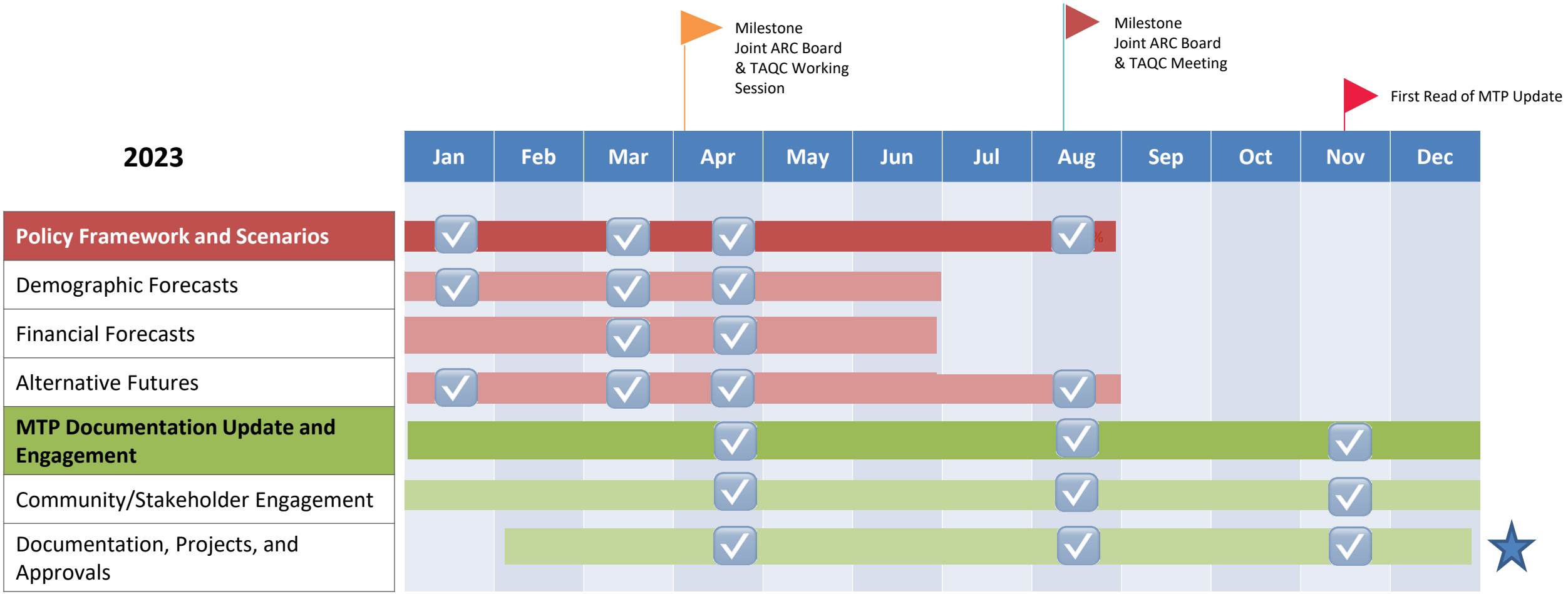
TCC
Metropolitan Transportation Plan (MTP)

April 7, 2023

2023 MTP Work Activities

Final Review and Approval Required: January 2024



Key ARC Board / TAQC Coordination Points

Final Review & Approval: Jan. 2024

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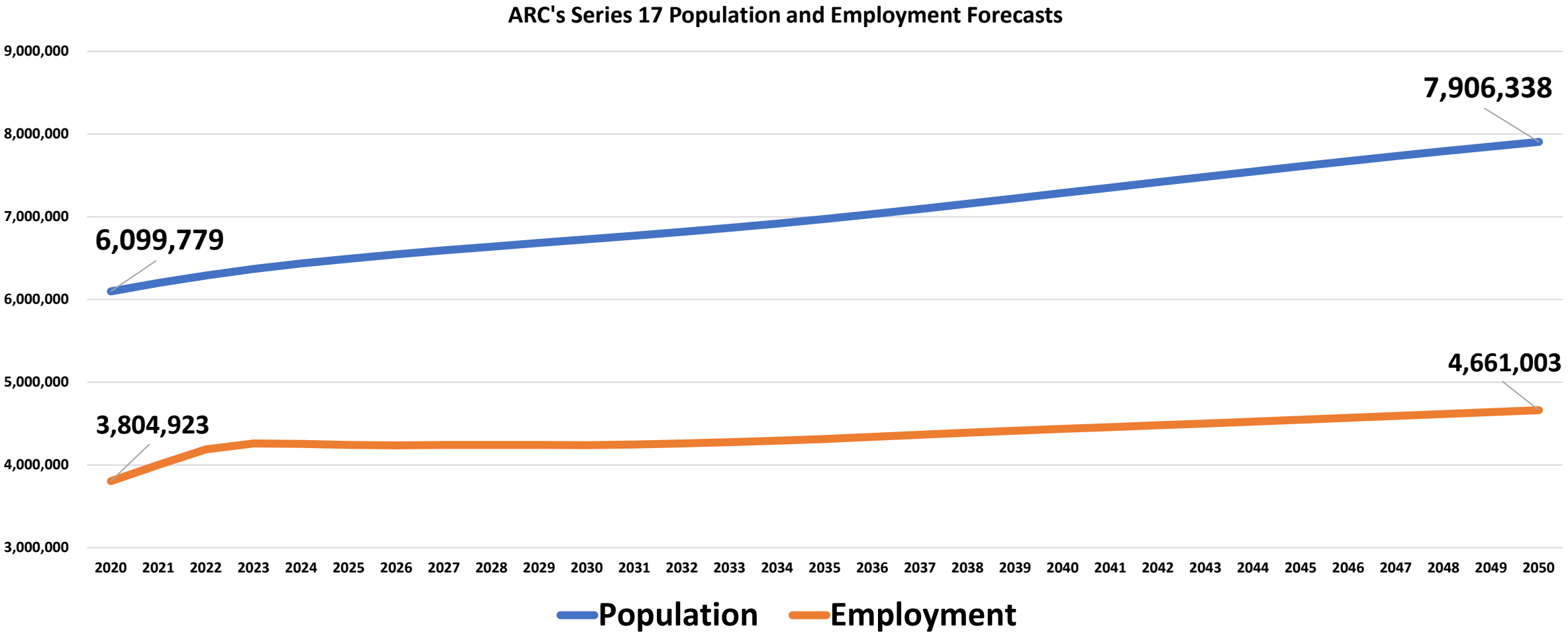
Atlanta Regional Commission

MTP 2024 Regional Forecast

DRAFT ARC Regional (21-County) Forecasts



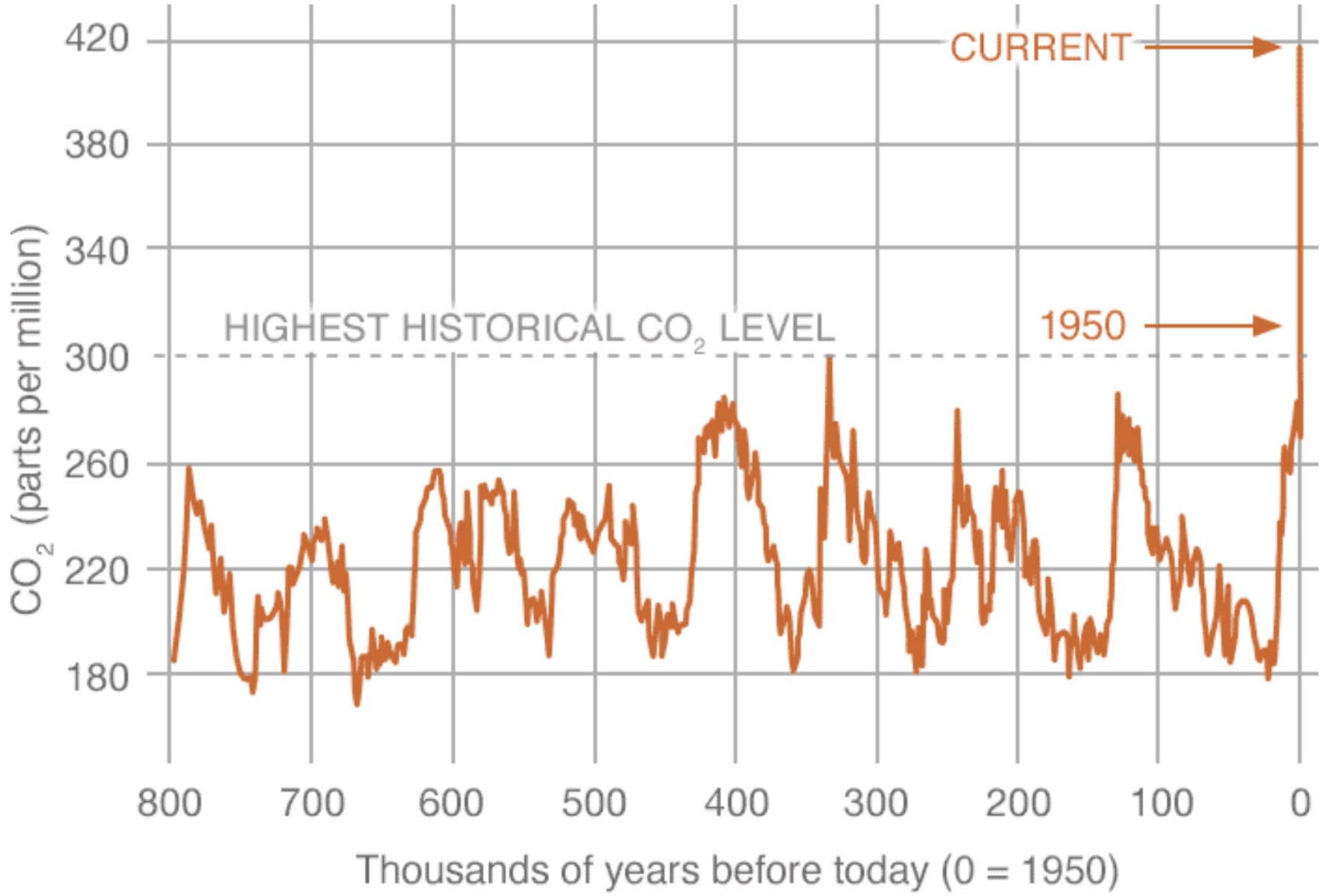
As this chart shows, our latest forecast is for the 21-county region to add roughly 1.8 million new residents and 860,000 new jobs by 2050. As the next slide shows, the forecast population growth represents a slowdown when compared to growth expectations in prior series.

Source: DRAFT ARC Series 17 Forecasts

Key Planning Issues in the MTP:

The Federal Emphasis on Climate Change

Over the past 800,000 years, CO_2 (carbon dioxide) has ranged from around **180 ppm to 280 ppm**. Lower levels of CO_2 correspond to colder and ice age periods

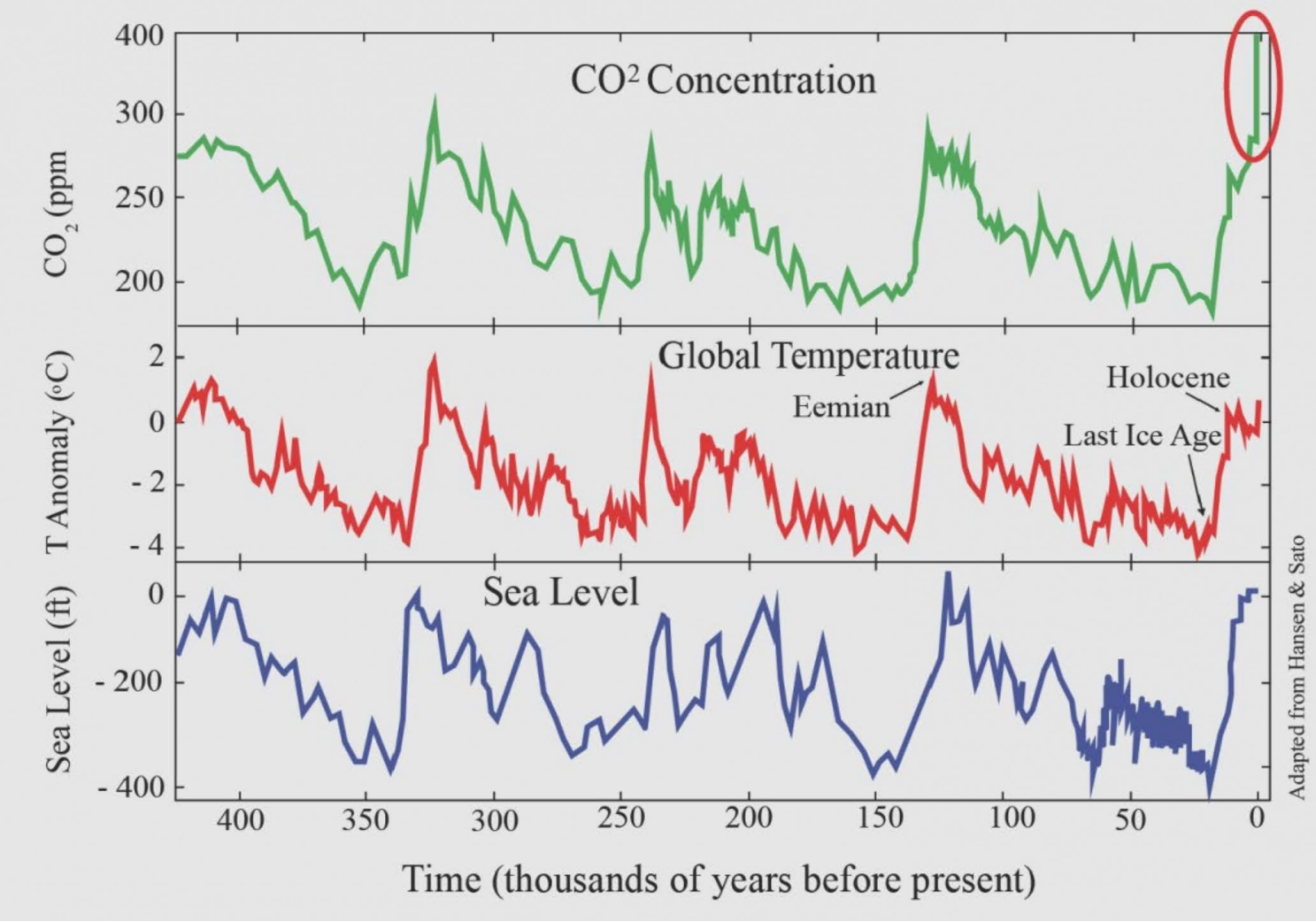


As of February 2023, the CO_2 level is **419 ppm**.

Where does the historical CO_2 data come from? The oldest readings come from ice core drillings in Antarctica - but since 1950 data comes from atmospheric testing in Mauna Loa, HI.

Source: NASA: https://climate.nasa.gov/vital-signs/carbon-dioxide/

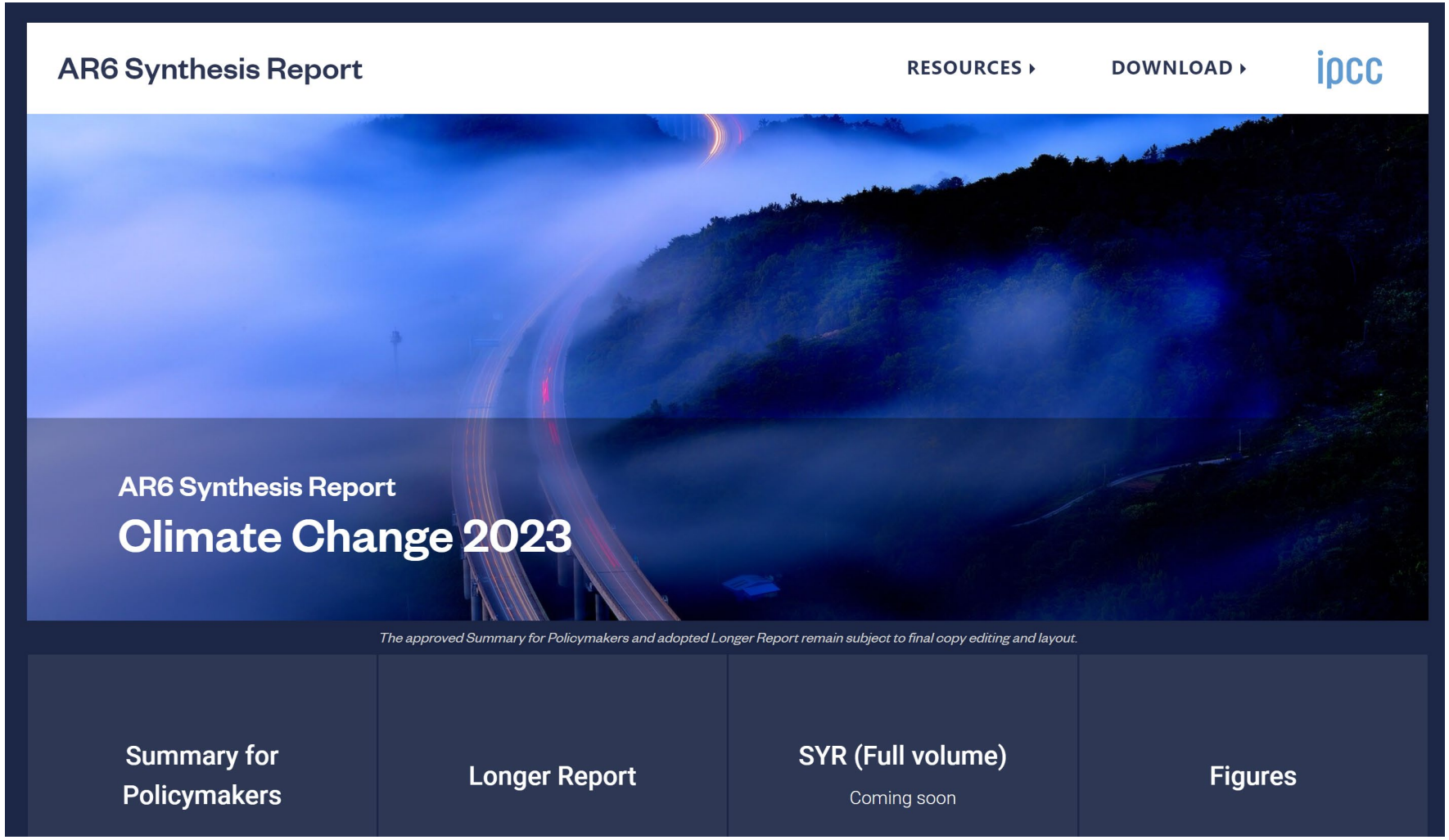
There is a correlation between CO_2 levels, global temperatures and sea levels



Based on the historical relationships between CO_2 and temperature, climate models are predicting significant temperature increases this century

Source: https://johnenglander.net/chart-of-420000-year-history-temperature-co2-sea-level/

What are climate models forecasting for the Atlanta region and the southeastern United States?

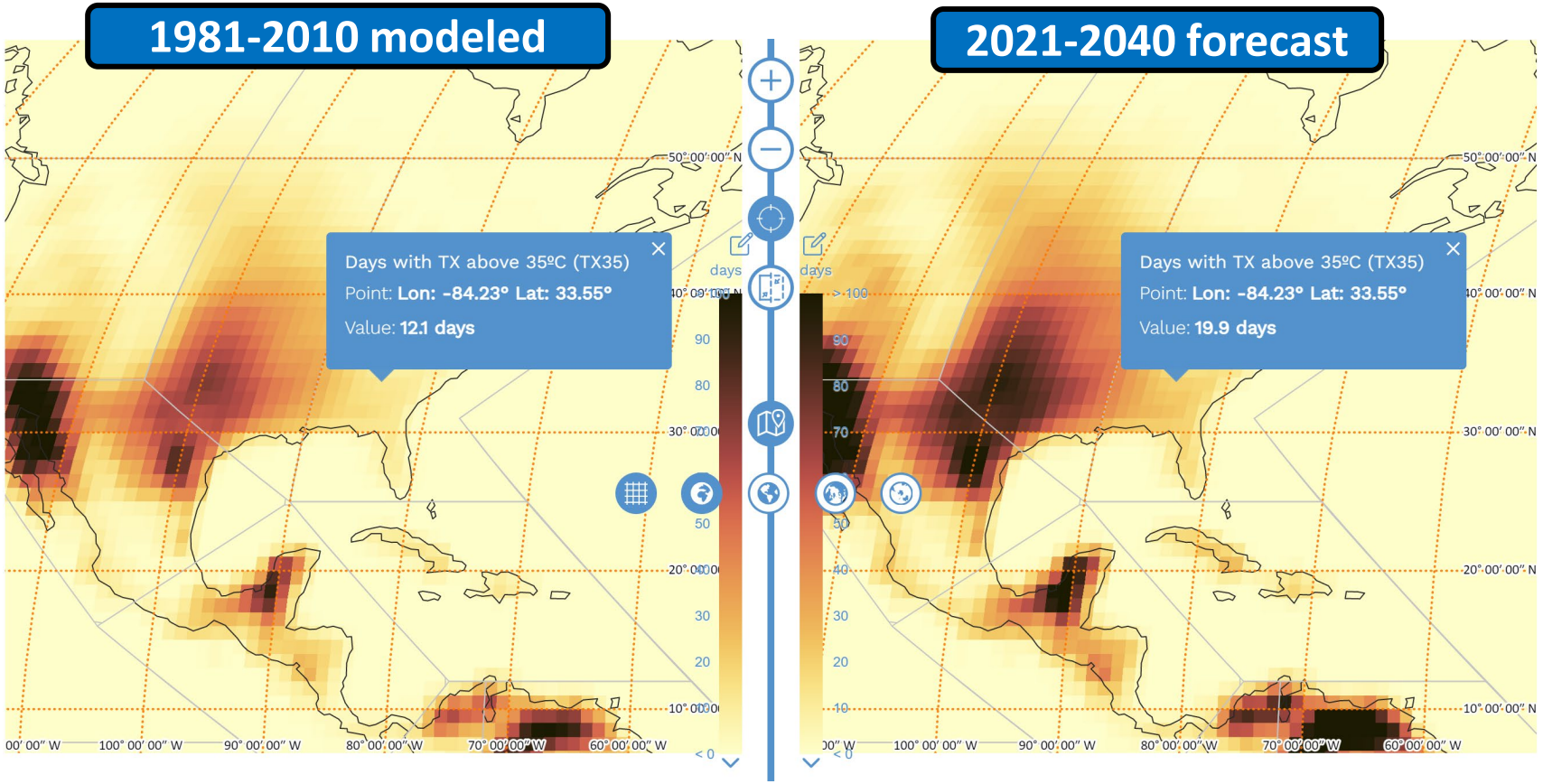


The Intergovernmental Panel on Climate Change (IPCC) is the definitive source of climate forecasts. The latest synthesis report – including climate modeling – was released in March 2023

Source: https://www.ipcc.ch/report/ar6/syr/

Forecast Days Above 95ê F (35ê C): 2021-2040

IPCC "Intermediate Scenario" assuming CO_2 emissions remain around current levels globally until 2050 and reducing after 2050 to 2100



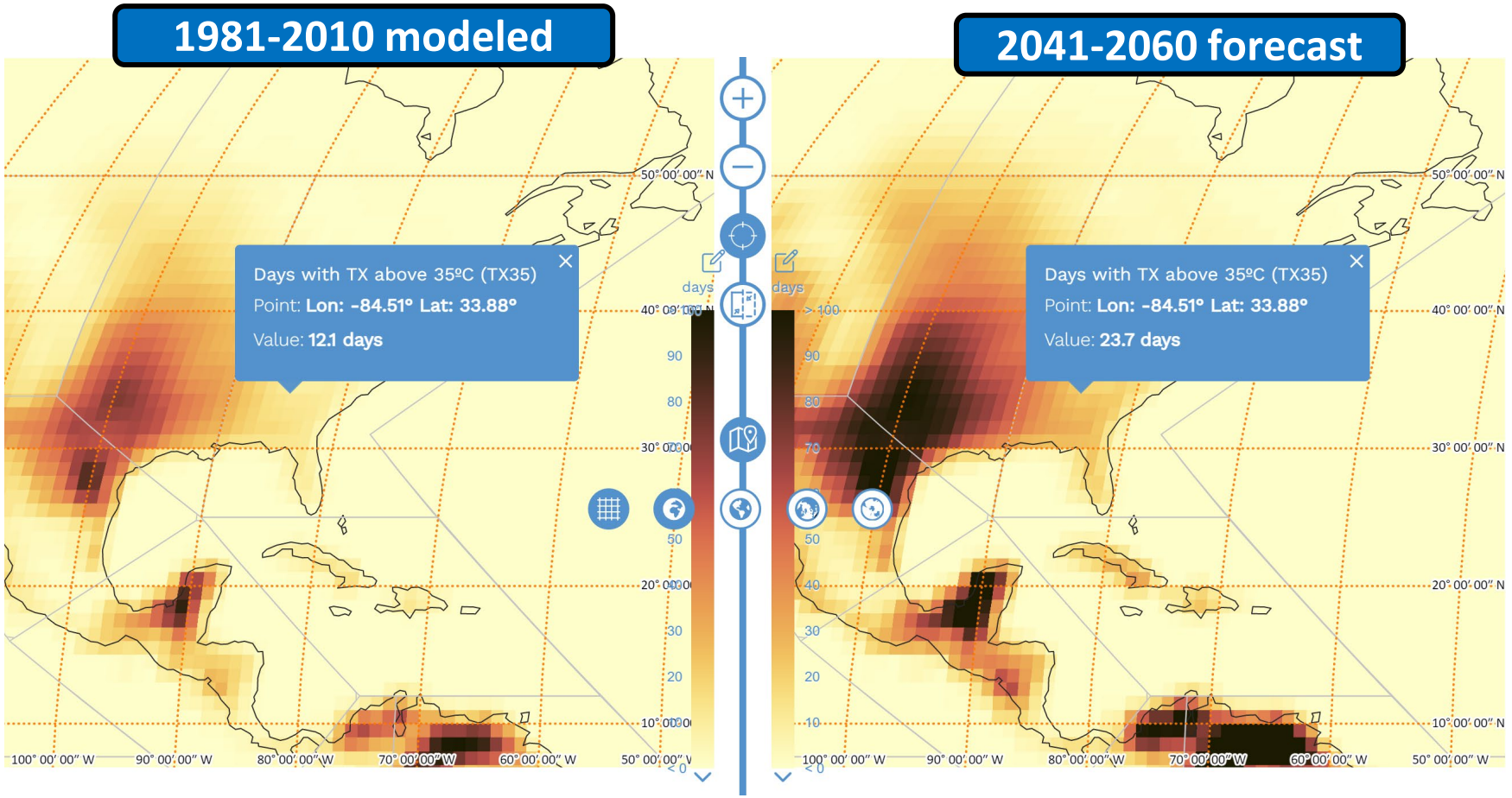
By 2040, the Atlanta region is forecast to have a **64% increase in the number of days that the temperature reaches 95ê,** or 20 days annually

- Many other areas of the nation have very large increases in the number of days above 95ê by 2040:
  - Central Texas: 63 days to 84 days.
  - Central Plains: 22 days to 34 days
  - California Central Valley: 43 days to 59 days

Source: https://interactive-atlas.ipcc.ch/

Forecast Days Above 95ê F (35ê C): 2041-2060

IPCC "Intermediate Scenario" assuming CO_2 emissions remain around current levels globally until 2050 and reduce after 2050 to 2100



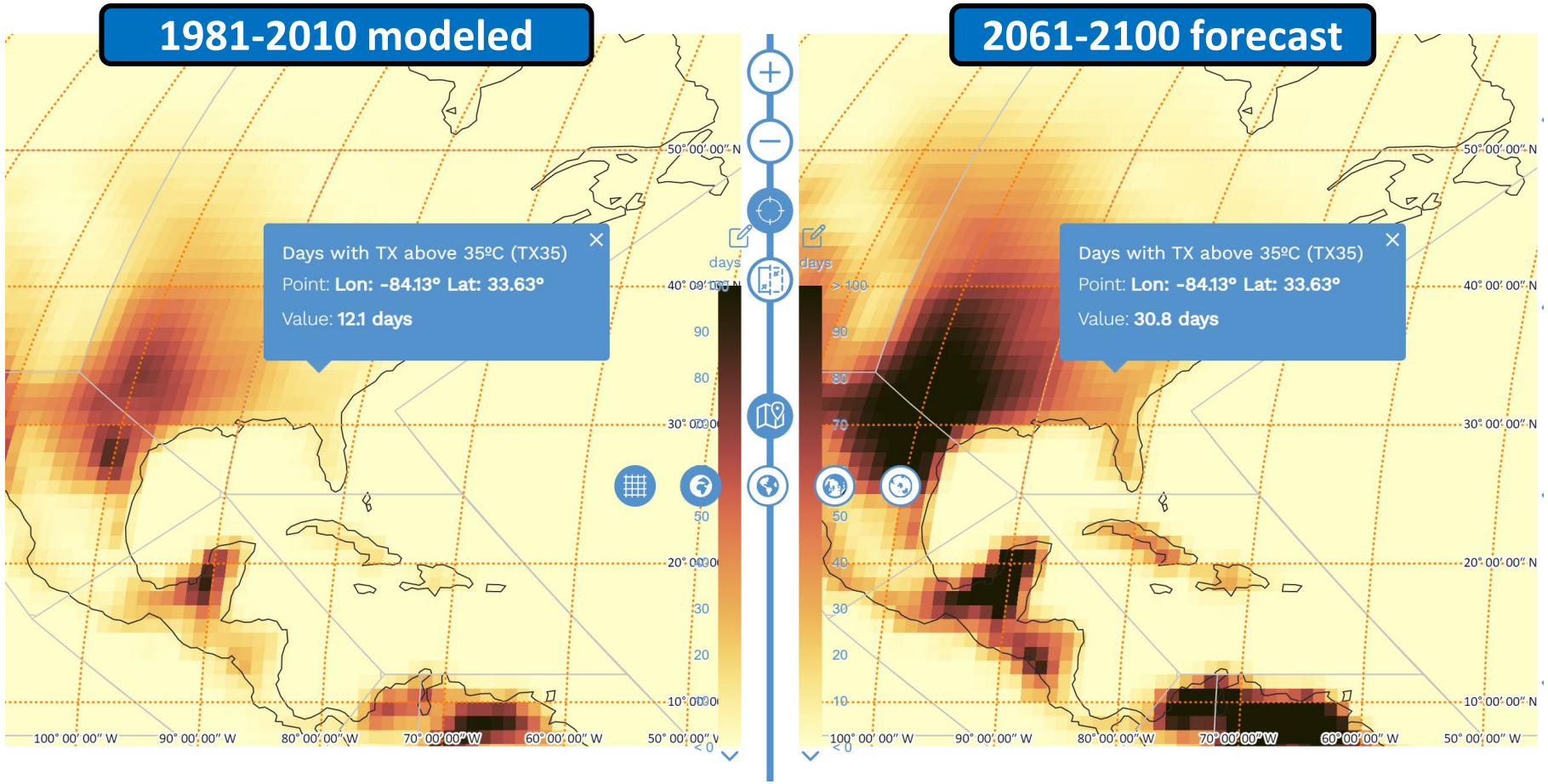
By 2060, the Atlanta region is forecast to have a **96% increase in the number of days that the temperature reaches 95ê**, or 24 days annually

- Many other areas of the nation have very large increases in the number of days above 95ê by 2060:
  - Central Texas: 63 days to 91 days.
  - Central Plains: 22 days to 40 days
  - California Central Valley: 43 days to 65 days

Source: https://interactive-atlas.ipcc.ch/

Forecast Days Above 95ê F (35ê C): 2061-2100

IPCC "Intermediate Scenario" assuming CO_2 emissions remain around current levels globally until 2050 and reduce after 2050 to 2100

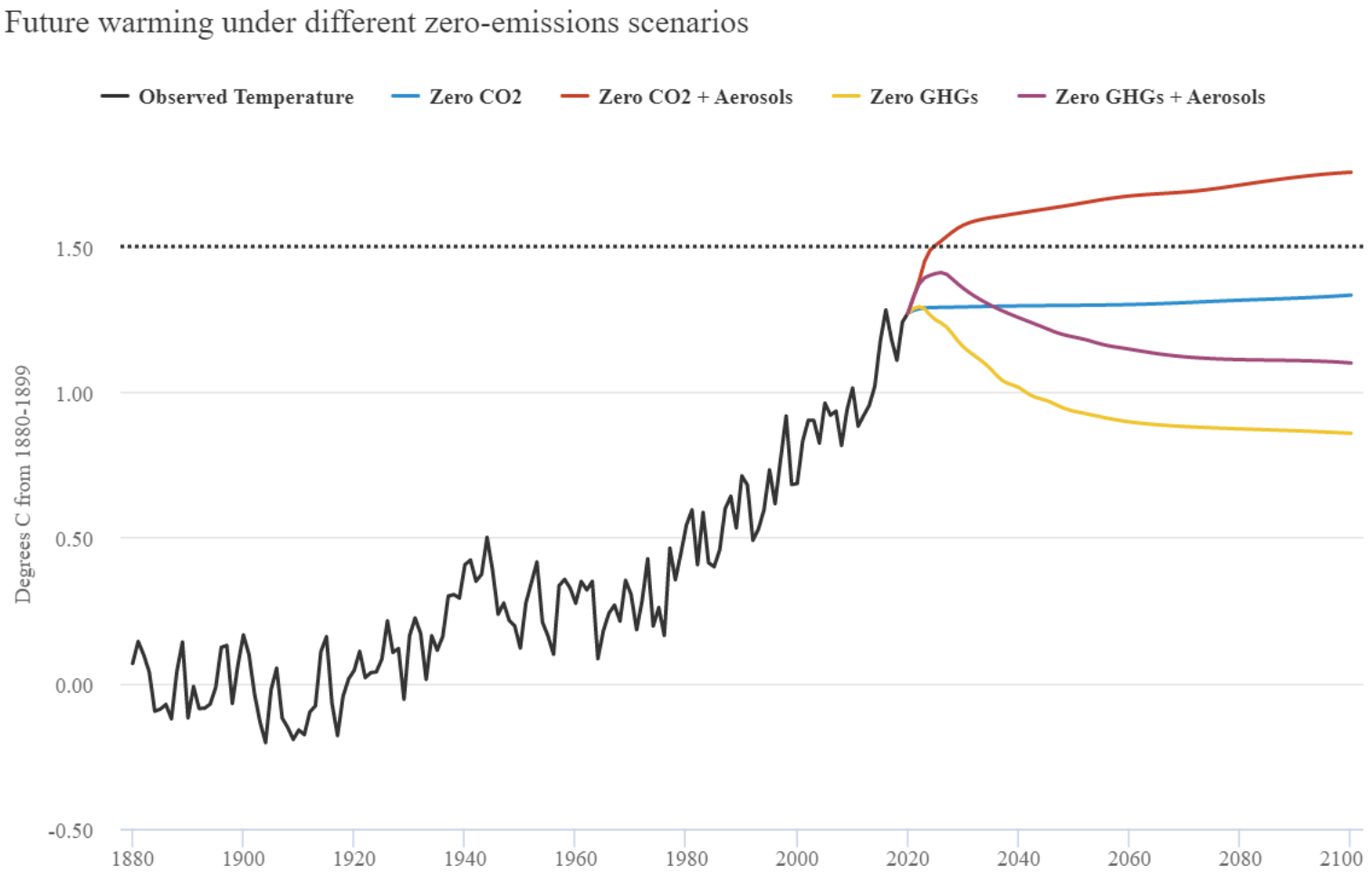


By 2100, the Atlanta region is forecast to have a **154% increase in the number of days that the temperature reaches 95ê,** or 31 days annually

- Many other areas of the nation have very large increases in the number of days above 95ê by 2040:
  - Central Texas: 63 days to 103 days.
  - Central Plains: 22 days to 49 days
  - California Central Valley: 43 days to 74 days

Source: https://interactive-atlas.ipcc.ch/

Temperature Impact of Net-Zero CO2



With a baseline at 2020 temperatures, these scenarios result are:

Red: Current emission rates continue along with addition of large-scale aerosol treatments to cool the planet.

- Temperatures rise rapidly of +0.5°C

Blue: Net-Zero CO2 emissions

- Equilibrium of temperatures of +0.05°C

Purple: Net-Zero for all GHGs + aerosol treatments

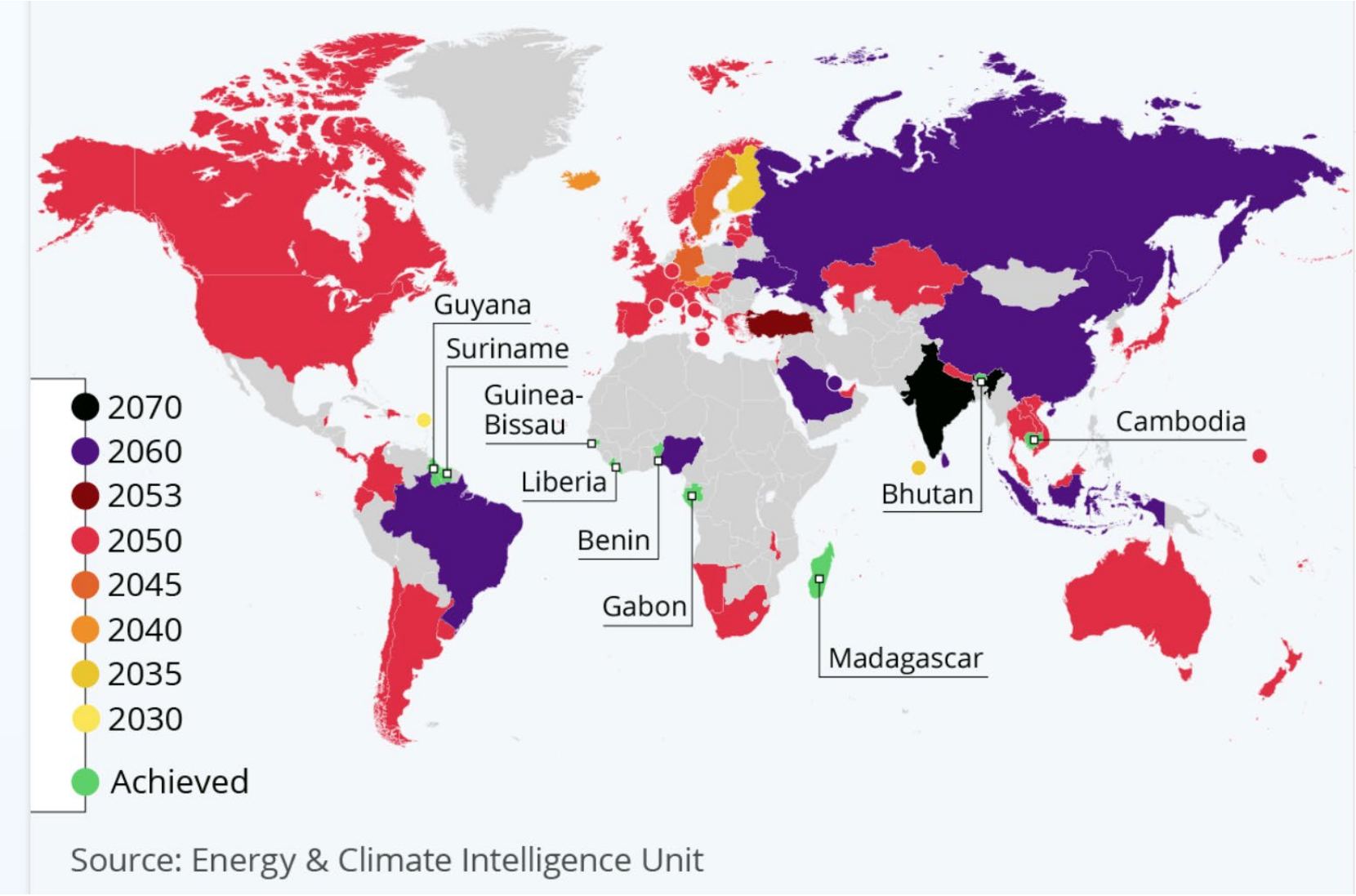
- Fall in temperatures of -0.20°C

Yellow: Net-Zero for all GHGs

- Fall in temperatures of -0.4°C

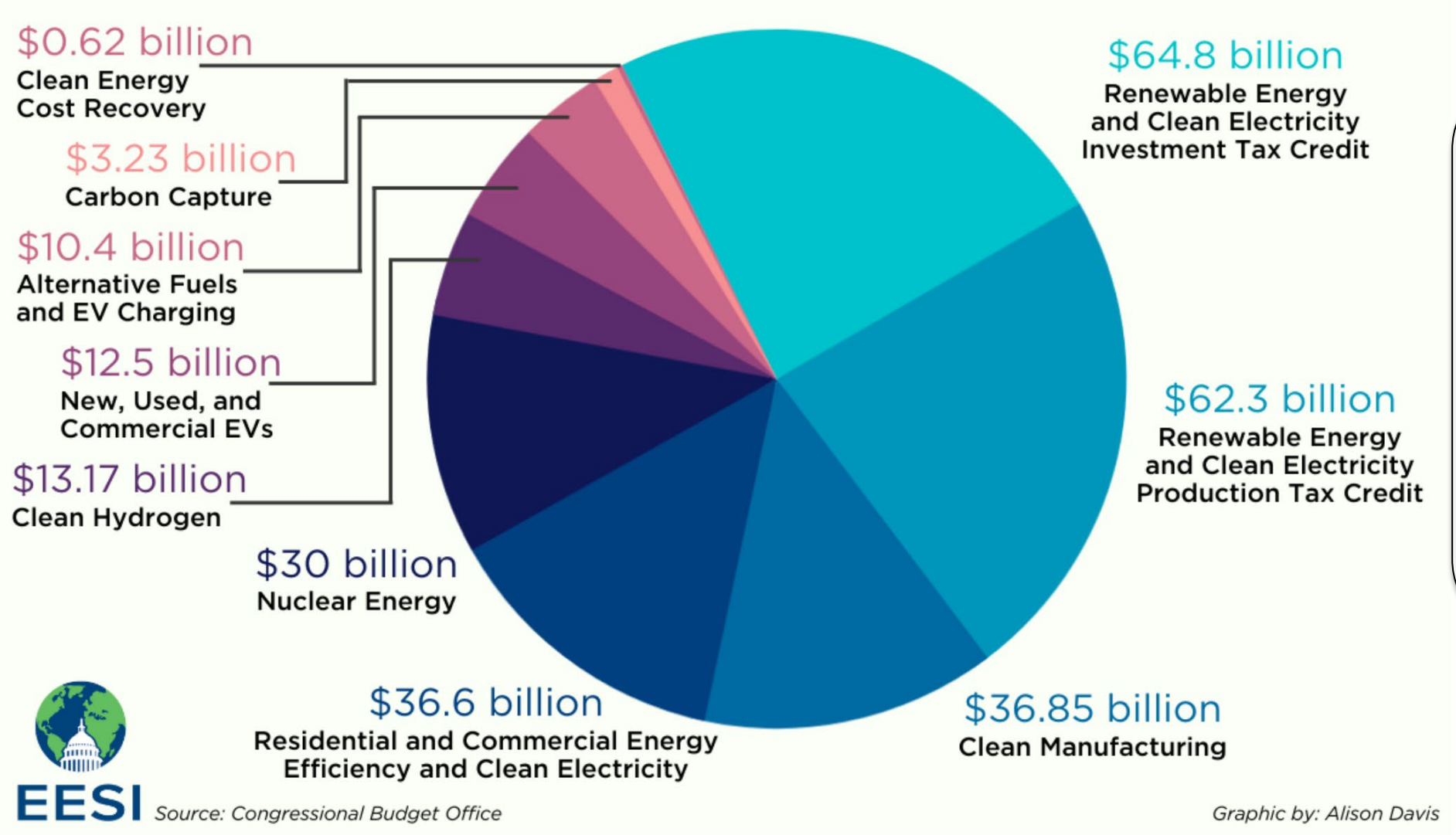
Source: IPCC Special Report on 1.5°C & Carbon Brief Explainer

Most Nations Have Now Committed to "Net Zero" Carbon Emissions by 2050 to 2070



The United States, Japan, and most of Europe have committed to "Net Zero" by 2050. This Net Zero policy is reflected in law such as in the Bipartisan Infrastructure Law (BIL) and the Inflation Reduction Act (IRA), as well as by Executive Order.

The Inflation Reduction Act (IRA) Provides Substantial Tax Credits to Encourage Clean Manufacturing and Energy



The IRA has supported a manufacturing renaissance in Georgia through a focus on domestic manufacturing of "green" technologies such as electric vehicles and solar panels – including their associated suppliers.

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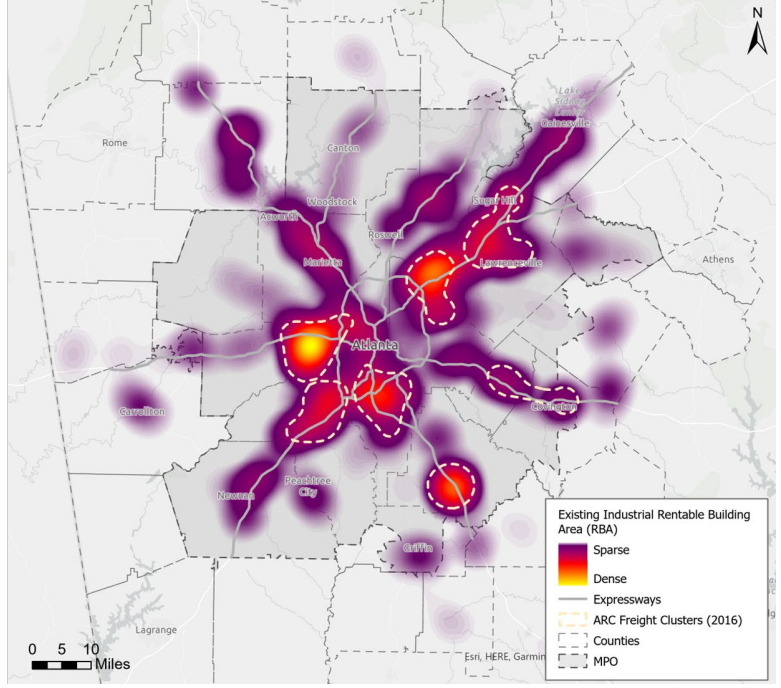
Atlanta Regional Commission

Growth Trends

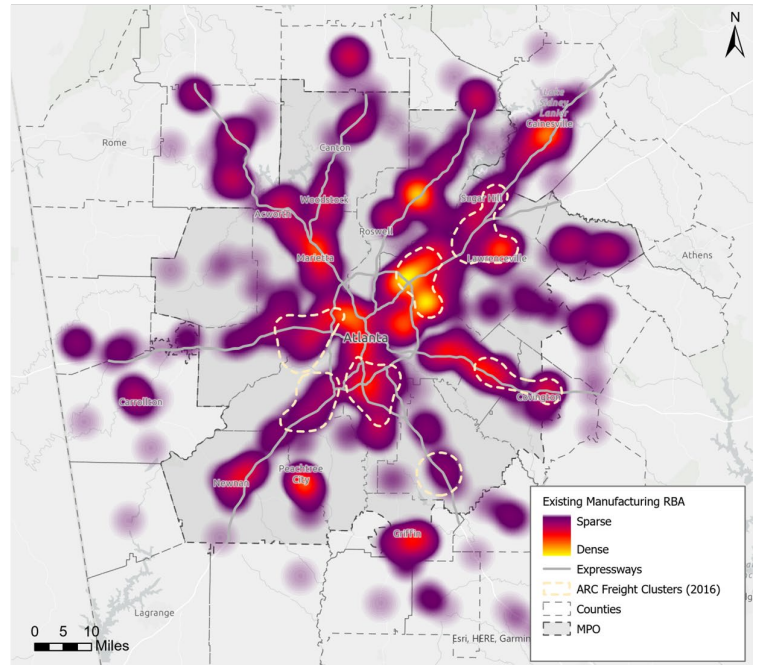
Existing Industrial

Properties: 18,114
Total Rentable Building Area (RBA): 846.2M SF
Max RBA: 2.8M SF
Min RBA: 240 SF



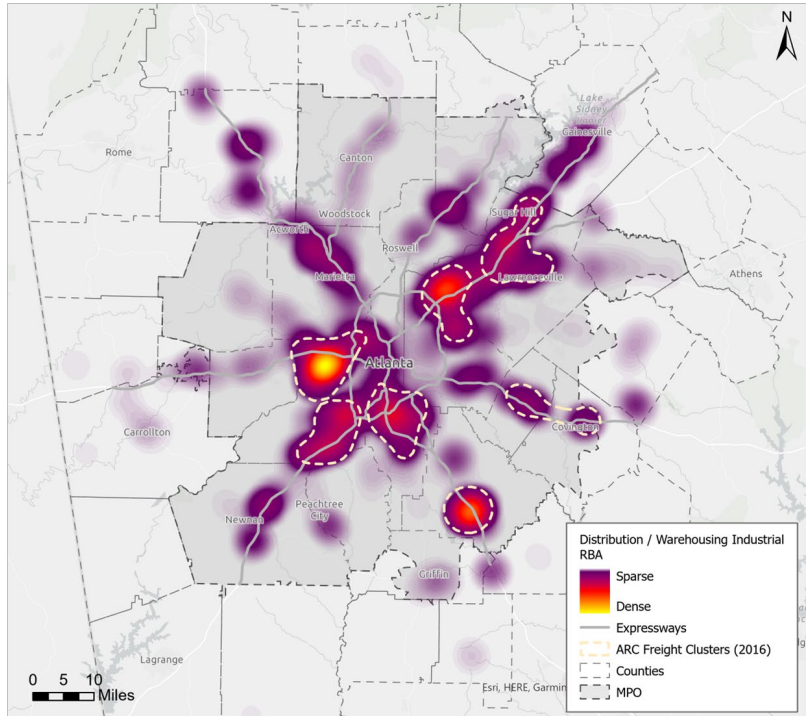
Manufacturing

Properties: 1,011
Total RBA: 89.12M SF
Max RBA: 2.2M SF
Min RBA: 627 SF

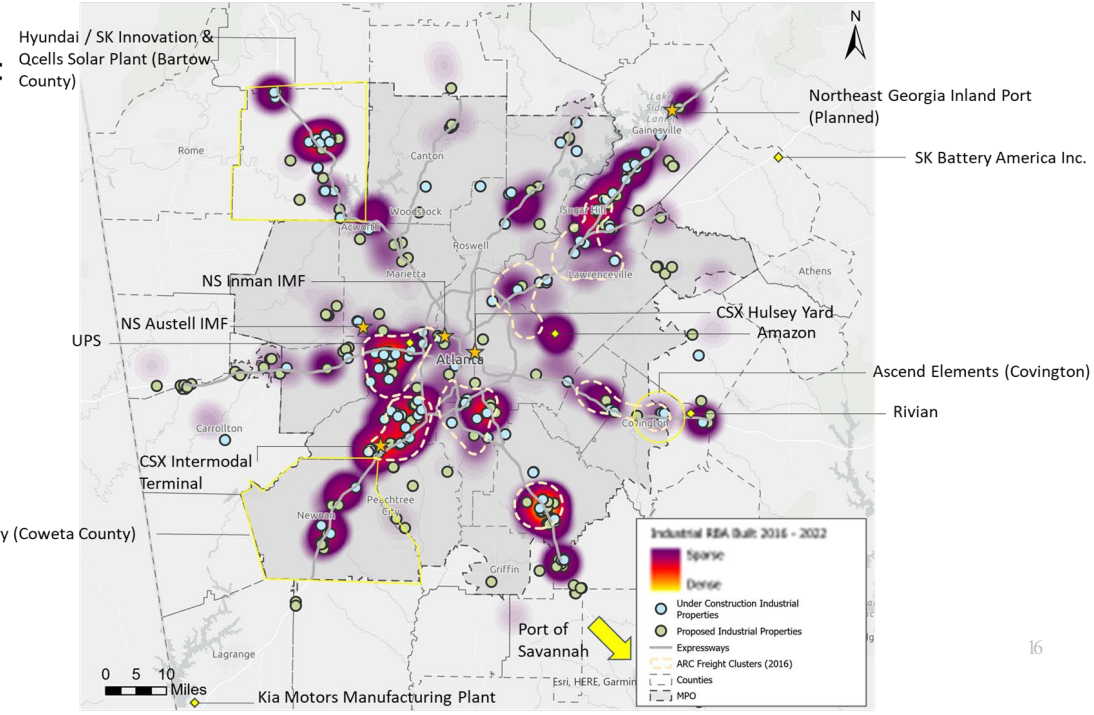


Distribution

Properties: 12,141
Total RBA: 660.7M SF
Max RBA: 2.8M SF
Min RBA: 300 SF



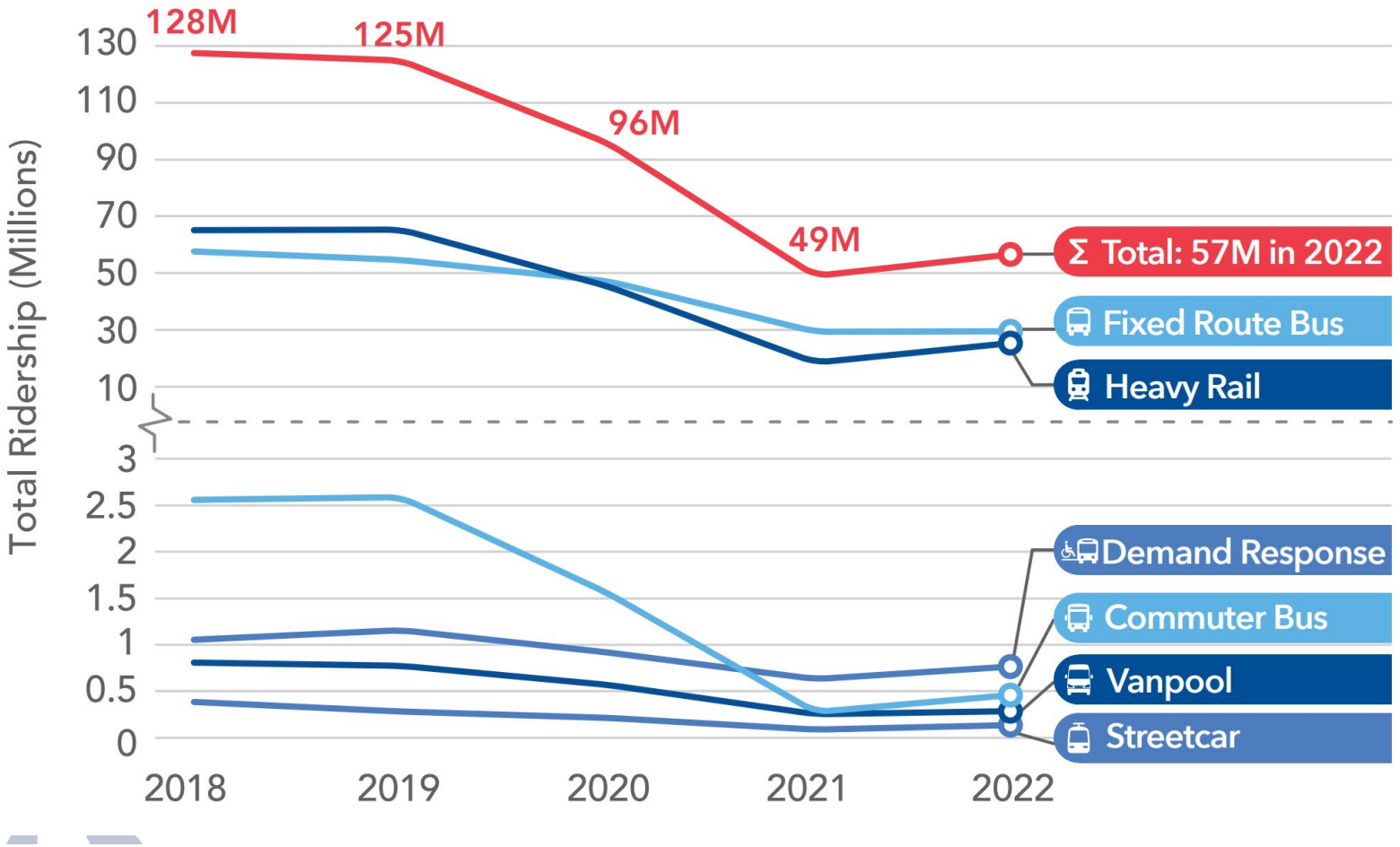
Industrial Properties Built from 2016 – 2022 + Under Construction and Proposed developments + Existing and Proposed "Generators"



Impact of the Pandemic on Travel in the Atlanta

2022 Transit Ridership is 54% below Pre-Pandemic Levels

Heavy rail and commuter bus ridership have decreased significantly.



Source: ATL Authority

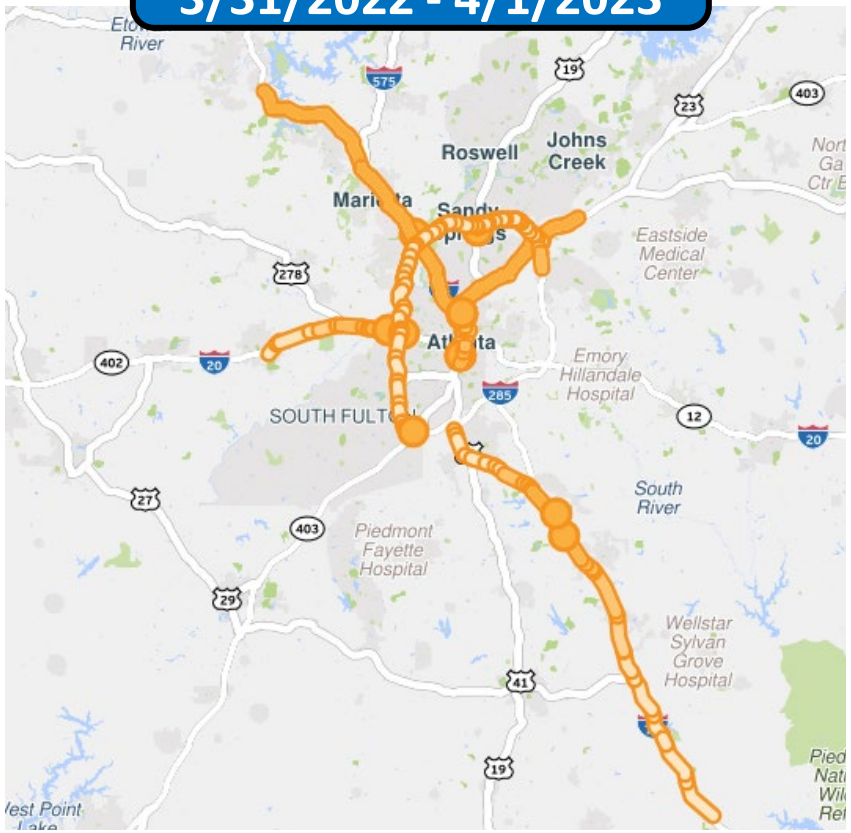
While a ridership recovery occurred in 2022, the rate of increase was relatively week considering that pandemic restrictions are lifted. The latest census survey indicates that more people now work remotely than use transit

With the region expecting nearly 2 million more people by 2050, a strong transit system is critical for mobility – including managing congestion and reducing GHG emissions.

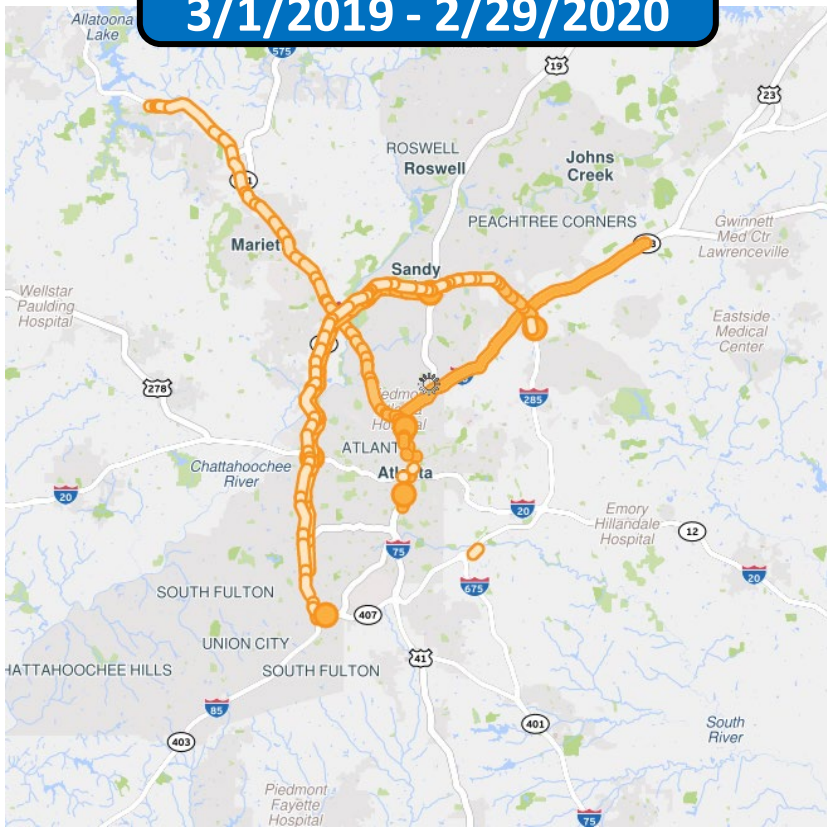
Significant Congestion Bottlenecks Have Returned to the Interstate System and Exceed Pre-Pandemic Levels Along I-20 West and I-75 South

Congested Interstates Segments with Average Daily Delays of 3 Hours...or more

The Last Year
3/31/2022 - 4/1/2023



Pre-Pandemic
3/1/2019 - 2/29/2020



During the COVID-19 pandemic, none of the interstate corridors averaged over three hours of daily delay for an entire year: 3/1/2020 to 2/28/2021

Source: RITIS Speed and Congestion Data

Coordination with Other Planning Studies

ONE great REGION Planning Timeline

Anticipated next steps and associated timing estimates for proactive policy maker involvement and implementation in 2023-2025