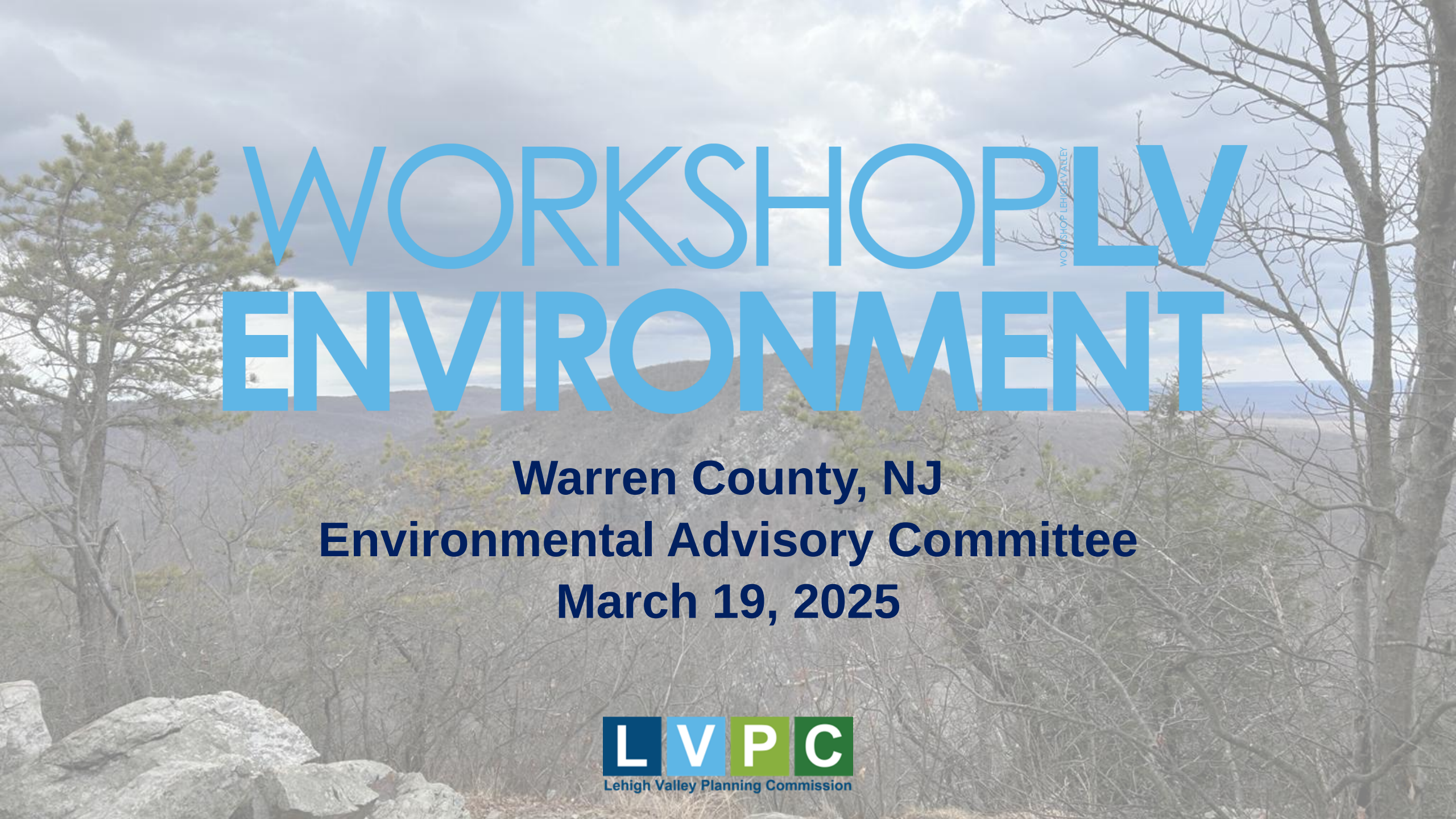

Warren County, NJ
Environmental Advisory Committee
March 19, 2025

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Introductions – Welcome!

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Meeting Agenda

- Workshop Goals
- Climate Pollution Reduction Grant Program Overview
- Climate Change Background
- Near- and Long-Term Targets
- RCAP Draft Measures Activity
- Rank Criteria Activity
- Discussion/Questions
- Upcoming Meetings and Next Steps

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Ground Rules

1. **All people are welcome here:** We continue to build a bigger table to bring more people into this work.
2. **This is a safe space:** We are all coming into this workshop with different backgrounds and knowledge bases. All questions are good questions, as long as they are based in respect.
3. **Questions are encouraged:** There will be opportunities for questions and comments throughout the presentation portion of the agenda.
4. **Participation is key:** There will be opportunities for verbal and non-verbal participation – both are important. Please be conscientious of your participation in both sections.

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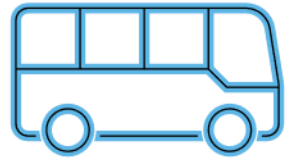
Workshop Goals

- Provide context for climate action work.
- Understand how community envisions climate action and its corresponding benefits.
- Obtain input on potential Greenhouse Gas reduction measures across all sectors.
- Obtain input on evaluation criteria.
- Provide opportunity for questions.



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Climate Pollution Reduction Grant (CPRG)

Inflation Reduction Act authorized the United States Environmental Protection Agency (EPA) to provide funding for CPRG program

CPRG provides funding for large US metro areas to create climate action plans

Over 70 metro areas each received $1 million in planning grant funds

Program Goal:
Develop and implement ambitious plans for reducing greenhouse gas emissions and other harmful air pollution.

CLIMATE POLLUTION REDUCTION GRANTS
U.S. Environmental Protection Agency

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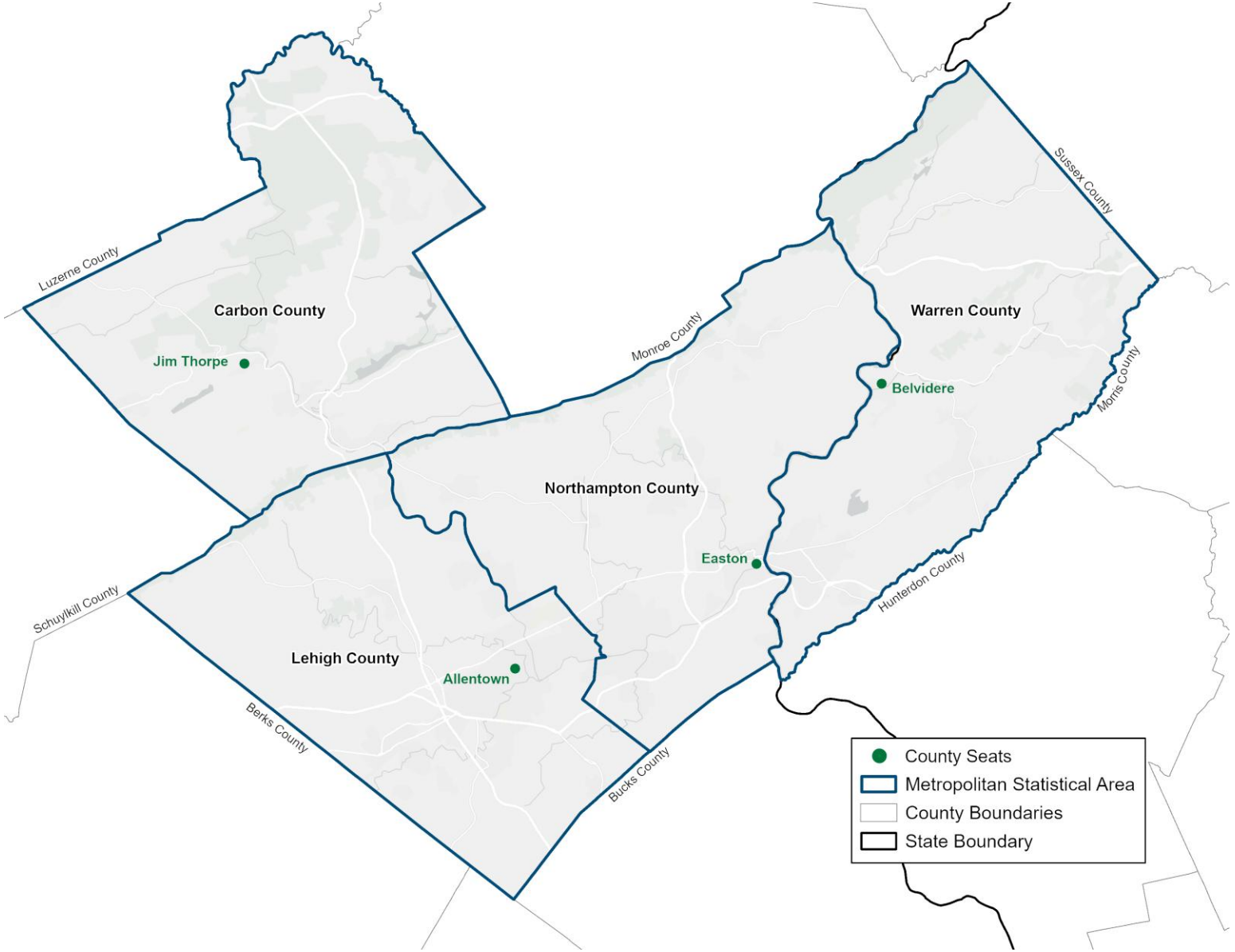
Greater Lehigh Valley:

Allentown-Bethlehem-Easton, PA-NJ Metropolitan Statistical Area (MSA)



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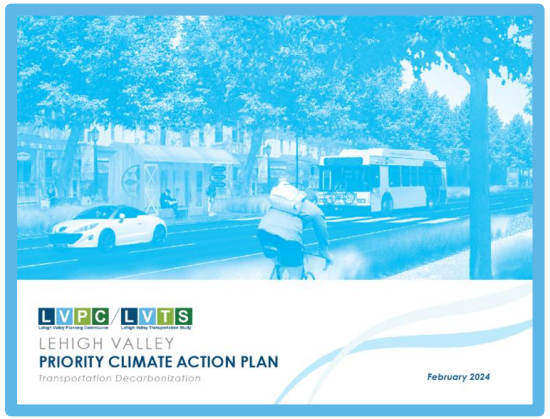
The Climate Pollution Reduction Grant Four Main Components:

CLIMATE POLLUTION REDUCTION GRANTS
U.S. Environmental Protection Agency

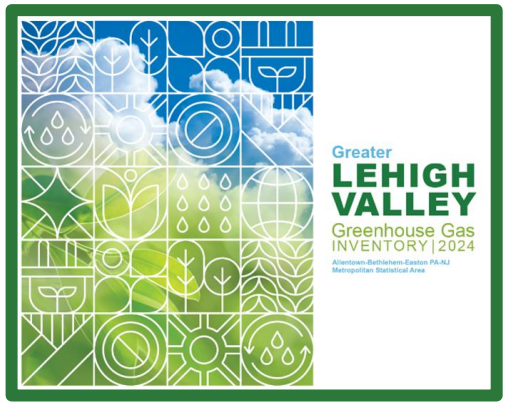
Priority Climate Action Plan

Spring 2024



Regional Greenhouse Gas Inventory

Fall 2024



Regional Climate Action Plan

Summer 2025

Plan Progress and Monitoring

2025 & Beyond

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To provide an overview of all GHG sources/sinks and sectors, establish near and long-term GHG reduction targets, and identify GHG reduction measures to achieve those goals.

Purpose and Elements of the Regional Climate Action Plan

- GHG Inventory
- GHG Emission Projections
- GHG Reduction Targets
- Quantified GHG Reduction Measures
- Benefits Analysis
- LIDAC Analysis
- Key Plan Implementation Milestones and Metrics
- Workforce Planning Analysis

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Greenhouse Gases (GHGs)

- Naturally occur in our atmosphere and help regulate temperature
- Trap heat and prevent it from escaping Earth into space
- Are emitted by both natural processes and human activity
- Carbon Dioxide (CO_2) is the most prevalent GHG

GREENHOUSE GAS	GLOBAL WARMING POTENTIAL
Carbon Dioxide (CO_2)	1
Methane (CH_4)	28
Nitrous Oxide (N_2O)	265

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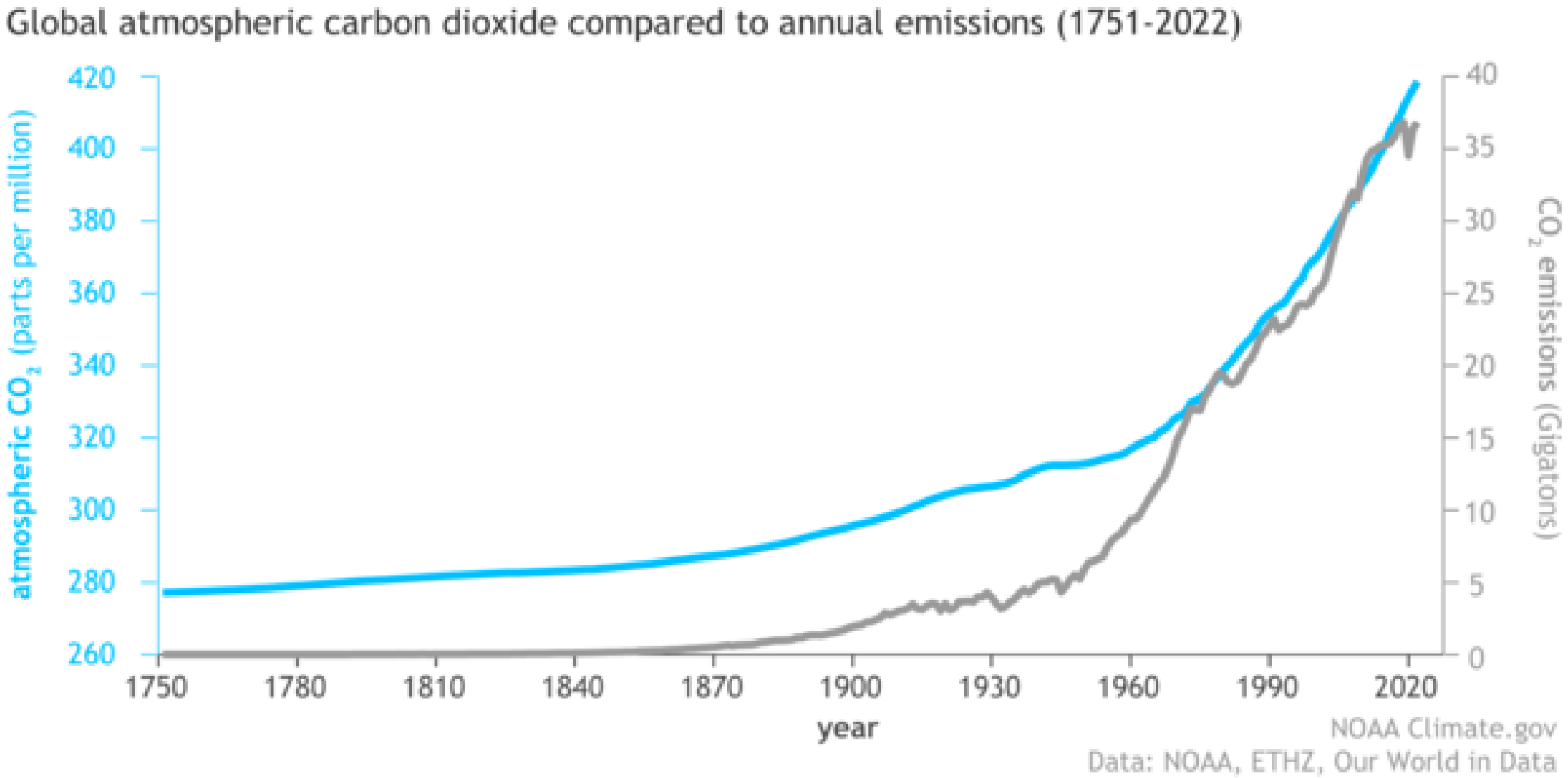
Global atmospheric carbon dioxide compared to annual emissions (1751-2022)
atmospheric CO_2 (parts per million)
420
400
380
360
340
320
300
280
260
CO_2 emissions (Gigatons)
40
35
30
25
20
15
10
5
0
1750
1780
1810
1840
1870
1900
1930
1960
1990
2020
year
NOAA Climate.gov
Data: NOAA, ETHZ, Our World in Data

Change in Avg. Temperature (°F) in Allentown from 1951-2023	
Winter average temperature	+3.9
Spring average temperature	+2.6
Summer average temperature	+1.9
Fall average temperature	+1.7
Annual average temperature	**+2.5**

Data from NOAA GLISA

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Climate Change Hazards

- Extreme heat
- Air pollution
- Increased precipitation and flooding risk
- Loss of native plants and animals
- Milder winters with less snow
- Diseases spread by insects (e.g. Lyme disease, West Nile virus)
- Wildfires
- Reduced crop yields

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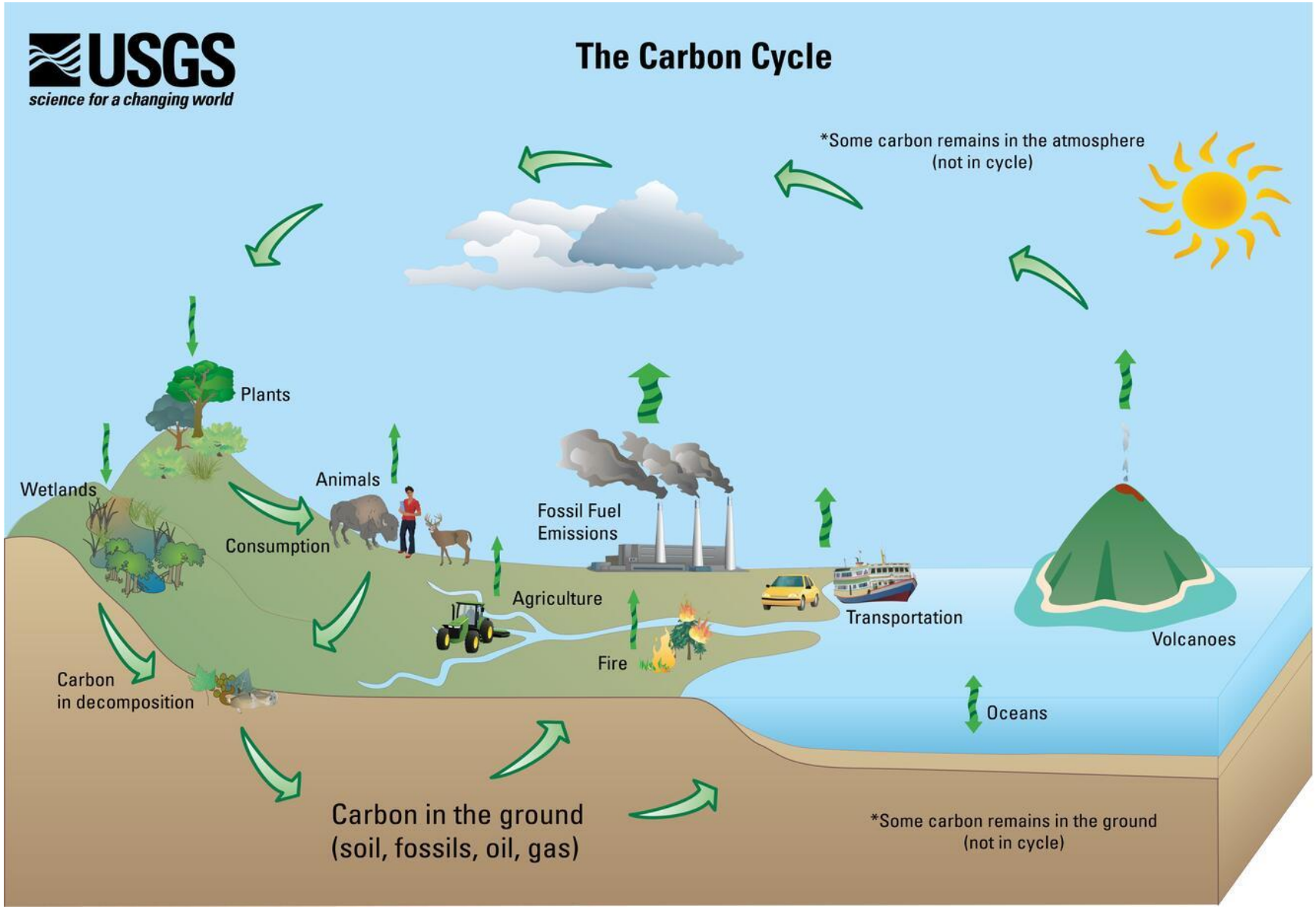
Our Connection to Climate Change



Questions?

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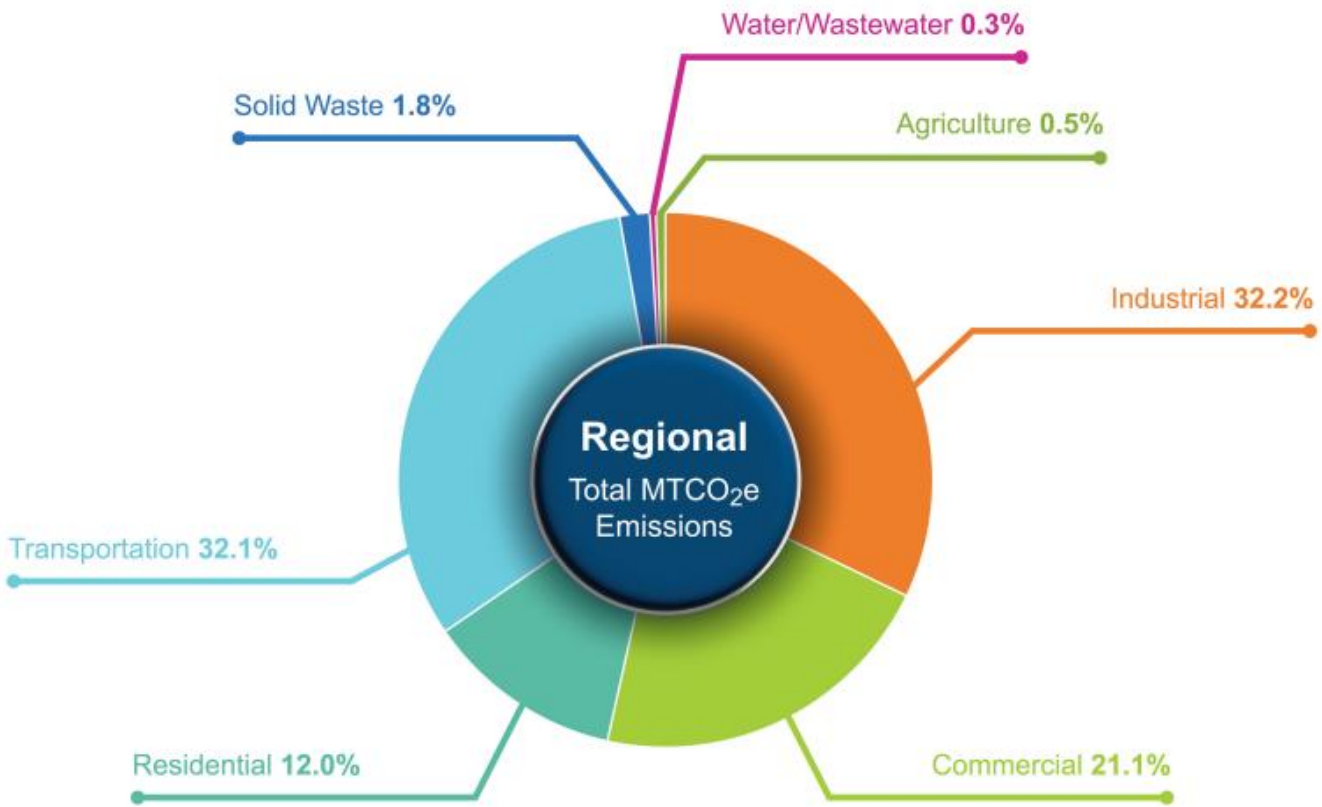
Greater LEHIGH VALLEY

Greenhouse Gas INVENTORY | 2024

Allentown-Bethlehem-Easton PA-NJ
Metropolitan Statistical Area

Sector	Description	Examples
Industrial	Unique processes at factories and energy usage	General manufacturing, cement production, food/beverage processing
Transportation	Fuel combustion from vehicle travel	Cars, trucks, buses
Commercial	Energy usage in businesses, schools, and hospitals	Heating and cooling, lighting
Residential	Energy usage in homes	Heating and cooling, lighting, appliances
Solid Waste	Emissions from landfills	Waste decay, gas flaring
Agriculture	Emissions from agricultural activities	Fertilizer, machinery
Water & Wastewater	Treatment of potable water and wastewater	Treatment plant operations

GREENHOUSE GAS EMISSIONS BY SECTOR



ESTIMATED TOTAL GREENHOUSE GAS EMISSIONS

Lehigh & Northampton Counties, PA
9,803,367 $MTCO_2e$

Carbon County, PA
1,318,252 $MTCO_2e$

Warren County, NJ
1,599,755 $MTCO_2e$

Greater Lehigh Valley MSA
12,721,374 $MTCO_2e$

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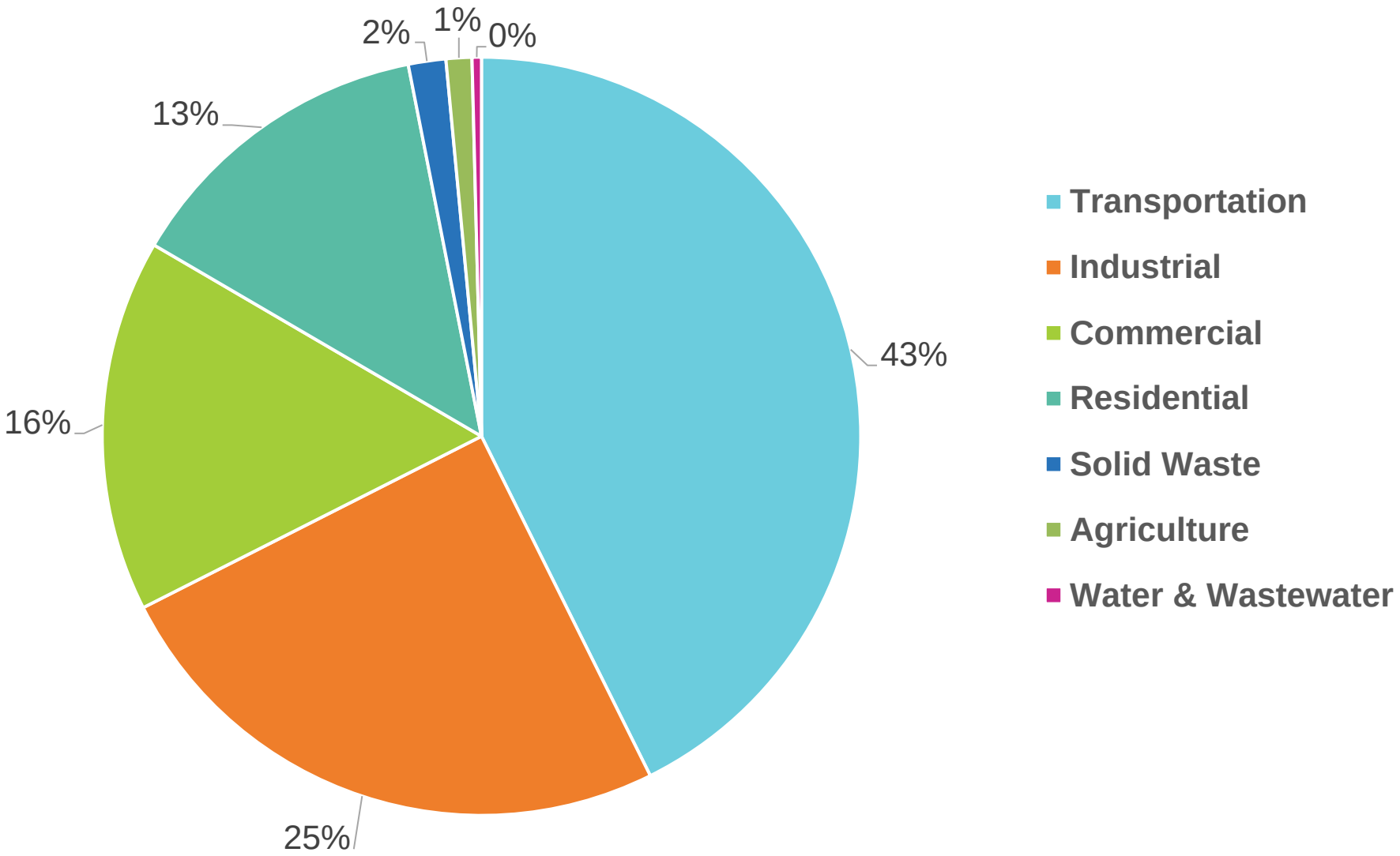
Warren County, NJ GHG Emissions



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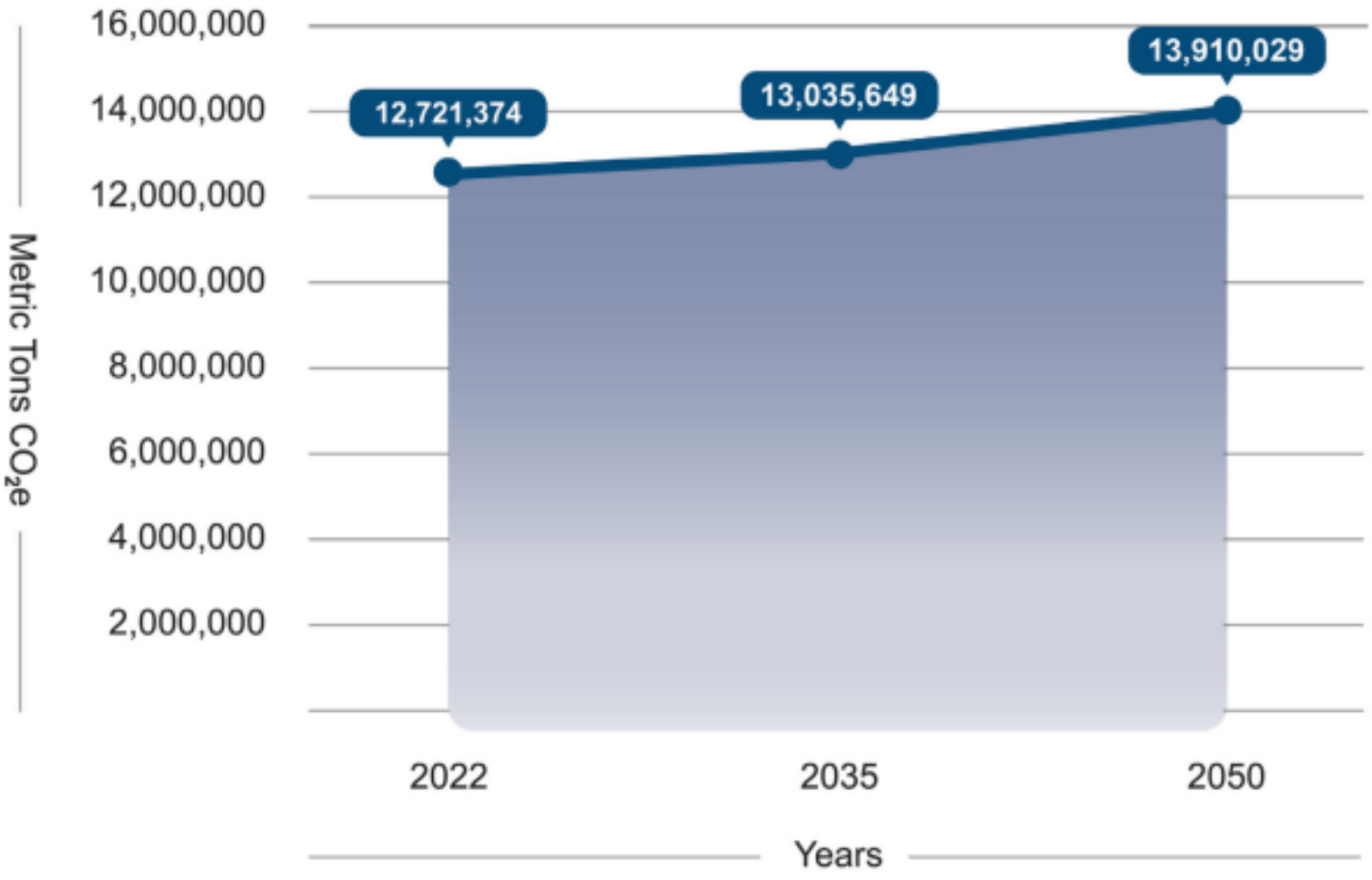
Business-as-Usual Emissions Projection



If we do not take further action, emissions may <u>increase</u> by

9.3%

by 2050.

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Big Impact = Big Opportunity

If **New Jersey** was its own country, it would produce the **53rd most** GHG emissions in the world

The **Greater Lehigh Valley** produces more GHG emissions than El Salvador

New Jersey's emissions have **decreased by 23%** since 2005

Data from Emissions Database for Global Atmospheric Research and NJ Greenhouse Gas Emissions Inventory Report Years 1990-2021

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Near-Term and Long-Term GHG Reduction Targets

Pennsylvania: 25% reduction from 2005 levels by 2030, 80% reduction from 2005 levels by 2050.

New Jersey: 50% reduction from 2021 levels by 2030 and 80% reduction from 2021 levels by 2050.

Greater LV Regional Climate Action Plan - Base Year 2022

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Measure Development Process

- Review already published CAPs from region's municipalities, surrounding states and comparable metro areas
- Compare with GHG Inventory
- Review with Community and Stakeholders
- Develop a draft list, organized by sector
- Screen and Refine
- Finalize

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Measures Activity Instructions

- Each table is a station that represents a sector, with a list of potential measures.

- Take some time to review the example measures at your station and place the dot stickers located at your seat on **3 measures** that you like best or that you would like to see for your community. (for Water/wastewater, please limit to one dot).

- If you have any ideas of measures that are not represented on these lists, please feel free to write ideas down on the activity page at your table OR let us know your ideas on the portal available on the LVPC website (lvpc.org).

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RCAP Draft Measures

Residential

- Encourage energy efficiency of all residential subdivisions and multifamily projects through building codes, zoning and site planning design that incorporate other accepted standards.
- Support the use of green technologies where feasible (e.g. green roofs to minimize heat island effects and solar arrays as an alternative energy source).
- Improve operational efficiency and reduce energy waste through targeted retrofitting of older buildings.
- Establish a building retrofit program to replace fossil fuel appliances and systems with high efficiency electric options such as Energy Star.
- Install zero-carbon emission space heating and cooling and water heating systems in residential properties.
- Reduce embodied carbon from building construction by promoting localized construction materials, deconstruction, reuse of materials and recycling and minimizing construction waste.

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RCAP Draft Measures

Water/Wastewater

- Eliminate emissions from wastewater processing through aerobic and anerobic digestion.
- Reduce GHG emission of water and sewer system and building infrastructure through efficiency upgrades and leakage emission initiatives.

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RCAP Draft Measures

Industrial

- Improve operational efficiency and reduce energy waste through targeted retrofitting of older buildings.
- Encourage energy efficiency of all industrial projects through building codes, zoning and site planning design that incorporate other accepted standards.
- Support the use of green technologies where feasible (e.g. green roofs to minimize heat island effects and solar arrays as an alternative energy source).
- Reuse abandoned mine lands for appropriately scaled solar energy generation.
- Reduce embodied carbon from building construction by promoting localized construction materials, deconstruction, reuse of materials and recycling and minimizing construction waste.
- Streamline permitting and zoning considerations for installation of on-site renewable energy systems.
- Promote evaluation of fuel switching options for any on-site energy plant system that is fossil fuel-based.

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RCAP Draft Measures

Commercial

- Publicize and expand incentives for installation of rooftop solar on commercial properties. Revise building codes and ordinances that may act as obstacles.
- Encourage energy efficiency of commercial projects through building codes, zoning and site planning design that incorporate other accepted standards.
- Support the use of green technologies where feasible (e.g. green roofs to minimize heat island effects and solar arrays as an alternative energy source).
- Encourage intermunicipal cooperation for renewable energy projects at regional scale.
- Encourage onsite solar generation at public school locations.
- Energy efficiency upgrades including LED lighting retrofits and additional energy conservation measures discovered through retro commissioning and energy auditing.
- Install zero-carbon emission space heating and cooling and water heating systems in commercial properties
- Increase purchasing of renewable energy for municipal operations.

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RCAP Draft Measures

Agriculture/Land Use

- Promote green infrastructure that relies on native plants and natural processes for stormwater management, irrigation, groundwater recharge & flood prevention.
- Update tree ordinances & other applicable regulations/zoning ordinances to prioritize & preserve native species of plants and trees, as well as climate-resistant species.
- Conserve & expand wetlands.
- Encourage Farmers to adopt climate-smart initiatives-regenerative agriculture
- Increase land & forest management for natural sequestration.
- Provide for preservation of agricultural land use & environmental protection in non-urban areas.
- Review & update land use & and zoning ordinances to encourage land-use patterns that mitigate climate change impacts.
- Increase the coverage & health of trees & other native vegetation.

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RCAP Draft Measures

Solid Waste

- Support an expanded compost program, with a curbside pickup option. Program should include residential, restaurants & businesses.
- Convert waste-hauling fleets from diesel-powered vehicles to low- or no-emission vehicles.
- Support a curbside textile recycling program.
- Consider incentive programs for residents who reduce the quantity of waste they send to landfills (increase charges for curbside waste pickup and reduce or eliminate charges for recycling/compost.)
- Add recycling containers to public parks.

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RCAP Draft Measures

Transportation

- Encourage municipalities & public fleets to complete fleet inventories, adopt fleet efficiency policies, & invest in zero-emissions light, medium, & heavy-duty fleets when technology is available
- Increase transit ridership.
- Reimagine and retrofit major transportation corridors with green infrastructure
- Support deployment of Alternative Fueled Vehicles of all types.
- Implement Active Transportation Plans (Bike, Walk).
- Increase alternative fueling infrastructure.
- Plan and implement Intelligent Transportation Systems technology.

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Rank Criteria Activity Instructions

With your remaining stickers, please indicate your top 3 screening criteria to consider for the measures you just prioritized

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Measure Prioritization Draft Criteria

- Scale of Greenhouse Gas Reductions
- Scale of Hazardous Air Pollutant Reductions
- Ease of Implementation by 2030
- Ease of Implementation by 2050
- Leads with Equity
- Cost
- Scale of Co-Benefits (reduced cost of living, environmental burdens, creating jobs, improving resilience)

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Activity Discussion

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Take Our Public Survey!

lvpc.org/climate-action

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Next WorkshopLV Environment Meetings

March 26th: 8:30AM (in-person) at the LVPC office, 615 Waterfront Drive, Suite 201, Allentown, 18102

April 23rd: 8:30AM (in-person) at the LVPC office, 615 Waterfront Drive, Suite 201, Allentown, 18102

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