Climate Justice Working Group Draft DAC Criteria Update

June 15, 2021

Meeting Procedures

Before beginning, a few reminders to ensure a smooth discussion:

- Working Group Members should be on mute if not speaking.

  - If using phone for audio, please tap the phone mute button.

  - If using computer for audio, please click the mute button on the computer screen (1st visual).

- Video is encouraged for Working Group members, particularly when speaking.

- In the event of a question or comment, please use the hand raise function (2nd visual). Click the participant panel button (3rd visual) for the hand raise function. Rosa or Alanah will call on members individually, at which time please unmute.

You'll see ⊘ when your microphone is muted

VM ⌒ Valerie Milonovich

Attendee: 3 (0 displayed)

View all attendees...

Hand Raise
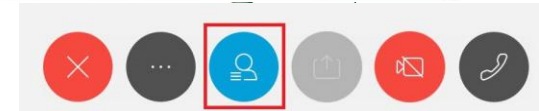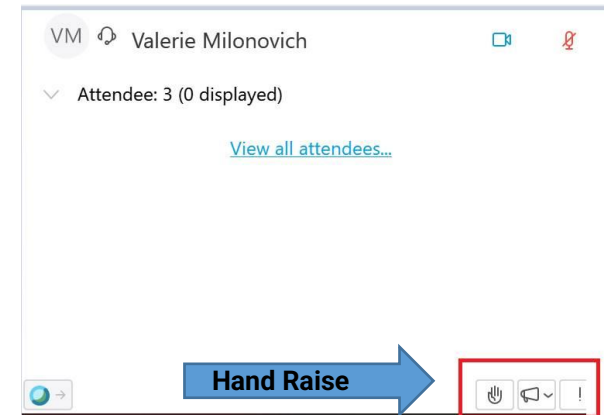
Welcome and Roll Call

Agenda

12:00   Intros, Business Items

12:10   DAC Definition Status & Timeline

12:20   DAC Scenario Overview

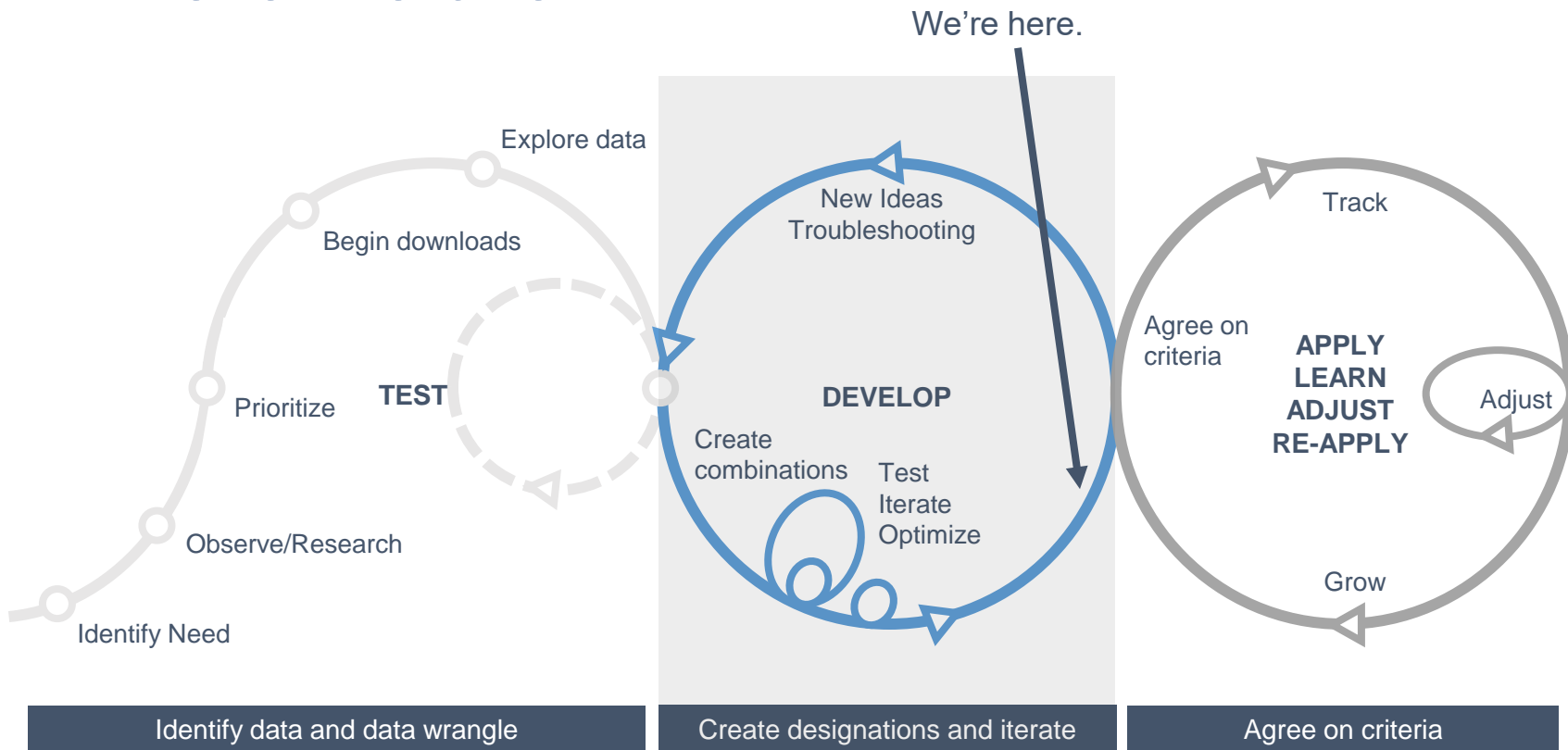12:35   DAC Scenario Demo

12:50   DAC Scenario Review Process

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Business Items

> Approval of Minutes

Where we are with DAC criteria

Indicator selection is just one of several decisions

Indicator Selection
Ingredient List and Importance

Scoring Approach
How to Make the Cake

Designation
How to Slice the Cake

Groundtruthing
Testing the Cake
(as we bake it!)

What indicators capture the legislation + stakeholder interest?

What data can support them?

How do we combine data, and score communities?

Should we score communities statewide or regionally?

What percentage of communities should be DACs?

How well do draft DACs reflect your experience on the ground?

Can we modify indicators or scoring?

Timeline

If our goal is to provide criteria to CAC by end of the year…

We need to publish draft scenarios in early August (still aggressive) and start public comment period…

This means heavier review/discussion of maps/scenarios and documentation through early August (+ voting)

Let's circle back to the timeline.

Description of Today's Scenario
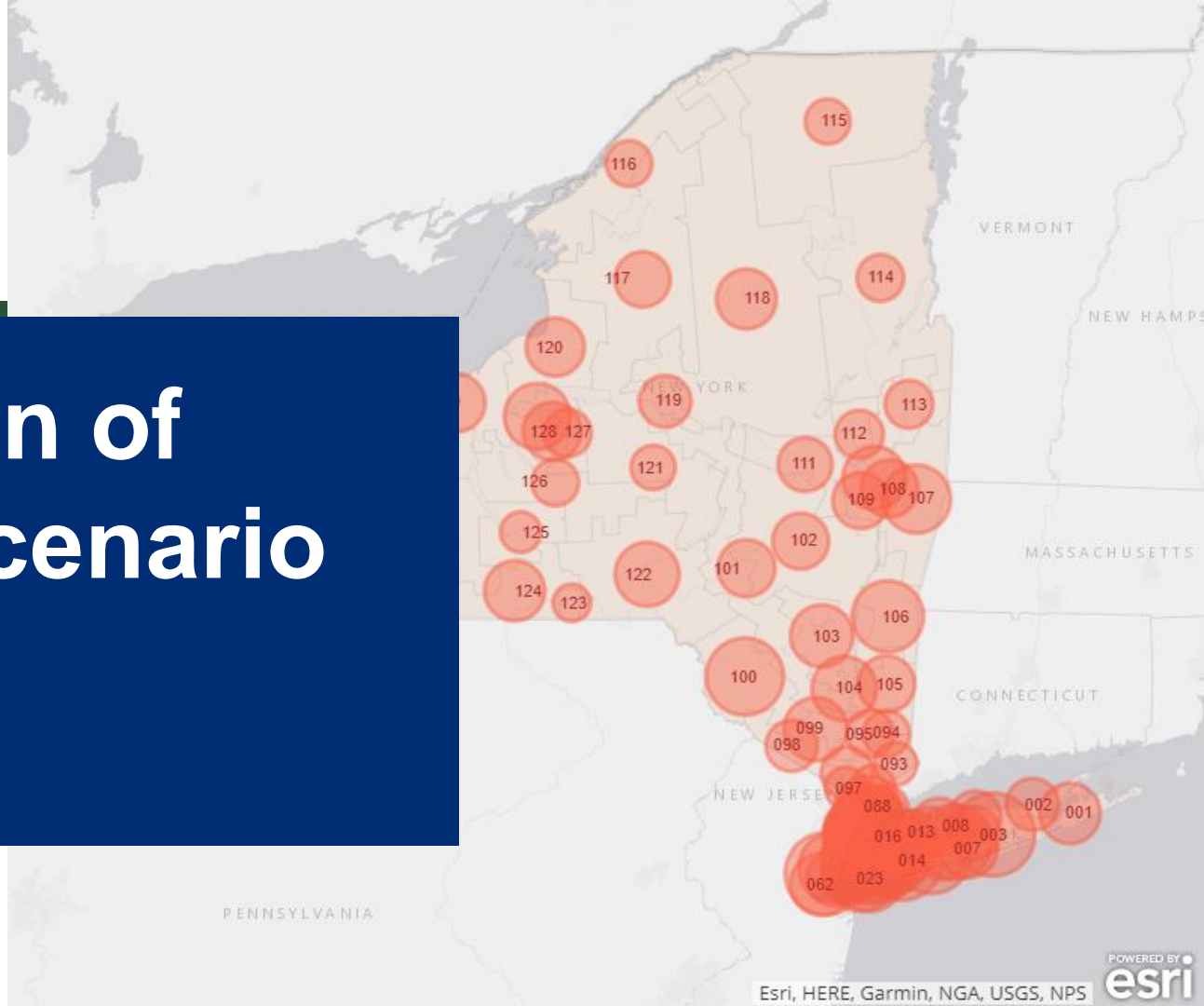
Review: Combining Data

Group Indicators into Factors

| Exposures |
| Discriminatory Land Use |
| Climate |

| Health |
| Socio-demographics |
| Housing & Mobility |

Combine Factors into Components

| Burdens Score | ✕ | Vulnerabilities Score |

Calculate Statewide & Regional Scores

Designate DACs based on their relative score

DAC

Not DAC

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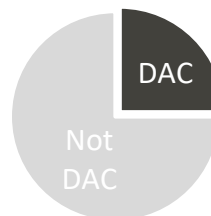
Some decisions move things more than others

Designation Threshold
(High-scoring tracts to designate as DACs – e.g., top third?)

https://www.clrp.cornell.edu/q-a/272-excavator_certification.html

Factor Importance
(Relative importance of exposures vs. climate, etc.)

https://compactequip.com/excavators

Indicators
(With ~40 indicators, changing one doesn't shift much)

Photo by Andres Siimon on Unsplash

Indicator Weights
(With highly-correlated indicators, weights don't shift results much)

Photo by Anaya Katlego on Unsplash

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Designation Threshold

Statewide Score
How each community ranks (on all of the data) within the **entire** state

Regional Scores
How each community ranks (on all of the data) in NYC and Rest-of-State separately

NYC Scores — top 25%

Statewide Scores — top 25%

Rest-of-State — top 25%
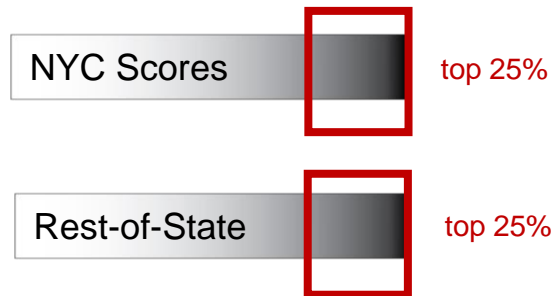
About 1/3 designated

Designate communities that score in either top 25% statewide OR regionally

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Future: Include tribal/indigenous land & low-population areas with high burdens

Community Burdens and Potential Risks: Indicators in Current Scenario

Potential Pollution Exposures	Land use associated with historical discrimination or disinvestment	Potential Climate Change Risks
• Vehicle traffic density* • Particulate Matter (PM2.5) • Benzene • Wastewater discharge*	• Hazardous Waste treatment/storage/disposal facilities* • Remediation Sites (e.g., NPL Superfund or State Superfund/Class II sites)* • Regulated Management Plan (chemical) sites* • Industrial/manufacturing/mining land use (zoning) • Utility/waste land use (zoning) • Transportation facilities land use (zoning) • Historical redlining score • Housing vacancy rate	• Extreme heat projections (>90° days in 2050) • Coastal/tidal flooding projections (from sea level rise, storm surge, etc.) • Inland/riverine flooding projections (from sea level rise, storm surge, etc.) • Low vegetative cover • Agricultural land • Distance to grocery stores
NOTE: Future data may include modeled Woodsmoke exposure & other water quality metrics. *We may replace EJScreen indicators.	NOTE: Future data will include several other types of regulated and permitted facilities (e.g., power generation, landfills). *We may replace EJScreen indictors.	NOTE: Future data may include distance to urgent/emergency care

Population Vulnerabilities: Indicators in Current Scenario

Sociodemographics	Health Impacts & Burdens	Housing, Mobility, Communications
• Pct <80% Area Median Income • Pct <100% of Federal Poverty Line • Pct without Bachelor's Degree • Unemployment rate • Pct Single-parent households • Pct Latino/a or Hispanic • Pct Black or African American • Limited English Proficiency	• Asthma ED visits • COPD ED visits • Heart attack (MI) hospitalization • Pct without Health Insurance • Pct with Disabilities • Pct Adults age 65+	• Pct Renter-Occupied Homes • Housing cost burden (rental costs) • Energy Poverty / Cost Burden • Manufactured homes • Homes built before 1960* • Percent without private vehicle • Pct without Internet (home or cellular)

NOTE: State staff are considering designating Tribal Land/Territory as DACs **after** the quantitative scoring

NOTE: Future data will include Low Birthweight births and Premature Deaths

*Short-term proxy for lead-based paint risk. We are working with DOH on how to represent risk.

Starting point for Factor Importance

Community Burdens and Potential Risks		
Potential Pollution Exposures	Land use assoc. with historical discrimination or disinvestment	Potential Climate Change Risks

✕

Population Vulnerabilities		
Socio-demographics	Health Impacts & Burdens	Housing, Mobility, Communications

2x **1x** **1x**   **2x** **2x** **1x**

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Note: Since Burdens and Vulnerabilities are multiplied, they have equal weight, regardless of how you weight things within them.

Legislation allows for continuous improvement

Draft DAC Definition Scenarios

Early maps to get your reaction to big things

Map tool includes a short form for submitting comments on individual tracts

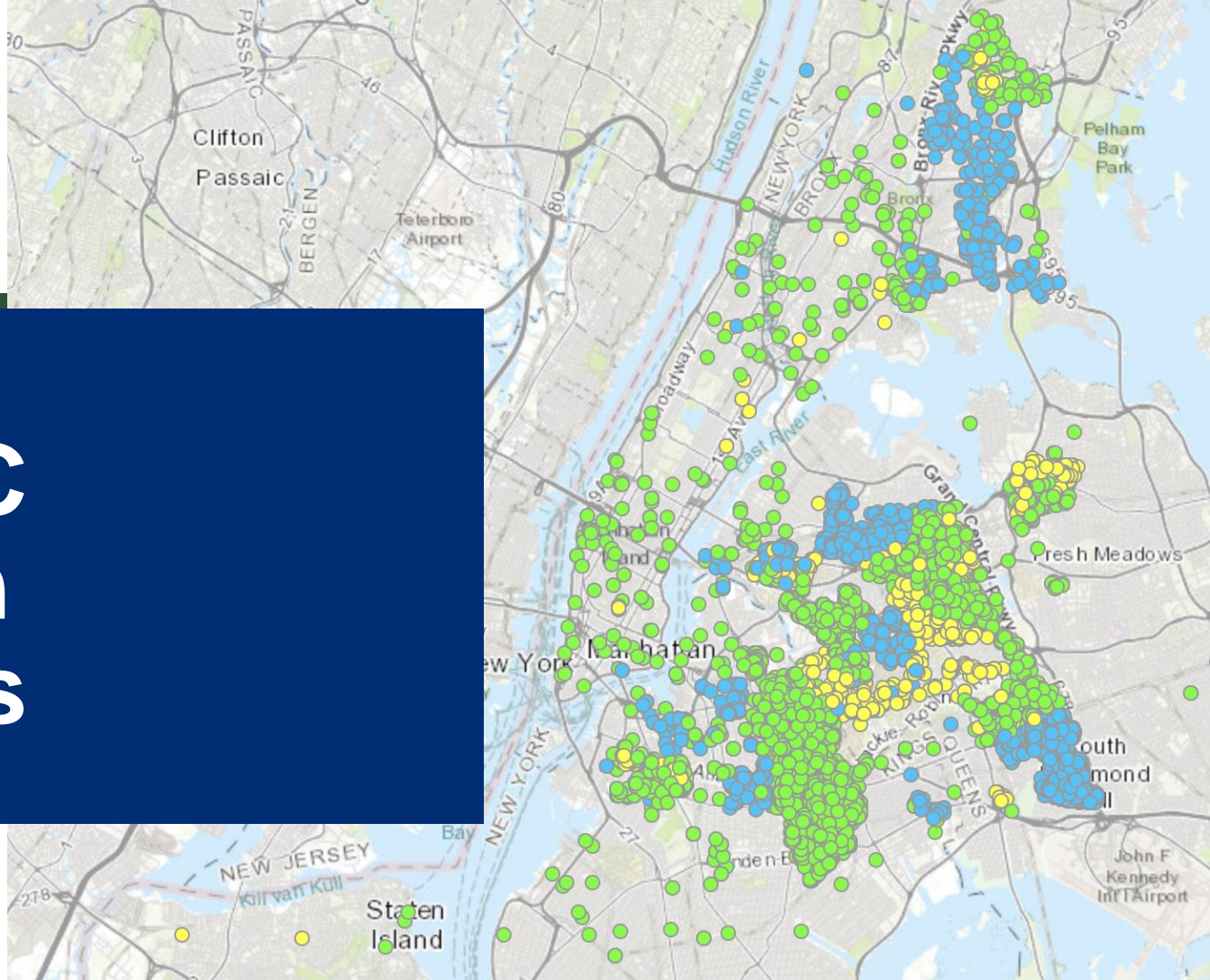When you select one or more tracts in the map, the "Selected Census Tract Details" table will update to show key metrics for those tracts

INSTRUCTIONS

1. Click on a tract in the map.
2. Fill out form
3. Click the "SUBMIT" button. Try clicking the button again if the website does not open.
4. Close the website window and ...

Name
Ramona Quimby

Tract Number
36061023000

Should be a DAC?
⦿ Yes
◯ No

Brief Explanation
Example text

SUBMIT

DAC Designati...
☐ DAC
☐ Non DAC

© 2021 Mapbox © OpenStreetMap

Statewide Averages

Burden Pctl	40
Vuln Pctl	48
Median Income	$74,317
% BIPOC	45%
Redline Score	3.0
% PEJA	47%

Selected Census Tract Details

Tract	Is a DAC?	Burden Percentile	Vulnerability Percentile	Median Income	% BIPOC	Redline Score	% PEJA
36061022102	NON-DAC	73	54	$96,154	79%	4.0	100%
36061022800	DAC	72	69	$70,650	85%	4.0	100%
36061023000	DAC	73	79	$36,124	92%	4.0	100%
Grand Total		73	67	$67,643	85%	4.0	100%

Note: Draft maps exclude 138 census tracts (2.8%) with very low population because Vulnerabilities data is missing/unreliable; they can be scored separately on the basis of Burdens alone.

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% Region Designated DAC

Region	
New York City	44%
Long Island	12%
Mid-Hudson	34%
Western NY	32%
Finger Lakes	31%
Capital Region	22%
Central NY	31%
Southern Tier	21%
Mohawk Valley	24%
North Country	13%
Grand Total	**33%**

Percent of tracts **within** a region that are a DAC

22% of tracts in the Capital Region are designated DACs

DAC Designation by Region

Region	% of NY Tracts	% of NY DACs
New York City	44%	58%
Long Island	12%	5%
Mid-Hudson	11%	11%
Western NY	7%	7%
Finger Lakes	6%	6%
Capital Region	6%	4%
Central NY	4%	4%
Southern Tier	3%	2%
Mohawk Valley	3%	2%
North Country	2%	1%
Grand Total	**100%**	**100%**

Percent of DACs in a region vs the total % of tracts in that region

Long Island has 12% of the state's tracts but 5% of the DAC tracts

DACs vs Non-DACs - Statewide Averages

	DAC	Non DAC	Grand Total
Burden Pctl	46	37	**40**
Vuln Pctl	63	41	**48**
Median Income	$48,198	$87,307	**$74,317**
% BIPOC	70%	32%	**45%**
Redline Score	3.3	2.8	**3.0**
% PEJA	83%	29%	**47%**

Comparison of attributes of tracts that are designated DACs in this scenario

DAC census tracts have a higher vulnerability health score than non-DAC census tracts

Groundtruthing: Buy One, Get One!

If you want to select a tract you think is **wrong**…

…First tell us a tract you think is **right**!

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What we're doing with your input

1. Look at agreement between DAC scenarios + your "groundtruthed" list

2. Understand, through your comments, what indicators are more important to you

3. Check whether our data/indicators capture the types of things you care about

% Agreement with Responses

% Agreement	77%
% Agreement (Should NOT be DAC)	54%
% Agreement (Should be DAC)	94%

Percent agreement based on groundtruthing input

% agreement = Overall agreement

% agree that it should be a DAC = Overlap of when WG member says it's a DAC and scenario says it's a DAC

% agree that it should not be a DAC = Overlap of when WG member says it is NOT a DAC and scenario says it is NOT s a DAC

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Go to Tableau

Note: Draft maps exclude 138 census tracts (2.8%) with very low population because Vulnerabilities data is missing/unreliable; they can be scored separately on the basis of Burdens alone.

What can we do to help your review?

What we heard on June 15:

• More information on considered indicators, esp. health impacts/burdens

• Update Tutorial PDF

• Tutorials/one-on-sessions?

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Timeline & Next Steps

Month Ahead – DAC Scenarios

1. Review scenario iterations
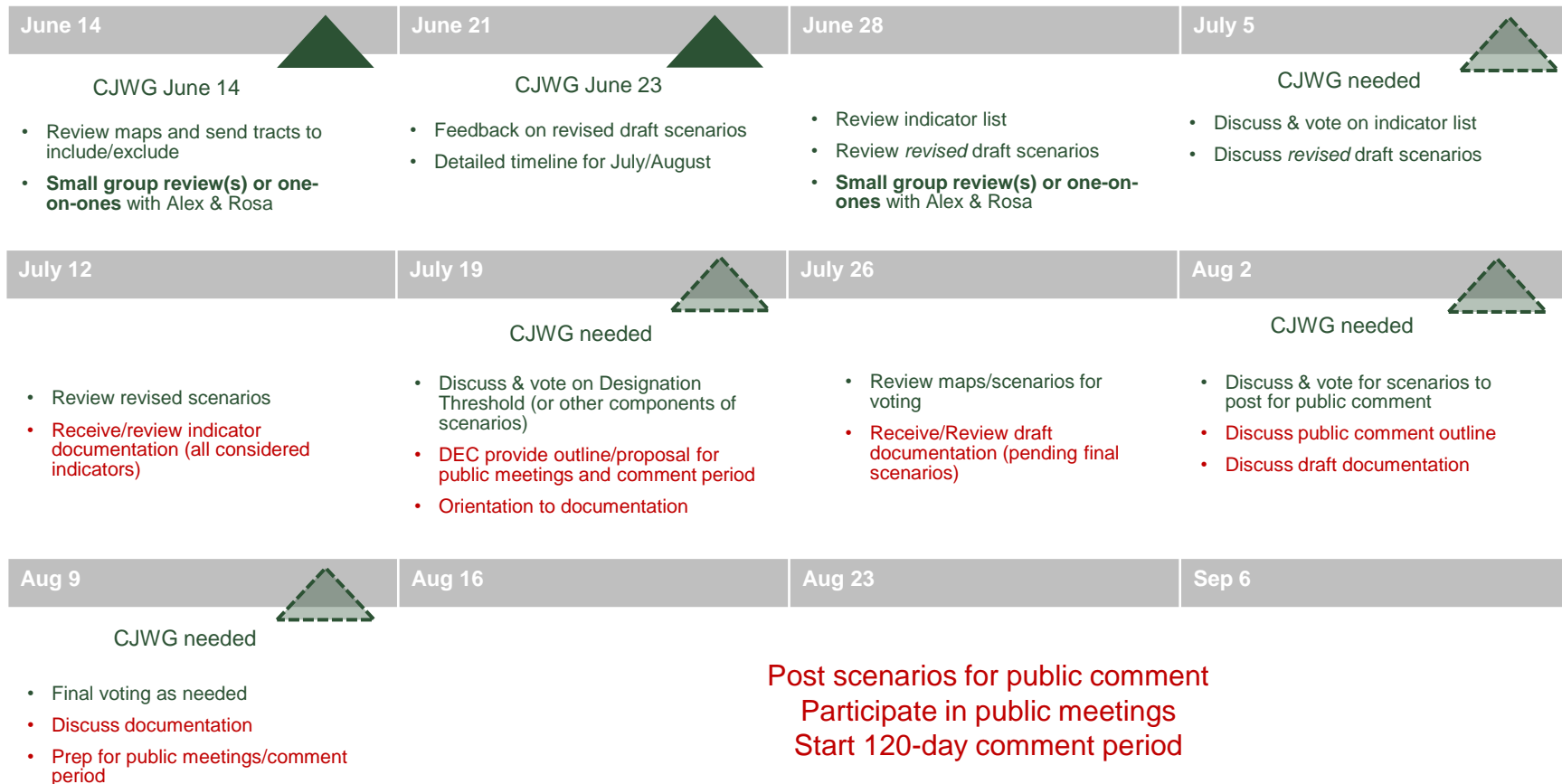2. Small group and one-on-one sessions
3. Voting on three critical parts:
    1. Indicator List
    2. Designation Thresholds (% of state designated as DAC)
    3. Scenario(s) to post to public comment (which will encompass other decisions like factor & indicator importance)

Related Review

1. Draft documentation
2. Plan/outline for public meetings & comment period (DEC will provide proposal)

June 14

CJWG June 14

- Review maps and send tracts to include/exclude
- **Small group review(s) or one-on-ones** with Alex & Rosa

June 21

CJWG June 23

- Feedback on revised draft scenarios
- Detailed timeline for July/August

June 28

- Review indicator list
- Review *revised* draft scenarios
- **Small group review(s) or one-on-ones** with Alex & Rosa

July 5

CJWG needed

- Discuss & vote on indicator list
- Discuss *revised* draft scenarios

July 12

- Review revised scenarios
- Receive/review indicator documentation (all considered indicators)

July 19

CJWG needed

- Discuss & vote on Designation Threshold (or other components of scenarios)
- DEC provide outline/proposal for public meetings and comment period
- Orientation to documentation

July 26

- Review maps/scenarios for voting
- Receive/Review draft documentation (pending final scenarios)

Aug 2

CJWG needed

- Discuss & vote for scenarios to post for public comment
- Discuss public comment outline
- Discuss draft documentation

Aug 9

CJWG needed

- Final voting as needed
- Discuss documentation
- Prep for public meetings/comment period

Aug 16

Aug 23

Sep 6

Post scenarios for public comment
Participate in public meetings
Start 120-day comment period

Next Steps

Work Ahead:

Groundtruthing – BOGO!

Compare several scenarios

Voting on indicators

Voting on designation threshold

Reviewing documentation

Voting on scenarios

Next Meeting:

Discussion of health indicators

Discussion of tribal/indigenous land & communities

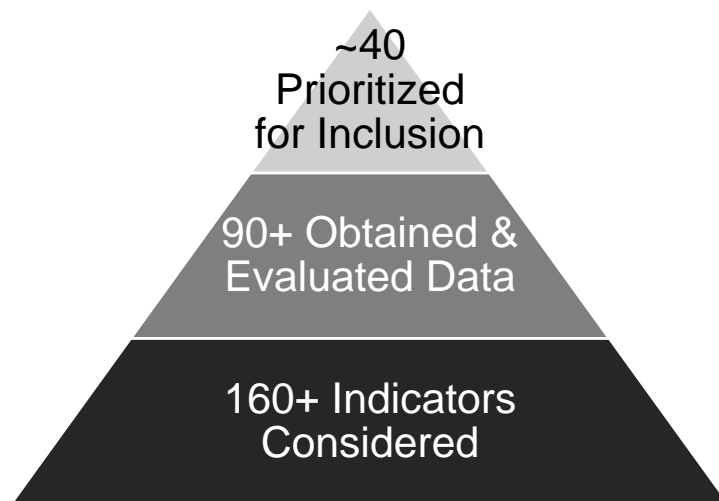Feedback on first draft scenario

Indicator Considerations

Inclusion Considerations

Inclusion decisions consider:

- Data coverage & granularity

- Data quality (e.g., measurement or sampling error)

- Modeled vs. directly-collected or measured data

- Correlations

- Technical guidance (e.g., DEC, DOH, DOS)

So far, we obtained & evaluated data for 90+ indicators (a) on their own, and (b) in combination

Still waiting for key climate, health and environmental variables that require technical and/or GIS analysis

~40
Prioritized
for Inclusion

90+ Obtained &
Evaluated Data

160+ Indicators
Considered

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Indicator Update

Community Burdens and Potential Risks			Population Vulnerabilities		
Potential Pollution Exposures	Land use associated with historical discrimination or disinvestment	Potential Climate Change Risks	Socio-demographics	Health Impacts & Burdens	Housing, Mobility, Communications
Performing "custom" analysis with DEC data (using EJScreen in interim)	Performing "custom" analysis with DEC data (using EJScreen in interim)	Tweaking inland/ coastal flooding Waiting for distance to hospitals	Have all census data; assessing correlations	Waiting for Low Birthweight & Premature Deaths	May improve lead paint risk indicator

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Indicator Limitations
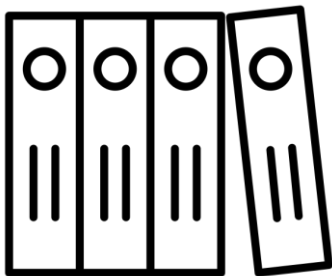
Documentation (for public comment) will discuss:

- Indicators/data we **considered** but did not pursue, and why

- Data limitations, including Census (e.g., not specific enough to race/ethnicity), public health data (e.g., limited data @ sub-county level), and more

- Recommendations for future/additional community-level data (e.g., migration)

- Potential for periodic indicator review/updates

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