

## View Point



It is with great anticipation and excitement that the PDEA-Natural Environment Section (NES) is able to once again publish our environmental newsletter *Centerline*!!! After a hiatus of several years, the time is right for a fresh start with this newsletter. Not only was *Centerline* a wealth of infor-

## Looking Forward with Centerline

By: Phil Harris, Natural Environment Section Head

mation that could be shared with our local partners, it was also a way to spearhead relationship building with other State DOTs and federal and state agencies.

There will be some clear changes from the previous *Centerline* along with some old familiar topic headings. We will continue to showcase our staff and discuss their many achievements and awards. The new *Centerline* will continue to include technical articles from the NES staff as well as occasional articles from Project Development and the Human Environment Sections. Some of the more noticeable changes will be paperless distribution and smaller, more condensed issues.

*Centerline* will be published three times per year; January, May, and September, and we plan to distribute to our original list and open it up to

other individuals and groups who may be interested. Now that I have filled you in on what to look for in our revitalized *Centerline*, allow me to touch on some people and initiatives that have been going on since you last heard from us.

Back in July 2003, I wrote my first article for *Centerline* entitled "The Family of O.N.E." At the time, my mentor, Charles Bruton, had just retired as the manager of the Office of Natural Environment and I had assumed those responsibilities. Being a young manager, my transition was made easier due to all the hard working individuals and seasoned managers already in place. The four NES Group Leaders (Elizabeth Lusk, LeiLani Paugh, Randy Griffin, and Neil Medlin) continue to provide a strong foun-

(Continued on page 5)

## NES's Mitigation Geodatabase

By: Sarah Schwarzer, ICI Environmental Specialist

The Natural Environment Section's Mitigation Geodatabase was created to aid in tracking and sharing information about NCDOT's stream, wetland, and buffer mitigation projects throughout the State, as well as areas we manage for threatened and endangered species concerns. The sites are related to federal and state permits required for new road construction, and are required to be monitored for a period of time and protected in perpetuity. We need to be able to store and transmit information to the relevant regulatory agencies as well as internal NCDOT users to help monitor and avoid impacts to

these sites that would violate our permits.

In the past, most requests for information were made by contacting NCDOT and having someone pull the relevant files. That would often in-

volve talking to different groups, looking through paper and electronic files, and contacting other agencies. Our aim is to provide a readily-available repository for all of the data and documents about each site that's accessible to NCDOT, agencies, and the public, allowing users to quickly and easily find the information they need.

What began as spreadsheets and paper files has become a collection of information on over 450 sites, including the locally-maintained geo-

(Continued on page 3)



## North Carolina to Host 2015 ICOET Conference

By: Phil Harris, Natural Environment Section Head

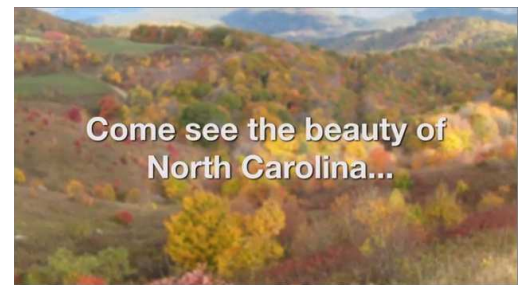
North Carolina has been unanimously selected to host the 2015 International Conference on Ecology and Transportation (ICOET)!!! The event was held in previous locations such as Seattle, Washington in 2011 and this year in Flagstaff, Arizona.

Greg Thorpe, Phil Harris and staff had prepared a detailed letter of interest and supporting documents to host either the 2015 or 2017 conference. Included in the NCDOT submittal was a letter of support from Chief Operating Officer Jim Trogden, PE. On May 28, 2013, Eugene Murray with ITRE-NCSU emailed Greg Thorpe notifying him of the selection. Having an international airport nearby and a substantial number of hotel rooms are both

necessary prerequisites, which makes Raleigh or Charlotte the two most likely venues for the actual weeklong event. As part of the conference, NES staff will be very involved in coordinating a trip to the field to visit some of the key-note environmental projects the Department is involved with.

The preparation for the conference will extend over a two year period and while Phil Harris will be the Department representative on the ICOET Committee, the NES staff and other core technical staff will be essential for the success of the conference. The first order of business for the conference was to develop a video to be unveiled in Arizona at the 2013 ICOET conference. This video which was a col-

laborative effort between the NCDOT Communications Office and the NES staff, showcased the NCDOT and the unique environmental characteristics that this state has to offer. Included in the video were photos and video of staff performing field work and “environmental factoids” that are unique to North Carolina and the Department. The video can be seen on [YouTube](#).



### Project Spotlight

TIP Project U-4437 began as a “simple” intersection improvement project with a grade-separation over the adjacent railroad in west Raleigh. Congestion at the Blue Ridge Road intersection with Hillsborough Street is exacerbated by the railroad signal preemption at the busy Blue Ridge Road / NCRF crossing. As project planning progressed, it became clear that other needs had to be addressed. The project was ultimately developed to serve multiple travel modes, create a “gateway” to the city of Raleigh and the Blue Ridge Road entertainment district, and provide the first step in transforming an automobile-oriented corridor into a complete street.

Destinations along or near the Blue Ridge Road corridor include the State Fairgrounds, Carter-Finley Stadium, the PNC Arena, the North Carolina Museum of Art, Rex Hospital, and the NCSU School of Veterinary Medicine (which is undergoing a major expansion to a bio-medical campus). The

## U-4437- Blue Ridge Road Grade Separation

By: Leza Mundt, PDEA Project Planning Engineer

State Fairgrounds, and its historic Commercial and Education Building, are located in the northwest intersection quadrant. Given these destinations, and other large employers in the area, it’s logical that Triangle Transit is planning a light rail passenger station on the NCRF at Blue Ridge Road. Once constructed, the light rail station is expected to serve as a catalyst for transit-oriented redevelopment in the area, bringing a higher-intensity mix of land uses. The City’s recently completed *Blue Ridge Road District Study* will guide this redevelopment, which is expected to introduce residential, retail, and lodging to the area.

The 10-day State Fair attracts about one million visitors annually. Parking is dispersed and many fair-goers walk from remote sites, although few sidewalks exist. A 2009 pedestrian count revealed over 15,000 pedestrians traverse the Hillsborough / Blue Ridge intersection daily during the Fair. Although pedestrian activity peaks then,

the Fairgrounds facilities are used for over 600 events annually, many generating substantial pedestrian volumes. In addition, sports fans attending games at nearby Carter-Finley Stadium and PNC Arena often park off Blue Ridge Road and walk to events.

With all the activity and employers in the area, the historic buildings at the Fairgrounds, and the planned light rail station, substantial stakeholder coordination was required. The outcomes of this coordination are strong support for the selected alternative and a project design very different than what was envisioned at the project’s inception.

Early alternatives carried Blue Ridge Road over the NCRF, Hillsborough Street, and Beryl Road. This very large and high bridge would have had substantial impacts on the Vet School, adversely affect the historic property, and challenge pedestrians walking to

(Continued on page 4)

## The New Planning Presence in Divisions

By: Ed Lewis, Division 7 Planning Engineer

In 2007, the NCDOT Transformation Management Team (TMT), consisting of 19 selected employees, was tasked to develop an internal transformation strategy to change the Department into a new outcome-based, performance oriented organization to meet the 21<sup>st</sup> Century transportation needs of our state. By 2008, one of the many recommendations that came out of TMT was the need to provide a more formal planning presence in the 14 Division Offices. This need was addressed by establishing a Division Planning Engineer (DPE) position that was to be staffed to the Division Office. The implementation of this new position would follow the successful model used for Division Environmental Officers and Safety Engineers assigned to each Division.

In February 2012, Chief Engineer Terry Gibson asked Ricky Greene and Mike Bruff to head a group tasked to develop the DPE position. Transportation Planning, Project Development and Environmental Analysis, Program Development, Bicycle and Pedestrian, and others provided input on the duties of the position. DPE's would assist in the

development of Comprehensive Transportation Plans, prioritization, programming, planning and environmental studies, and serve on the local RPO and MPO committees as part of their duties. The DPE would be a liaison between the Division and Central Staffs as well as NCDOT and our local planning partners. The Department started filling these positions in the fall of 2012.

There are [11 Divisions](#) that have DPE's on staff with experience that includes long range planning, project planning, rail, operations, and maintenance, and a lot of years with the Department under their collective belt. The DPEs meet or have a conference call about once a month, and do a great job in sharing ideas

with each other. They recently requested and received a two-day training course developed by TPB, PDEA, and other central Raleigh partners to enhance efforts in the Divisions.

The Division Planning Engineer position has already realized some of the successes envisioned early on. Examples of these achievements include strong relationships with local planning partners, helped shape the development of long range planning documents and processes, and developed an educational PowerPoint for local partners to illustrate more fully where they have a voice in the NCDOT processes. The DPEs are looking forward to strengthening partnerships and building on their successes.



(Geodatabase Continued from page 1)

database, a geospatial file available to the NES, a publicly-available geospatial webservice and webmap (for non-GIS or mobile users), and a soon-to-be-online document library. The currently-available spatial files allow anyone to view the available boundaries of the sites and see basic information such as the main TIP for the

project, the type of mitigation present, the county, Division, and HUC the site is located in, and the last known status of the project. From our online services there are links to NES's Permits and Mitigation site, allowing the user to access monitoring reports and scanned permits.

In the future, those documents, as well as many others, will be available for any mitigation site or TIP with a few

clicks using the database capabilities of our new SharePoint site. Users will be able to access and download the documents directly through [Connect.NCDOT.gov](http://Connect.NCDOT.gov) or through our [maps and spatial files](#).

(Project Spotlight Continued from page 2)

the Fairgrounds and points north. Most stakeholders were dissatisfied with the alternatives presented. Upon the request of the City of Raleigh, we evaluated a “go-under” option, Alternative 12, and to the surprise of many, it worked well. And yes, it will drain.

By carrying Blue Ridge Road under Hillsborough, the railroad, and Beryl, we are able to build three short bridges, accommodate pedestrians with wide sidewalks, avoid adversely impacting the Fairgrounds’ Commercial and Education Building, minimize impacts to the Vet School, and provide for future access to the light rail station. Access between Blue Ridge and Hillsborough will be maintained by a new connector road, with sidewalks, immediately east of the existing intersection.

Sidewalks ranging from 10’ to 14’ wide will be built along Hillsborough and Blue Ridge. Bike lanes are planned for Blue Ridge. To reduce right-of-way impacts, travel lanes were reduced from 12’ to 11’. Retaining walls limit impacts to the historic building.

The retaining wall next to the Fairgrounds will be quite tall, so the adjacent 14-foot sidewalk on Blue Ridge will be bifurcated from the vehicle travel lanes, improving its pedestrian scale and preventing walkers from crossing the road under the bridges. The vertical abutments supporting the bridges will be designed to allow breaks on each side for future pedestrian access to the light rail platforms at the railroad.

Stakeholders suggested that public art on the retaining walls would distinguish the area and improve the pedestrian environment.

NCDOT agreed, and is working with the City of Raleigh Arts Commission and other area stakeholders to develop a public art program for the project.

Project construction is planned to begin in 2016. Construction is expected to take 2-3 years and off-site detours are likely. So, during construction, plan ahead before attending area events. Once the dust has settled, this entertainment district will be much more accessible and attractive.



**Rendering of SB Blue Ridge Rd approaching Hillsborough Street Bridge**

## Employee Spotlight



Jamie Lancaster is a Natural Environment Engineer in the Natural Environment’s Section Engineering Group. He was born and raised on a farm in Edgecombe County. He received a BS in Bio-

logical and Agricultural Engineering from NC State University in 1997 and is a registered Professional Engineer. Jamie began working at NCDOT in 1995 as a temporary employee in Roadside Environmental while still attending NCSU. After graduating, he was hired full-time as a Roadside Environmental Technician doing erosion control inspections on projects in Division 2 and 4. He returned to the Central Roadside Environmental office in 1998 and held several positions within that Unit until he moved to his current position in the Natural Environment Section in 2002.

In his current role as a Natural Environment Engineer, Jamie is responsible for the design, providing construction assistance, monitoring

and long-term stewardship of the Department’s stream, wetland and buffer mitigation sites. Jamie enjoys working with other DOT employees from various Units and Divisions, consultants and environmental regulatory agencies to ensure that NCDOT fulfills its permit requirements.

Jamie is married to Susan Lancaster, who also is an engineer in the Roadway Design Unit. They have one son, Ethan who is 2. Jamie enjoys spending time with his family going to the beach, snowboarding, attending NC State football games and doing various projects around the house.

(View Point Continued from page 1)

dation for high quality work with the impetus to meet project schedules, provide strong customer service and streamline where possible. One big change that took place a few years ago was the relocation of our offices to the Century Center complex. With this move, efficiencies have been gained due to proximity of NES with the other NCDOT design groups.

The Natural Environment Section continues to lead the “efficiency” charge with such things as electronic permit application distribution to the federal and state resource agencies, posting of mitigation monitoring reports on the NES web page, and continued updates and enhancements to the NES Data Warehouse. The NES Data Warehouse allows for electronic natural resource requests and tracking of project notes. In the near future we hope to have an “app” available for smart phones that will allow the user to pull up the NES Data Warehouse from their phone to access project information or input information from a remote location.

Another exciting streamlining effort is the use of the LiDAR modeling techniques that are currently being piloted on a few larger NCDOT projects. The NES collaborated with NCDENR in developing a technique in which GIS data layers are utilized to create wetland and stream predictive models. Once created, modeled impacts can be confirmed in the field with minimal effort, and high impact alternatives can be eliminated as part of the NEPA process without requiring further study. We believe this operational model will save both time and money. This collaboration with our agency partners was recognized in 2011 when the Federal Highway Administration awarded us the Environmental Excellence Award.

Also in 2011, the Federal Highway Administration awarded a second Environmental Excellence Award for the development of the North Carolina

Wetland Assessment Methodology. This technique, which incorporates quality and functionality as a way to classify wetland types, was the result of years of partnering between NES, multiple state and federal resource agencies and private consulting firms.

Over the past couple of years our biologists have been working with the NCDOT Division 1 office in their many efforts to maintain NC 12. Our involvement has included bird surveys, submerged aquatic vegetation (SAV) surveys, sea turtle monitoring, and investigating and negotiating mitigation strategies. We have also assisted the Division forces during storm clean-up and sand bag installation. In the western part of the state we continue to enhance our bat tracking and detection capabilities through the use of the latest radio telemetry and Anabat technology, respectively. We have also hired a research group from Indiana State University as part of the work for R-2566 near Grandfather Mountain. Just recently they discovered the first known maternity roost for Virginia big-eared bats (a federally endangered species) in North Carolina. This discovery will enable the Department to move forward with the biological assessment by assisting in satisfying the US Fish and Wildlife Service federal requirements.

We continue to be involved with all paths of project delivery used by the Department. From the Design Build projects to the Turnpike Authority projects to the tradition LET projects, the NES staff and our consultant partners serve in an advisory capacity, especially as it relates to threatened and endangered species investigations and permit acquisitions. Another area we are taking a lead role in is the Department’s development of a geospatial database (*see article on page 1*). In discussions with other work units, we are trying to piece together their available data as well as their needs, with the goal of creating a virtual store on the web to promote information sharing across the Department and across federal and state agencies. As part of

this effort, NES has digitized and located existing NCDOT mitigation sites which will allow planners and designers to incorporate these sites into their project work and avoid encroachment.

Looking forward, we are in early preparations for hosting the 2015 International Conference on Ecology and Transportation (ICOET). The Institute for Transportation, Research and Education (ITRE) at North Carolina State University will be guiding us through this process and we will strive to make this a very informative conference with some interesting discussions and field trips. (*see article page 2*)

The NES continues to be relevant in all aspects of project delivery while also finding new ways to effectively streamline. Whether it be a mussel survey that needs immediate attention, a permit application review for a Design Build project, or a red-cockaded woodpecker analysis that needs to be completed, we want to be that natural environment “strike team” that can be called at the drop of a hat to assist our partners. Customer service to the rest of the NCDOT and to the public is our top priority. I continue to realize the value and importance of relationships – building and maintaining and growing those relationships both internal to the Department, with regulatory agencies, our consultant partners and the public at large. Having those relationships enables us to get things done quickly and allows us to navigate through those more difficult regulatory issues with a successful outcome.

In closing, I hope you will enjoy the new *Centerline*! We are anxious to share our knowledge and highlight our new ideas and experiences. Feel free to pass along articles or contact us if you would like to be placed on the email subscription list. To the readers...I look forward to crossing these bridges and travelling these roads while staying on the right side of the centerline...





Elizabeth Lusk, Project Management Group Leader, is a member of the first Legacy Leadership graduating class. Elizabeth's team project involved Employee Engagement. Elizabeth greatly appreciated the opportunity to experience this class with some of her peers and learned valuable leadership techniques she has implemented following graduation. The graduation cer-



emony was held at the National Guard Joint Force Command Center Complex where Elizabeth was presented a diploma and book by Chief Engineer Terry Gibson.

Jared Gray has recently received his state permits from the North Carolina Wildlife Resource Commission on behalf of the US Fish & Wildlife Service. These collection permits allows him to handle all federally listed mussel surveys.



**NES retirees over the past year**

**Greg Thorpe** , PDEA Branch Manager

**Logan Williams** – Biosurveys Group Leader

**Gene Nocerino** – ICI/On-site Mitigation Environmental Program Supervisor II

**Steve Mitchell** – Biosurveys Environmental Program Supervisor II

**NES promotions over the past year**

**Neil Medlin** – Biosurveys Group Leader

**Morgan Weatherford** – ICI/On-site Mitigation Environmental Program Supervisor II

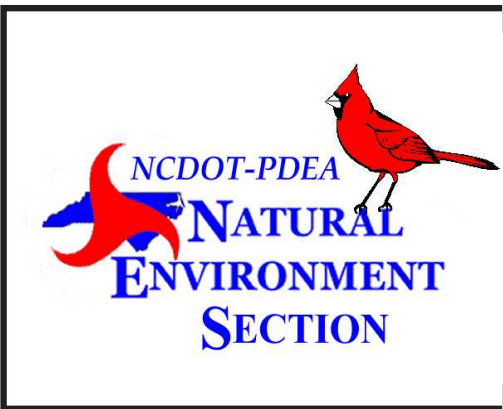
**Kathy Herring** – Biosurveys Environmental Program Supervisor II

**Jared Gray** - Biosurveys Environmental Program Supervisor II

**Heather Wallace** – Biosurveys Environmental Program Consultant

**Mike Sanderson** – Biosurveys Environmental Program Consultant

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