

Take Action! Developing a District Climate Action Plan



Introductions



Rosalie Morillo
Program Manager,
Sustainable Jersey



Carolyn McGrath
*HVCHS Art Teacher
*Youth
Environmental
Society Advisor
*Climate Action
Committee Co-Chair



Adam Sawicki
*HVRSD Board of Education
*Climate Action Committee
BoE Representative
*Senior Technical Fellow,
The Boeing Company



Dr. Scott Brettell
*Hopewell Elementary
School Principal
*Climate Action Committee
Co-Chair

What is a climate action plan?

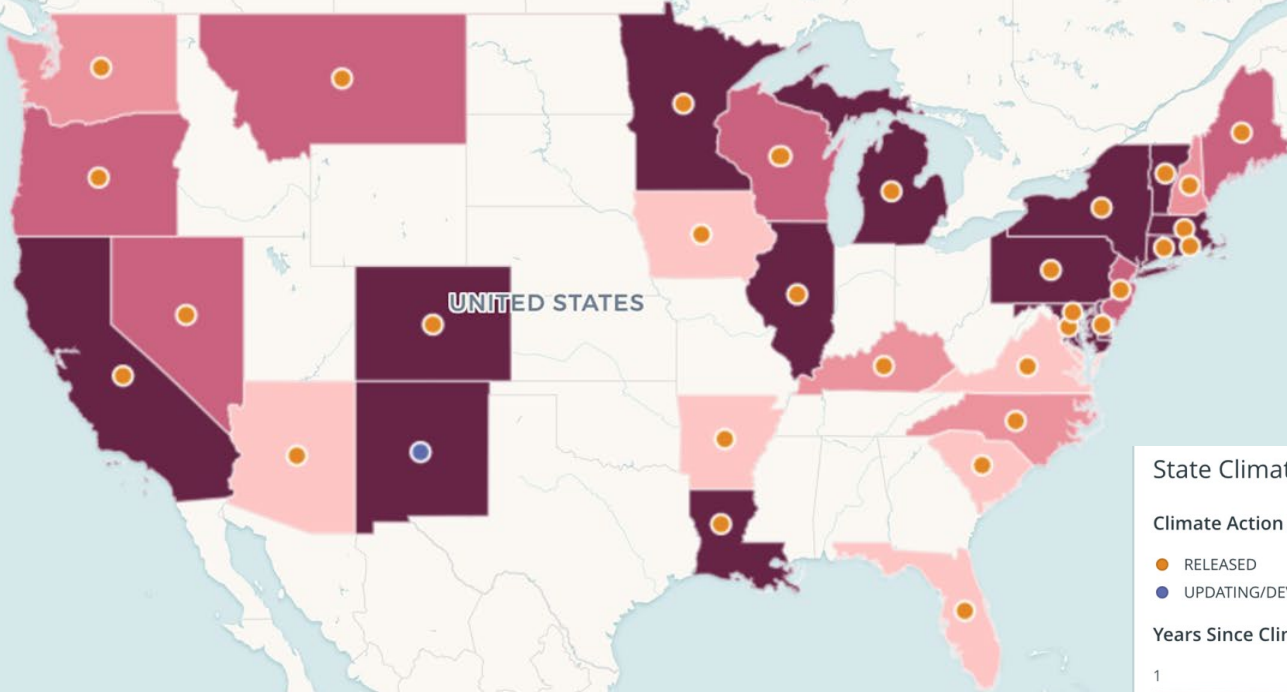
“A climate action plan is a detailed and strategic framework for measuring, planning, and reducing greenhouse gas (GHG) emissions and related climatic impacts.”

Climate action plans, at a minimum, include:

- an inventory of existing emissions
- reduction goals or targets
- analyzed and prioritized reduction actions
- an implementation strategy that identifies required resources and funding mechanisms

from [“What is a Climate Action Plan?, City of Burlington, VT](#)

State Climate Action Plans ^



State Climate Action Plans ^

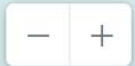
Climate Action Plan Status

- RELEASED
- UPDATING/DEVELOPING PLAN

Years Since Climate Action Plan

1 ————— 17

5.61 AVG



© [OpenStreetMap](#) contributors, © [CARTO](#)

MEXICO

CARTO

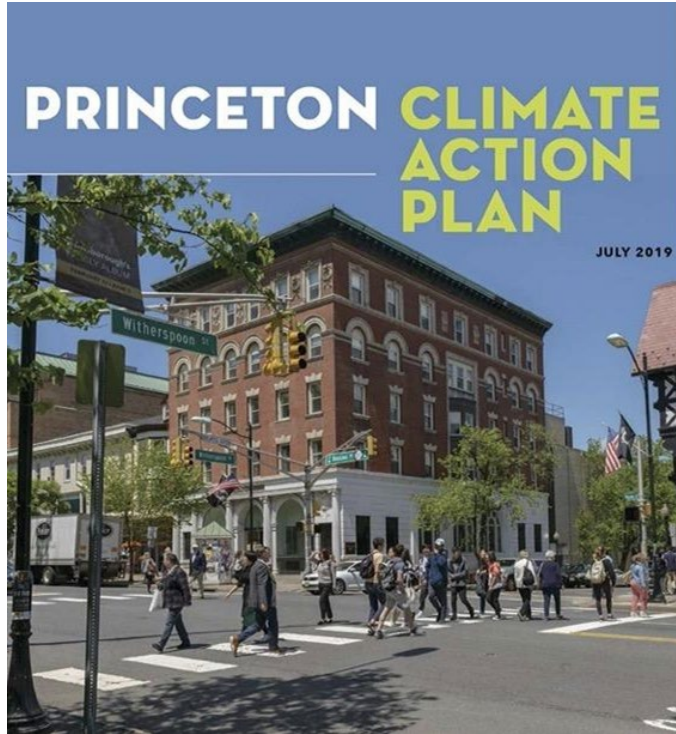
CUBA

State of New Jersey Climate Action Plan draft released September 2023



The NJPACT (New Jersey Protecting Against Climate Threats) Strategic Climate Action Plan reflects a continuing Departmental commitment to advance an aggressive climate pollutant reduction strategy as New Jersey endeavors to meet the State's goals of **reducing emissions by 50% by 2030 and 80% by 2050.**

Municipal and Higher Education



CLIMATE ACTION PLAN

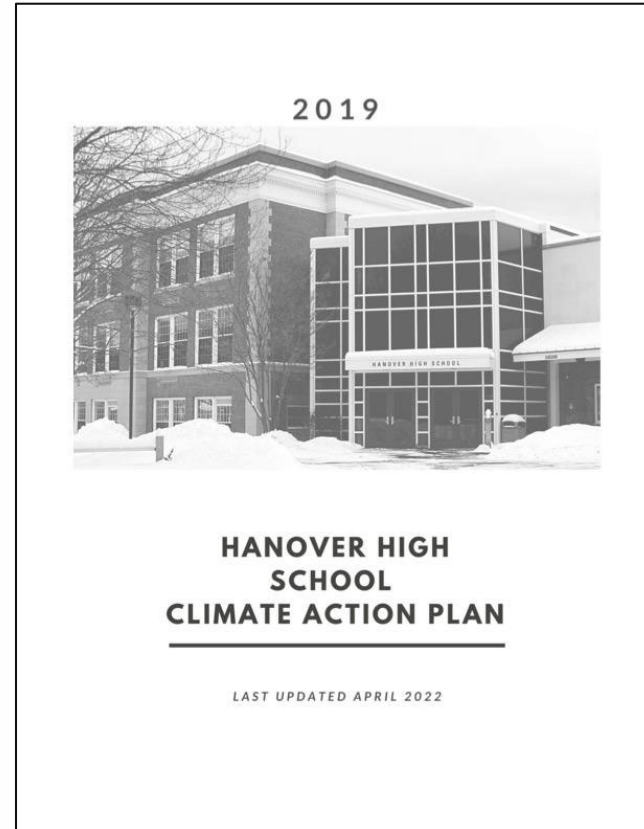
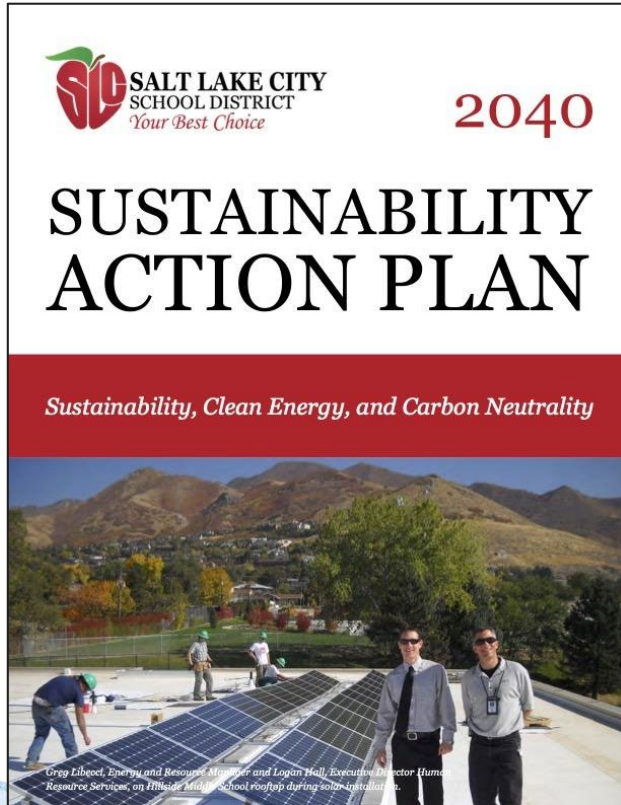


RUTGERS

Office of the President
TASK FORCE ON CARBON NEUTRALITY
AND CLIMATE RESILIENCE

June 2021

K12 Climate Action Plans





*Debra Duardo, Los Angeles County Superintendent of Schools, and
Pedro Martinez, CEO, Chicago Public Schools:*

“Every school district needs a local climate action plan.”

*Schools Can't Hide From Climate Change. They Must Be Part of the Solution.
Education Week, November 2021*

September 2021

K12 CLIMATE ACTION PLAN



In 2021, the Aspen Institute put out the K12 Climate Action Plan, a document meant to guide school districts in taking climate action.



Sec. John B. King Jr.

Secretary of Education (Obama)





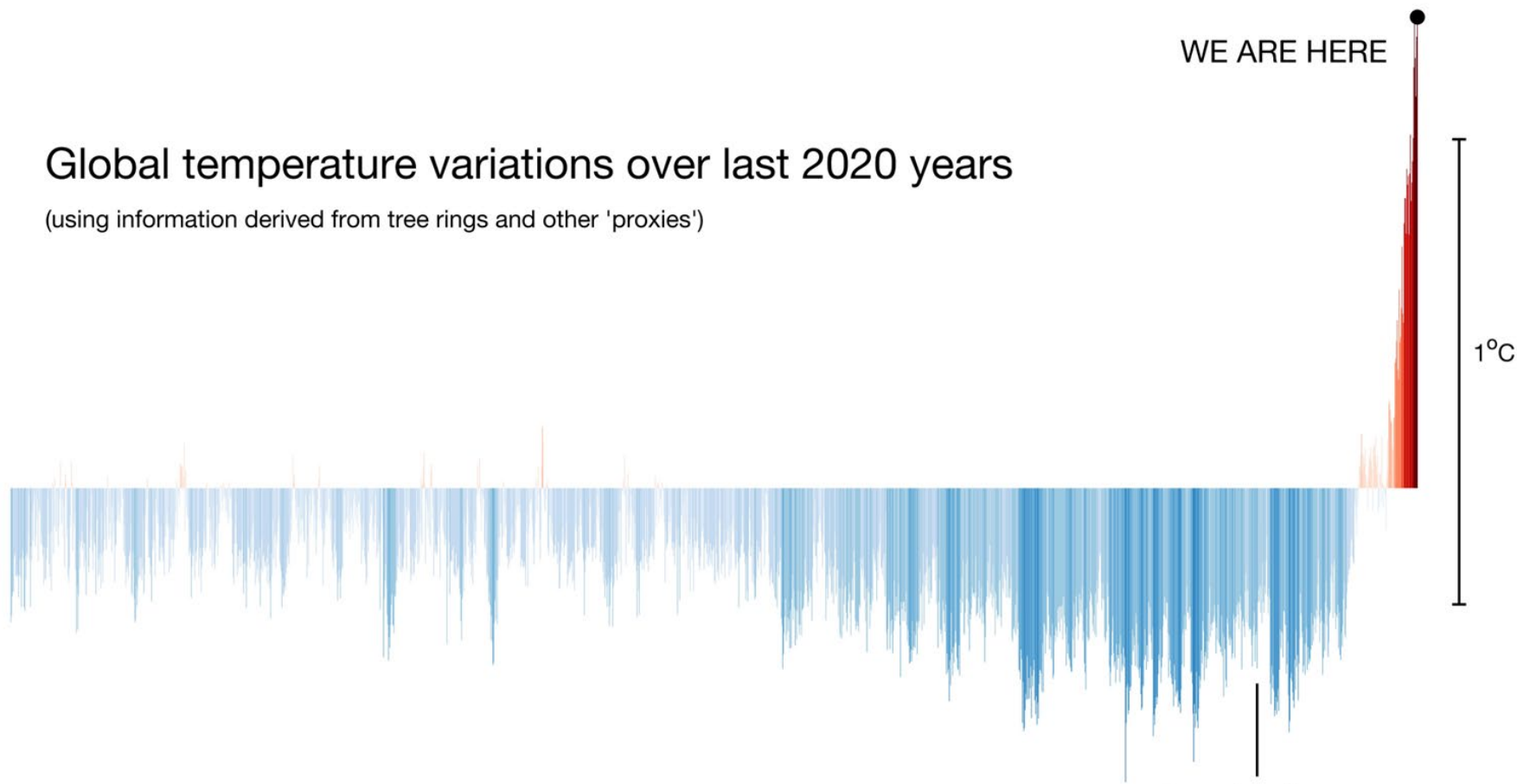
Why do we need
climate action now?

The image features a white background with decorative watercolor-style borders in shades of blue and green. The borders are located in the corners and along the edges, creating a frame around the central text. The text is centered and reads "First, the bad news...".

First, the bad news...

Global temperature variations over last 2020 years

(using information derived from tree rings and other 'proxies')



Graphic: @ed_hawkins
Data: PAGES2k (years 1-2000) and HadCRUT5.0 (2001-2020)
Reference period: 1901-2000

Invention of
steam engine



**World is on brink
of catastrophic
warming, U.N.
climate change
report says**

A dangerous climate threshold is near, but 'it does not mean we are doomed' if swift action is taken, scientists say

Washington Post, March 20, 2023



According to the 2022 United Nations Emissions Gap report:

“A stepwise approach is no longer an option.

We need system wide transformation.”

What is the role of schools?

- Climate related disasters have **disrupted 1.1 millions students**.
- Schools are responsible for **72 million metric tons of carbon dioxide** —the equivalent of 18 coal plants or 8 million homes.
- Schools generate **530,000 metric tons of food waste annually** , or approximately 1.9 million metric tons of greenhouse gas emissions.
- Schools operate one of the **largest mass transportation fleets** in the country.
- Schools are **one of the largest public energy consumers** .

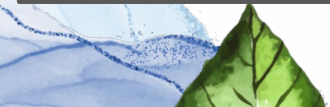
This presents an opportunity!

- Schools can significantly contribute to climate solutions!
- Funding and resources are available to make the transition.
- Schools can reduce operating costs while also reducing emissions and waste!
- Green schools are healthier schools for students, staff, and the community.
- Green schools are resilient schools.
- Green schools can prepare students for the future!

The background features a watercolor-style illustration. It includes soft, flowing blue shapes in the top-left and bottom-right corners, resembling waves or clouds. Interspersed with these are various green elements, including detailed drawings of leaves and branches, as well as abstract green washes and thin, golden-brown lines that suggest roots or veins. The overall aesthetic is natural and organic.

Hopewell Valley Regional
School District
Climate Action
Proposal

HVCHS Youth Environmental Society and Student Leaders





HVCHS Youth Environmental Society Climate Action Proposal

Climate Action Proposal

Presented to the Hopewell Valley Regional School District Board of Education

By the Hopewell Valley Central High School Youth Environmental Society

On March 21st, 2022

Lead Authors:

Youth Environmental Society Leaders:
Akhansha Arvind, Annika Ault, Nadia Chasalow,
Angelina Graf, Daphine Newton, and Abigail Rise

Contributing Authors:

Youth Environmental Society Members:
Barron Brothers, Charlotte Catlett, Chelsea Kent,
Olivia Kim, and Benjamin Pollara

Video Production:

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Advisors:

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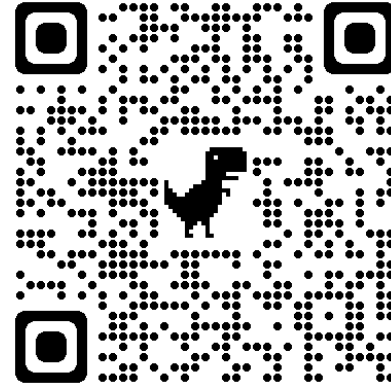
Consultants:

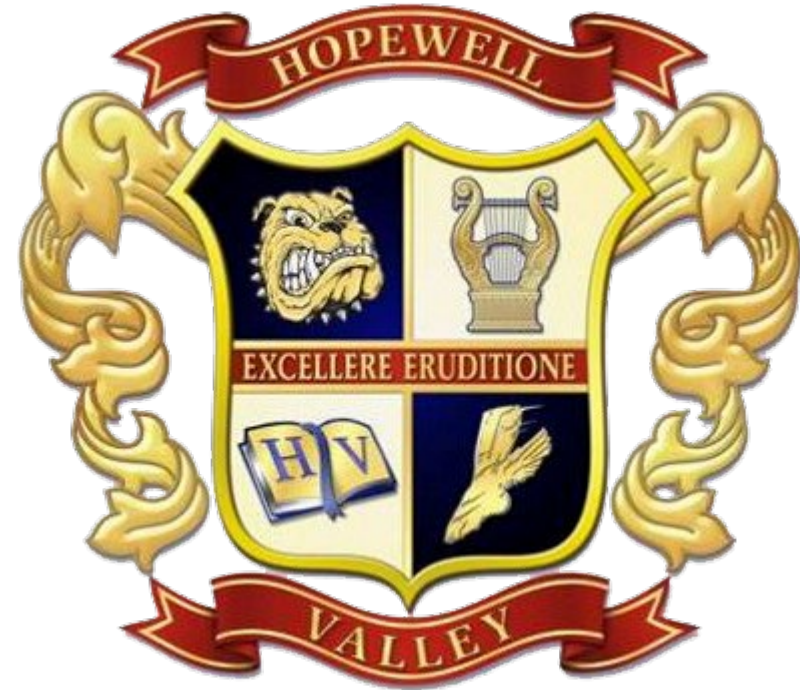
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Dr. Marjorie Kaplan, Rutgers Climate Institute
Harriet Sugarman, The Climate Reality Project
Dr. Steve Tuorto, The Watershed Institute

HVCHS Faculty Reviewers:

Dr. David Angwenyi
Kathryn Henderson
Jeffrey Parkinson
Sarah Sherwin

You can refer to the Climate
Action Proposal either here
or in the resources section
for this session.





Climate Action Proposal

presented to the
Climate Action Committee
January 19th, 2023

HVCHS Youth Environmental Society (YES) Climate Action Proposal

Lead Authors:

Akhansha Arvind
Annika Ault
Nadia Chasalow
Angelina Graf
Daphine Newton
Abigail Rise

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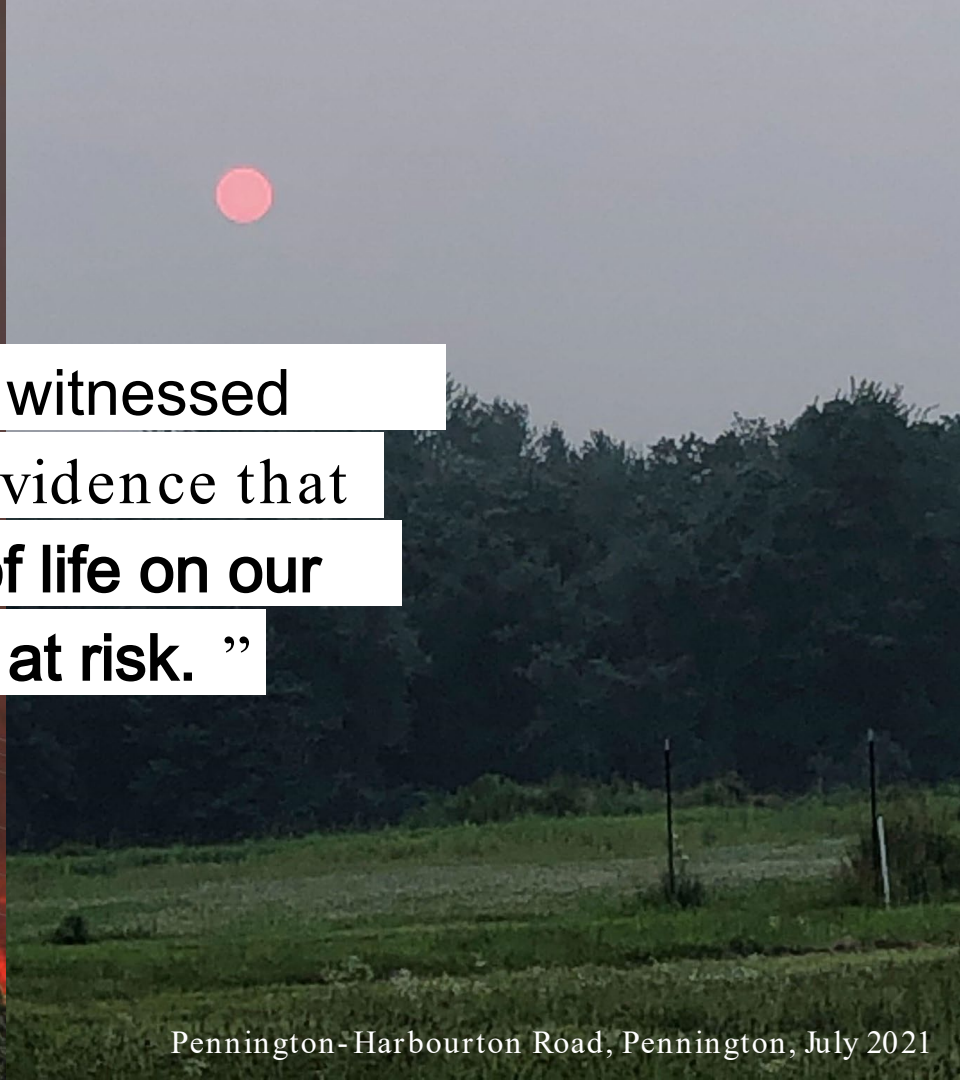
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Kathryn Henderson, HVCHS
Jeffrey Parkinson, HVCHS
Sarah Sherwin, HVCHS



“We have witnessed
increasing evidence that
the **stability of life on our**
planet is at risk. ”



Plumas National Forest, California, July 2021

Pennington-Harbourton Road, Pennington, July 2021

84% of 16-25 year olds worldwide report feeling “moderately, very, or extremely worried ” about climate change, a majority of whom claim “their feelings about climate change negatively affect their daily functioning. ”

The Lancet
Planetary Health
December 2021



Flooding in CHS blackbox theater after Hurricane Ida

Photo credit: Katherine Rochon



“Climate change is a social justice and equity issue.”

Schools for Climate Action



CHS Students

Schools have a pivotal role to play
in addressing the climate crisis.

“If all the schools in the U.S. shift to clean energy, sustainable food use, clean transportation, and green sustainable schoolyards over the next decade, we will have successfully reduced reliance on fossil fuels for one of the largest public sectors impacting the environment.”

K12 Climate Action, Aspen Institute



“Sustainable schools save, on average, \$100,000 per year on operational costs.”

“Sustainable schools receive direct and indirect savings from increased efficiency, higher teacher retention, and lower health costs, saving about \$70 per square foot, 20 times higher than the initial “greening” costs.”



Green School Alliance



Hopewell is already...

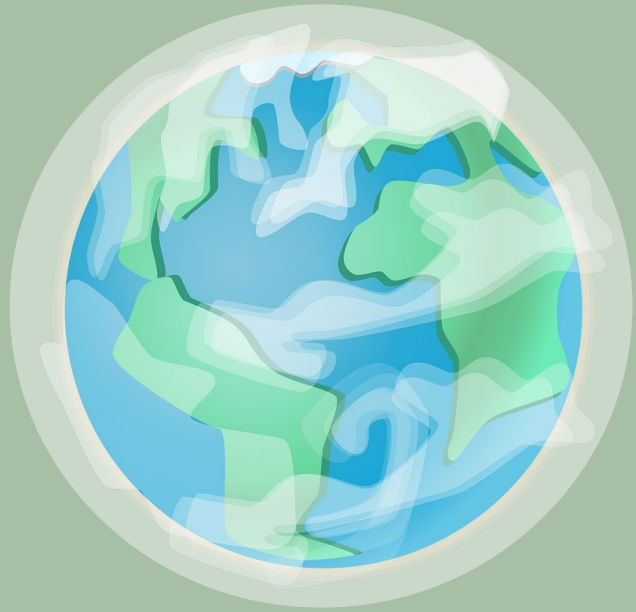


Climate Action Proposal

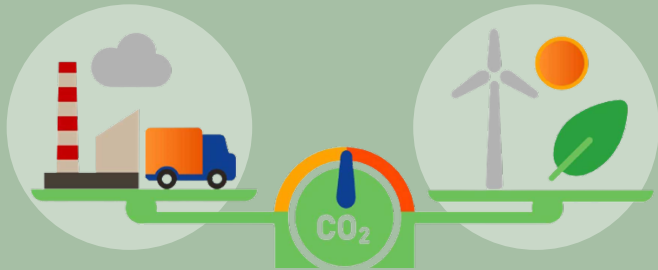


- Ambitious goals
- Audits
- Specific, measurable steps
- Tracking progress
- Community input





- Carbon neutrality by 2030
- Rigorous, comprehensive climate change education in all subject areas
- Renewable energy by 2030
- Energy and water efficiency, resilience to natural disasters, and increased ecological value of outdoor spaces
- Anti-idling and electric vehicles by 2030
- Zero waste
- Student mental health related to climate issues
- Safety and resilience in an increasingly unstable world



Recognition by Tammy Murphy & Sustainable Jersey



HVRSD Climate Action Resolution



**HOPEWELL VALLEY REGIONAL SCHOOL DISTRICT
RESOLUTION FOR CLIMATE ACTION
JUNE 27, 2022**

Resolution for Climate Action: Establishment of a Climate Action Committee to study and develop a long-range strategic Climate Action Plan for the Hopewell Valley School District.

WHEREAS, climate change is one of the most urgent issues facing humanity today; and,

WHEREAS, there is a broad consensus among climate scientists that greenhouse gas emissions from human activity are the dominant cause of climate change; and,

WHEREAS, climate change is a non-partisan issue that requires cooperative action from all sectors of society, including federal, state, and local governments as well as educational institutions; and,

WHEREAS, the Hopewell Valley Regional School District has demonstrated an ongoing commitment to supporting environmental sustainability through both education and facilities management; and,

WHEREAS, in its Environmental Stewardship Statement, the Hopewell Valley Regional School District commits to using resources responsibly and mobilizing the community "by providing them with the knowledge and skills to envision and create an environmentally just and sustainable future."

NOW, THEREFORE, BE IT RESOLVED that the Hopewell Valley Regional Board of Education does hereby commit to a multi-year process of creating and implementing a HVRSD Climate Action Plan.

RESOLVED, that the Hopewell Valley Regional Board of Education will establish a Climate Action Committee, comprised of one or more stakeholders from the HVRSD Board of Education, Business, Administration, Curriculum and Instruction, teachers, staff, students, parents, Buildings and Grounds, Transportation, Food Services, Hopewell Township, Hopewell and Pennington Boroughs, climate scientists and/or environmental stewardship directors from local conservation organizations and universities; and be it further

RESOLVED, that the Climate Action Committee will review the research and recommendations provided in the Youth Environmental Society Climate Action Proposal, to create a HVRSD Climate Action Plan with ambitious, specific, and measurable goals for the Hopewell Valley School District; and be it further

RESOLVED, that the Climate Action Committee will submit the Climate Action Plan to the Hopewell Valley Board of Education by June 2023.



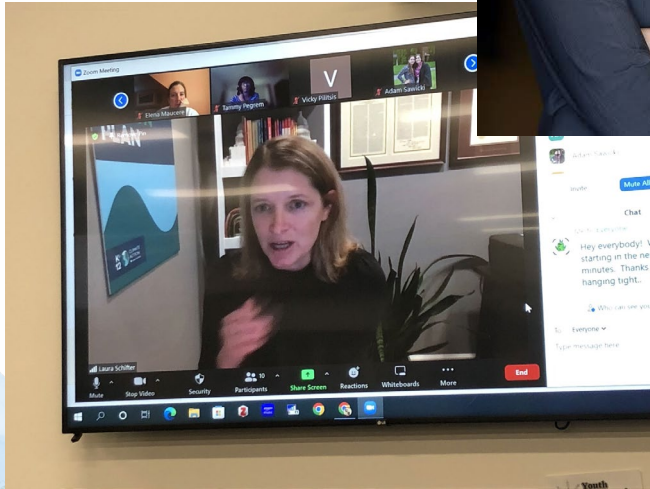
**Hopewell Valley Regional School District
Hopewell Valley Green Team
Climate Action Committee
January 2023 - December 2023**

After the Climate Action Committee was created, the Green Team Co-Chairs researched other school climate action plans, spoke with sustainability leaders in other districts, and consulted with organizations such as Sustainable Jersey and ICLEI. We also developed a structure for the committee and subcommittees and solicited members from students, parents, staff, and the Hopewell community.





LAURA SCHIFTER



Senior Fellow with the Aspen Institute's
Energy and Environment program
leading This Is Planet Ed

Lecturer on education with the Harvard
Graduate School of Education

Fellow with the Century Foundation

The background features a central white space with the text 'Climate Action Committee' in a green, serif font. This central area is framed by watercolor-style illustrations. In the top-left and bottom-right corners, there are soft, layered blue washes. In the top-right and bottom-left corners, there are detailed green illustrations of various leaves and branches, some with fine veins and small pinkish flowers, set against a light green watercolor wash.

Climate Action Committee

Climate Action Proposal

Presented to the Hopewell Valley Regional School District Board of Education

By the Hopewell Valley Central High School Youth Environmental Society

On March 21st, 2022

Lead Authors:

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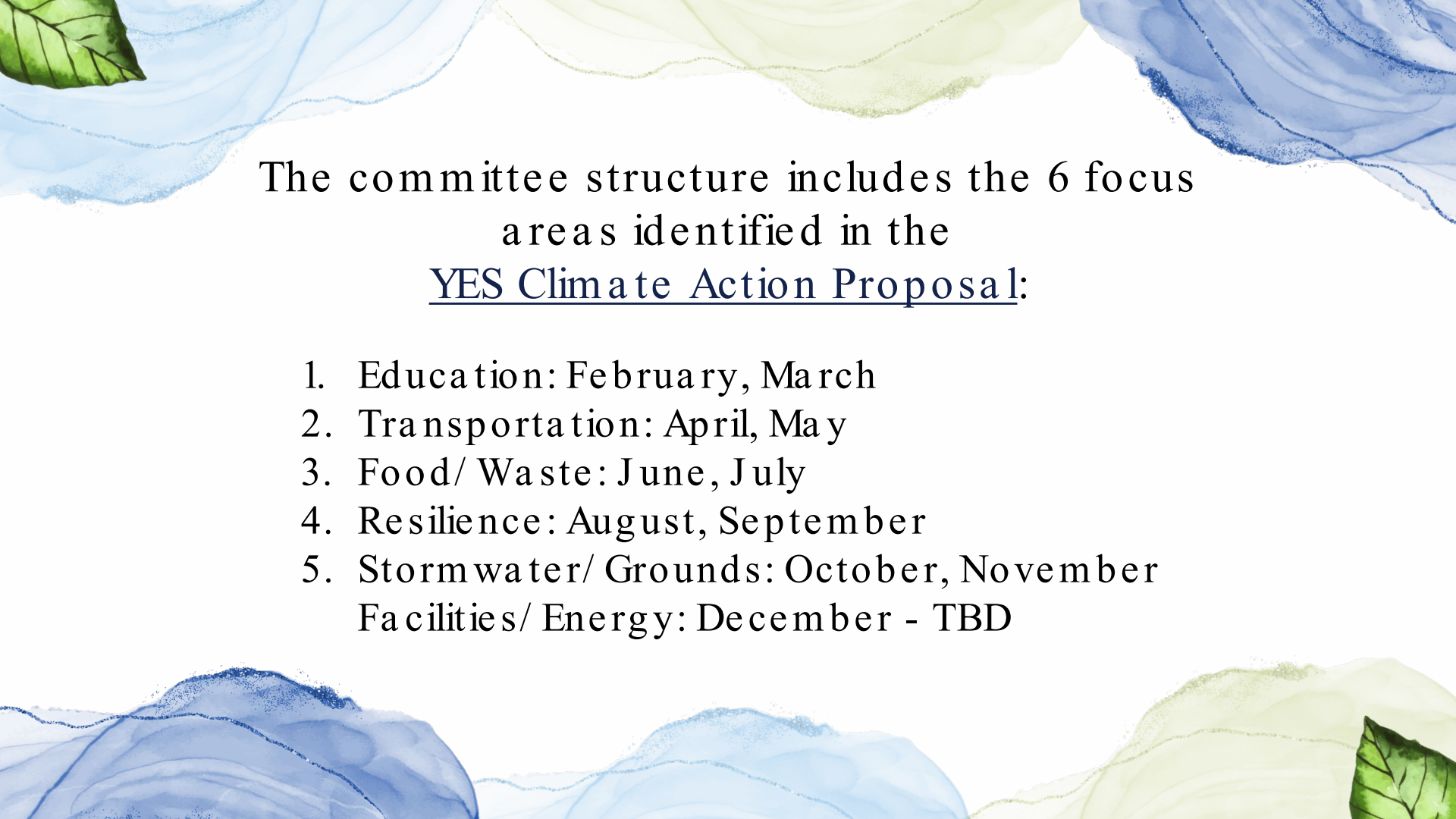
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Jeffrey Parkinson
Sarah Sherwin



The basis of the
Climate Action
Committee is the
28 page document
written by the
HVCHS Youth
Environmental
Society.



The committee structure includes the 6 focus areas identified in the YES Climate Action Proposal:

1. Education: February, March
2. Transportation: April, May
3. Food/ Waste: June, July
4. Resilience: August, September
5. Stormwater/ Grounds: October, November
Facilities/ Energy: December - TBD

The Climate Action Committee Structure

- The whole Climate Action Committee meets to review and discuss that month's focus from the Climate Action Proposal.
- The subcommittee for that focus area schedules meetings to work through the details of the recommendations in the proposal and incorporate feedback from the larger group.
- The subcommittee presents their findings to the whole Climate Action Committee and gets feedback from the larger group.
- The subcommittee meets again to draft a subcommittee report.

Education

Goal: Implement rigorous, comprehensive climate change education in all subject areas, including but not limited to those outlined in the New Jersey Climate Change Education Standards. Train all teachers to effectively educate about climate change.

Rationale: *The primary way that schools serve the community is by educating the youth and preparing them for the future. Schools have a responsibility to provide students with accurate and relevant information regarding the environment, as well as the tools to understand the changing climate they are living in. Students must be prepared to hold jobs in a sustainable economy and advocate for a more just and sustainable future.*

Action	Details
Address climate change in all subjects.	<ul style="list-style-type: none"> - Ensure that all teachers understand the science behind climate change in order to ground lessons in local, regional, and global contexts. - Educate teachers on a trauma-informed approach to climate education (Howard, 2021). - Provide annual professional development opportunities for all teachers to help them incorporate the NJ Climate Change Education Standards (Madden, 2022, pp. 15-21). - Review climate change curricula frequently to ensure that lessons are up to date with the latest climate science. - Ensure that systemic issues are addressed, including environmental racism and justice. - Integrate a solution-oriented approach to climate education, including climate optimism. - Partner with local Indigenous communities to incorporate Indigenous involvement in climate education and improve education on Indigenous cultures in history classes. - Commit to including Green Week in the curriculum by building in planning time for teachers. - Develop curriculum standards for covering climate change in subject areas not covered by the NJSLS in Climate Education, such as English and Math (New Jersey Department of Education, 2020).
Ensure that every student develops a thorough understanding of climate science.	<ul style="list-style-type: none"> - Address climate science in Freshman biology or life science classes, which are required for all students.

Hopewell Valley Regional School District Climate Action Committee Subcommittee Report Template

Goal:	
Rationale:	
Action #	
Current Status	
Audit Results	
Steps for Action	
Immediate	
6 months - 1 year	
Next 2 years	
3-5 years	
Benefits and Challenges	
Benefits	
Challenges	
Equity Considerations	
Financial Considerations	
Cost	
Savings/Cost Recovery	
Funding Sources	
Resources	

Education Goals:

- Implement rigorous climate change education in all subjects, including but not limited to the NJ Climate Change Education standards
- Ensure comprehensive and meaningful climate education
- Train teachers to effectively address climate change

Transportation Goals:

- Reduce carbon emissions & pollution
- Transition to electric vehicles by 2030
- Eliminate idling



Food & Waste Goals:

- Eliminate food waste & plastic waste
- Work towards zero waste throughout the district
- Conduct waste audit of school cafeterias



Resilience Goals:

- Support student mental health related to climate issues
- Prepare schools to be centers of safety and resilience in the face of climate change



Energy & Facilities Goals:

- Achieve carbon neutrality by 2030
- Transition to renewable energy
- Energy & water efficient buildings
- Prepare buildings for resilience in case of natural disasters
- Increase ecological value of outdoor spaces

What we have accomplished so far:

Education:

- trained a cohort of teachers across grades and subject areas who have implemented climate change education PD for the entire staff
- established areas and a timeline for curricular enhancement and revision

Transportation:

- identified pathways for electric buses and reduction of transportation emissions and idling

Food/Waste:

- established a collaboration with Rutgers Cooperative Extension Food Waste program and will work with an AmeriCorps member in 2 elementary schools

Resilience:

- trained counseling staff to address climate change related mental health issues with students
- identified climate-related risk factors and initiated collaboration with local emergency management agencies

What challenges have we faced?

- funding
 - trying to connect existing funding sources and infrastructure needs
 - costs of existing infrastructure
 - resources are allocated for districts that are more disadvantaged (i.e. electric school buses)
- time
 - funding is available, but many of grants are labor intensive to apply for
 - teachers, administrators, students, parents are BUSY! coordinating schedules
- finding experts who have time/ willingness to participate—in many cases, these people are BUSY and in demand
- regional district with multiple governments with different needs/ priorities
- hard for schools to do EVERYTHING—competing against other educational priorities
- engaging the broader community in the process

What still needs to be done:

- Formalize and review all subcommittee reports
- Transportation, food waste, and energy audits
- Work with consultants on:
 - stormwater management and grounds naturalization
 - greenhouse gas inventory and recommendations for net-zero pathways



So where can we start?



Sustainable Jersey for Schools



A free, voluntary program that provides tools, training, and grants to New Jersey public schools to help them implement sustainability initiatives and achieve certification.



- Identifies **actions** to become more sustainable
- Provides **tools, resources, and guidance** to make progress
- Provides access to **grants** for schools and school districts
- Recognizes **accomplishments**
- Awards certification to individual schools but requires School Board and district level support

Action	Points
BOARD LEADERSHIP & PLANNING	
District Sustainability Policy 🏠	10
Professional Development for Sustainability 🏠	5 to 20
Green Enhancement of District Strategic Plans	10
Strategic Plan Implementation of Green Initiatives	10
School Community Asset Mapping 🏠	10
School District Foundation	10

CLIMATE MITIGATION & RENEWABLE ENERGY	
School Carbon Footprint 🏠	10
Buy Renewable Energy	10
Onsite Renewable Generation System - Geothermal 🏠	10
Onsite Renewable Generation System - Solar 🏠	5 to 40

HEALTHY SCHOOL ENVIRONMENTS	
Indoor Air Quality Review 🏠	15
Access to Healthy Water in Schools 🏠	20
Anti-Idling Education & Enforcement 🏠	10
Classroom Chemical Purchase, Storage & Disposal Policy	15
Classroom Cleanup Protocol & Practices	10
Integrated Pest Management - Education & Organic Lawn Care 🏠	10
Outdoor Air Quality Awareness Program	10
Radon Testing, Education and Mitigation 🏠	10 to 20
Reporting Process for Indoor Air Quality Concerns 🏠	10

DIVERSITY & EQUITY	
Accessible Communications	10
Breakfast After The Bell	20
Diversity on District Task Forces & Committees 🏠	10
ENERGY EFFICIENCY	
Energy Efficiency for School Facilities 🏠	5 to 50
Behavior-Based Energy Conservation Programs 🏠	10
Energy Tracking & Management	10 to 20

FOOD & NUTRITION	
Healthy Food Choices Beyond the Cafeteria	10
Promote Locally Grown Foods	10
School Gardens 🏠	10 to 30

GREEN CLEANING	
Green Cleaning Policy & Plan	10
Green Cleaning Equipment	10
Green Cleaning Supplies	10
Green Cleaning Training & Education Programs	10

GREEN DESIGN	
Green Building Policy 🏠	10
Design, Build or Certify New Construction & Major Renovations to Green Standards 🏠	10 to 50
Green Building Training	10

GREEN PURCHASING	
Green Purchasing Policy 🏠	10
Recycled Paper Purchase	10
Sustainable Fleets 🏠	5 to 15

LEARNING ENVIRONMENT

All Arts Disciplines Offered	🏠	10
Curriculum Mapping		15 to 30
Outdoor Classroom	🏠	10
Student Participation in the Arts	🏠	10

SCHOOL CULTURE & CLIMATE

Inclusive Environment Where All Can Thrive	🏠 🏠	10
School Culture & Climate Needs Assessment	🏠 🏠	20
Social Emotional Learning Integrated Unit	🏠 🏠	10

SCHOOL GROUNDS

Biodiversity Audit & Management Plan	🏠	10
Biodiversity Project	🏠	10
Green Infrastructure Assessment & Plan	🏠	10
Green Infrastructure Installation	🏠	10

STUDENT & COMMUNITY OUTREACH

Green Team 🏠		10 to 15
Community Education & Outreach 🏠	🏠 🏠	10
Civic & Stewardship Volunteer Initiatives	🏠 🏠	10
Enrichment Programs through Partnership	🏠	10
Green Challenges	🏠 🏠	10
Green Fair	🏠 🏠	10
"Green" Your Green Fair or School Event	🏠 🏠	10

STUDENT & STAFF WELLNESS

School Wellness Council 🏠	🏠	20
Policies to Promote Physical Activity	🏠	10
Programs to Promote Physical Activity	🏠	10
Staff Wellness Program		10

STUDENT SAFETY

Safe Routes to School District Policy	🏠 🏠	10
Pedestrian and Bicycle Safety & Promotion Initiatives	🏠 🏠	10
Safe Driving Awareness Programs for High School Students	🏠	10
School Travel Plan for Walking & Biking	🏠 🏠	10

WASTE MANAGEMENT & RECYCLING

Waste Audit 🏠	🏠	10
Document Recycling Rates	🏠	10
EPA Waste Wi\$e	🏠	5
Food Waste Management	🏠	15
Materials Reuse	🏠	10
Recycling Non-Mandated Materials	🏠 🏠	5 to 20

Statistics

2014
Program
Started

67% Districts
Participating

1,135
Schools
Registered



293
Certified

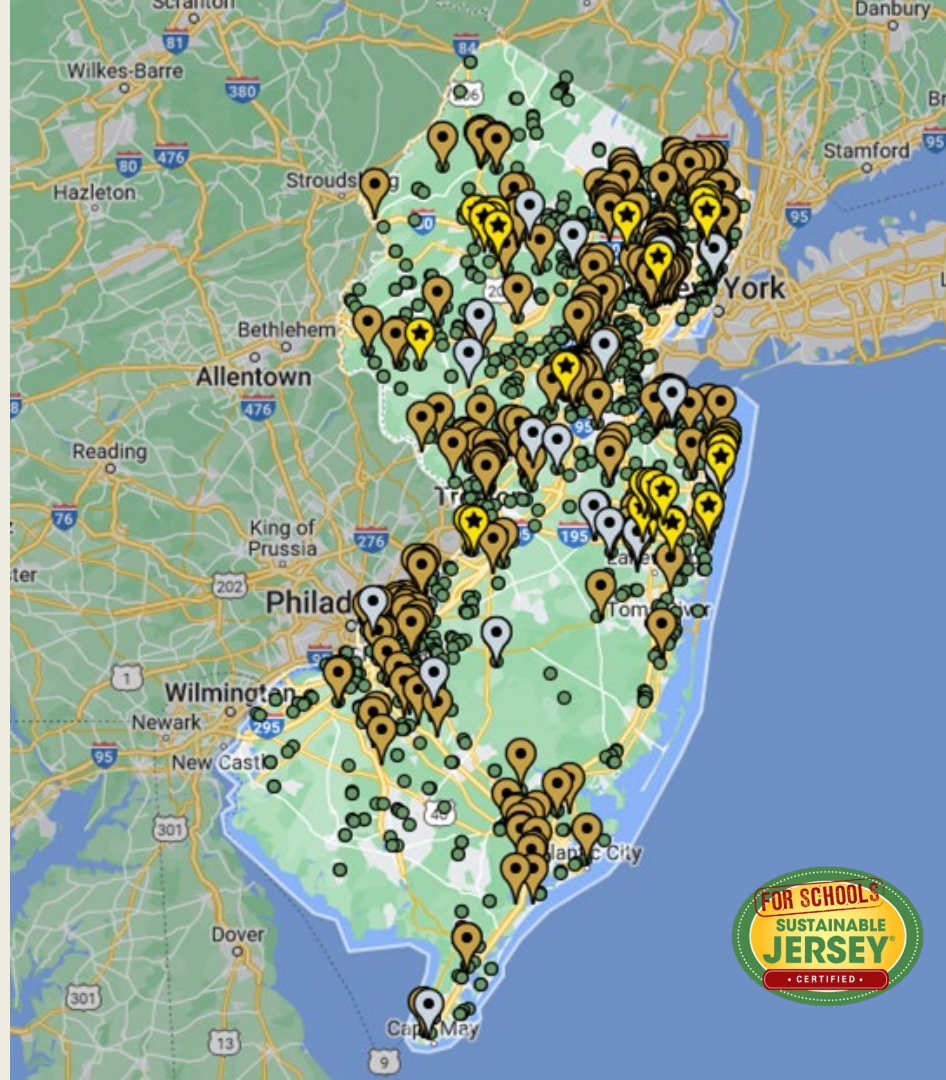


44
Certified



47 Digital
Schools
Stars

8,859
Actions
Implemented





APPLYING FOR CERTIFICATION IN 2024?

Submission Deadline:

#1

January 12

#2

March 22

#3

June 13

bit.ly/SchoolsCertCycle



STUDENT CLIMATE CHALLENGE



The Drumthwacket Foundation





STUDENT CLIMATE CHALLENGE

FREE OPPORTUNITY AVAILABLE TO NEW JERSEY PUBLIC SCHOOL STUDENTS IN GRADES 6 TO 12

TEACHER REGISTRATION OPENS

OCTOBER 10

Teacher registers student team who will complete a school or community project that addresses a cause or impact of climate change



STUDENT ENTRIES DUE

APRIL 10

Teams create a digital story video about the project and submits it by April 10, 2024



AWARDS CEREMONY

EARLY JUNE

Winners are recognized at an Awards Ceremony hosted by First Lady Tammy Murphy and receive grants to advance their climate education initiatives ranging from \$3,500 to \$500

bit.ly/NJStudentClimateChallenge

Awards

New this year! For the 2023-2024 NJ Student Climate Challenge there are two award categories. Contest rules and the entry submission are the same for both categories.

NJ Student Climate Challenge Award	ACE Student Climate Challenge Award
To be eligible for a NJ Student Climate Challenge Award, your student team must be from a public high school and middle schools in New Jersey.	To be eligible for the ACE Student Climate Challenge Award, your student team must be from a public high school or middle school that is located in the <u>Atlantic City Electric (ACE) Service Territory</u> .
First, second and third place middle and high school winners receive grants to advance their climate education initiatives ranging from \$3,500 to \$500.	First, second and third place middle and high school winners receive grants to advance their climate education initiatives ranging from \$3,500 to \$500.



The New Jersey Climate Change Education Hub



Photos from Dale Rosselet, Allison Mulch, Dalton Farms, and NJ Audubon



NEW JERSEY
AUDUBON
www.njaudubon.org

SUBJECT
to**CLIMATE**



THE COLLEGE OF NEW JERSEY
SCHOOL OF EDUCATION

The background features a watercolor-style illustration of leaves. The leaves are rendered in various shades of blue, light green, and yellow-green, with some showing detailed vein patterns. The leaves are scattered around the edges of the frame, creating a natural, organic border. The central area is plain white, providing a clear space for the text.

Questions?

The image features a white background with watercolor-style illustrations in the corners. The top-left and bottom-right corners show green foliage with various leaf shapes and thin brown stems. The top-right and bottom-left corners show blue, wavy, layered shapes resembling water or clouds. In the center, the word "Thanks!" is written in a large, bold, green sans-serif font. A thin green horizontal line is positioned below the text.

Thanks!

Program Underwriters



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*Digital Schools Underwriters and Sponsors