails to meet the substantial evidence standard.”





Test 4: Project Type Test

- ***A GHG threshold should be tailored to consider variations in project type***
- Golden Door said that GHG thresholds should consider “variations between different types of development.”
- A threshold that is adapted to consider project type would avoid this uncertainty.





Test 5: Cap-and-Trade Test

- *A GHG threshold should not rely on Cap-and-Trade emission reductions unless the source emissions are directly regulated under Cap-and-Trade*
- CARB has objected to land use projects that rely on Cap-and-Trade indirectly
- CARB says Cap-and-Trade relies on local development reductions
- Some legal debate here, but to avoid uncertainty, don't use Cap-and-Trade unless your project is directly regulated



04

The Future



A new approach

A New GHG Significance Threshold Approach

A short tale of adventure in the land of CEQA peril

Goals

1. Quantitative
2. Specific to new development
3. Related to adopted state and local GHG initiatives
4. Adapted for local/regional conditions
5. Based on individual project type
6. Does not rely on cap and trade

Concept

1. One size does NOT fit all
2. Requires interpretation and adaptation to project conditions
3. Results in project-specific threshold instead of broad-based threshold.

Too good to be true? Let's see!



A New GHG Significance Threshold Approach

Chapter 1: Finding a Project's Path

STEP ONE: Identify all 2017 Scoping Plan/adopted local strategies relevant to the Project:

Identify every GHG reduction strategy that is relevant to the proposed project including:

- Building energy: energy efficiency, renewable energy, zero energy buildings, RPS, appliances, building electrification, lighting, etc.
- Transportation: advanced clean cars/other efficiency, LCFS, VMT reduction
- Waste: reduce/reuse/recycle, landfill methane controls
- Water: water conservation/efficiency
- Wastewater: water conservation/efficiency/ methane capture
- Sequestration/sinks, etc.



A New GHG Significance Threshold Approach

Chapter Two: Yes. Math will be Required.

STEP TWO: Calculate 2030 Emissions for the Project.

- Estimate the project's 2030 operational emissions.
- The estimate should only account for those strategies or project design features that the applicant is proposing and/or that are mandatorily required by current state and local law.
 - *Some of the initiatives in the CARB 2017 Scoping Plan and in local adopted plans are not mandatory and/or are not mandatory for local development.*

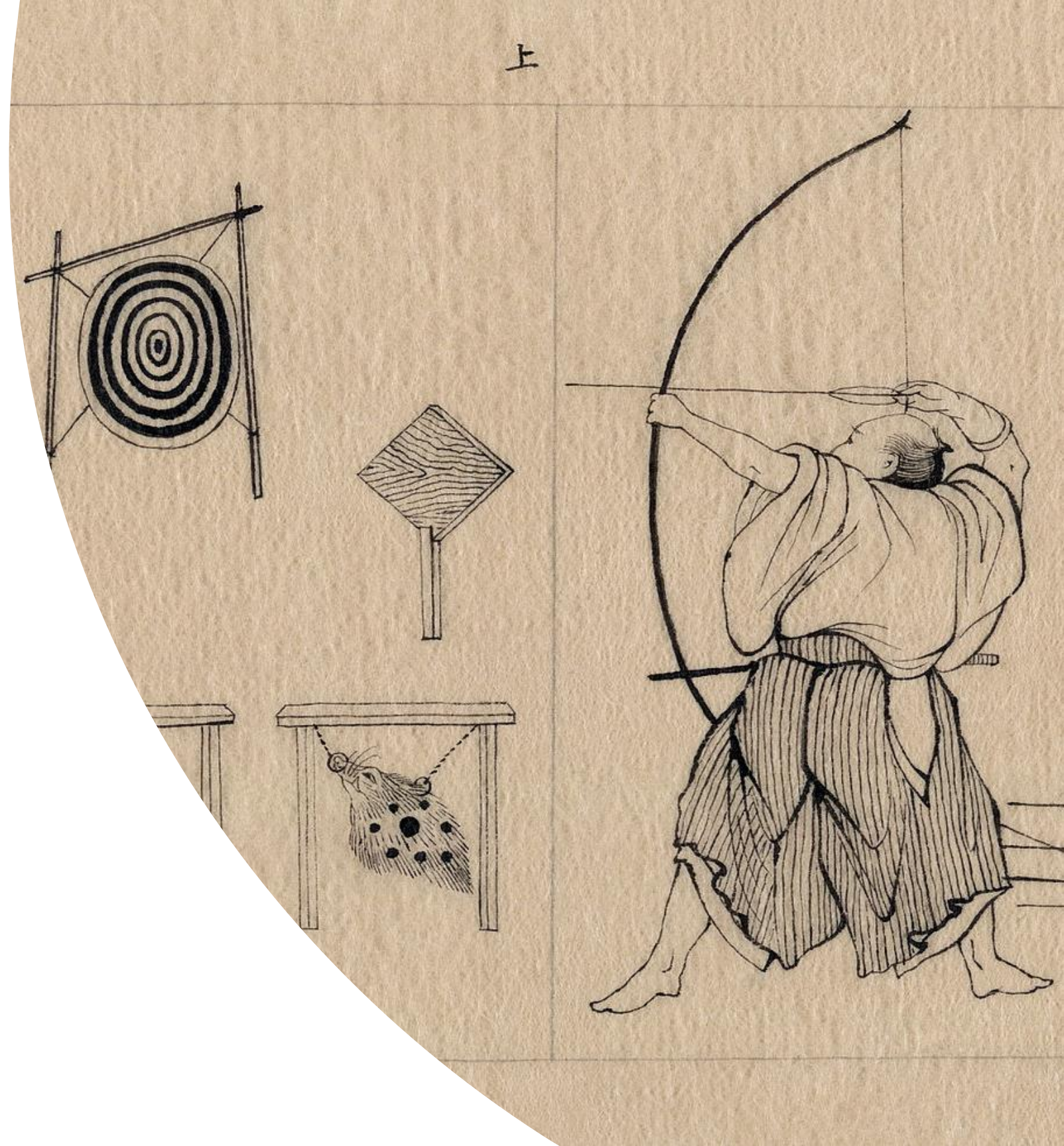


A New GHG Significance Threshold Approach

Chapter 3: A Special Number for Every Project

STEP THREE: Calculate the 2030 Threshold for the Project

- Calculate the project-level threshold calculated by applying all relevant 2017 Scoping Plan and adopted local plan initiatives to the project.
- For transportation, develop a VMT threshold consistent with SB 743 requirements in addition to vehicle efficiency and fuel decarbonization initiatives and calculate related on-road GHG transportation emissions. VMT threshold must be directly related to GHG reduction requirements (see CARB January 2019 guidance)



A New GHG Significance Threshold

Chapter Four: A Project Finds Meaning

STEP FOUR: Determine Significance Before Mitigation

- Compare the project's 2030 operational emissions to the project's 2030 threshold.
- If the project's 2030 emissions exceed the 2030 threshold, emissions would be significant.



A New GHG Significance Threshold Approach

Chapter 5: Doing Something About It

STEP FIVE: Apply Mitigation Measures

- Identify feasible mitigation to reduce emissions.
- Identify mitigation to reduce on-site emissions, then off-site
- If needed, GHG mitigation credits, in the form of GHG offsets or GHG Forecasted Mitigation Units (FMUs), are a feasible means of mitigating remaining emissions



A New GHG Significance Threshold Approach

Chapter 6: Judgment Rendered

STEP SIX: Determine 2030 Significance After Mitigation

- If mitigated emissions exceed 2030 threshold, then impact would be significant and unavoidable.
- Due to the existence and growing market for verified GHG mitigation credits, there is a strong rationale that it should be feasible to mitigate emissions to a less than significant level using such credits, unless:
 - GHG mitigation credits are unavailable within the geography mandated by the lead agency or
 - GHG mitigation credits are demonstrated to be financially infeasible for the project proponent



A New GHG Significance Threshold Approach

Chapter 7: The Best Go Further

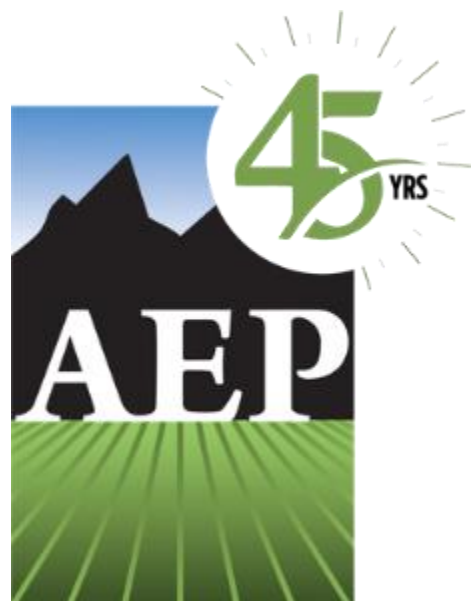
STEP SEVEN: Extend Approach to 2045 (or beyond)

- Use the project 2030 threshold derived and extrapolate year-by-year thresholds from 2030 to 2045 by reducing each sector's net emissions down to zero on a linear basis until the project threshold reaches zero for 2045 and all subsequent years.
- The project's emissions above the 2030 threshold (for any years up to 2030), above the 2031 to 2045 thresholds, or above the zero emissions threshold beyond 2045 (out to the lifetime of the project) would need to be mitigated to below the relevant threshold.
- A nominal lifetime assumption for land use development could be 30 years.



05

Next Steps



What we plan to do next

A New GHG Threshold Approach

Previews of Coming Attractions

- AEP Climate Change Committee continues evaluation
 - Fleshing out methodology
 - How to identify relevant Scoping Plan/Other initiatives?
 - Metrics for applying initiatives to individual projects
 - Quantitative Case Studies:
 - Norcal, Central Valley, Socal
 - Identify Applicability
 - Which projects will this work for?
 - Identify Limitations/Uncertainties
 - Thinking about all the ways this might go wrong in CEQA!

COMING
ATTRACTION



06

Questions

THANKS FOR
YOUR TIME

Contact Us

We look forward to
hearing from you!

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