

# **Building Green Career Pathways**

#### **Guidance Documents:**

- <u>Delaware Pathways</u> Delaware educators and workforce partners recognize that an environmentally literate workforce is necessary to create and access clean energy jobs; build a green consumer market; develop a deeper understanding of environmental issues; seek environmental justice in local and global issues; and have the skills needed to make informed, responsible, and environmentally sound decisions. Environmental literacy is the desired outcome of environmental education and provides our future workforce with sound scientific information, as well as skills for critical thinking and creative, strategic problem solving.
  - Core Beliefs:
    - Intentional environmental education can lead to successful postsecondary success in the workforce within and beyond green jobs.
    - Students and employers need continued development of knowledge and skill for emerging environmental careers.
    - Environmental education is relevant to all careers and provides students with the understanding and skills needed to address complex 21st century problems.
    - Environmental literacy concepts can be found in every CTE pathway.
    - CTE POS are likely discussing, learning, and applying EL during learning activities without specifically identifying as such.

## **Accomplishments:**

 Partnership with Advance CTE to identify Environmental Literacy Competencies for Career and Technical Education and support the integration of these competencies across career clusters.

## **Opportunities:**

- Support the development/refinement of the EL Competencies for CTE
- Identify ways in which CTE programming can support the attainment of goals in the DE Climate Action Plan (2021) and the DE Climate Change Solutions Act of 2023

## **Key Partnerships:**

- Advance CTE
- Delaware Foundation for Science and Mathematics Education
- Delaware Science Coalition
- Delaware Department of Education

## **Challenges:**

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## **Major Funding Programs:**

• Perkins V - For organizational leadership and transformative program development

## **Exemplars (slides)**

#### **NOTES**

- Jobs programming is archaic no codes for the emerging and green jobs yet hard to fund at this point.
  - How do you sell jobs that don't exist not on labor market info.
- David Aquaculture training for jobs that don't exist, there are similar skills taught via other job pathways.
- Because some jobs don't exist
  - How do we support speculation in workforce programming and how in setting up a program when speculation fails - dangerous in career workforce programming
- How to ID where the foundation is? Bedrock occupation
  - o Building tech program getting better jobs out of it/not the green jobs orientation
- Workforce new piece in EL is the a pendulum thing and jobs may dissipate
  - Awareness is what happens in K-8, EL can offer this aspect
  - Environmental ethic things come together whether electrician or aquaponics
- Opportunities
  - o Provide jobs/work-based learning in EE/EL orgs need resources for this
    - Case by case basis
  - Awareness and exploration programming (K-8 and beyond)
    - How coordinated is this
    - Perkins ends at 5th grade
    - DE state funds end at 7th
    - Community groups/orgs
      - Junior Achievement
        - United Way
        - DE Parks
  - Career training CTE/Community Colleges
- System is structured as a funnel
- What is the idea state
  - EL in every class/program for K12
  - Todd yes skilled in biodiversity, land stewardship, landscaping with intention
- Next steps
  - EL Alignment work new competencies
  - Connect CTE and non-formal ed educators to support centering CTE
  - Find funding
  - Look at industry to supply teachers/educators
  - EL is a basis for durable skills problem solving
  - EL, Skills, CTE all happen in the school (consistently)
    - Doing this is a way that support both jobs that exist now and those that are emerging

# **High Impact Actions for Sustainable Schools**

#### **Guidance Documents:**

- Chesapeake Bay Watershed Agreement Environmental Literacy Goal
- Delaware Environmental Literacy Plan
- Delaware Children in Nature Taskforce Report

## **Accomplishments:**

- Schools participating in Pathways to Green Schools
- Green Ribbon Schools award winners
- Caesar Rodney Center for Green Schools
- Delaware Outdoor Learning Network
- National Wildlife Federation EcoSchools USA

## **Opportunities:**

- We have a lot of new schools in Delaware being built or renovated or will be built or renovated in the next several years.
- Green Ribbon School Award
- Pathways to Green Schools
- Project Learning Tree Green Schools

# **Key Partnerships**

- Green Building United
- <u>Energize D</u>elaware
- <u>Delaware Department of Education</u>
- Plastic Free Delaware
- Delaware Solid Waste Authority
- Delaware Association for Science and Mathematics Education
- Delaware Association for Environmental Education
- Healthy Foods for Healthy Kids

## **Challenges:**

- Buy-in from school districts and schools
- Funding
- Staffing
- Professional development (teachers, administrators, facilities)
- Focus on state testing at ELA and Mathematics

## **Major Funding Programs:**

- Pathways to Green Schools Mini Grants
- DAEE Mini Grants
- **DFSME Seed Grants**

#### **Exemplars** (slides)

## **NOTES:**

- Who needs to be involved
  - Jamie Mack DOE all school facilities stuff goes through him need to find the right way to approach the schools - infrastructure
  - Transportation formula funds to school districts
    - May have regulatory pieces
    - Who is this person at the state level
  - Get Org Chart
    - Title 14 all ed. Policy
    - Beyond just Education to all State level departments that have an influence.
  - Food -
  - Trusted folks in a district that can open a convo with the school board
- What to do
  - Get to DOE operational leadership
  - o Get to school boards with ideas when buildings/infrastructure are on the agenda
  - O New Schools?
  - Expand DE Uni. to build capacity in schools to address infrastructure needs circuit rider idea
    - This exists for municipalities, not for schools yet
- What can be done now
  - Communication materials head off conflicts/misunderstandings
  - Connect with influencers create a demand (19 school districts) community voice
  - Know how systems work connected to infrastructure, trans., food

# **Climate Change**

# State and/or National Guidance Documents (i.e. climate action plans, resilience and adaptation plans, or energy plans):

- Executive Order (white house)
- DE Climate Solutions Now Act
- DE Climate Action Plan
- New Castle County 2050 Comprehensive Plan -https://www.newcastlede.gov/350/Comprehensive-Plan
- NAAEE Climate Change Guidelines for Excellence (coming soon)

# **Accomplishments:**

- <u>Tree For Every Delawarean Initiative</u> (TEDI)
- Launched the Climate Leadership Academy.
- Implementing a Competitive Grant Program for DC-Fast Electric Vehicle Chargers
- Clean Cars Program
- Launched the Low- to Moderate-Income Solar Pilot Program.
- Created the create a statewide electric vehicle infrastructure plan
- DNREC Environmental Justice Staff person
- MACCE-C Conference

- DE DOE Supporting Students in Climate Science, Climate Change and Solutions
- NFWF Grant
- Interfaith Power and Light ReNEW Essay-scholarship Awards
- NGSX: Oceans, Climate Change, and Big Data
- Inclusive and Creative Climate Education Workshop

# Opportunities for environmental literacy work to support climate action, resilience, or energy goals:

- University of Delaware Climate Hub
  - Recent professional development with hopes of developing a network of educators
- Climate Change embedded in NGSS Standards (DE is an NGSS state)

# **Key Partnerships**

- Mid Atlantic Climate Change Education Conference
- University of Delaware Climate Hub
- Green Building United
- Interfaith Power and Light
- Delaware Association for Science and Mathematics Education
- Delaware Association for Environmental Education

## **Challenges:**

- Climate education does not seem to be a mandate for schools
- Lack of education for teachers on how to teach climate change and handle difficult issues
- There is a need to connect the new Delaware Climate Action plan to education

## **Major Funding Programs:**

• NEVI program - \$15 million to deploy fast EV charging stations

## **Exemplars (slides)**

# Student Environmental Literacy (MWEE)

#### **Guidance Documents:**

- 2022 ELIT Report Delaware
- Chesapeake Bay Watershed Agreement Environmental Literacy Goal
- Delaware Environmental Literacy Plan
- Delaware Children in Nature Taskforce
- In draft form: DE Environmental Literacy Template; DE Environmental Literacy Audit Tool
- In development: DE MWEE Facilitators Guide

## **Accomplishments:**

- Teacher Professional Development on MWEEs in June and August
- Intro to EE and Elit online course for DEDOE
- NAAEE Presentations on current BWET Projects in DE
- District ELit Plans (CR and APPO) in development
- Presentation on Elit at the Delaware Policy and Practice Institute
- Youth Environmental Summit (YES!)
- DAEE Annual Conference
- NFWF Grants for Caesar Rodney School District + Red Clay Consolidated School District
- <u>DESG Supplies for Schools for Outdoor Classrooms Program</u>
- Delaware Forest Service Supplies for Schools for Outdoor Classrooms Program
- Freshwater Wetlands Day

#### **Opportunities:**

- Exporting Elit Planning process to other districts
- Building a broader network for support for Elit in schools
- Expanding the DE Outdoor Learning Network
- Build into CTE middle grades as career awareness/exploration

### **Key Partnerships:**

- BWET Grant (DelNature, Stroud Center, DEDOE, DFSME, DESG, CR, APPO, DAEE)
- Delaware Foundation for Science and Mathematics Education
- Delaware Association for Environmental Education
- Delaware Environmental Literacy Community of Practice
- <u>Delaware Department of Education</u>

## **Challenges:**

- Capacity of organizations
- Capacity of schools and districts
- Lack of top down (state level) mandate for EE

## **Major Funding Programs:**

- NOAA BWET
- NFWF

## **Exemplars (slides)**

# **State Network Updates**

# **Delaware Association of Environmental Education (DAEE):**

- Hired a network coordination team
  - Coordinator
  - Administrative Assistant
  - Marketing Specialist
- Conference most likely in February 2024, date and location to be announced

## **Delaware Environmental literacy Community of Practice.**

- Mission: Our vision is to cultivate the conditions needed for environmental literacy efforts through relationships and collaborations across statewide and local networks including formal, non-formal and informal educators, community groups, government agencies, and business partners
- Group is an outgrowth of 2021 NOAA BWET Grant
- Actions
  - Previous
    - Webinars
    - DAEE Conference Session
  - Upcoming
    - Listening session with educators
    - Newsletter of recent activities and upcoming events
    - DAEE ELIT Map
- Web ressence
  - Future home on the DAEE website

#### **DFSME Watershed Education Group**

- Monthly meetings of the Watershed Education Group
- DFSME is working to foster interaction between its various workgroups

For questions, please contact David Christopher, Delaware Sea Grant: <a href="mailto:dmchrist@udel.edu">dmchrist@udel.edu</a> or Tonyea Mead, Delaware Department of Education: <a href="mailto:tonyea.mead@doe.k12.de.us">tonyea.mead@doe.k12.de.us</a>