



Chesapeake Bay Program
Science. Restoration. Partnership.

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Workforce Outcome and Clean Water - Collaborations With Agriculture

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Problem Statement

Achieving the Chesapeake Bay Program goals are contingent on having a trained and sufficient workforce to implement strategies and practices developed to address Chesapeake Bay issues.

Challenge Recognized in CBP

STAC Report (July 2021)

Overcoming the Hurdle: Addressing Implementation of Agricultural Best Management Practices (BMPs) Through a Social Science Lens

- Recommendation: The CBP should support new incentive structures for the development and retention of conservation professionals.

LGAC (2019 and 2022)

- *Stormwater and Green Infrastructure Workforce Development Report*
 - Finding: Significant demand for workforce to support implementation of BMPs and water infrastructure in local jurisdictions
- *LGAC Letter To the Executive Council*: Take leadership role in promoting green infrastructure workforce development, training, and certification programs as a means to support local economies and continue watershed restoration efforts.

CAREER PREPARATION - CONTINUUM

Elementary School

- No differentiation

Middle School

- General Track
- Magnet/Charter School Track

High School

- General Track
- Magnet/Charter School Track
- Career Technical Education Track

Post-Graduate

- Community College
- 2-4 Year University
- Graduate & PhD
- Skills Training
- On-the-job Training



Pathways and Interventions

ELEMENTARY SCHOOL

MD ELIT Standards: Identify examples of environmental careers by the end of grade 2

PA Academic Standards for Career Education and Work: Career awareness and preparation, career acquisition, retention and advancement **(grade 3 & 5)**

School Counselors, Teachers, Librarians

Project Wild Wild Work Career Connections: A career component has been added to all activities to tie in real occupations in the fields of wildlife management and conservation

School Clubs

MIDDLE SCHOOL

MD ELIT Standards: Participate in environmental career research by the end of grade 8

PA Academic Standards for Career Education and Work: Career awareness and preparation, career acquisition, retention and advancement **(grade 8)**

School Counselors, Teachers, Librarians

Project Wild Wild Work Career Connections: A career component has been added to all activities to tie in real occupations in the fields of wildlife management and conservation

Career Resources/ Tools (i.e., Naviance)

School Clubs

HIGH
SCHOOL

CONTINUED STUDIES
(POST HIGH SCHOOL)

KEY

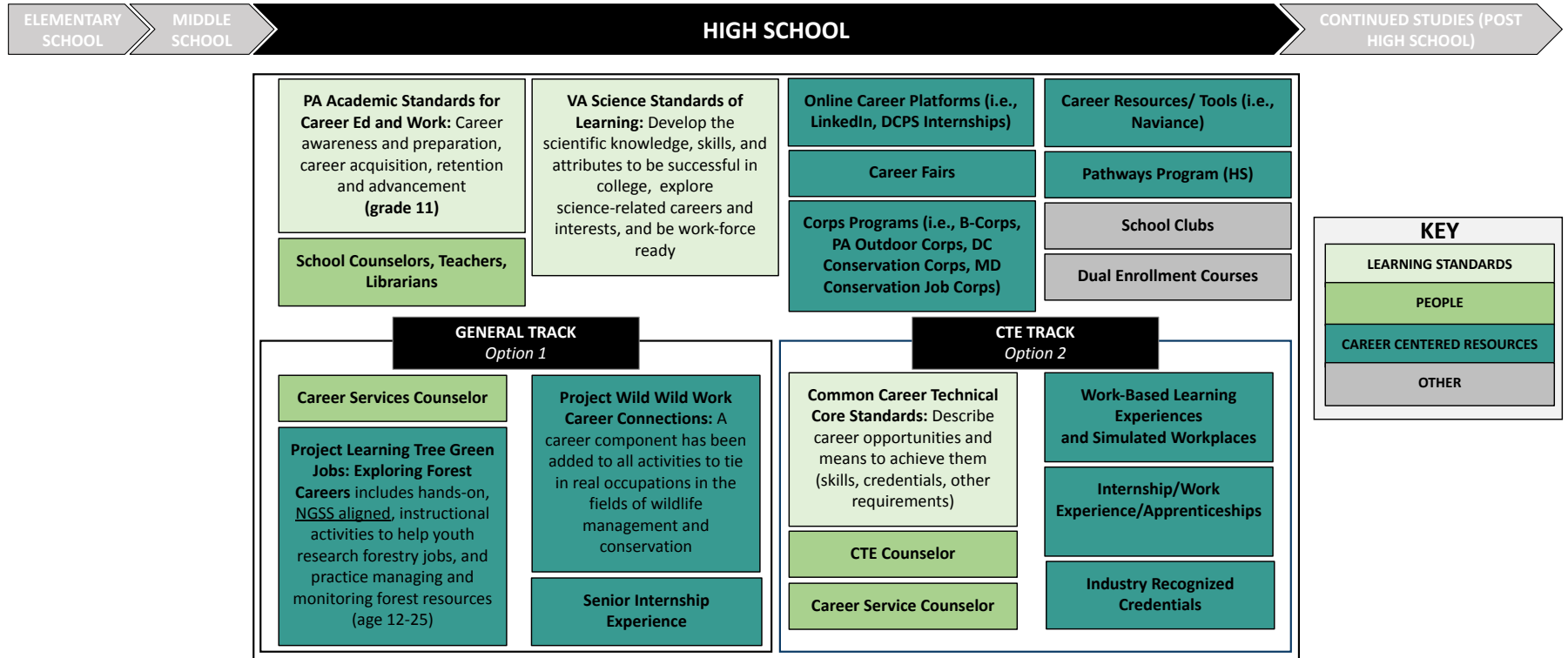
LEARNING STANDARDS

PEOPLE

CAREER CENTERED RESOURCES

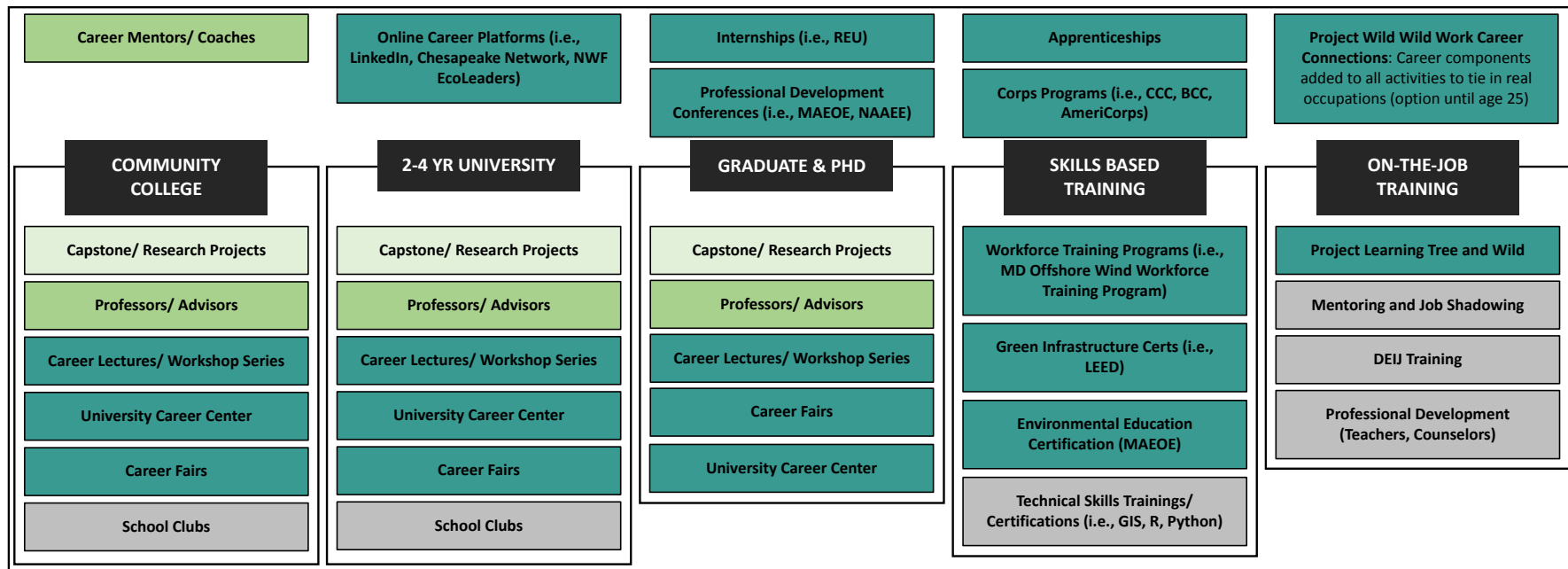
OTHER

Pathways and Interventions



Pathways and Interventions

POST HIGH SCHOOL EDUCATION



Landscape Analysis

WE Strategies



GIT funded project to:

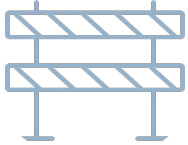
- Inventory existing career/workforce programs and the types of career pathways supported by these programs.
- Describe how agencies & organizations intersect with these career/workforce programs to provide pathways from these programs to jobs.
- Identify barriers in this system for underrepresented individuals and suggestions for addressing them.
- Review of labor market data related to **green/clean careers** and how this can be used to inform program development and decision-making.

Landscape Analysis



1. Career and Workforce Training Provider Database

- Informational database showcase information on training providers that prepare jobseekers in emerging jobs within the Chesapeake Bay region.



2. Identify Barriers & Opportunities for Historically Underrepresented Groups

- Identify barriers in this system for underrepresented individuals and suggestions for addressing them, as well as opportunities to advance in their career.



3. Develop an Interactive Career Map

- The Career Network Map provides representation of pathways within green emerging jobs.
- Highlights various roles that are aligned to the workforce needs of each Goal Implementation Team (GIT), based on Job level (Origin, Gateway, and Target).

Landscape Analysis

WE Strategies



Findings

- There are various training providers and training programs for all levels of educational attainment within Chesapeake Bay.
- Through training providers, job seekers in all six states have access to training programs aligned with the CBP related employment needs
- There is a lack of systems enabling CBP partners and employers to impactfully engage with training providers.
- Underrepresented community members face barriers that perpetuate inequitable outcomes in accessing green and emerging jobs across multiple levels of Chesapeake Bay Programs and Partners.
- There is a lack of systems to promote job retention and diversity across bay programs.
- There is misalignment between the opportunities and desires for advancement among ethnic and racially diverse groups regarding green jobs, regardless of entry for employment.

Landscape Analysis - Recommendations

1

Center and maintain relationships with training providers as key partners in closing gaps within emerging jobs.

Organize an annual convening to host the CBP, employers, and training providers within Chesapeake Bay.

2

Develop and disseminate a long-term plan to directly engage with current and prospective employees from underrepresented groups.

Identify green jobs-focused organizations who might have existing mentoring opportunities, and explore potential partnerships

3

Establish systematic structures to eliminate barriers that produce inequitable outcomes across employment levels

Create a knowledge base of career opportunities and pathways of emerging jobs.

Engaged Communities Goal

Engage and grow a community of local stewards and leaders through education, recreation and professional opportunities to ensure the long-term success of restoration and conservation efforts.

Workforce Outcome

Outcome: Increase the ability of all job seekers in the watershed to understand, participate in and succeed in career pathways that positively support the Chesapeake Bay watershed.

- By 2040, inform and grow implementation of strategies that help students, educators and job seekers become aware of and understand environmental careers and the in-demand skills and pathways to access these opportunities.
- By 2040, increase the number of postsecondary institutions and training providers offering industry-recognized credentials that support *Chesapeake Bay Watershed Agreement* Goals and Outcomes.
- By 2040, engage employers to support greater hiring and retention of workers trained in fields necessary to support *Chesapeake Bay Watershed Agreement* Goals and Outcomes.

2026 Education Summit

Planning Body	Chesapeake Bay Program Education Workgroup at the direction of the CBP EC and PSC
Audience	<u>Leaders</u> from federal, state, and non-governmental entities. Ex) Secretary-level representatives from the education, environment, agriculture and natural resource agencies of each state.
Purpose	Share innovative practices, and coordinate between federal, state and non-governmental leaders about the future of environmental education in our region to achieve the Watershed Agreement.

Education/Workforce Action Team

Outcome: Increase the ability of all job seekers in the watershed to understand, participate in and succeed in career pathways that positively support the Chesapeake Bay watershed.

- By 2040, inform and grow implementation of strategies that help students, educators and job seekers become aware of and understand environmental careers and the in-demand skills and pathways to access these opportunities.



1. Define the indicator for Workforce Target 1, determining what is appropriate to measure and how to measure it
2. Use indicator research to advise on the development of the Workforce subchapter within the Management Strategy.

Workforce Outcome

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Purpose

The Workforce Workgroup exists to strengthen and align efforts that build a skilled, informed, and connected workforce supporting the health and sustainability of the Chesapeake Bay watershed. We bring together educators, employers, training providers, and community partners to identify and remove barriers, elevate best practices, and coordinate strategies that expand access to environmental and watershed-related career pathways for all job seekers.

Benefits of Participation

By participating, expect to build more and deeper partnerships across education, workforce, and industry to define cutting-edge priority conservation-oriented workforce needs, skills, and credentials in the Chesapeake region. Other benefits include:

- Access to information and opportunities in an emerging field
- Shared regional data, standardization, and tracking
- Connect with people in other networks (e.g. conservation, CTE)
- Skill building
- Entrepreneurial approach to workgroup development that embraces a network mindset at the outset
- Support your industry and the next-generation workforce

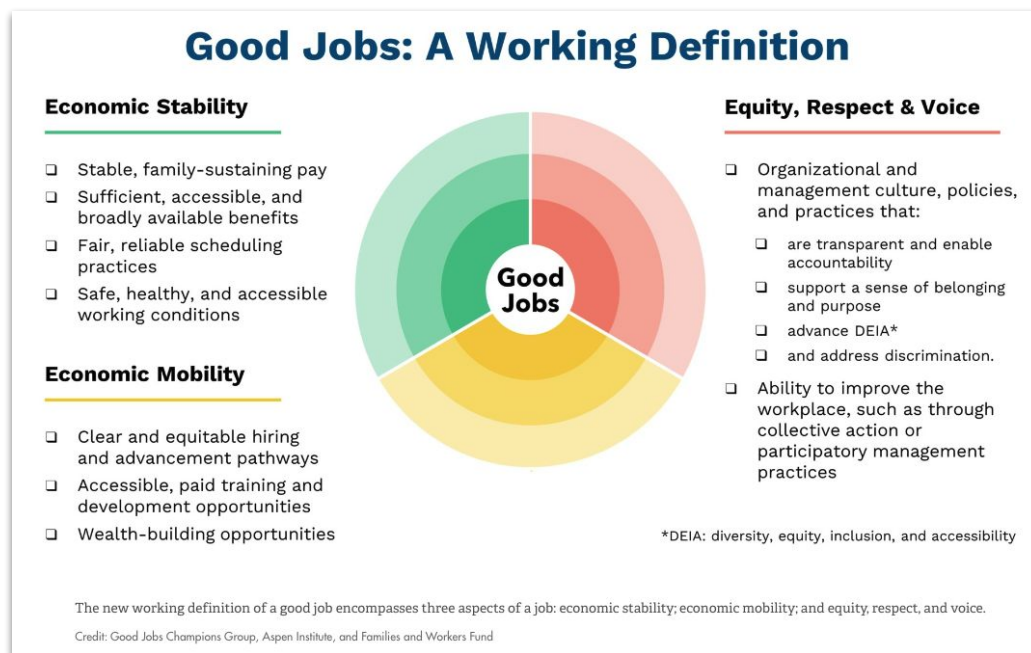
Priorities for Management Strategies

- Cross-Goal/Outcome coordination
- How do we measure progress?
- How do we include the right people with expertise and resources?
- Flexibility in workplans

Good Jobs Principles

Good Jobs Principles:

- Recruitment and Hiring
- Benefits
- DEIA
- Empowerment and Representation
- Job Security and Working Conditions
- Organizational Culture
- Pay
- Skills and Advancement



Opportunities to Engage

- Support for understanding workforce needs in the Agriculture sector
- Consider participating in the Workforce Workgroup
 - Member
 - Present/inform
 - Connect



Thank you!

Any questions?

You can contact me at bart.merrick@noaa.gov



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