The
castle
Savannah District, U.S. Army Corps of Engineers
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Environmental Stewardship:
Corps protects natural resources

The castle

Environmental Stewardship

News magazine of the
Savannah District,
U.S. Army Corps of Engineers

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ABOVE AND FRONT COVER
The Corps' Savannah District celebrated the opening of a new fishing pier at Hartwell Dam near Hartwell, Ga., on Jan. 15. The dam's flood gates were also tested and all passed this essential safety check. Savannah District's three dam and lake projects – Hartwell, Russell and Thurmond – are managed as a multipurpose integrated system, giving consideration to all congressionally authorized purposes and operating requirements – hydropower production, flood risk reduction, recreation, fish and wildlife protection, water quality, water supply and downstream navigation.
USACE photos by Billy Birdwell.
Front Cover: photo Illustration by Tracy Robillard .

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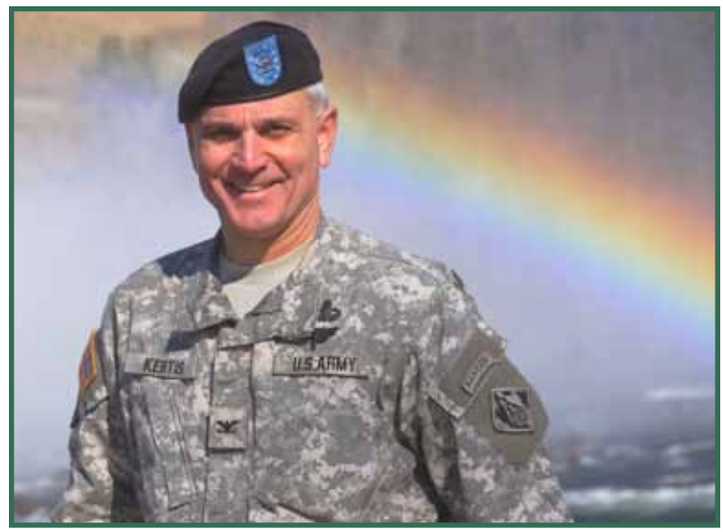
From where I sit

Change your environmental culture

We all have a lot of "ah-ha" moments in life, that time when something just hits our consciousness so hard we wonder how we ever missed it. I was out walking with my mom one day when I was four years old and I threw a candy wrapper on the ground. My parents certainly couldn't be called "environmentalists," but my mother used that teaching moment to explain to me that we shouldn't pollute the earth that way; we were to keep our trash until we could dispose of it properly. I trace my respect for the environment to that very moment, and I remember it as if it were yesterday. That moment changed my internal "culture."

Years later, when I returned from a trip to Europe, the land of $7/gallon gasoline, I couldn't help but notice that most of the vehicles in the hotel parking lot were trucks or SUV's. In Europe, a truck or SUV is a rarity driven by only the wealthiest. Most people own small cars that get 45 mpg. I was discussing the future with a very educated Corps employee and mentioned that our children would drive cars much different than ours. She didn't understand that oil was a finite resource that would run out some day; she thought it would last forever. That "ah-ha" moment changed her culture.

As we celebrate the 40th anniversary of Earth Day, April 22, we need to ask ourselves what it would take for us to have an "ah-ha" moment and change our internal culture. Whether it's conserving energy, recycling finite resources, or simply working to keep the earth healthy for our descendents, there will come a time when that moment will hit us. Let's hope it does, before it's too late.



USACE photo by Billy Birdwell

By COL Ed Kertis
District Commander

Old Christmas trees make new homes for fish

Jereme Degarlais (left) former ranger at Thurmond Lake (currently with the District's Real Estate Division) and Jeff Brooks (right), district wildlife biologist, place discarded Christmas trees into Lake Thurmond.

Every year after the holidays, the Corps' dam and lake projects at Hartwell, Russell and Thurmond collect the trees from surrounding communities to use as reef habitat for aquatic life. Small trees and brush provide cover for fish, particularly as nursery areas for juvenile fish. They also provide habitat for aquatic insects.

Together, the lakes collect an average of 3,000 trees each year, with Thurmond leading the way with an annual average of 1,500 to 2,000 trees.

"The trees are anchored into position to prevent them from posing a navigational hazard to recreational boaters and fisherman," said Ken Boyd, wildlife conservation biologist, J. Strom Thurmond Project. "They are also used in wildlife food plots to provide cover for smaller species, such as turkey, northern bob white quail and rabbits, who reside around the plots."

By Rashida Banks, USACE photo by Jonas Jordan.

Building Strong

Building Green

Military construction conserves energy and resources

Sustainable design has long been a part of the Corps of Engineers' military construction program, but in recent years, the Corps' efforts to "build green" have taken root across the nation.

With the Army's switch to the Leadership in Energy and Environmental Design (LEED) rating system in 2006, construction in today's military uses the same environmental design tool as the private sector. And in today's age of environmentalism – where the drive to "go green" is sweeping the country – the Corps of Engineers strives to implement better ways to conserve energy and non-renewable resources.

"We've come a long way as far as conforming to LEED standards by the U.S. Green Building Council," said Judy Milton, architect and LEED expert with the Savannah District. "And we're bringing all of our construction contractors and designers along with us. It's part of how we do business now."

LEED advances in sustainability

A program of the U.S. Green Building Council (USGBC), the LEED rating system is a point-based rating tool that uses objective, measurable criteria to promote and recognize achievement in the design, construction and operation of environmentally sustainable buildings.

A project using the LEED rating tool must meet all prerequisites by USGBC and earn a specified number of LEED credits. USGBC awards credits in five areas of human and environmental health: sustainable sites, water savings, energy efficiency, materials selection and indoor environmental quality. A project can satisfy one of four levels of LEED – Bronze, Silver, Gold and Platinum – based on the number of points earned.

The LEED rating system also offers independent, third-party certification of LEED achievement by the Green Building Certification Institute, a sister organization to USGBC. Currently, approximately five percent of Corps of Engineers buildings go through the formal certification process, and this number will increase in coming years.

Soldiers and their children cut the ribbon on a new Child Development Center at Fort Stewart, Ga., during a grand opening ceremony. The $6 million facility meets LEED Silver criteria as established by the U.S. Green Building Council. *USACE Photo by Tracy Robillard.*

Silver is standard

The Army adopted LEED in 2006 in place of it's former green rating system, commonly referred to as SPiRiT – Sustainable Project Rating Tool. As part of it's switch to LEED, the Army further mandated that all new construction and major renovation projects must satisfy a minimum level of LEED "Silver" criteria.

"The Corps of Engineers' military construction program is at historic proportions. We have a significant volume of construction coming out of the Army, and the vast majority of it carries LEED Silver requirements," Milton said. "The Army's commitment is important to our nation, because we're helping to transform the industry just by virtue of our demand for sustainable design and construction."

The Savannah District builds LEED Silver barracks at military installations throughout Georgia and North Carolina, such as this barracks pictured under construction at Fort Bragg. *USACE photo by Tracy Robillard.*

LEED features on Savannah District military construction projects range from solar collection panels and geothermal heat pumps to high-efficiency fixtures and advanced indoor air ventilation systems. Other common LEED features are use of recycled building materials, natural landscaping and rainwater storage tanks, reflective roofs, low-odor paints and carpets, and eco-friendly lighting and mechanical systems.

For more information on LEED and the U.S. Green Building Council, visit www.usgbc.org.

By Tracy Robillard

Corps builds LEED Platinum fire station at Fort Bragg

One of Savannah District's most prized sustainable projects is a Community Emergency Service Station currently under construction at Fort Bragg, N.C., designed to achieve the highest LEED rating – Platinum. Once certified, the fire station will become one of the elite few LEED Platinum Certified facilities in the federal government.

The $2.6 million, 8,300-square-foot fire station is slated for completion by R.A. Connelly, Inc., of Bradenton, Fla., by summer 2010. The design, by HSMM (Hayes, Seay, Mattern & Mattern) Inc., of Charlotte, N.C., incorporates mechanisms that save 35 percent more energy than a similar fire station built to code.

This Community Emergency Service Station at Fort Bragg will satisfy LEED Platinum criteria – saving 35 percent more energy than a similar fire station built to code. The building is scheduled for completion by summer 2010. *Artists' rendering provided by HSMM.*

The facility's LEED Platinum features include low-flow water fixtures and a captured water system to collect rain water for washing fire engines and flushing toilets, reducing potable water consumption by 83 percent. The design also includes a solar water heater to offset at least 7.5 percent of total building energy costs, high-efficiency heat pumps, occupancy light sensors and an energy-efficient roof.

The majority of building materials are recycled and come from local and regional suppliers, thus reducing the amount of energy needed to transport them. Other materials like carpet, paints, adhesives and sealants are low in Volatile Organic Compounds and are environmentally friendly. Additionally, a permanent recycling area for paper, plastic, cardboard and other household items will enhance the building's sustainable lifecycle, along with bicycle storage areas and the use of low-emission, fuel-efficient vehicles.

"We look at the building system holistically and use off-the-shelf technologies to ensure the finished product is economical," said Catherine Bingham, Savannah District project manager. "And most of the time, that means it will also be environmentally sound. Saving water and saving energy helps our environment, but it also saves money in the building's lifecycle."

By Tracy Robillard

Muddy, dirty, soggy, and worth protecting:

Savannah's regulators guard Georgia's wetlands

The Savannah District Regulatory Division works throughout Georgia to ensure 'no net loss' of wetlands in the state. *Photo by Murphy Winn, USACE retiree.*

To the passerby it just looks like cleared woods, perhaps the future location for a corn field or a barnyard or a country store. But to the trained biologists and environmentalists of the Savannah District, the area could signal so much more – a disturbed wetland threatened with destruction.

"As part of my job I investigate possible violations of the Clean Water Act," said Katherine "Katie" Freas of Savannah District's Regulatory Division. "I determine where jurisdictional wetlands have been disturbed without a permit and work with the land owner to restore the land or come up with a way to mitigate what the person has damaged."

Wetlands provide a natural filter for ground water, removing pollutants, before the water soaks into groundwater, creeks or rivers, Freas said. Wetlands also provide a natural buffer against flooding. Disturbing the wetlands disrupts this valuable process.

"We work closely with the Environmental Protection Agency, which has the authority to assess penalties on violators," she said. "Repeat violators especially get our [Corps of Engineers and the EPA] attention, since they probably disturb the land intentionally."

Freas works in the Savannah District office. Co-workers in her location and three other offices scattered across Georgia share the responsibility to determine the extent of development that impact streams and wetlands in the state – and work with violators to correct the damage.

"Wetlands play a vital role in our environment and therefore protecting them is a matter of necessity," said Shaun Blocker, also in the Savannah office. Blocker listed other functions provided by wetlands, including keeping sediment from running into water supplies and providing spawning sites for fish and other aquatic life.

Permits allow impacts

Not all of Freas' actions involve chasing violators. She spends much of her time teaching individuals or companies to abide by the rules that govern impacts to wetlands.

"Most people are unaware of the Corps of Engineers' rules for wetlands and streams on their property," Freas said.

"As regulators, we must make balanced, fair, and flexible permit decisions in administering Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act," Blocker said in discussing the primary laws governing regulatory permitting. "Basically, throughout the permit process, from pre-application meetings through the final permit authorization, we work with an applicant to provide guidance, and still consider the applicant's or public's need for the project.

Our goal is to achieve an acceptable resolution for all parties involved."

"Part of our mission is 'no net loss' of wetlands" said Carol Bernstein, Chief of the Coastal Branch in the Regulatory office. "In order to achieve 'no net loss,' all impacts (including unauthorized impacts) must be offset."

Balancing "no net loss" of wetlands with rapid state growth can test the Savannah District's regulators' resourcefulness. "Georgia is a very wet state," Bernstein said of the state's abundant wetlands.

Balancing human and environmental needs

In spite of the relative "wetness" of Georgia, readily accessible clean water for a growing population remains problematic for local governments. The Piedmont Branch office near metro-Atlanta faces water supply issues routinely.

"Water-supply reservoir permit applications are some of the most complex and controversial applications evaluated in the Regulatory Program," said Ed Johnson Chief of the Piedmont Branch. "Rapid expansion in the counties in the metro area created the need for several new residential and retail developments. This growth has also created the need for new infrastructure to include roads, sewage line, waterlines and water supply reservoirs."

"Not allowing any impacts to wetlands would be a detriment to both the local and state economy, and subsequently the national economy," Bernstein said.

Katie Freas, Savannah District Regulatory Division, tests moisture in soil using a hand squeeze. Among her duties, Freas determines where land owners have disturbed wetlands using a variety of field tests. *USACE photo by Billy Birdwell.*

Examining mud and soil makes up part of the job of a Savannah District regulatory specialist. *USACE photo by Billy Birdwell.*

A matter of education

Sometimes those who violate the Clean Water Act simply have no understanding of the law or permitting process.

"Often, violators are not familiar with our program and so they don't realize that they are in violation of the acts," Bernstein said. "As regulators, we try to work with the violator to restore or mitigate any unnecessary impacts, while at the same time permitting those impacts that are necessary to achieve their project purpose."

Public outreach proves crucial, Johnson said. "The Piedmont Branch meets with municipalities, schools, non-governmental organizations, and environmental groups in an effort to ensure 'no net loss' of wetlands through education," Johnson said. The Piedmont Branch also conducts workshops with environmental consultants to educate them on changes to the Regulatory Program.

Occasionally, however, violations occur intentionally. Reports from Georgia regulators, environmental groups and just concerned neighbors, can lead to an investigation, according to Freas. In extreme cases, when repeat violators ignore the law, the Savannah District turns the case over to the U.S. Justice Department for possible civil fines or prosecution.

However it ends, in court or with apologetic repairs to wetlands by a property owner or developer, the restoration helps balance the crucial functions of Georgia's wetlands – all from the trained eyes of the Savannah District regulatory team.

By Billy Birdwell

A haven for Mother Nature

Corps team protects natural resources

With a combined 120 miles of scenic waters, the Savannah District's three dam and lake projects on the upper reaches of the Savannah River – Lakes Hartwell, Russell and Thurmond – are some of Mother Nature's most precious jewels.

An array of wildlife inhabits the lakes and surrounding lands, from deer, fox and black bear to hawks, eagles and owls. Forests with diverse plant life stand tall and lush, while the waters are home to a range of fish, from bluegill to striped bass. With more than 153,000 acres of water and 2,700 miles of shoreline, the three lakes are a haven for natural resources – and the Corps of Engineers is dedicated to protecting those resources.

The lands surrounding Lake Thurmond are home to a range of wildlife, including the white tailed deer pictured here. *USACE photo by Jonas Jordan.*

"As a park ranger, I feel honored with the responsibility to protect the natural resources our nation has entrusted into our [the Corps] care," said Sandy Campbell, chief ranger of shoreline management at Lake Hartwell. "I feel directly connected to our natural surroundings. It's not only my work environment, but it's my backyard. I routinely tell people that I am blessed to have the best job in the world."

While each lake has its own unique characteristics, Hartwell, Russell and Thurmond are managed as a multipurpose integrated system, giving consideration to all congressionally authorized purposes and operating requirements– hydropower production, flood risk reduction, recreation, fish and wildlife protection, water quality, water supply and downstream navigation.

Since several of these authorized purposes involve overlapping or sometimes conflicting interests,

Sandy Campbell, chief ranger of shoreline management at Lake Hartwell, is one of many Corps of Engineers team members who work daily to ensure environmental stewardship. *USACE photo by Billy Birdwell.*

maintaining a healthy balance among private, public and natural use requires a dedicated group of Corps staff, who live by a true affinity for eco-friendly management.

All three lakes embrace environmental stewardship, abiding by numerous public laws which safeguard the environment. The lakes are staffed with trained personnel, who lead programs that ensure environmental compliance. Before any ground is disturbed at Lakes Hartwell, Russell or Thurmond, Corps' team members, in partnership with state organizations, conduct endangered species surveys, wetlands delineation and cultural resources surveys. When concerns are identified, the Corps takes steps to reduce or eliminate possible impacts to the environment.

"In addition to providing essential life-giving resources, such as clean water and air, our environment provides a deeper, emotional benefit to many individuals who enjoy being outdoors," said Susan Boyd, environmental compliance coordinator at the Thurmond Project. "Our job as environmental stewards is to ensure those natural resources are conserved for future generations to come."

All three lakes operate resource management programs to protect natural resources, including fish, wildlife, forestry and aquatic plants.

"The lakes provide extensive habitat for native plants and animals indigenous to the Savannah River Basin," said Ken Boyd, wildlife conservation biologist at the Thurmond Project. "As environmental stewards, the

A visitor enjoys water skiing at the Richard B. Russell Dam and Lake Project, nestled between Elberton, Ga., and Abbeville, S.C. The last of the three reservoirs constructed on the Savannah River, Lake Russell was completed in 1985. Not long before that time, the Corps implemented a policy to ensure the quality of the lake's natural resources for future generations. The new policy prohibited private shoreline uses on lakes built after Dec. 13, 1974. Thus, unlike lakes Hartwell and Thurmond, Lake Russell maintains pure, aesthetic qualities in its 540 miles of undeveloped shoreline and 26,650 acres of pristine waters. *USACE photo by Jonas Jordan.*

The oldest and most southern of Savannah District's reservoirs is the J. Strom Thurmond Dam and Lake Project – the largest Corps lake east of the Mississippi River, comprising nearly 71,000 acres of water and 1,200 miles of shoreline north of Augusta, Ga. A thriving recreation lake with unique opportunities – including horseback trail riding – much of Thurmond's shoreline is pristine and undeveloped, with only 18 percent zoned for limited development. *USACE photo by Jonas Jordan.*

Natural Resources Program Manager Zachary Harkness stands in front of the Hartwell Dam. Lake Hartwell, the most northern of the three reservoirs, bordering Hartwell, Ga., and Anderson, S.C., is one of the top five most-visited Corps lakes in the nation, drawing millions of visitors every year. With 962 miles of shorelines and 56,000 acres of water, the lake operates an extensive shoreline permitting program, having the most private boat docks of any Corps lake in the nation. However, the project takes extensive measures to balance private uses with environmental conservation with programs like fish, wildlife and forestry management.

"As a Natural Resources Specialist working in a lake setting, I deal with managing the natural environment on a daily basis," Harkness said. "Our daily job duties focus on two main priorities – resource protection and visitor safety and satisfaction. The lake and the land surrounding it belong to every member of the public – and it's our job to manage it responsibly." *USACE photo by Billy Birdwell.*

Corps strives to sustain and enhance the health, vigor and diversity of the habitat and the species that live here."

Lakes Hartwell, Russell and Thurmond provide some of the finest recreational fishing in the United States, evidenced by the recent Bassmaster Classic fishing tournament at Hartwell in 2008. There are an estimated 1.5 million hours of fishing effort annually at the three lakes combined, and anglers spend over $10 million annually to pursue their favorite fish at these lakes.

The native aquatic plant nursery at Richard B. Russell provides an opportunity to improve fishery habitat and sustain these important fisheries. In most man-made lakes in the Southeast, shoreline habitat is very limited. The establishment of shoreline fish nursery areas results in sustainable fishery populations for both present and future generations.

"Better habitat equals better fishing, and that's what keeps our visitors happy," said Jamie Sykes, Savannah District fisheries biologist. "The water quality improvement techniques that we pioneered at Richard B. Russell in the 1980s have now been successfully applied at other dams as well. The cool water and oxygen-rich conditions below our dams provide excellent fish habitat and fishing for hybrid bass, striped bass and rainbow trout. I believe the Savannah District is clearly the leader in the Corps when it comes to improving dissolved oxygen conditions at our dams."

In addition to providing fishery habitats, the lakes are an environmentally-friendly source of clean energy. Combined, the hydroelectric dams at lakes Hartwell, Russell and Thurmond generate 1.4 million megawatt hours of clean energy each year – enough electricity to meet the annual energy needs of more than 140,000 households.

Recreation is also a key part of Savannah District's lakes. Visitors to Hartwell, Thurmond and Russell can enjoy a wide variety of recreational activities, including water sports, hunting, hiking, picnicking, camping, and fishing – all in very different settings. For instance, Hartwell, being close to a major population area, has high public use (more than 10 million visitors annually) and a decidedly suburban flavor, while Russell offers a more rural, pristine setting. Thurmond, with its large lake and land base, offers a combination of the two environments and unique features such as Dorn Sport Fishing and Boating facility, the largest boat-launching facility in the southeast.

"The lake is a resource we created when we constructed the dam, and the Corps has a duty to promote that resource by providing quality outdoor recreation facilities," said Kenneth Bedenbaugh, supervisory natural resources program manager at the Hartwell Project. "Being out in nature and enjoying activities at Hartwell, Russell and Thurmond enhances that appreciation for nature – and appreciation is a key part of being good environmental stewards."

By Tracy Robillard

Protecting hallowed ground

"Being environmental stewards means that we need to be responsible managers of cultural resources. In this case, we needed to relocate the grave sites to a managed, formal cemetery and out of harms way."

– Juana Torres-Perez, chief of PM-H.

Sometimes being environmental stewards means protecting hallowed ground – such as a recent success story by the Savannah District team during a relocation of 386 burial sites at Hunter Army Airfield, Ga.

While starting military construction on two separate areas of the installation a couple of years ago, workers found traces of human bones buried several feet under ground. The new discovery required a careful and responsible management plan from the Corps of Engineers' Environmental International and Interagency Support Management Branch (PM-H), which conducted extensive surveying, investigation and relocation of the historic grave sites.

"The PM-H branch provides three types of services – environmental restoration projects (such as sediment clean-up and erosion control), Formerly Used Defense Sites (FUDS) remediation, and environmental quality programs," said Juana Torres-Perez, chief of PM-H. "Being environmental stewards means that we need to be responsible managers of cultural resources. In this case, we needed to relocate the grave sites to a managed, formal cemetery and out of harms way."

The project, contracted by the Corps to New South Associates, represents the largest single investigation approached by mortuary archaeologists in the Savannah-Chatham County area. Additionally, it provided the opportunity to investigate and address the post-Civil War world of African-Americans in the Deep South, as all remains were found to be of African descent.

During the analysis, researchers found that the first cemetery was a small area formed by either an extended family or church, while the second cemetery was considerably larger, representing an informal, community burial ground. Area I dates back to the 1870s through 1880s, while Area II dates to the Reconstruction Era, 1865 – 1877. Excavators also found personal artifacts such as jewelry, marbles and figurines buried with the graves. As of yet, there has not been a formal identification of the families associated with the grave sites, but the data collected during the excavation may one day lead to an ancestral discovery.

The project concluded last year with a formal reinternment ceremony at Belmont Cemetery on Hunter AAF, marking the final resting place for the historical graves.

"The effort provided mission support, allowing construction projects to move forward without delay while also complying with Cultural Resources policies and guidelines," said Ana Vergara, Project Manger. "The project also represents an important contribution to Savannah's history and is a noteworthy success story of responsible cultural resource management of federally maintained properties."

By Tracy Robillard

Corps of Engineers Environmental Operating Principles

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) Seek 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.

One man's journey with the Corps brings harmony to his environment

Some might imagine a dull, muddy wasteland when asked what a dredged material disposal site looks like. However, nestled between Savannah, Ga. and Hardeeville, S.C., lies a district-managed dredge disposal site teaming with wildlife. Just over nine square miles, the grid of dikes and hollows plays host to thousands of birds.

Species like red-tailed hawks and bald eagles perch on branches, scouring the ground below for prey. Flocks of small, white terns flicker across the open sky spying small fish. Meanwhile the lanky frames of great egrets wade in shallow puddles of water and busy woodpeckers clamor on tree trunks. Many other species of migrating birds use this site as a welcome stopping point to rest and stock up on food needed for the next leg of their journey.

It's here, for the past 20 years, Biologist Steve Calver has observed, studied and helped ensure the safety of this aquatic habitat.

Calver began his career as a high school science teacher and reveled in the chance to share his enthusiasm for nature with students every day. However, with many personnel changes in the school system, other subjects took over his daily lesson plan with increasing regularity and it became more difficult for him to keep teaching only biology classes.

After careful consideration, Calver decided he would have to leave teaching in order to stay focused on his passion for natural science.

With the help of a powerful scope, Calver can identify and record bird sightings from a long distance, without disturbing them. *USACE Photo by Tracy Robillard.*

Calver's initial foray into a government position was with the Savannah District Regulatory Division in 1987. Although the job title was biologist, he spent countless hours pouring over permit applications. These requests come from small, private landowners to big-time developers, all with intentions of making some alteration to the landscape.

"When dealing with applicants, you're in a position to make sure they're doing work according to environmental and state laws. When a permit's completed, you can say I had a hand in that," said Calver.

Supporting the ecosystem

Responsibilities changed as Calver moved to the Planning Division in 1992. "When you're in Planning (Division), the fruits of your labor are much less tangible because the particular efforts sometimes take years to complete," he said.

Just like today, one of the big issues in the Planning Division in the early 1990s was maintaining Savannah's harbor. Tidal flow and vessel traffic constantly change the dynamic of the harbor floor. The district must maintain a consistent depth from the water's surface to the river bed for ocean-going vessels. Powerful dredges vacuum sand, plant material and debris then pump it into pre-determined disposal sites along the river.

"In the early 90s, the dredging section's job was to fill up and dry out each disposal site as quickly as possible," Calver said. "But, I felt if we could just hold water, fantastic things could happen with the habitat."

Calver knew it would take his full commitment to work with the Operations Division, which oversees the dredging work, and help coordinate long-term solutions that not only minimize the cost of doing business, but also protect the habitat.

According to Calver, the Corps' dredging mission and its commitment to the environment reached a balance in 1996 with implementation of the LTMS or Long Term Management Strategy, which allows each dredge site to stay flooded for a longer period of time. This arrangement creates more continuity for plant and animal species and increases the strength of the ecosystem.

In concert with other federal and state agencies, the LTMS helped the District establish a rotation plan in which the Corps holds dredged sediment in disposal sites for two or three years before drying them out.

"Before [the LTMS], they'd pump in an area, have material put on dikes and there was no order to it.

A black and white warbler perches from a tree at the dredge disposal area. *Photo by Steve Calver.*

They'd just keep drying it out so no wildlife could stay. Now, with regular rotations we can plan when and where we're going to hold water," said Calver.

Additionally, the Migratory Bird Treaty Act of 1918 prohibits destroying eggs, nests and young, Calver said. "We especially monitor these areas during nesting to make sure our operations don't impact the hatchlings."

Because of the environmental benefits of the LTMS and other regulations, today Calver treks just north of the Talmadge bridge and harkens back to his first love, biology, at the 300-acre disposal area designated 14A.

He monitors the comings and goings of such creatures as black-necked stilts, least terns, gull-billed terns, willets, black skimmers and several other species of what he deems 'non-bird critters' as well, like alligators.

Employees also spot an occasional bobcat at 14A. "You can't see one everyday," said Calver. "There aren't many places where one would have an expectancy of seeing a bobcat when you go to work."

Most would view the bobcats as a menace, but they're really just part of nature, he said. They have a place in existence and help the population thrive by eliminating the sick and injured.

"Another thing I'm proud of is that we have the eastern diamondback rattlesnake," Calver said. "I've walked up on five- or six-footers and stood four feet from them and they won't do anything. They're actually very docile."

Aside from alligators and bobcats and snakes ("oh my"), birds remain the center of attention.

"It's all about the habitat. If the habitat's there, then the birds will be there," said Calver.

He also notes how the resident's roster has morphed with time.

"Just a few years ago, I noticed the first white pelicans," said Calver. He spotted one with a leg band, sent the numbers to the Patuxent Bird Banding Laboratory, a centralized tracking organization associated with the United States Geological Survey Wildlife Research Center, and learned that particular bird had been banded in South Dakota. "This fall, I counted 200 white pelicans in one day, feeding on mullet."

Because these sites provide valuable habitat to shorebirds and migratory waterfowl, Calver has observed large numbers of several species — some that set the record for the highest number of a particular species seen at one time in all of South Carolina.

Still, Calver laments, "There's nothing fun about counting thousands of shore birds — except the satisfaction that you did it." He said it can be stressful because you have so many moving species in one concentrated area and many look alike. "Just when you think you've got it, they fly away and you have to start over."

The next generation

With retirement thoughts coming his way again — he passed up the chance at 62 — Calver said, "I've got 15 years worth of good bird-use data, so now is the time to start compiling it to answer questions."

He has started sharing his expertise with some "new blood." Calver said these biologists can summon the desire from within, but their competence comes from hours and hours of practice and patience. He makes sure his apprentices get plenty of time to hone their skills and feels they'll be ready replacements when he finally decides to pass the torch.

Until then, it seems with Calver perched behind his ever-vigilant binoculars, the greater and lesser yellowlegs remain and flourish.

"As a society, we need to protect our upland habitats as much as the wetland ones," said Calver. "They provide different functions. We need to protect them both."

Since he started keeping records in 1989, Calver has recorded 301 different bird species in the Savannah Harbor dredge disposal area.

By Sandra Hudson

Top it out!

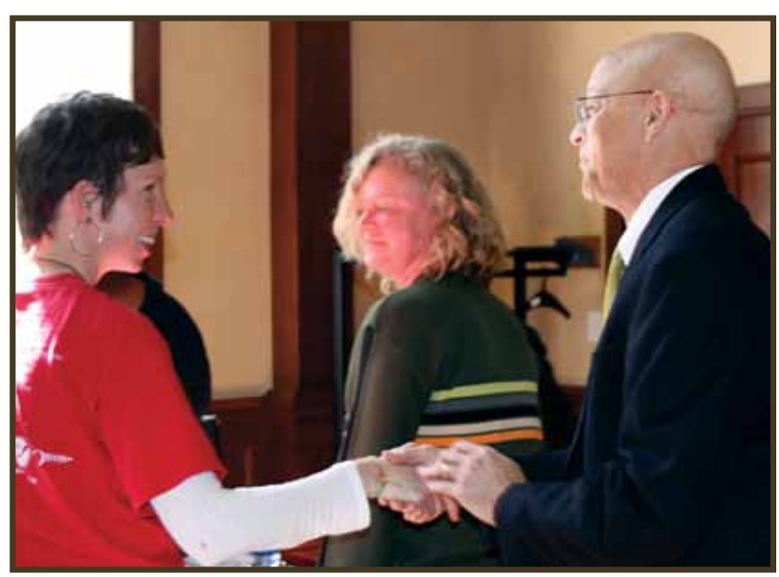
FORSCOM/USARC tree topping ceremony

Construction workers watch from five stories below as the last beam of structural steel is placed on the future Army Forces Command and Reserve Command headquarters at Fort Bragg, N.C. As part of a traditional "tree topping" ceremony, the beam was decorated with an American flag and a small tree, symbolizing reverence for Mother Nature. The Dec. 3 tree topping ceremony occurred almost exactly a year after the Corps first broke ground on the project on December 8, 2008. The FORSCOM/USARC HQ is scheduled for completion in fall 2011. *USACE photo by Billy Birdwell*

Corps partners with Savannah State University

Savannah State University President Dr. Earl G. Yarbrough, Sr. (left) and Col. Ed Kertis, Commander, U.S. Army Corps of Engineers Savannah District (right), sign a partnership agreement between their respective agencies Feb. 19 at SSU Hill Hall. The ceremony formally recognized and renewed an existing partnership between the organizations that began in 1990.

Under the partnership, SSU and the Corps jointly developed short-term courses for in-service engineers and technicians. The Corps will provide summer employment for qualified SSU students, assist the engineering department faculty, help develop engineering curricula and assist in recruitment and job placement opportunities in the organization. In return, the partnership will enhance the diverse workforce of engineers, scientists and technicians sought by the Corps of Engineers. *USACE photo by George Jumara.*



Savannah District team members and SSU graduates Ellie Covington (left) and Mary Richards meet Dr. Earl G. Yarbrough, Sr., Savannah State University President. *USACE photo by George Jumara.*

New union leader elected; tribute to outgoing president

Wyatt Cox was elected President of the American Federation of Government Employees (AFGE), Local 2176 on Dec. 28, 2009, by bargaining unit team members. Cox is a Power Plant Shift Operator at the Hartwell Power Plant, and previously served as the Executive Vice President for the local union.

Wyatt Cox

Local 2176 is the exclusive bargaining representative for all non-supervisory, non-professional permanent employees of the Savannah District and most of its field offices. As such, Local 2176 holds a governing Labor-Management Relations Agreement with Savannah District. As the new Local 2176 president, Cox will consult with district management, through the Human Resources Office as required, to ensure uniform interpretation, understanding, and implementation of this agreement. Approximately 500 team members are covered by the governing agreement.

Other union representatives for Local 2176:

- Executive Vice President: Matthew Rorick
- Secretary: Randy Waters
- Treasurer: Billy Hilton

Tribute to past union president

Thad E. Phillips is the Local's outgoing President. He joined Local 2176 as a member in 1963 and served as its President on numerous occasions from 1973 until 2009. He was involved in the District's Labor-Management Partnership Council in the 1990s and was instrumental in the negotiations of two Labor-Management Relations Agreements.

Thad E. Phillips

Phillips served with the Hartwell Dam and Lake Project as an Engineering Equipment Operator from 1962 until his retirement in 1977. He began his civil service career in 1952 at the former Donaldson Air Force Base in Greenville, S.C.

Phillips began his military service with the U.S. Army in 1944. He deployed with the 10th Armored Division to Bastogne, France, where he served in combat for six months during World War II. He fought in the Battle of the Bulge, engaged for 180 days straight in movement and battle across 600 miles throughout Germany. He was captured twice by the Germans and was a Prisoner of War in Austria when the war ended in May 1945.

Phillips is the recipient of 14 military awards and decorations including the Purple Heart, two Bronze Star Awards, two Battle Star Awards, the Combat Infantry Badge, a Unit Citation, and a Good Conduct Medal. He resides in Starr, S.C., with his wife Bessy. The couple has been married for 48 years.

"We thank Thad for his long and dedicated service to the district and the nation," said Col. Edward Kertis, SAS District Commander. "He is an outstanding American whose contributions serve as an inspiration to us all. I was fortunate to be able to sit with him for hours listening to stories from World War II. I'm proud to have been able to work with such an American hero."

By Karleen Grevemberg

Yadira Gill graduates Army Management Staff College

The first Army Management Staff College graduating class of 2010 included Yadira Gill, realty specialist with Real Estate Division. Now falling under the Civilian Education System's new progressive and sequential leader development program, the CES leader development program includes a new four-course sequence – Foundation, Basic, Intermediate, and Advanced. The Intermediate Course, a four-week resident portion under CES, provided Yadira and her classmates the opportunity to learn to lead people, develop cohesive organizations, manage resources and implement change while demonstrating critical thinking and communication skills. "CES is an investment in the student, the organization and the Army's future, preparing civilians to become 21st Century multi-skilled leaders who personify the warrior ethos," said Ralph Werthmann, chief, Real Estate Division. *By Jeanne Hodge, USACE photo by Tracy Robillard.*

Corps activates Forward Engineer Support Team

An elite group from the U.S. Army Corps of Engineers Savannah District officially activated Feb. 9 to form one of only eight specialized teams of its kind across the nation. This mobile, engineering support team stands ready to deploy with the Army on missions around the globe.

Known as the Forward Engineer Support Team - Advance, or FEST-A, Savannah's newest team is stationed at Hunter Army Airfield. As part of the 542nd Engineer Detachment, they join the Corps' national FEST-A effort with other teams in Baltimore, Seattle, Los Angeles, Honolulu, New York City, Fort Worth, Texas; and Anchorage, Alaska.

Like other FEST-A units, Savannah's team is a "one stop shop," providing professional solutions to complex engineering problems America's military may face. Comprised of one officer in charge, a non-commissioned officer and six Corps of Engineers civilians, the team has the capability to deploy worldwide and provide a range of engineering support to military forces – from design, construction management and contracting to real estate, environmental and geo-spatial support.

For example, FEST-A teams deploy in the wake of natural disasters to assess structural damage, recommend plans for reconstruction and secure contracts to rebuild. The team performs similar roles in combat situations, such as assessing war-torn buildings and infrastructure, providing planning and design support and managing re-construction.

"Although this team is only eight people deep, it has unbelievable capability," said Maj. Gen. Todd Semonite, Commander of the Corps' South Atlantic Division.

Sgt. 1st Class William Griffith (left), outgoing commander of the Savannah FEST-A, passes the guidon to Col. Ed Kertis (right), Corps of Engineers Savannah District Commander. In the background is Maj. Gen. Todd T. Semonite, South Atlantic Division Commander.

Maj. Jared Runge, incoming commander of the FEST-A unit, gives a speech at the FEST-A activation ceremony. *USACE photos by Tracy Robillard.*

Sgt. 1st Class William Griffith (left), shows the group's new humvee to Maj. Gen. Todd T. Semonite (right), commander of the Corps of Engineers South Atlantic Division.

"You've got a war fighter who understands combat and resourcing and planning, you've got an NCO who is an expert in execution on the ground, then you also bring this great depth of disciplines that the Corps' civilians represent. We have created a team that goes far beyond the talents of eight people – it's a network of synergy of great importance to our military."

The Feb. 9 ceremony also served as a change-of-command between former FEST-A leader, Sgt. 1st Class William A. Griffith, and newly-appointed officer in charge, Maj. Jared E. Runge.

By Tracy Robillard