



**CHIEF OF ENGINEERS  
ENVIRONMENTAL ADVISORY BOARD  
WASHINGTON, D.C. 20314-1000 (CECW-P)**

27 June 2018

Lieutenant General Todd T. Semonite  
Commanding General and Chief of Engineers  
Headquarters, US Army Corps of Engineers  
441 G Street NW  
Washington, DC 20314-1000

Subject: Recommendations for Sustainability Training of USACE Personnel

Dear LTG Semonite,

The Environmental Advisory Board (EAB) was asked to consider how a career path in environmental sustainability could be developed for U.S. Army Corps of Engineers (USACE) personnel. This request was made in support of the USACE Campaign Plan Objective 1.c.3. that says, "Grow Future Sustainability Leaders." A re-emphasis on education is also sound due to the fact that many in the USACE workforce received their education before formal sustainability programs were in place at universities and colleges. At the July 2017 public meeting, the EAB agreed to pursue two tasks: (1) to identify current higher education curricula that may be resourced for additional training, and (2) to provide recommendations regarding professional development for sustainability professionals within USACE.

For the first task, the EAB completed an extensive review of existing programs at U.S. colleges and universities and identified 66 programs that offer some form of environmentally-oriented sustainability program (as opposed to programs that focus on business or corporate sustainability). The attached summary of that assessment provides the names of universities, university location or on-line capability, what type of program is offered (certification, undergraduate degree, graduate degree), and, as available, links to websites.

For the second task, the EAB considered the full range of USACE sustainability-related activities and mission requirements to make the following recommendations, which we discussed in detail with you and your staff at the January 2018 public meeting. Our recommendations are:

a. Clearly define what sustainability means to the agency, and ensure that all USACE employees know the agency's definition of sustainability and goals for its related activities.

b. Define career paths in sustainability. For example, USACE could create or revise positions at various organizational levels to employ sustainability-specific specialists whose primary duties are related to USACE's sustainability goals.

The Chief's Environmental Advisory Board Transmittal Letter

Subject: Environmental sustainability training recommendation of USACE personnel

c. Highlight/encourage formalized sustainability instruction, either USACE-specific sustainability instruction and/or leverage the attached listing of 66 college and university programs with employees in USACE's sustainability fields. USACE could conduct a survey of its Learning Center course offerings (e.g., PROSPECT training) to highlight those that include sustainability curriculum as related to the agency's sustainability goals and career paths. USACE could then "package" the existing PROSPECT course sustainability content and incorporate any additional, newly created content to meet internal USACE education and training needs.

d. Provide sustainability training that supports USACE sustainability goals and professional development. USACE could provide sustainability training to all employees; or USACE may consider training a cadre of sustainability subject-matter experts that could be called upon to assist USACE offices at all organizational levels.

e. Create a holistic, internal sustainability training program that fits specific career path goals and leverages existing educational and training content, incorporates formal and on-the-job training, creates new program/elements, and leads to an internal certification process. USACE is not without models or precedents for developing training programs to meet agency-specific needs. The Civil Works Planning Associates program successfully trains and develops personnel in the Planning field from diverse disciplines. The year-long program is comprised of team building, leader development, and experiential training and includes individual and group projects, instructional training, shared experiences, and networking opportunities with senior leaders from USACE. CW also has a certification for "Water Resources Certified Planners." This USACE-specific certification is awarded based on formal education, on-the-job training, and project experience. USACE-specific structured training and certification may provide a good model for a possible combined "Sustainability Associates" and certification program.

Dr. Sam Atkinson was the lead on these tasks.

Please let me know if you would like to further discuss any of these recommendations.

Sincerely,

*Rollin H Hotchkiss*

Encl

ROLLIN H. HOTCHKISS  
Chair, Environmental Advisory Board

CF:

Chief, Engineering and Construction

Chief, Environmental Division

Chief, Operations and Regulatory

Chief, Planning and Policy

Director, Engineering Research and Development Center, Environmental Laboratory

ENCL. Environmental Advisory Board, 2018: Listing of U.S. Colleges Universities with Sustainability Degrees / Programs

| College or University  | State  | Certificate | Under-graduate | Graduate | Link  | Degree Title / Notes   |
|--|--------|-------------|----------------|----------|---|--|
| Albion College, Center for Sustainability and the Environment                | MI     | -           | BA             | -        | <a href="http://catalog.albion.edu/content.php?catoid=4&amp;navoid=95#ent182">http://catalog.albion.edu/content.php?catoid=4&amp;navoid=95#ent182</a>   | Sustainability Studies   |
| American Military University (American Public University System)             | online | y           | -              | -        | <a href="http://www.amu.apus.edu/academic/schools/science-technology-engineering-and-math/certificate-grad/environmental-sustainability.html">http://www.amu.apus.edu/academic/schools/science-technology-engineering-and-math/certificate-grad/environmental-sustainability.html</a>   | -  |
| Antioch University   | online | -           | -              | Med      | <a href="https://www.antioch.edu/new-england/degrees-programs/education/experienced-educators-med/education-for-sustainability/">https://www.antioch.edu/new-england/degrees-programs/education/experienced-educators-med/education-for-sustainability/</a>   | -  |
| Aquinas College  | MI     | -           | BS or BA       | -        | <a href="https://www.aquinas.edu/environmental-studies/degrees/environmental-studies-major-0">https://www.aquinas.edu/environmental-studies/degrees/environmental-studies-major-0</a>   | -  |
| Arizona State University   | AZ     | y           | y              | y        | <a href="https://go.asuonline.asu.edu/lpppc-sustainability/?utm_source=esyoh&amp;utm_medium=ppl&amp;utm_term=sustainability&amp;utm_content=content&amp;utm_campaign=pearsonppl">https://go.asuonline.asu.edu/lpppc-sustainability/?utm_source=esyoh&amp;utm_medium=ppl&amp;utm_term=sustainability&amp;utm_content=content&amp;utm_campaign=pearsonppl</a> | Undergraduate: BA - Sustainability or Business; BS; Graduate: Sus. Leadership, Tourism, Engineering; Biomimcry<br>Graduate Certificates: Sustainable Tourism, Social Entrepreneurship, Biomimcry |
| Bellevue University  | NE     | -           | BS             | -        | <a href="http://www.bellevue.edu/degrees/bachelor/sustainability-management-bs/">http://www.bellevue.edu/degrees/bachelor/sustainability-management-bs/</a>   | Sustainability Mgmt  |
| Bryant University  | RI     | y           | -              | -        | <a href="http://gradschool.bryant.edu/arts-and-sciences/certificates.htm">http://gradschool.bryant.edu/arts-and-sciences/certificates.htm</a>   | Certificate of Graduate Studies in Sustainability Practices  |
| Chatham University   | PA     | -           | y              | y        | <a href="https://falk.chatham.edu/msus/">https://falk.chatham.edu/msus/</a><br><a href="https://falk.chatham.edu/bsus/">https://falk.chatham.edu/bsus/</a>  | Sustainability   |
| Colorado Mountain College  | CO     | -           | y              | -        | <a href="http://coloradomtn.edu/programs/sustainability_studies/">http://coloradomtn.edu/programs/sustainability_studies/</a>   | Sustainability Studies   |
| Colorado State University  | CO     | -           | y              | -        | <a href="https://hub.aashe.org/browse/academicprogram/15390/BS-in-Ecosystem-Science-and-Sustainability">https://hub.aashe.org/browse/academicprogram/15390/BS-in-Ecosystem-Science-and-Sustainability</a>   | -  |
| Columbia University, Earth Institute Center for Environmental Sustainability | NY     | y           | -              | -        | <a href="https://hub.aashe.org/browse/academicprogram/16426/Executive-Education-Program-in-Conservation-and-Environmental-Sustainability">https://hub.aashe.org/browse/academicprogram/16426/Executive-Education-Program-in-Conservation-and-Environmental-Sustainability</a>   | -  |
| Creighton University   | NE     | -           | BA             | -        | <a href="https://www.creighton.edu/program/sustainability-major-ba">https://www.creighton.edu/program/sustainability-major-ba</a>   | Executive Education Program, looks as if is biology-based, designed for working professionals  |
| Duke, Nicholas School of the Environment                                     | NC     | -           | -              | y        | <a href="https://nicholas.duke.edu/programs/masters/mem-online">https://nicholas.duke.edu/programs/masters/mem-online</a>   | Master of Environmental Management   |
| Evergreen State College  | WA     | -           | y              | -        | <a href="http://www.evergreen.edu/studies/sustainability-studies">http://www.evergreen.edu/studies/sustainability-studies</a>   | Sustainability Studies   |
| Florida Institute of Technology  | FL     | -           | BS             | -        | <a href="http://web2.fit.edu/programs/7039/bs-sustainability-studies#.WbgQNbJ95hE">http://web2.fit.edu/programs/7039/bs-sustainability-studies#.WbgQNbJ95hE</a>   | Sustainability Studies   |
| George Mason University  | VA     | -           | BA             | -        | <a href="https://ess.gmu.edu/programs/la-ba-evss">https://ess.gmu.edu/programs/la-ba-evss</a>   | Environmental and Sustainability Studies, and as a concentration to various majors (e.g. Economics)  |

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|-------------------------------|--------|-------------|----------------|----------|--|---|
| George Washington University  | DC     | -           | minor          | -        | <a href="https://hub.aashe.org/browse/academicprogram/15452/Undergraduate-Minor-in-Sustainability">https://hub.aashe.org/browse/academicprogram/15452/Undergraduate-Minor-in-Sustainability</a>  | -   |
| Goddard College               | VT     | -           | BA             | -        | <a href="https://www.goddard.edu/academics/undergraduate-degrees/ba/ba-sustainability/">https://www.goddard.edu/academics/undergraduate-degrees/ba/ba-sustainability/</a>  | Sustainability  |
| Green Mountain College        | VT     | -           | -              | y        | <a href="http://www.greenmtn.edu/academics/graduate/msfs/">http://www.greenmtn.edu/academics/graduate/msfs/</a>  | MS in Sustainable Food Systems  |
| Harvard Extension School      | online | y           | -              | y        | <a href="https://www.extension.harvard.edu/academics/graduate-degrees/sustainability-degree">https://www.extension.harvard.edu/academics/graduate-degrees/sustainability-degree</a>  | Certificates: Corporate Sustainability & Innovation; Environmental Policy and International Development, Green Building and Community Sustainability; Natural Resources Management & Sustainable Ecosystems; Social Justice |
| Holyoke Community College     | MA     | y           | associate      | -        | <a href="https://www.hcc.edu/courses-and-programs/sustainability-studies">https://www.hcc.edu/courses-and-programs/sustainability-studies</a><br><a href="https://www.hcc.edu/courses-and-programs/sustainability-studies-certificate">https://www.hcc.edu/courses-and-programs/sustainability-studies-certificate</a> | Sustainability Studies<br>Sustainability Studies Cert   |
| Indiana University South Bend | IN     | -           | y              | -        | <a href="https://hub.aashe.org/browse/academicprogram/16674/Major-in-Sustainability-Studies">https://hub.aashe.org/browse/academicprogram/16674/Major-in-Sustainability-Studies</a>  | Emphasizes connections between environment, economy, and society  |
| Jacksonville University       | FL     | -           | Y              | -        | <a href="https://www.ju.edu/sustainability/sustainability-degrees/">https://www.ju.edu/sustainability/sustainability-degrees/</a>  | Sustainability - BS, BA, BBA  |
| Kankakee Community College    | IL     | y           | -              | -        | <a href="https://hub.aashe.org/browse/types/academicprogram/?search=&amp;content_type=academicprogram&amp;discipline=7&amp;country=#resources-panel">https://hub.aashe.org/browse/types/academicprogram/?search=&amp;content_type=academicprogram&amp;discipline=7&amp;country=#resources-panel</a>                    | Sustainable Resource Mgmt   |
| Kean University               | NJ     | -           | BS             | -        | <a href="http://www.kean.edu/academics/college-natural-applied-health-sciences/school-environmental-sustainability-sciences">http://www.kean.edu/academics/college-natural-applied-health-sciences/school-environmental-sustainability-sciences</a>  | Sustainability Science  |
| Lock Haven University         | PA     | -           | AAS            | -        | <a href="http://www.lockhaven.edu/sustainability/#tab-2">http://www.lockhaven.edu/sustainability/#tab-2</a>  | Environmental and Sustainability Studies  |
| Long Island University        | NY     | -           | -              | y        | <a href="http://liu.edu/CWPost/Academics/Schools/CLAS/Dept/EES/Graduate-Programs/MS-Environmental-Sustainability.aspx">http://liu.edu/CWPost/Academics/Schools/CLAS/Dept/EES/Graduate-Programs/MS-Environmental-Sustainability.aspx</a>  | -   |
| Loyola University             | IL     | -           | BA/BS          | -        | <a href="http://www.luc.edu/academics/programs.shtml#d.en.288787">http://www.luc.edu/academics/programs.shtml#d.en.288787</a>  | Institute of Environmental Sustainability - Several majors are managed by this department, including Sustainable Agriculture  |
| Mercyhurst University         | PA     | -           | BA             | -        | <a href="https://www.mercyhurst.edu/hafenmaier-college-humanities-arts-and-social-sciences/sustainability-studies">https://www.mercyhurst.edu/hafenmaier-college-humanities-arts-and-social-sciences/sustainability-studies</a>  | Sustainability  |
| Messiah College               | PA     | -           | BA             | -        | <a href="https://www.messiah.edu/majors-minors-programs">https://www.messiah.edu/majors-minors-programs</a>  | Sustainability Studies  |
| Miami University              | OH     | -           | co-major       | -        | <a href="http://miamioh.edu/academics/majors-minors/majors/sustainability.html">http://miamioh.edu/academics/majors-minors/majors/sustainability.html</a>  | Sustainability  |

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| Michigan Tech                            | MI    | y           | -              | -        | <a href="http://www.mtu.edu/gradschool/programs/degrees/sustainability/">http://www.mtu.edu/gradschool/programs/degrees/sustainability/</a><br><a href="http://www.mtu.edu/gradschool/programs/degrees/sustainable-water/">http://www.mtu.edu/gradschool/programs/degrees/sustainable-water/</a><br><a href="http://www.mtu.edu/admissions/programs/majors/">http://www.mtu.edu/admissions/programs/majors/</a>  | graduate certificate - Sustainability<br>graduate certificate - Sustainable Water Resources Systems<br>Several majors look applicable; graduate certificate in sustainability |
| Montclair State University               | NJ    | y           | BS             | MS       | <a href="http://www.montclair.edu/academics/sustainability-science/">http://www.montclair.edu/academics/sustainability-science/</a>  | Sustainability Science; and 3 certs - Environmental Forensics, GIS, and Water Resource Mgmt   |
| Oregon State University                  | OR    | y           | y              | y        | <a href="http://www.forestry.oregonstate.edu/">http://www.forestry.oregonstate.edu/</a><br><a href="http://www.science.oregonstate.edu/academics">http://www.science.oregonstate.edu/academics</a><br><a href="http://ecampus.oregonstate.edu/online-degrees/undergraduate/sustainability/">http://ecampus.oregonstate.edu/online-degrees/undergraduate/sustainability/</a>                                      | Sustainable Forest Mgmt; Sustainability; Several graduate interdisciplinary programs look applicable; online and in person  |
| Otterbein University                     | OH    | -           | BA/BS          | -        | <a href="http://www.otterbein.edu/public/Academics/Departments/Interdisciplinary/SustainabilityStudies.aspx">http://www.otterbein.edu/public/Academics/Departments/Interdisciplinary/SustainabilityStudies.aspx</a>  | Sustainability Studies  |
| Sewanee University                       | TN    | y           | y              | -        | <a href="http://www.sewanee.edu/academics/forestry-geology/programs/environment-and-sustainability-major.php">http://www.sewanee.edu/academics/forestry-geology/programs/environment-and-sustainability-major.php</a>  | Environment and Sustainability, also Watershed Science cert   |
| Sierra Nevada College                    | NV    | -           | BA             | -        | <a href="http://www.sierranevada.edu/academics/interdisciplinary-studies/sustainability/">http://www.sierranevada.edu/academics/interdisciplinary-studies/sustainability/</a>  | Sustainability  |
| Southern New Hampshire University        | NH    | -           | BS             | MBA      | <a href="http://www.snhu.edu/campus-majors/undergraduate/bs-environmental-science/compliance-and-sustainability">http://www.snhu.edu/campus-majors/undergraduate/bs-environmental-science/compliance-and-sustainability</a>  | Environmental Science with a Compliance and Sustainability Concentration  |
| Stockton University                      | NJ    | -           | BA/BS          | -        | <a href="https://www.stockton.edu/sciences-math/sustainability.html">https://www.stockton.edu/sciences-math/sustainability.html</a>  | Sustainability  |
| Stony Brook University                   | NY    | -           | y              | -        | <a href="http://sb.cc.stonybrook.edu/bulletin/current/academicprograms/sus/">http://sb.cc.stonybrook.edu/bulletin/current/academicprograms/sus/</a>  | Sustainability Studies  |
| Taylor University                        | IN    | -           | y              | -        | <a href="http://www.taylor.edu/academics/undergraduate/degrees/">http://www.taylor.edu/academics/undergraduate/degrees/</a>  | Sustainable Development (environment, economy, society)   |
| Temple University                        | PA    | y           | -              | -        | <a href="http://bulletin.temple.edu/undergraduate/university-college/certificate-sustainability/">http://bulletin.temple.edu/undergraduate/university-college/certificate-sustainability/</a><br><a href="http://bulletin.temple.edu/undergraduate/tyler-art-div/certificate-environmental-sustainability/">http://bulletin.temple.edu/undergraduate/tyler-art-div/certificate-environmental-sustainability/</a> | Cert - Sustainability;<br>Cert - Environmental Sustainability   |
| Texas A&M University                     | TX    | Y           | -              | -        | <a href="http://military.tamu.edu/education">http://military.tamu.edu/education</a>  | Military Land Sustainability  |
| Unity College Online                     | ME    | y           | -              | y        | <a href="http://online.unity.edu/certificate-in-sustainability/">http://online.unity.edu/certificate-in-sustainability/</a>  | -   |
| University of Colorado, Boulder          | CO    | -           | -              | -        | <a href="http://www.colorado.edu/sustainablepractices/">http://www.colorado.edu/sustainablepractices/</a>  | Program was ending January 2018   |
| University of Denver, University College | CO    | -           | -              | MS       | <a href="http://universitycollege.du.edu/epm/degree/masters/energy-and-sustainability-">http://universitycollege.du.edu/epm/degree/masters/energy-and-sustainability-</a>  | Environmental Policy and Mgmt with conc in Energy and Sustainability  |
| University of Florida                    | FL    | -           | BA             | -        | <a href="https://catalog.ufl.edu/ugrad/current/liberalarts/Majors/sustainability-studies.aspx">https://catalog.ufl.edu/ugrad/current/liberalarts/Majors/sustainability-studies.aspx</a>  | Sustainability Studies  |

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|---|-------|-------------|----------------|----------|---|---|
| University of Georgia                   | GA    | y           | y              | y        | <a href="https://hub.aashe.org/browse/academicprogram/16893/Sustainability-Certificate-Program-Creating-Community-through-">https://hub.aashe.org/browse/academicprogram/16893/Sustainability-Certificate-Program-Creating-Community-through-</a> | Cert - Sustainability<br>17 hrs, includes 1 course from each of ecological, |
| University of Idaho                     | ID    | -           | -              | PSM      | <a href="https://www.uidaho.edu/degree-finder/professional-science-masters/m-psm">https://www.uidaho.edu/degree-finder/professional-science-masters/m-psm</a>   | -   |
| University of Illinois                  | IL    | -           | y              | -        | <a href="http://www.online.uillinois.edu/catalog/ProgramDetail.asp?ProgramID=881">http://www.online.uillinois.edu/catalog/ProgramDetail.asp?ProgramID=881</a>   | Bachelor's in Earth, Society and Environmental Sustainability               |
| University of Nebraska Omaha            | NE    | -           | minor          | -        | <a href="https://www.unomaha.edu/college-of-arts-and-sciences/sustainability/index.php">https://www.unomaha.edu/college-of-arts-and-sciences/sustainability/index.php</a>   | Minor - Sustainability  |
| University of North Carolina, Asheville | NC    | y           | -              | -        | <a href="https://hub.aashe.org/browse/academicprogram/15397/Environmental-and-Cultural-Sustainability-Certificate">https://hub.aashe.org/browse/academicprogram/15397/Environmental-and-Cultural-Sustainability-Certificate</a>                   | -   |
| University of South Dakota              | SD    | -           | BA/BS          | -        | <a href="http://www.usd.edu/arts-and-sciences/sustainability/undergraduate">http://www.usd.edu/arts-and-sciences/sustainability/undergraduate</a>   | Sustainability  |
| University of Texas Austin              | TX    | -           | y              | -        | <a href="https://hub.aashe.org/browse/academicprogram/15661/Sustainability-Studies-BA-Liberal-Arts">https://hub.aashe.org/browse/academicprogram/15661/Sustainability-Studies-BA-Liberal-Arts</a>   | Housed in Dept of Geography and the Environment, but is interdisciplinary   |
| University of Wisconsin                 | WI    | Y           | BS             | MS       | <a href="http://www.uwstout.edu/programs/bssmo/index.cfm">http://www.uwstout.edu/programs/bssmo/index.cfm</a>   | Sustainable Mgmt - BS and MS online; Sustainable Mgmt Science certificate   |
| Western Kentucky University             | KY    | -           | minor          | -        | <a href="https://www.wku.edu/geoweb/aboutgeo.php">https://www.wku.edu/geoweb/aboutgeo.php</a>   | Environmental Science and Sustainability - Geography minor                  |
| Worcester Polytechnic Institute         | MA    | -           | BA             | -        | <a href="https://www.wpi.edu/academics/study/environmental-sustainability-studies-ba">https://www.wpi.edu/academics/study/environmental-sustainability-studies-ba</a>   | Environmental & Sustainability Studies                                      |
| Yale University                         | CT    | -           | y              | y        | <a href="http://sustainability.yale.edu/research-education/degree-programs">http://sustainability.yale.edu/research-education/degree-programs</a>   | "Sustainability related degree programs"                                    |

Additionally: websites that listed universities with "sustainability" included.

<https://www.sustainabilitydegrees.com/degrees/>

<https://hub.aashe.org/browse/types/academicprogram/>

<http://www.environmentalscience.org/degree/sustainability>

[https://bigfuture.collegeboard.org/college-search?major=2248\\_Sustainability%20Studies](https://bigfuture.collegeboard.org/college-search?major=2248_Sustainability%20Studies)