US Army Corps of Engineers®

2011 Sustainability Awards

The Nation's Environmental Engineer

Message From the Chair of the USACE Strategic Sustainability Committee

I'm ecstatic to say the first ever USACE Sustainability Awards Program was a huge success. Even though the awards are new to the Corps, our efforts to become more sustainable are not. For much of the past decade, we have sought ways to make our missions, facilities and operations sustainable.

In 2001, the Corps formally institutionalized sustainability with the adoption of our Environmental Operating Principles. Moreover, the Strategic Sustainability Performance Plan (SSPP) released in 2010 changed the way the Corps approaches new projects and manages its existing infrastructure and mission activities. The SSPP is the Corps' response to the Obama administration's 2009 Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance," which requires all federal agencies to meet energy reduction and environmental performance criteria. The updated Sustainability Plan will contain 8 sustainability goals – all supporting the EO's requirements. The Corps is transforming its business and environmental practices to bridge today's requirements with tomorrow's needs.

These awards help identify the great work our people are doing in the sustainability area in support of our organization and our customers and in accordance with Goal 3 of our Campaign Plan – delivering effective, resilient, sustainable solutions. These awardees are an example of how we will continue to use innovation, dedication, and hard work to balance mission requirements with sustainability responsibilities. They are a testament to the Corps' resolve to be good stewards of all of our resources.

I challenge each of you to learn from the activities highlighted in this year's Sustainability Awards Program, to put these best practices into use, and to share these stories and your own success stories with others. Sustainability efforts cannot be successfully accomplished by one MSC or activity – it takes an integrated effort by all, and a command emphasis, to ensure we move toward our sustainability goals and advance the Corps from "Good to Great".

We've made great progress - now let's keep up that momentum. Remember, sustainability starts now...with you!

Essayons!

Merdith W.B. Temple
Major General, US Army
Deputy Commander

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Sustainability Hero Award

Sustainability Hero Award
This award recognizes an individual who is a sustainability champion and agent of change within USACE. The selected individual demonstrates a history of outstanding performance in leading implementation of sustainable practices while reflecting a comprehensive approach to energy and environmental management through innovative strategies, practices, and outreach.

Staying knowledgeable on regulations and requirements helps us to remain accountable as described in Environmental Operating Principle (EOP) 4. An innovative regional approach that enhances customer support on sustainability issues helps us to attain Sustainability Goal 8 Agency Innovative and Government-wide Support.

Ms. Patricia Donohue
Sustainability Hero Award Winner

Ms. Patricia Donohue has been North Atlantic Division's Sustainable Engineering (SE) Program Manager since July 2009, overseeing the SE initiatives of all NAD Districts. Ms. Donohue promotes SE opportunities for the military, civil works, environmental, and Interagency & International Services programs, and with other Federal, State, tribal, local, and nonprofit customers. She identifies and actively promotes SE opportunities throughout the Region in such areas as renewable resources, water resources management, vertical and horizontal design and construction, and environmental sustainability .

Ms. Donohue established and continues to lead the Regional Sustainable Engineering Center (RSEC), a virtual organization created to develop, maintain, and support a regional approach to the execution of all phases of SE initiatives . The RSEC that Ms. Donohue established has been used as the model for other regions' RSEC initiatives.

Ms. Donohue continually reviews new sustainability and resource conservation policies from Department of Energy, Assistant Chief of Staff for Installation Management, Headquarters U.S. Army Corps of Engineers, and others, and provides the execution level feedback, disseminates guidance within the Region, and tracks NAD's progress on SE initiatives. In order to help project managers and designers understand, manage, and comply with the multitude of requirements and tasks, she prepared a summary matrix of regulatory and Executive Order requirements. Ms. Donohue's matrix has been shared throughout USACE Engineering & Construction, and is used by many people to help understand the myriad of requirements.

Throughout the year, Ms. Donohue visited project sites in New England, Baltimore area, and Norfolk to provide field support of Leadership in Energy and Environmental Design (LEED) review/validation efforts. She visited New York District Engineering and Program/Project Management Divisions offices to discuss their validation efforts, and to discuss their future directions in renewable energy. She visited Norfolk District LEED Support Team to discuss the transition to LEED and to review their processes. She

provided key Quality Assurance oversight of submitted LEED documents as part of the Major Subordinate Command overall Quality Assurance visits.

Ms. Donohue recognizes the need for SE training within the Region. She has prepared and provided Sustainable Design and Development briefings within the Region. She created an abbreviated "Construction Inspection and LEED" training module, and has delivered the training to Regional construction project offices to ensure maximum LEED credits are obtained during construction. In 2010 she received Army Civilian Training, Education, and Development System (ACTEDS) funding and hosted courses in "Sustainable Solar and Ventilation Technologies" and "Building Commissioning.

Patricia (far right) participating on the Sustainability Validation team inspecting the Fort Myer Unaccompanied Personnel Housing. (Photo by Richard Schneider)

Jamahl Bracey, an architect with the Real Property Services Field Office, speaks to Patricia Donohue, about pursuing LEED-AP accreditation after a presentation on Leadership in Energy and Environmental Design at a conference. (Photo by Katisha Draughn, Public Affairs Office NAB)

Green Dream Team Award

Green Dream Team Award
This award recognizes exceptional leadership by an interagency green team to effectively place a Federal sustainability idea into action. The selected team will have clearly demonstrated that its collaboration efforts were integral to the successful implementation and institutionalization of the idea within its office, agency, or agencies and will highlight collaboration through Regional Councils, Federal Executive Boards, workgroups or other interagency organizations.

The interagency working group posing aboard one of LFMS's vessels (Photo by Tim Welp, ERDC)

Federal Non-Tactical Vessel Fleet Biodiesel Working Group

This Federal Non-Tactical Vessel Fleet Biodiesel Working Group was convened in August 2010 to explore the operational feasibility of using B100 biodiesel in non-tactical federal vessels operated primarily by National Oceanic and Atmospheric Administration (NOAA), the U.S. Army Corps of Engineers, and Maritime Administration (MARAD), although the results are intended to be applicable to similar non-tactical vessels operated by any other federal agency such as the Army, Navy, U.S Coast Guard, U.S. Geological Survey, and National Park Service. It adopts the methodology proven through the success of using B100 biodiesel in a variety of vessels demonstrated during the past 12 years at NOAA's Lake Michigan Field Station (LMFS) in Muskegon, Mich.

The working group examined NOAA's data relating to the differences in fuel cost, reduced maintenance, health and safety issues, and reduced greenhouse gas emissions of B100 compared to diesel fuel. Also discussed were several other reports and sources of data from industry, Department of Energy's National Renewable Energy Laboratory, and the National Biodiesel Board .

The working group helped guide USACE's adoption of LMFS's methodology to test the use of B100 fuel on four different types of working vessels at four separate locations: St. Louis, Cleveland, San Francisco, and Washington, DC.

Successful widespread use of alternative fuels such as B100 could accelerate achievement of Sustainability Plan Goal 1 Greenhouse Gas Emission Reduction. Considering multiple aspects of the use of B100 fuel pushes us toward a systems approach, an example of implementation of EOP 5.

The intent was to take the test results and combine those with LMFS's experience to promote the interagency adoption of B100, where feasible, as an alternative fuel for the federal non-tactical working vessel fleet.

During the course of the USACE test approximately 15,975 gallons of diesel were replaced with B100: this equates to a reduction in metric tons of carbon dioxide (CO2) emissions from 163.6 MT CO2 down to 0.1 MT CO2. The annual fuel consumption of the four test vessels averages roughly 115,000 gallons per year, and replacing that with B100 has the potential to reduce the metric tons of CO2 emissions from 1177.7 for diesel to 0.8 for B100 .

The successful implementation and fielding of the USACE initiative is largely due to the support and continued assistance of the various members of the working group and their respective agencies. The USACE team relied heavily on the accumulated knowledge and experience of the group, and in turn relayed ongoing results back to the group for review and discussion. Based on anticipated favorable results, USACE is exploring the possibility of converting more vessels in its fleet to the use of B100 in FY12 and beyond. In addition, the working group members are discussing combining their fleet possibilities to leverage a more successful large-scale conversion to renewable biodiesel.

BD-5, one of Baltimore District's debris vessels in Washington, DC and the first USACE vessel to operate on B100 biodiesel(Photo by Bob Leitch, HQ USACE)

Green Dream Team

Robert B. Leitch
Floating Plant Program Manager, USACE

Dennis Donahue
Facilities Manager, Great Lakes Environmental Research Laboratory (Lake Michigan Field Station), NOAA

Timothy Welp
Dredging Operations Research, ERDC

Jim McCoy
Port Engineer, Portland District, USACE

Perry Huskey
Chief Engineer Dredge JADWIN, Memphis District, USACE

Chris Stokes
Chief Engineer Dredge POTTER, St. Louis District, USACE

Gary Smith
Quality Team Lead, US Army Petroleum Center, Defense Logistics Agency

Jim Mann
Chief, Maintenance Section, Wilmington District, USACE

Sujit Ghosh
Mechanical Engineer, Maritime Administration, US Department of Transportation

Green Innovation Award
This award recognizes an innovation or idea with clear potential to transform the Federal community's overall energy and environmental performance, in keeping with the goals defined by EO 13514. This award will be presented to an individual or team for the development and execution of a novel new product, project, program, design, or revolutionary idea that facilitates sustainability in the Federal Government in an area relevant to the USACE mission. Award winners will ideally represent efforts in the implementation stage; however, innovation that demonstrates near-term feasibility may also be recognized

Implementing EOP 2 through development of environmentally friendly products and reducing the use of toxic chemicals reduces the impacts of our actions on the environment and helps us to meet Sustainability Plan Goal 5 Pollution Prevention and Waste Reduction. Further development of this project could lead to innovative ways for achieving Sustainability Plan Goal 4-Water Use Efficiency and Management.

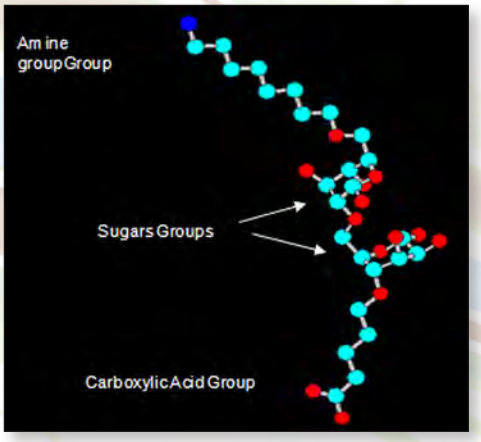
Biopolymer Alternatives to Petroleum-based Polymers for Soil Modification

Dr. Steven Larson, Andy Martin, and Christopher Griggs of the U.S. Army Engineer Research and Development Center's (ERDC) Environmental Laboratory (EL) and Dr. Kent Newman of the ERDC Geotechnical and Structures Laboratory (GSL)

The use of the Rhizobium tropici biopolymer as a soil modifier that replaces petroleum-based soil amendments is nominated for the 2011 U.S. Army Corps of Engineers' Sustainability–Green Innovation Award.

R. tropici ATCC® 49672, a catalogued symbiotic nodulator of leguminous plants, is known for its production of a gel-like, extracellular polymeric substance (EPS). The natural functions of the EPS in the rhizosphere include surface adhesion, self-adhesion of cells into biofilms, formation of protective barriers, water retention around roots, and nutrient accumulation. Numerous commercial products are available for use in soil strengthening; however, these are all synthetic, petroleum-based soil additives packaged as emulsions. Thus, these products can leach toxic products into the soil, and their production uses a valuable natural resource. The R. tropici biopolymer has demonstrated soil-modifying properties equal to, or surpassing, those of the petroleum-based polymers currently used in both military and civilian applications. The use of biopolymers reduces the generation of hazardous substances in the design, manufacture, and use of the petroleum-based polymers, as well as the use of petroleum in general .

Biologically produced polymers have a number of unique benefits when compared with petrochemical-based polymers, beyond the reduction of chemicals derived from oil. Because biopolymers are produced as a result of complex biosynthesis by bacteria and algae, the polymeric structure is more diversified than the regularly recurring units in traditional plastics. This provides enhanced functionality and a long-lived, but ultimately biodegradable, material without the environmental concerns associated with synthetic polymers .
The problem associated with use



The biopolymer chemical structure is more complex than that of a petrochemical-based polymer, exhibiting foldings and cross-linkages that change both the shape and the chemical properties of the biopolymer itself. (Photo by David Roberts, ERDC-PAO)

of biopolymers has been that they could not be produced consistently, cost effectively, and in the quantities needed to replace their petroleum-based counterparts. Dr. Steven Larson, Andy Martin, and Christopher Griggs of the U.S. Army Engineer Research and Development Center's (ERDC) Environmental Laboratory (EL) and Dr. Kent Newman of the ERDC Geotechnical and Structures Laboratory (GSL) solved this problem by developing the capability to produce this biopolymer cost effectively, either as a transportable dry powder or as a concentrated liquid. The production process is covered under U.S. Patent No. 7,824,569. Development of the biopolymer has been an innovative process recognized as one with clear potential to transform the performance of the Federal environmental community by conserving a scarce natural resource (petroleum), reducing dependence on foreign petroleum sources, improving environmental security, and decreasing the carbon stores that contribute to greenhouse gas emissions and global warming. In addition, production of the biopolymer is a "green chemistry" process that requires no toxic chemicals and only natural sugars as a carbon feedstock for the R. tropici bacteria .

The proof-of-concept research on the biopolymer led by these researchers demonstrated that addition of biopolymer to the soil increased the soil's resistance to wind and water erosion, decreasing the production of dust and the presence of suspended solids in surface water. The biopolymer program was then transferred to the Department of Defense's Environmental Security Technology Certification Program, where research is ongoing . During pilot-scale demonstrations of the technology, it was noted that, as a consequence of the resistance to erosion, biopolymer-treated soil also maintains soil slope integrity. It was also observed that soil treated with the biopolymer retained soil moisture longer than untreated soil, and seed germination and seedling drought resistance were also increased in the biopolymer-treated soil.

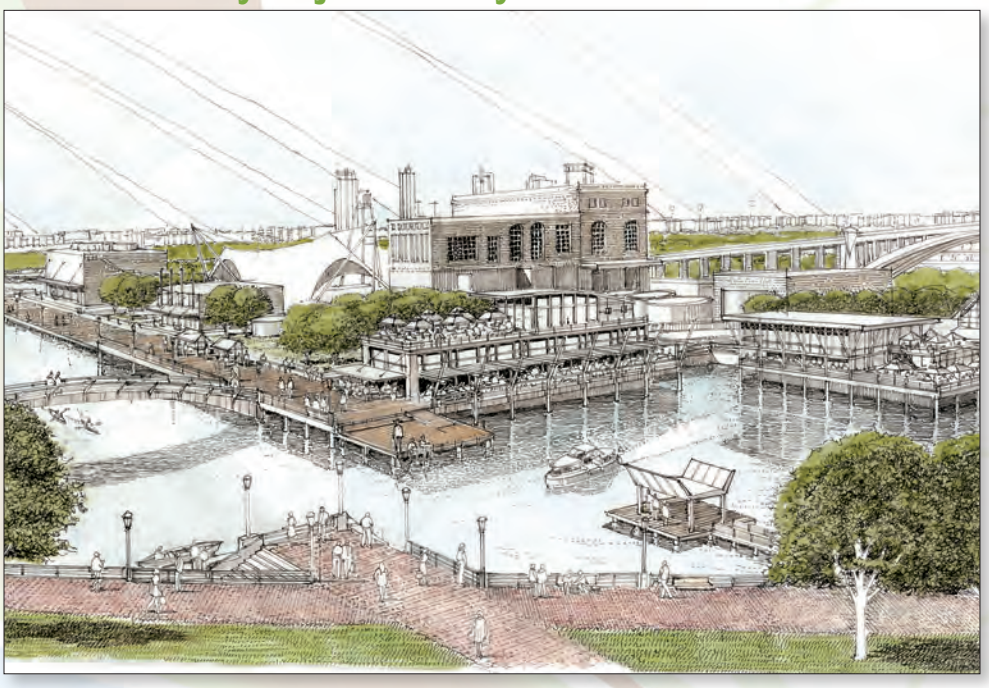
The experimental 400-gallon and 800-gallon bioreactors used to assess the chemical properties of the biopolymer produced using varied food industry waste by-products and develop production parameters for industrial scale-up. (Photo by David Roberts, PAO-ERDC)

Good Neighbor Award

Good Neighbor Award
This award recognizes a USACE team, project, or facility for its exemplary application of the Partnership for Sustainable Communities, Livability Principles and/or engagement with local or regional communities to promote one or more of the goals of EO 13514. This award category will focus on USACE representatives who are actively involved in community planning and sustainability initiatives, have established and are pursuing collaborative sustainability goals, and demonstrate success in aligning policies and practices with community partners to achieve those goals. Nominations for this category must include at least one letter of support from a non-Federal local or regional community partner.

This is a great example of implementing EOP 3 by balancing human development and natural systems to develop a more sustainable and livable community. This better overall solution was achieved by actively listening to and learning from the community as described in EOP 7. Interactions of this type also help us reach our Sustainability Plan Goal 3 Green Buildings & Regional and Local Planning.

The Central City Project Delivery Team



Fort Worth Central City Project- Town Lake (courtesy of the Trinity River Vision Authority)

The federal flood project, allows the local sponsors to build a community requested town lake which will provide public open space and a civic focal point on the water's edge.

The Central City Project is a model Civil Works project that showcases a partnership between the U.S. Army Corps of Engineers and a local community, building a smart growth sustainable city for the future. USACE Fort Worth District project delivery team members actively engaged with the City of Fort Worth, Trinity River Vision Authority, the North Central Texas Council of Governments and multiple community stakeholder groups to ensure the project met sustainability goals as a true partner.

This multi-faceted project focuses on maximizing the social, environmental, and economic benefits it will provide as it met sustainability goals set forth by Executive Order 13514 – Federal Leadership in Environmental, Energy, and Economic Performance (EO 13514). Through creative design and implementation, new public infrastructure will be built to serve generations, providing both public safety and quality of life elements for the entire region. Smart sustainability practices that fall in line with the requirements set by EO 13514 will be integrated

into the design of new park facilities, flood gates, lakes, dams, roads, bridges, storm water management facilities, public plazas and other infrastructure elements planned in the project .

The Central City Project and the stakeholder partners will continue to pursue ways to utilize sustainability practices throughout the life of the project. The best practices in place are based on current engineering and will continue to evolve as the project is designed and constructed. The project mimics the goals of EO 13514 by creating a clean energy economy that will increase the region's prosperity, promoting energy security through green building practices, protecting the interests of the community, and safeguarding the health of both the environment and the citizenry.

Fort Worth Central City Project- Developing Long-Term Sustainability (courtesy of the Trinity River Vision Authority)

Combining community desires with the need for updated flood control. The project will include continuous public walkways and kayak launches accommodating an urban, active lifestyle.

Central City-Good Neighbor Team

JD Granger
Executive Director/Trinity River Vision Authority

Woody Frossard
Project Manager/ Trinity River Vision Authority

Shanna Cate
Planning & Development Manager/ Trinity River Vision Authority

Saji Alummuttil
Project Manager/USACE

Anthony Dunni
Real Estate/ USACE

Billy Colbert
Environmental Resources Planner/ USACE

Clay Church
Public Affairs/USACE

Craig Loftin
Hydraulic Engineer/USACE

Darlene Prochaska
Section Chief, Hydrology & Hydraulics/ USACE

David Barber
Project Management Support/ USACE

Efren Martinez
Civil Engineer/ USACE

Harlan Karbs
Geotechnical Engineer/ USACE

Jennifer Day
Project Management Support/ USACE

June Wohlbach
Contracting Officer/ USACE

Karen Wright
Landscape Architect/ USACE

Keith Riddle
North Texas Area Engineer / USACE

Kelly Conner
North Texas Project Coordinator/ USACE

Mike Danella
Hydraulic Engineer/ USACE

Milton Schmidt
Chief, Cost Engineering & Specifications/ USACE

Paul Rodman
Branch Chief, Hydrology & Hydraulics/ USACE

Steve Dempsey
Operations/ USACE

Terry Alger
Program Manager/ USACE

Zach Gerich
Structural Engineer/ USACE

Good Neighbor Award (continued)

Fort Worth Central City Project-One part of a community vision (courtesy of the Trinity River Vision Authority)

The Corps plays a very important role in the forward thinking solution to Fort Worth's booming population growth and need for updated flood protection. The plan addresses existing flood concerns while creating an environment for sustainable higher density growth. The smarter growth will deter urban sprawl which helps future generations from having to repeat this same flood improvement effort that is being addressed today.

Fort Worth Central City Project- Hydraulic Scale Model (courtesy of Laura Bacigalupo, Public Information Officer, Trinity River Vision Authority)

The Corps was the lead agency on the construction of a 1/40 scale hydraulic model of the new bypass channel and flood system. This model was 275 ft long and 90 feet wide, the size of a football field. The entire Corps technical project delivery team worked closely with a large number of community stakeholders ensuring that quality of life elements important to the community such as trees, pedestrian walkways, access ramps, boat launches, and signature bridges were included in the design of the project in a manner that would never compromise public safety.

Fort Worth Central City Project- Revitalization of Gateway Park
(courtesy of the Trinity River Vision Authority)

The Corps listened to the community's desires for an underutilized area in inner city Fort Worth. The Corps team worked closely with the local sponsor to develop a smart design that would accommodate flood storage needed for public safety as well as community requested amenities like ecosystem restoration, soccer fields, splash pads, picnic pavilions, trails and basketball courts among others. The improvements in this area will create an urban park that is critical to both the region's long term plan for sustainable neighborhood revitalization and flood control needs.

Lean, Clean, and Green Award
This award recognizes outstanding organizational achievement in building or fleet energy efficiency or renewable energy development and deployment. The winning project or program demonstrates a combination of measurable results in energy efficiency (reduced energy consumption), increased use of renewable energy, and reduced greenhouse gas pollution; or decreased petroleum fuel consumption and greenhouse gas pollution reduction.

June 2009. The excavation has been completed. Pile driving has started and the first structural steel is being erected. (Photo by Marc J. Barnes)

Meeting with the local community, understanding their perspective, and agreeing to seek LEED Gold certification reflects the Corps intent to meet EOP7. Building to LEED Gold standards, incorporating water efficiency methods, and recycling construction waste supports Goals 3, 4 and 5, respectively.

BRAC 133 Program Management Team

Artist's drawing of the completed facility showing the East Tower, the West Tower, South Parking Garage, North Parking Garage, the Transportation Center, and the Remote Inspection Facility. (Photo by Marc J. Barnes)

The BRAC 133 project is a new office complex being developed at Mark Center, an established mixed-use business park in Alexandria, VA, for 6,409 Department of Defense (DoD) personnel that implements the 2005 Base Realignment and Closure Commission's Recommendation # 133. The project includes construction of an office facility for federal employees currently in leased commercial space that would comply with all Anti-Terrorism & Force Protection (ATFP) standards and be certified Leadership in Energy and Environmental Design (LEED) Silver.

In a very confined 16.5 acre site and next to a botanical reserve, we are building the two tallest buildings (17 & 15 stories) ever constructed by the U.S. Army Corps of Engineers (USACE) providing 1.75 million square feet of office space for 6,409 people. In addition, the project includes two parking garages with space for 3,750 vehicles, a Remote Inspection Facility, a Remote Delivery Facility and extensive offsite work for utility connections and upgrade of existing local roads. After our initial meetings with the local communities , they requested and we agreed to seek LEED Gold certification which was further endorsed by the National Capitol Planning Commission; BRAC 133 will be the first USACE project of this magnitude to attain this high standard of environmental awareness and excellence.

Key Project Facts:

Safety: After 3.5 million worker-hours, recordable accidents are 46 percent below the national average

while lost time cases are 60 percent below the national average.

Costs: Current cost savings projected to exceed $193 million. Compressed schedule mandates spending $1 million every day to finish on time.

Time: Despite a 15-month delay in the contract award, we will complete on schedule.

Quality: Our quality at every step sets new standards as we meet and exceed all of our tenants' requirements and requests.

Green Power: Purchased 54 million kilowatts-hours, which reduces CO2 emissions by 60.5 million pounds during the next four years. Overall, the building will use 30% less energy than a traditional building due to green design features and equipment .

Water: use reduced by 45 percent (an annual reduction of 4.5 million gallons) by using low flow faucets, showerheads and plumbing fixtures coupled with zero irrigation for the native, drought resistant plants.

Construction wastes: More than 90 percent are being recycled which prevents more than 6 million pounds of waste going into our landfills.

Visible Green Elements: Green roof designs on the Visitor Center & the Remote Inspection Facility to minimize radiant heat while green screens with native plants surround the north garage.

Future Measures: The tenants will use environmentally friendly cleaning materials and methods to reduce the facility's impact on the environment overall.

March 2010. The structural steel has been completed and work on the south garage has started. This is an example of the contractor working full crews on nights and weekends to ensure on-time completion. (Photo by Marc J. Barnes)

BRAC 133 Lean Clean & Green Award Team

Sean M. Wachutka
Program Manager, USACE

Joanne A. Hensley
Chief of Project Development, USACE

Daniel P. Ward
Senior Construction Manager, USACE

Mark Abels
Mechanical Engineer, USACE

Jon Abramovich
Senior Mechanical Engineer, Contractor

David Adams
Construction Rep Steel/Concrete, Contractor

Tom Bean
Resident Engineer, USACE

Mary Berrie
Program Support Assistant, USACE

Jaime Boast
Interior Designer, Contractor

Malcolm Booth
Senior Cost Estimator, Contractor

Felipe Chapa
Construction Manager, Contractor

John Chadwick
Lead Civil Engineer, USACE

Vijay Krupal Chitla
Senior Scheduler, Contractor

Sara Contreras
Document Control Specialist, Contractor

Darryl Dent
Electrical/Mechanical Engineer, Contractor

Leo Dumond
Construction Manager, Contractor

Lean, Clean & Green Award (continued)

Benjamin Faberlle
Construction Rep, Contractor

Adelene Flores
Program Analyst, USACE

Allan Ford
QA Mechanical, USACE

Angela Frisino
Engineer, USACE

Perryn Givens
Team Leader/East Tower, USACE

Winston Glover
Program Manager, USACE

Bill Goerss
Senior Structural Engineer, Contractor

Terence C. Heron
QA Architect, Contractor

Eric Hughes
QA and QC, USACE

Shawntesha Ingram
Architect, USACE

Chonteau' Johnson
Architect, USACE

Christopher Jones
IT Specialist, Contractor

Mark Koppenhaver
Senior Project Manager, Contractor

Barbara R. Laraia
Mechanical Engineer, Contractor

Merissa Lara
Staff Action Officer, USACE

Michael Laudano
Safety Engineer Tech Services, Contractor

Teresa Lewis
Estimator, Contractor

Dennis J. Lopez
Office Engineer, USACE

Valeria Maislin
Engineering Technician, USACE

Alana McCann
Project Manager, USACE

Shannon McNamara
Environmental Engineer, USACE

Charles Merriwether
Project Engineer Construction, Contractor

Sheila Middleton
Project Support Assistant, USACE

Claudia Miranda
Receptionist, Contractor

Kim Murray
Junior Project Manager, Contractor

Jae Nelles
Contracting Officer, USACE

Neal Ostler
Safety Engineer Tech Services, Contractor

Michael Page
Civil Engineer, Contractor

David Pfanmiller
Ch.Contract Administration Team, USACE

Bruce Pitts
Senior Scheduler, USACE

Joseph Podwats
Civil Engineer, USACE

Jeff Pringle
Operations Chief, Contractor

Divakar (Dave) Reddy
Civil Technician, Contractor

Kristen Ridenhour
Civil Technician, USACE

Craig Rodgers
QA Electrical, USACE

Keith Rhyme
Construction Representative QA, Contractor

Mary Russell
Interior Design, Contractor

Dean Salem
Construction Rep. Contractor

Mark Slacin
Senior Project Manager, Contractor

Angeline Sollinger
Project Manager, Contractor

John Snyder
Civil Engineer, USACE

Ronald Stribling
Electrical QA, Contractor

Steven Topolovec
Project Manager, USACE

Bill Traube
Construction Rep. Contractor

Charles Van Billiard
Project Manager, Contractor

Jody Warren
Senior IT Specialist, Contractor

Douglas Wood
Security QA, Contractor

Andrew Zuzulock
Civil Engineer, USACE

Building The Future Award

Building the Future Award
This award recognizes the USACE facility that is "the whole package," and demonstrates the policy and performance goals of EO 13514 in each aspect of its operations. Nominations should demonstrate achievement in building design and operation, cradle-to-grave supply chain management, community engagement, employee involvement, and innovation.

Diverting waste from landfills, reducing energy and water use, and increasing the use of recycled products all helps enhance the environment and supports the EOP 1. Sharing lessons with others enhances the understanding of how our work impacts the environment, helping to implement the EOP 6.

Emerson Commons Fit-Up

The Emerson Building I and Building II project achieved the prestigious US Green Building Council's Leadership in Energy and Environmental Design (LEED) GOLD rating for Commercial Interiors. This facility reflects the team's commitment to environmental stewardship and a healthy workplace. Emerson I and II are two story 60,000 SF buildings each consisting of composite structural steel framing and a brick veneer. The design and construction of the 120K square feet facilities was $30 million.

Emerson's' LEED Gold certifications for Commercial Interiors signify projects that far exceed the standards of sustainable design and construction practices as set out by Executive Order 13514. This accomplishment required the diligence, hard work and persistence of the entire team to ensure that every possible sustainable strategy was implemented into the design and construction of the project. The building type, an office/computer lab, and the customer, the high security DoD added another layer of obstacle to overcome in order to reach this goal of sustainability. Diligent management and oversight of the entire process of design from pre-charrette to final construction are evidence of how committed this public- private partnership, between the Knott Realty Group, the U.S. Army Corps of Engineers, the DoD customer, the contractor along with Jacobs Engineering, was to the sustainability of the project.

The technical merit of the project is measured numerically in the LEED v 2.1 template system and they point to the fact that the Emerson project was both unique and highly effective technically. These

projects achieved on average credit for having 84 percent of waste diverted from landfills; 33 percent reduction in water usage; use of 84 percent certified wood products; 100 percent use of advanced, individualized lighting controls, and 90 percent recycled furniture. The development and implementation of the Green Cleaning Program even gained the project Innovation in Design credits .

Regarding its Orientation to Mission, the Emerson project was technically challenging incorporating all the requirements of this high security, computer intensive, energy consumptive building. All requirements for the mission of the customer were met while still being able to optimize energy in the HVAC and Lighting systems. The lessons learned from the Emerson project were transferred to the other future applications through a Public Education Program and a Sustainability brochure and most of the sustainable strategies from Emerson I were incorporated in the adjacent building, Emerson II.

The Emerson project was a uniquely complex project with numerous stakeholders. They were extremely fast tracked projects with multiple deadlines and numerous pull-ahead packages that created an additional challenge for the Program Manager / Project Manager and another mark of the commitment to keep sustainability in the project's sights along with the practical concerns of budgets and schedules. As a testament to how well the projects were managed, the projects came in on time, on budget and received GOLD LEED ratings.

The Emerson Commons project included two buildings (i.e., Emerson I and II) that were leased by the US Army Corps of Engineers for a secure Department of Defense customer. The U.S Army Corps of Engineers, Baltimore District, Real Property Services Field Office was the leasing agent and the design and construction manager.

Emerson I & II Fit-Up- Building the Future Award Team

Jimmy Patel
Program Manager, USACE

Charlie Canitz
Project Manager, USACE

Bill Rankin
Technical Advisor, USACE

Amy Yale
Cost Engineer, USACE

Derica Butler
Electrical Engineer, USACE

Tanji Barber
Electrical Engineer, USACE

Bill Rutecki
Mechanical Engineer, USACE

Chuck Nemec
CADD Manager, USACE

Nam Tran
Mechanical Engineer, USACE

Jim Dash
Project Engineer, USACE

Shannon Roberts
Program Manager, USACE

Dave Hakanson
Reality Specialist, USACE

2012 USACE Sustainability Awards Program

All employees across USACE are invited to start preparing nominations for the 2012 program. It is everyone's responsibility to implement the Environmental Operating Principles by incorporating the concepts of sustainability into all aspects of our mission, from the planning of major projects to the number of paper copies we print each day. You are doing great things and we want to help share those accomplishments that inspire us all to keep doing our part to sustain our mission, our communities, and our planet, and reinforce our responsibility as the Nation's Environmental Engineer.

For information on the next USACE Sustainability Awards Program go to the internal Environmental Community of Practice portal at https://eko.usace.army.mil/usacecop/environmental/awards/ and subscribe to the page to automatically obtain future announcements.

Keep up the good work!

Christine A. Godfrey

Christine Godfrey
Acting Chief, Environmental Community of Practice

Environmental Tenets

Sustainability Plan Goals

(http://www.usace.army.mil/sustainability/Pages/Home.aspx)

Goal 1: Scope 1 & 2 Greenhouse Gas Reduction

Goal 2: Scope 3 Greenhouse Gas Reduction & Develop and Maintain Agency Comprehensive Greenhouse Gas Inventory

Goal 3: High-Performance Sustainable Design/Green Buildings & Regional and Local Planning

Goal 4: Water Use Efficiency and Management

Goal 5: Pollution Prevention and Waste Reduction

Goal 6: Sustainable Acquisition

Goal 7: Electronic Stewardship and Data Centers

Goal 8: Agency Innovation & Government-Wide Support

Environmental Operating Principles

http://www.usace.army.mil/environment/Pages/eop.aspx

1. Strive to achieve environmental sustainability. An environment maintained in a healthy, diverse and sustainable condition is necessary to support life.

2. Recognize the interdependence of life and the physical environment. Proactively consider environmental consequences of Corps programs and act accordingly in all appropriate circumstances.

3. Seek balance and synergy among human development activities and natural systems by designing economic and environmental solutions that support and reinforce one another.

4. Continue to accept corporate responsibility and accountability under the law for activities and decisions under our control that impact human health and welfare and the continued viability of natural systems.

5. Seeks ways and means to assess and mitigate cumulative impacts to the environment; bring systems approaches to the full life cycle of our processes and work.

6. Build and share an integrated scientific, economic, and social knowledge base that supports a greater understanding of the environment and impacts of our work.

7. Respect the views of individuals and groups interested in Corps activities, listen to them actively, and learn from their perspective in the search to find innovative win-win solutions to the nation's problems that also protect and enhance the environment.

Proponent:
Environmental Community of Practice

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