

CONNECT News

Community Support, **N**etworking, and Assistance for **E**nvironmental **C**areer **T**raining

March/April 2018

The Hazardous Materials Training and Research Institute (HMTRI) provides technical assistance to communities interested in developing and delivering environmental job training programs. HMTRI also provides technical support to [Environmental Workforce Development and Job Training \(EWDJT\)](#) grantees funded by the Environmental Protection Agency (EPA). These efforts are made possible with a cooperative agreement with the U.S. EPA.

HMTRI is part of Eastern Iowa Community Colleges and has provided environmental workforce development technical assistance since the inception of EPA's Brownfields Initiative.

ENVIRONMENTAL TRAINING CURRICULUM

CORE CURRICULUM, AWARENESS, AND LIFE SKILLS TRAINING

Environmental training programs must remain flexible considering changing demands for environmental workers, changing skill and knowledge requirements and dynamic economic conditions. In this newsletter, we will explore curriculum development associated with the U.S. Environmental Protection Agency's Environmental Workforce Development and Job Training (EWDJT) program. Curriculum development associated with EWDJT allows for great flexibility depending on the local job market. However, there are some restrictions on the use of EPA funds that program planners should consider before moving forward. Organizations interested in using EWDJT support to establish or backstop a local environmental jobs program need to consider the following issues:

- **Employer demand for environmental workers**
- **EPA training priorities and restrictions**
- **Core curriculum**
- **Awareness training**
- **Life skills and student services not supported by EPA**
- **Synchronizing available resources with participant recruitment**

- **Availability of facilities and training resources**
- **Curriculum delivery and digital resources**
- **Instructor recruitment**
- **Safety and health in the classroom and on the worksite**

CORE CURRICULUM, AWARENESS, AND LIFE SKILLS TRAINING

Before program planning begins, communities interested in establishing an environmental workforce program need to ask the "all important questions". Is there a need for graduates of the proposed training program? What type of training is needed to fill available jobs? Will employers commit to interviewing program graduates for open positions? Will the community support the program? If these basic questions cannot be resolved, application for federal assistance should be reconsidered. Input from prospective employers is the first step in answering these questions. Additional input comes from community and labor market assessments, advisory boards, and guidance from the EPA in its Request for Proposals (RFP). Here is a link to the FY18 EWDJT Request for Proposals:

<https://www.epa.gov/brownfields/new-request-proposals-fy-2018-environmental-workforce-development-and-job-training-grant>

Environmental training is a broad term that includes a variety of activities and occupations. Workforce needs can vary greatly based on weather conditions, site characterization, cleanup requirements, and the nature of contamination. Skill and certification demands vary from year-to-year and season-to-season depending on project activity and remediation schedules. Training needs may also be influenced by economic considerations and employer priorities. A “one size fits all” curriculum will not address employment prerequisites for every locality and remediation priority. For this reason, students must be flexible and trained for multiple job opportunities. The EWDJT program allows for a flexible core curriculum (with hazardous waste operations and emergency response-HAZWOPER as a single mandatory course) supplemented by general environmental awareness training. Awareness training provides graduates basic knowledge and awareness of additional environmental remediation technologies.

EPA training priorities and restrictions

The EWDJT program is supported largely by EPA’s Office of Brownfields and Land Revitalization. Other EPA offices provide additional funding that enhance the program. It is understandable that each program office would like to see training proportional to their support. Office of Air Programs, for example, is not currently supporting the EWDJT program. As a result, air pollution training would not be supported as part of the core curriculum unless funds were leveraged from other sources. For this reason, the EWDJT core curriculum is limited to priority topics in the following areas. Here are the EWDJT partners:

- Brownfields hazardous waste assessment and cleanup training, including petroleum cleanup training

- Solid waste management or cleanup training
- Superfund site cleanup and innovative and alternative treatment technologies training
- Wastewater treatment training
- Emergency planning, preparedness, and response training
- Enhanced environmental health and safety training
- Integrated pest Management (IPM) training
- Alternative energy technologies (e.g. solar installation training, training in the preparation of formerly contaminated sites for renewable energy purposes, etc.)

More about EPA funding priorities can be found in the [FY18 EWDJT guidelines](#).

CORE CURRICULUM, AWARENESS, AND LIFE SKILLS TRAINING

In addition to EPA’s funding priorities, core curriculum offerings should be guided by labor market assessments, employer advisors, and advisory board members. “Train to local demand” is the advice from experienced EWDJT grantees. The challenge for EWDJT grantees is to align environmental training with employment opportunities and EPA program priorities. Additional training and student services can then be provided using leveraged resources. Below are a few topics associated with a core environmental curriculum. These offerings may change from cohort-to-cohort depending on local priorities, schedules, and employment opportunities.

- Asbestos Worker Certification
- EPA Lead Renovator, Repair, and Paint (RR&P)
- American Red Cross First Aid, CPR, and AED
- OSHA Disaster Site Worker
- OSHA 10- or 30-hour Construction Industry Outreach Training
- OSHA 10- or 30-hour General Industry Outreach Training

- OSHA Confined Space Entry
- DOT Hazardous Materials Training
- OSHA 24-hour Hazardous Materials Technician
- Collections and Wastewater Training
- Stormwater, Erosion, and Sedimentation Control
- Environmental Sampling and Analysis
- Mold Remediation
- Commercial Driver's License (CDL)
- Forklift Training

Awareness training

Awareness training is not as comprehensive as the core curriculum, but provides a working knowledge of environmental remediation topics that are important to many employers. Advice from experienced EWDJT grantees suggests that awareness training should provide a broad enough curriculum to allow for a variety of workforce skills and certification requirements. Again, awareness training should be driven by employer guidance, labor market assessments and EPA training priorities. Awareness training is often incorporated into the core technical curriculum or delivered in special courses including some of the following:

- FEMA: National Incident Management System (NIMS) IS-700.A
- FEMA: Introduction to Incident Command System, ICS-100
- OSHA Blood Borne Pathogens
- Hazard Awareness and Communication
- OSHA Maritime Industry
- Environmental Justice (EJ)
- Chemical Safety
- Solid Waste: Deconstruction, Recycling, and Green Remediation Technologies
- Environmental Math
- Green technology: Urban Agriculture
- Leaking Underground Storage Tank (LUST)
- Underground Storage Tank Removal (UST)
- Meth Lab Cleanup
- Geographic Information Systems (GIS)

Life skills and student services not supported by EPA

Of equal importance in securing and maintaining permanent employment are life skills, adult literacy, job readiness, and abilities that allow employees to be successful on a sustained basis. While life skills are essential for sustained employment, EWDJT funding is limited to environmental remediation, health, safety, and awareness training in specific areas as previously noted and presented in the Request for Proposals. As a general guide, training that addresses assessment, sampling, analysis, cleanup or remediation and it is consistent with EPA training priorities is fundable. Other instruction or services need to be supported with outside assistance. Grey areas should be reviewed by a Regional EPA Job Training Coordinator for clarification.

Fortunately, many federal, state, and nongovernmental organizations provide life skills and student support services. Using leveraged partnerships, life skills training can be incorporated into EWDJT curriculum seamlessly or as supplemental instruction. Examples of soft skills, employability and remedial training include:

- Reading and writing
- Listening and speaking
- Mathematics
- Financial literacy
- Developing and keeping regular routines
- Being reliable and on time
- Appearance
- Accepting personal, family, and academic responsibilities
- Goal setting
- Decision-making skills
- Time management
- Problem-solving
- Teamwork, cooperation, and conflict management
- Improving communication skills
- Interpersonal skills

As with life skills training, social service organizations often provide support services and aid to qualified EWDJT participants. The degree to which community and governmental programs have available resources may determine the extent of student aid EWDJT programs can provide.

As part of the assessment and screening process, EWDJT staff should check each applicant's ability to qualify for social services support. Student support can have a large influence on a program's ability to retain participants. As with life skills training, support services can be integrated into the EWDJT program as a leveraged resource. Here are examples of support services offered by health and human services, workforce investment boards, other governmental agencies, faith based organizations and local charities:

- Child care services
- Drug and alcohol rehabilitation
- Transportation services
- Case worker guidance
- Legal assistance
- Stipends and financial assistance
- Training support and required equipment
- Veteran's assistance
- Housing assistance

Synchronizing available resources with participant recruitment

When student services, life skills, or employability skills training are not available, applicant screening may need to be revisited. Failure to screen applicants properly results in setting students up for failure and is a leading cause of low retention and placement rates. In addition to life skills training and student services, minimum educational requirements need to be considered. Acceptance standards vary from program-to-program depending on the availability of applicants. Most require a high school diploma or enrollment in a GED program. Many administer a Test of Adult Basic Education (TABE) evaluation or a Core Academic Skills Assessment (CASA) evaluation

supplemented with personal interviews to assess an applicant's ability and desire to complete the EWDJT curriculum.

Just as there is flexibility in curriculum, scheduling classroom time varies depending on student circumstances, work schedules, travel distances, and instructor availability. Some programs provide evening classes or partial day classes to accommodate part time workers. Many EWDJT programs prefer training schedules that simulate a work week. For unemployed participants, a full-time, simulated work week makes sense. Some programs have students holding part-time positions. Others have students with daytime commitments or issues that make full-time training impossible. For these programs, evening or weekend training works best with training spread over longer periods. In rural and dispersed target communities, students attend classes and dorm at centralized training facilities with breaks between sessions. To retain students, training delivery needs to be synchronized with the schedules of program participants. It is important that class schedules are included as an element in program marketing. The schedule which is adopted must also be included as part of the recruitment/screening process. In some cases, alternating between day and evening classes and/or weekend offerings for each cohort provides the best opportunity for community residents to receive environmental training.

Availability of facilities and training resources

As part of the curriculum development process, it is important to find available facilities, instructors and leveraged partners. It is not clear that trainers including support staff will be available when classes are in session. Here are a few ideas when searching for facilities and instructors:

- Verify if trainers need to be certified and are capable of delivering instruction and certifications

- Trainers are often available from a local college (as leveraged partners, sub grantees or contractors)
- Training may also be found as part of another governmental program willing to contribute leveraged training or services
- Facilities may be contributed by local governmental agencies, private sector organizations or social service organizations
- Trainers may need to be employed as consultants or contractors providing “fee for service” instruction
- Instructors need to confirm that they will be available per the proposed training schedule
- Potential employers may donate facilities, equipment and instructors as leveraged partners
- Community stakeholders often provide facilities and services to EWDJT programs as leveraged partners

Curriculum delivery and digital resources

As with traditional instructional methods, EWDJT programs use a variety of pedagogy depending on methods that work best with students and instructors. Textbooks combined with teambuilding, demonstrations, and hands-on instruction are used in most EWDJT programs. Tablets and YouTube videos have been successfully employed to replace printed materials with demonstrated cost savings and improved communications among students. For more information about digital classroom technologies, go to “Google Classroom.”

<https://edu.google.com/intl/en/products/productivity-tools/classroom/>

Another excellent review of classroom tools was provided by Limitless Vistas at the 2017 Annual Environmental Job Development All-Grantee Meeting.

http://brownfields-toolbox.org/download/2017-grantee-files/2017-grantee-powerpoints-and-resources/grantee_powerpoints_and_resources/Limitless_Vistas_LA_Google_Classroom.pdf

Instructor recruitment

OSHA certificates and other credentialed training such as EPA’s RR&P, Lead, and Asbestos training are regulated. As such, they may require authorized instructors and/or approved curriculum. It is important that program administrators understand and verify that training is delivered in accordance with federal and state requirements. Large organizations, including community colleges and nonprofit organizations, may have staff and facilities able to provide some or all of the instruction necessary for a comprehensive environmental curriculum. However, it is more likely that some technical instruction will need to be provided by consultants and/or contractors who are qualified and available to train in their fields of expertise.

When using outside trainers, it is important to recruit and vet instructors before the curriculum has been finalized.

Consultant/contractor procurement requires a minimum of three bids and often must additionally comply with organizational policies and procurement regulations. Contracting for instructional services should include the stipulation that acceptance is dependent on budgets and scheduling. Some grantees recruit potential employers as guest instructors and speakers. In addition to serving on advisory boards, employers who serve as instructors provide several benefits to the program:

- Experienced local employers will train to current labor market needs
- Employer instructors will get to know EWDJT participants on a personal level
- Employer instructors hire program graduates
- Employer instructors can serve advisory, support, and even leveraged roles in the EWDJT program

Safety and health in the classroom and on the worksite

It is essential that EWDJT programs train and enforce safety and health standards in the

classroom, laboratory, and work site. This is true whether training is conducted by program staff or contracted trainers. Several environmental, health, and safety courses commonly offered in EWDJT programs require that students have a medical waiver or physical examination. HAZWOPER and some other courses require program participants to sign a Participant Liability Waiver and Release of all Claims form. This is especially true if an SCBA will be used during the training.

Many programs provide a list of safety and health rules for students. Students are asked to sign and date this document stating that they agree to comply with all of the rules. Worker health and safety are essential elements of environmental remediation. For this reason, training in 1910.120 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) is mandatory as part of all EPA supported training. While HAZWOPER is the only required training, other OSHA training is popular such as first aid, general construction, and confined space. These health and safety certifications provide worker protection guidance to students across a variety of environmental remediation jobs.

For more information regarding curriculum development and developing an EWDJT program, please visit the HMTRI toolbox. <http://brownfields-toolbox.org/developing-training-programs-introduction/>

Join Our Listserv

For more information on HMTRI technical assistance services or to be added to our Grantee and Community Outreach Listserv, please contact Heather Ballou at hkballou@eicc.edu.

HMTRI

Eastern Iowa Community Colleges
201 N. Harrison Street, Suite 101
Davenport, IA 52801

