

Got Eagles?

The Southeastern bald eagle is often heralded as one of the great success stories of the Endangered Species Act (ESA). The bald eagle was on the verge of extinction in large part due to the chemical DDT and human encroachment of nesting habitat. Recovery of this majestic species from its lowest population point in the 1970s resulted from measures implemented by the US Fish and Wildlife Service (USFWS) through the ESA. Annual surveys conducted in Florida from 1990 through 2005 indicated an increase in nesting pairs from 535 to 1133. Successful protection and the resulting nationwide increase in nesting pairs allowed the bald eagle to be removed from the Endangered Species List in June 2007, but the species is still protected and monitored. The ESA's [Bald Eagle Post-delisting Monitoring Plan](#) will monitor the status by collecting data on occupied nests over a 20-year period with sampling events held once every 5 years.

Protections are also still in place under the Migratory Bird Treaty Act of 1918 and the Bald and Golden Eagle Protection Act (Eagle Act), which was enacted in 1940 and has been amended several times. Following delisting in June 2007, the USFWS proposed regulations to create a permit program under the Eagle Act to authorize limited take of eagles where the take is associated with otherwise lawful activities. USFWS announced a final rule on two new permit regulations that would allow for the take of eagles and eagle nests, which was published in the Federal Register on September 11, 2009.

The permits will allow the limited, non-purposeful take of eagles. It will authorize individuals, companies, government agencies (including tribal governments), and other organizations to disturb or otherwise take eagles in the course of conducting lawful activities such as operating utilities and airports. Most permits issued under the new regulations would authorize "disturbance". In limited cases, a permit may authorize the physical take of eagles, but only if every precaution is taken to avoid physical take. Removal of eagle nests would usually be allowed only when it is necessary to protect human safety or the eagles.

"Disturb" is defined by the regulations as *"to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available: (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by*



substantially interfering with normal breeding, feeding, or sheltering behavior."

The key issue for those that may need a permit to take bald eagles is that the permits will be rationed in the following order of priority: (1) safety emergencies; (2) Native American religious use for cultural practices and ceremonies that require eagles to be taken from the wild; (3) activities necessary to ensure public health and safety; (4) resource development or recovery operations (golden eagle nests only); and (5) other interests. The average development project would fall under the category with the lowest priority: "other interests".

Population information for both eagle species will guide the USFWS in determining how many eagles may be "taken" annually, and will initially cap permitted bald eagle takes at 5% of their estimated annual regional productivity within each USFWS region. With careful ecological due diligence assessments, proper timing of development activities to avoid eagle nesting season (October 1 – May 31), and the design of projects in consideration of bald eagle habitat, disturbance and takes may be avoided. In the situation of an unavoidable take, proper permits must be obtained. If the number of development projects requiring a take in a given year exceeds 5% of the population in the Southeastern States Region (which includes Florida), some applicants would not receive a permit for the proposed activity for that year, potentially delaying a project.

For additional information, please contact Tom Roberts, Senior Scientist, based in E Sciences' DeLand office, at (386) 734-1950 or via email at troberts@esciencesinc.com



US Fish and Wildlife Service, NOAA Fisheries Launch Effort to Improve Implementation of the Endangered Species Act

June 2011—Secretary of Interior Ken Salazar announced that the US Fish and Wildlife Service and NOAA Fisheries Service have launched a joint effort to *"identify and implement administrative changes to the Endangered Species Act aimed at accelerating recovery of imperiled species, enhancing on-the-ground conservation delivery, and better engaging the resources and expertise of partners to meet the goals of the ESA."* Salazar, in the Service's news release, heralded the success of the program, but recognized that there is much to be done to make the Act more efficient and effective. The intention is to identify solutions that will improve administration of the law, including ensuring that regulations and policies address today's conservation challenges. Suggested changes include review of proposed regulatory changes by the public and stakeholders to incorporate the thinking of endangered species experts and communities affected by the ESA.



After three decades of implementation, NOAA Fisheries Service perceives a shared goal with the US Fish and Wildlife Service to improve the recovery of imperiled species and enhance meaningful conservation. This review of ESA regulations, policy and guidance is consistent with Executive Order 13563, *Improving Regulation and Regulatory Review* and is outlined in the Department of Interior's *Preliminary Plan for Retrospective Regulatory Review*.

According to the Department of the Interior, this effort is focused on the essence of the Endangered Species Act—recovering species—and remaining true to the intent of the Act, while striving to make administrative and regulatory improvements. USFWS and NOAA are not seeking legislative changes to the Act and believe that implementation can be improved through rulemaking and policy formation.



Specifically, USFWS and NOAA stated that they plan to harness the expertise of career agency employees, the conservation community, landowners, and other affected interests including the broader public, to address selected issues and these in particular:

- "Clarifying, expediting, and improving procedures for the development and approval of conservation agreements with landowners, including habitat conservation plans, safe harbor agreements, and candidate conservation agreements;
 - Reviewing and revising the process for designating critical habitat to design a more efficient, defensible, and consistent process;
 - Clarifying the definition of the phrase "destruction or adverse modification" of critical habitat, which is used to determine what actions can and cannot be conducted in critical habitat; and
- Clarifying the scope and content of the incidental take statement, particularly with regard to programmatic actions or other actions where direct measurement is difficult. An incidental take statement is a component of a biological opinion that specifies the impact of an incidental taking of an endangered or threatened species and provides reasonable and prudent measures that are necessary to minimize those impacts. Greater flexibility in the quantification of anticipated incidental taking could reduce the burden of developing and implementing biological opinions without any loss of conservation benefits."

The Endangered Species Act currently protects more than 1,300 species in the United States and approximately 570 species abroad. An additional 249 species have been identified as candidates for protection under the Act. According to the Department of Interior, many of the regulations implementing provisions of the ESA were promulgated in the 1980s and do not reflect advances in conservation biology and genetics, as well as recent court decisions interpreting the Act's provisions.

For more information regarding the Endangered Species Act and the Department of Interior's efforts to improve the Act's implementation, visit: http://www.fws.gov/Endangered/Improving_ESA/reg_reform.html.

E SCIENCES LOCATIONS

Orlando

34 East Pine Street
Orlando, FL 32801
(407) 481-9006 Tel
(407) 481-9627 Fax

Fort Lauderdale

5310 NW 33rd Avenue
Suite 201
Fort Lauderdale, FL 33309
(954) 484-8500 Tel
(954) 484-5146 Fax

Sarasota

2831 Ringling Blvd., D-115
Sarasota, Florida 34237
(941) 955-4616 Tel
(941) 481-9627 Fax

Miami

111 NE 1st Street
Suite 906
Miami, Florida 33132
(305) 495-4593 Tel
(305) 397-1556 Fax

DeLand

116 Indiana Avenue
DeLand, Florida 32724
(386) 734-1950 Tel
(386) 734-1952 Fax

www.esciencesinc.com

Environmental Update

Legislative Session

Bills addressing growth management and environmental regulation have now passed through the last legislative session in Tallahassee. With a focus of increasing economic development, most proposed legislation promoted easing comprehensive state planning and environmental permitting regulations, increasing flexibility and removing levels of bureaucracy.

Voluntary Cleanup Tax Credit (VCTC) Program

— VCTC was created to conduct voluntary cleanup of certain dry cleaning solvent contaminated and brownfield sites in designated brownfield areas. The VCTC can apply toward corporate income taxes. The amount of the credit is 50% of the cost of voluntary cleanup activities integral to site rehabilitation, up to \$500,000 per site per year. If the credits are not fully used in any one year due to insufficient tax liability on the part of the tax credit applicant, the unused amount may be carried forward for a period not to exceed 5 years. The total amount of the tax credits that may be granted each year under the program is \$2 million. FDEP is responsible for allocating the credits. The bill increases the cap on the total amount of tax credits that FDEP can issue from \$2 million to \$5 million annually. FDEP staff estimates that this bill will have a recurring negative \$3 million impact on state general revenue, beginning in fiscal year 2011-2012. The bill will take effect on July 1, 2011.

Sand Skink Survey Protocol

— US Fish and Wildlife Service (USFWS) has revised the survey protocol for the federally-protected sand skink (*Plestiodon reynoldsi*). The most notable change: "**...the Service assumes all contiguous suitable soils within 780 feet of skink signs are occupied.**" The USFWS may claim a 780' radius around one (1) positive sand skink trail, equaling ±44 acres of land, and assume occupied habitat may exist even if the presence of sand skinks is negative elsewhere within the 780' radius. Additionally, the revised protocol expands the types of habitats where sand skinks may be found to include altered and degraded habitats—such as pastures, pine stands, or any vegetative community—with an underlying soil type that is suitable to sand skinks. In stringent applications, ±44 acres of land would need to be preserved or mitigated if there is positive documentation of a single sand skink trail, or if an isolated small area of documented sand skink trail is surrounded by degraded habitat. At a 2:1 mitigation acreage ratio and credit prices of \$30-35K per acre, mitigating a 780' habitat area could cost over \$3 million. **The new survey protocol has significant implications to land development in Highlands, Lake, Marion, Orange, Polk, Osceola and Putnam Counties.**



Helping To Achieve Your Miami-Dade Project Teaming Goals



Miami-Dade County agencies, including MDX (Miami-Dade Expressway Authority), often require up to 30% Certified Business Enterprise participation. E Sciences can help your firm meet this goal. We provide high quality professional ecological and environmental consulting services as a Certified Business Enterprise (CBE) firm with Miami-Dade County in the following technical categories:

5.09 Port and Water Systems; 10.02 Geology Services; 10.03 Biology Services; 10.05 Contamination Assessment and Monitoring; 10.06 Remedial Action Plan Design; 10.09 Wellfield, Groundwater, Surface Water Protection & Management; 10.10 Coastal Processes & Ocean Engineering; 20.00 Landscape Architecture

Contact our Miami office to discuss partnering with E Sciences to achieve your project's scope and teaming goals!

Gisele L. Colbert, MS, LEP — Senior Scientist — gcolbert@esciencesinc.com — (305) 495-4593

Sustainable Landscape Architecture

E Sciences' Sustainable Landscape Architecture division is led by award-winning landscape architect, **Keith Oropeza, ASLA**. Keith has more than 28 years of experience in Florida and extensive knowledge in design and plant communities.

This service line is a forward-leaning industry hybrid which blends the art of landscape architecture with ecological and environmental science to create beautiful, responsible, and sustainable outdoor public spaces. Sustainable Landscape Architecture includes landscape design for traditional settings such as urban streetscapes and leisure settings, as well as mitigation areas, wilderness trails, and sensitive waterfront sites.

As a recognized leader in his field, Keith has experience designing and leading a variety of project types—from initial planning through site-specific design—including roadway, resort, theme park and healthcare facility projects. Prior to his work in Central Florida, Keith's career was based in Washington, DC, providing landscape architecture design services as part of a security enhancement team for various US Embassies worldwide. His career projects are located throughout Central Florida and the world, including:

- Universal Studios Orlando—Sea World/Discovery Cove*
- Loews Royal Pacific Resort—Florida Hospital*
- Chipan Springs Resort/Taiwan*
- Discovery Lakes/Shenyang, China*
- Brooklin Village, Sao Paulo, Brazil*

Keith's major Central Florida transportation design projects include SR 50, Universal Boulevard, Hollywood Way, Major Boulevard, Orange Avenue, and Rollins Street Improvements. E Sciences is prequalified in Landscape

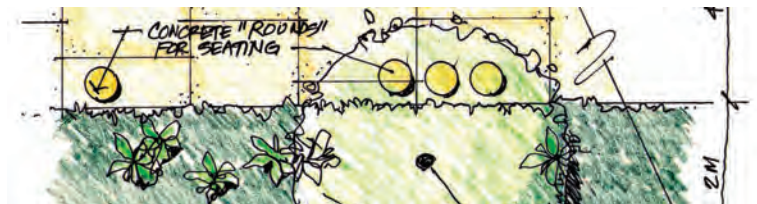


Architecture with the Florida Department of Transportation and Miami-Dade County.

E Sciences is committed to providing aesthetic, functional, and regulatory-compliant solutions to environmental challenges. Through our experienced in-house staff, we have the unique ability to blend multiple disciplines. For example, mitigation and water quality needs can be met in situ by combining landscape architecture, stormwater engineering, and water quality science.

Contact us to discuss how we can assist you in creating natural amenities which are sustainable, ecologically sound, and aesthetically pleasing.

Keith Oropeza, ASLA
Senior Landscape Architect
koropeza@esciencesinc.com
(407) 481-9006



Out and About

Historic Oakdale Cemetery, DeLand, Florida — Community Involvement

E Sciences staff recently spent an afternoon volunteering at beautiful historic Oakdale Cemetery in DeLand. **Tom Roberts**, Senior Scientist with E Sciences and current president of the West Volusia Historic Society, assists Oakdale twice annually in bringing living history to Volusia County citizens by performing Cemetery Walk tours. Stetson University, located in DeLand, is Tom's alma mater. Following the Oakdale cleanup, Tom presented to a group of Stetson history students at Elizabeth Hall. Stetson's Spring Homecoming theme happened to be "Undead Week", which meshed perfectly with Tom's presentation and our visit to Oakdale. He recounted stories of Oakdale's notable residents, including Stetson Law School alumnus Judge Bert Fish (1875-1943), US Minister to Egypt, Saudi Arabia and Portugal, and namesake of Bert Fish Medical Center. For more information on the West Volusia Historical Society and special events such as the Cemetery Walk program, visit www.delandhouse.com.



Nadia Locke, PE and E Sciences conducted a community outreach native tree planting event with Broward County School Board on May 25. E Sciences, Broward Naturescape and Garden Club students created an outdoor, living classroom for environmental and ecological studies at the Virginia Shuman Young Elementary School in Fort Lauderdale. This experience also provided an opportunity for the students to learn about the importance of native landscaping and techniques for successful tree planting. Red maples, oaks, and gumbo limbo trees were installed and are already providing shade for students and their families at the school's end of year outdoor festivities.



Ryan Mitchell, EI participated with the Central Florida Chapter of the American Society of Civil Engineers/Young Members Forum at the **MathCounts Competition** held at Olympia High School in Orlando. The MathCounts Program provides extra incentive and the perfect atmosphere for students to push themselves in math achievement. 300 middle school "mathletes" focused on challenging and non-routine mathematics problems from the 6-8 grade standards of the National Council of Teachers in Mathematics, including written and oral rounds, as well as team and individual components. Ryan and 70 ASCE volunteers checked calculators, scored answer sheets, and assisted competitors from 42 regional middle schools. For more information on the MathCounts program, visit www.mathcounts.org.



ENGINEERING
ENVIRONMENTAL
ECOLOGICAL



Office News

- Patricia Gertenbach, PG moderated a panel discussion entitled "The Truth About Florida: What We Really Should Know About Planning, Land Use, and the Environment", sponsored by the Fort Lauderdale Chamber of Commerce, for Leadership Fort Lauderdale's Environmental Day.
- Maria Paituvi, PE of the Fort Lauderdale office recently received notification from the State of Florida that she passed her professional engineering examination. Maria practices in the areas of contamination remediation and assessment.
- E Sciences welcomes several new employees: Fort Lauderdale Office — Gayle Stone, Senior Scientist; Trent Van Allen, Staff Engineer; Mary Ann McGlamry, Administrative Assistant; DeLand Office — Manuel Alonzo, Project Geologist; Orlando Office — Loretta M. Gebow, Senior GIS Analyst; Lillian Rosa, Accounting Assistant; Cameron Houmann, Summer Intern.