

View Point



Wow! I can hardly believe that it has been over 12 years since I prepared a viewpoint article for the Centerline. The edition was in April 2002 and my viewpoint article was entitled "From the Design Perspective on the Merger 01 Process." In 2002, I was the Highway Design Branch Manager and I was in the midst of assisting with implementing the Merger 01 Process and its improvements that had been identified in an interagency workshop the previous year. I wrote then about the frustra-

The Merger Process, has it achieved its purpose?

By: Debbie Barbour, PE, Director of Preconstruction

tion our design units were having regarding the major design changes that we were asked to incorporate late within the project development process due to the lack of avoidance or minimization of environmental impacts. I also noted that the Merger Process had not had sufficient time to prove all its benefits and I forecasted that the Merger 01 Process would provide for a more efficient project development process and would minimize the amount of redesign work that was required.

Now more than 12 years later, I am answering the question: Has the Merger Process achieved its purpose? My response is "yes and more." My rationale for this "yes" response is based on several observations from my work within the project development process. First, one of the major reasons that the Merger 01 process was developed was to remove the environmental permit from the project's critical path. Within

the past several years, we have had very few instances on major projects when the letting date has moved due to the lack of an environmental permit. Also, major design changes late within the project development process that are due to a lack of avoidance or minimization of environmental impacts are almost non-existent. By achieving these two results, I surmise that the Merger Process has achieved its intended purpose.

So now, what is my rationale for saying that the Merger Process has achieved more than its intended purpose? There have been many "side" benefits that were spawned by the Process. First, the Merger Process improvements were identified by an interagency group that was given a mission, purpose, and a timeframe to achieve a goal; the result is they communicated, collaborated, and worked cohesively together to

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NCDOT Stewardship Program

By: Jason Elliot, Natural Environment Engineer

As a condition of State and Federal Environmental Permitting requirements, the North Carolina Department of Transportation (NCDOT) is responsible for the long term stewardship and protection of compensatory mitigation sites that NCDOT either owns fee simple or that NCDOT holds a Conservation Easement (CE). In order to comply with such permit requirements, NCDOT is responsible for ensuring that all mitigation sites are protected in perpetuity. In order to accomplish this effort, NCDOT formed a stewardship program just prior to 2010 after many discussions with state and federal environmental regulatory agencies. Regulatory agencies often inquire re-

garding the status of mitigation sites in which post-construction performance monitoring has been completed and the site has been closed out. Until 2010, a formal stewardship monitoring program had not yet been developed in-house and NCDOT mainly addressed



site issues on a case by case basis as complaints were received. The Natural Environment Engineering Group (NEEG) along with the ICI On-site Mitigation Group worked together to develop procedures to ensure that the long term management of these sites would be both practical and feasible. A procedure and report template was developed, in close coordination with the Interagency Resource Team (IRT). Currently NCDOT has over 250 mitigation sites in the stewardship program statewide with additional sites added on an annual basis immediately following site close-out.

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Project Spotlight

U-5507 – Prosperity Village Northwest Arc

By: Elmo Vance, Project Development Engineer

Project Team:

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Introduction

The Prosperity Village Northwest Arc project, which will construct a critical connection to I-485, had a unique human environmental challenge with impacts to a population protected by Title VI of the Civil Rights Act of 1964. Through an extensive community engagement program, the project illustrates a highly successful implementation of Environmental Justice (EJ) guidelines, which effectively mitigated impacts to a nearby mobile home park community.



Background NCDOT is currently constructing the last section of the I-485 Outer Loop in Charlotte as part of STIP R-

2248E. This project includes a unique interchange configuration that was a vision from the City of Charlotte’s (City) 1999 Prosperity Church Road Villages Plan.

The City of Charlotte obtained federal funds to construct a critical connection to I-485, known as the Prosperity Village Northwest Arc, along a section of I-485 currently under construction. To ensure compliance with the National Environmental Policy Act (NEPA), the City partnered with NCDOT and FHWA to prepare a NEPA document. HDR was the lead consultant and utilized staff in Charlotte and Raleigh. The need for the project was based on traffic capacity deficiencies in the north-south corridor connecting to the future I-485 interchange, and the solution was a new two-lane 1.1 mile long roadway connecting Eastfield Road to I-485.

The Issue: Environmental Justice

The Community Impact Assessment for the Prosperity Village Northwest Arc project revealed a predominantly Hispanic community meeting Environmental Justice (EJ) criteria. The Forest Park Mobile Home Community is populated by predominantly low-income, mostly Hispanic residents. Alternatives under consideration appeared likely to result in disproportionate and adverse effects on the mobile home park community. The Environmental Justice community is established and cohesive with shared concerns. In contrast to the single-family subdivisions to the west, Forest Park is physically isolated with no connections to adjacent residential development. The community could also be described as somewhat socially and psychologically isolated. The majority of Forest Park residents share Hispanic ethnicity and appear to have similar “work force” income levels. New residential development around them is priced and marketed for middle income households.

Subsequent project development revealed that certain alternatives would cause eight relocations, only within the mobile home park and thus cause a disproportionate and adverse effect on the community.

According to Title VI of the Civil Rights Act, if an option avoids a non-EJ single family subdivision while impacting an Environmental Justice community, impacts to the EJ community must be fully offset by mitigation measures. Ideally the directly impacted residents of the Environmental Justice community should be relocated within the park, in order to maintain the cohesive social fabric.

Addressing the Issue: Reaching Out

Community engagement was paramount for the project, especially communications with the residents of the mobile home community. **Public Meetings and a Public Hearing** were conducted for the entire at-large study area.

The team worked closely with the Human Environment Section of NCDOT to craft a community engagement approach for the mobile home park residents. Limited English Proficiency guidelines were followed to accommodate and involve the Spanish speaking population. For instance, at public meetings and hearings a station was designated for Spanish speaking attendees, with all materials provided in Spanish and staffed by two bilingual team members. In addition, the Public Hearing presentation was simultaneously translated in Spanish using headphones, and the court reporter was bilingual.

Small Group Meetings with the EJ community presented alternatives and options from the Public Meetings with discussions centered specifically on Forest Park, to identify the residents’ concerns and goals. Written materials and oral presentations were provided in both English and Spanish.

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One of the primary commitments of the stewardship program is for NCDOT to complete an annual inspection of all mitigation sites in the program. Annual inspections ensure that all the sites are being maintained, in a manner consistent with the terms of the permit conditions, mitigation plans, deed restrictions, and/or conservation easements. During the annual inspection the site perimeter, points of ingress/egress are reviewed for trespass and violations. Typical violations may include trespass (fencing, gates, etc.), illegal hunting or fishing, illegal dumping of trash/debris, and illegal cutting of vegetation. More serious violations could include fill in wetlands or alteration of a site that is inconsistent with the mitigation plan.

If violations occur at a site, NCDOT, in accordance with the stewardship procedures are required to identify and remediate the violation, depending on the nature of the violation. Once a violation is identified, the first order is to try to determine the source of the violation. Many times this may be the most difficult component of the site inspection process. For example, many of the trespass issues that have been documented are trespass from all-terrain vehicles (ATVs), for which it is very difficult to identify the responsible party. The next step is to contact Division Personnel in order to collectively develop a plan of action to address the violation. Remediation and site corrections are documented in the reporting process. If major violations occur, NCDOT may engage State and Federal Regulatory Agencies. If violations occur, follow-up inspections are performed within the same monitoring

year to insure compliance with conditions of the mitigation plan. Beginning in 2013, NCDOT began posting the stewardship forms, mapping, and photos for each site on the NCDOT web site at the following address:

<https://connect.ncdot.gov/resources/Environmental/Pages/Permits-and-Mitigation.aspx>

In conclusion, the NCDOT Stewardship Program was established several years ago to ensure that mitigation values and site protection commitments were fulfilled by the Department. Procedures and guidelines were developed that address adequate monitoring, response to violations, and long term management. As the NCDOT Stewardship Program continues to grow, proper monitoring should ensure that NCDOT's investment in mitigation and conservation properties remain intact and in compliance with the appropriate rules and regulations.

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achieve the goal. The benefits of having interagency groups work together were noted and this interagency collaboration then became a method that was used to lead to other process efficiencies. Some examples of efficiencies that have been developed by interagency workgroups are as follows: process to remove stream and wetland mitigation from the project's critical path, the Ecosystem Enhancement Program, a written narrative of the Merger Process, operating procedures for the Merger Process, identification of Merger Process Performance Measures, a refined dispute resolution process for issues within the Merger Process, Low Impact Bridge Program, and current work to "integrate" long-range planning information into the project planning process.

Second, the Merger Process has spawned the formation of leadership and management interagency teams that meet regularly and work together to achieve common goals across the agencies. Examples of these groups are the Interagency Leadership Team which was formed in 2004 and the Merger Management Team which was formed shortly after the Mer-

ger Process improvement workshop in 2001. The length of time that these teams have continued to exist and regularly meet also demonstrates the commitment, importance, and positive results that can occur with interagency teamwork. In addition, these interagency teams, as well as others, have helped to enhance relationships and communication between and throughout the agencies.

Third, the Merger Process helped to provide a solid foundation as the Department began to use alternate contracting methods such as Design-Build. The completion of certain portions of the Merger Process (usually 4A) before award of the design-build contract has greatly reduced the Department's risk in the environmental permitting process that occurs after award of the design-build contract.

Now, having said that the Merger Process has achieved more than its initial intended purpose, I think there is still "more" to be achieved. There are further changes that can be implemented to increase the process efficiency and to reduce the overall project develop-

ment timeline. There are suggested initiatives that are being contemplated, some of which work is already underway, that will assist with providing more process efficiency over the upcoming years. Some of these are: "integrating" long-range planning information into the project planning process, holding more informed project scoping meetings, identifying project issues earlier in the process, doing parallel work in the project development process and less sequential work, advancing use of GIS information to later stages of the Merger Process, reducing the level of design detail needed to make decisions on alternatives, identifying training needs, providing interagency training sessions, and continuing to make Merger project team meetings more effective.

In closing, I hope there will be a future viewpoint article that shares a response to the following question: "Since 2014, has the Merger Process become more efficient and has it reduced the project development timeline?" I also hope the response to the questions is "yes and more than anticipated."

(U-5507 – Prosperity Village Northwest Arc, continued from page 2)

Community Surveys for the EJ households were mailed and distributed door-to-door to extract crucial community characteristics related to cohesiveness and stability, family structures and social fabric. The survey used this input to determine potential mitigation and enhancement options.



The meetings and surveys revealed the presence of many long-term residents (some had been there 20 years) and a tightly woven social fabric. For instance, residents frequently shared child care and transportation. Amenities such as grocery stores and churches were within walking distance of the mobile home park.



The Extra Mile

The team was fully committed to encourage the EJ community’s participation in all aspects of community engagement. For all public meetings, the following additional outreach measures were used:

- Door hanger announcements, in English and Spanish, were distributed door-to-door to all residents.
- Advertisements of the meetings were placed at the community’s mailboxes at a central location.
- Advertisements were placed in local Hispanic media.
- A local church with programs oriented toward the mobile home park community was engaged and they helped encourage residents to attend the events.

Success

Success in this context means developing a mitigation plan that “fully offsets the impacts to the Environmental Justice community such that the provisions of Title VI of the Civil Rights Act of 1964 are fully satisfied.”

As a direct result of the outreach program, a number of viable opportunities for mitigation were identified. The most prominent mitigation opportunity related to a chronically malfunctioning septic tank system that frequently caused overflows with raw sewage on the ground surface after heavy rains. Lack of acceptable sewer service also rendered vacant lots within the community unusable because they could not be permitted for septic tanks. The resulting solution was to provide City sewer service to the entire community. This allows the possibility of relocating residents to lots that are currently unusable, allowing relocated residents to stay in the community while providing an overall enhancement and net benefit. The City will locate replacement mobile homes on the currently unusable vacant lots. Other community enhance-

ments are also proposed such as a fence to address safety concerns for children, paving internal roadways, and new signage throughout the community.

As a result of this outreach to the EJ community a mitigation plan was developed that was acceptable to the NCDOT Office of Civil rights and FHWA, as well as to the affected community. The EA/FONSI was signed approximately 20 months after beginning the NEPA process and the project is under construction.



NES Ribbon Cuttings



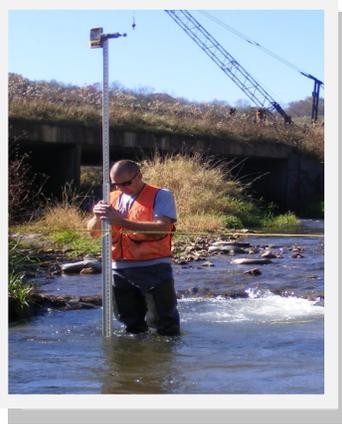
After 18.5 years of service with the state of North Carolina, Dennis Herman retired earlier this year. Dennis is a nationally known expert in reptile and amphibian ecology and led surveys for these species as well as leading the coordination with the US Forest Service. Congratulations to Dennis for his many years of service and happy retirement!!!



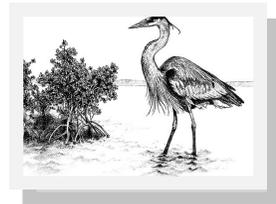
David Johnson was recently promoted to an Environmental Program Consultant within the NES ICI/On-Site Mitigation Group. David will continue his work in developing the latest GIS LiDAR modelling techniques used to identify stream and wetland impacts in the larger transportation projects. Congratulations to David and thank you for your continued cutting edge work!!!



Congratulations to Colin Mellor. He was selected to serve as the new NES Environmental Coordination and Permitting Group Leader. Colin started his career with NCDOT 20 years ago as a temporary with the Geotechnical Unit. In his early years, he was integral in the development of wetland and stream mitigation with the Office of Natural Environment, specifically as it relates to mitigation monitoring. Colin joins a very strong and experienced group of biologists with the ECPG with the continued goals of delivering natural resource investigations and regulatory permits.



Jason Elliott was recently promoted within the NES Engineering Group to an advanced-level engineering position. Jason began his career with the Department in 1998 and has previous experience in Erosion and Sedimentation Control and Design and most recently, various aspects of wetland and stream mitigation.



Recently the “National Wetlands Newsletter” (Volume 36, Number 4, July/August 2014, Environmental Law Institute) published an article recognizing the development and testing of the rapid wetland and stream functional assessment methods in North Carolina (locally known as NCWAM and NCSAM). This approach has led to improvements and modifications to both the permitting and mitigation processes in the state. The development of these methods was a multi-agency effort and our very own LeiLani Paugh (NES ICI/On-Site Mitigation Group Leader) was a key contributor.



Randy Griffin (NES Engineering Group Leader) recently represented the Department at the AASHTO Standing Committee on Environment in Portland, Oregon. As part of the meeting, Randy attended the Natural Resources, Environmental Processes, and Air Quality, Climate Change and Energy Subcommittees. Several other states were represented at the meeting and the conference concluded with a roundtable discussion and sharing of environmental trends across the states.

Employee Spotlight



Chris Underwood is an Environmental Senior Specialist in the ICI/On-site Mitigation Group. He was born in Jefferson City, Tennessee and grew up on a farm in Sevier County. The farm was bordered by woods, a creek, and the French Broad River. Corn, tobacco, and Angus cattle were raised there and this hundred acres is where he developed his love of the outdoors. This

eventually led to joining the Boy Scouts where he earned the rank of Eagle.

After attending Sevier County High School (the same school Dolly Parton graduated from), Chris earned a BS in Wildlife and Fisheries Science. During the summer breaks, he worked for the Pisgah National Forest as a Wilderness Ranger and for the Great Smoky Mountains National Park as a ground truther, a spruce-fir vegetation specialist, and a hog hunter. After working for the Park, Chris worked as a contractor for the Tennessee Valley Authority for twelve years as a fisheries biologist. He led stream survey crews and was a taxonomist who could identify 300 species of fish (and may still be able to identify most of them).

In May of 2003, Chris moved to Benson, NC and started working for NCDOT as an Environmental Biologist in what is now the Environmental Coordination and Permitting Group. His duties included wetland and stream delineations, threatened and endangered species surveys, and permitting. Currently, as part of the ICI/On-site Mitigation Group, his duties include

corridor reviews for potential on-site mitigation, landowner negotiations, and data management. As much as he has enjoyed the various types of work and training over the last eleven years, Chris will tell you that he enjoys his co-workers more and considers them family.

Chris lives in Coats with his two boys, Collin age 15 and Dillon age 12 and his growing family of German Shepherds. He is an active member of Benson Baptist Church. In his spare time he likes to fish, hike, and play disc golf. In order to keep up with his children, Chris has been doing CrossFit for the last eleven months...but the first rule of CrossFit is that you don't talk about CrossFit, so we can't discuss it here. Just go visit him and he will happily try and convert you (or just explain to you what a burpee is).



Christie Murphy resigned her position within the NES as the Technology Support Analyst where she provided computer assistance to all of PDEA. Christie always was willing to help as she also assisted with the PDEA employee appreciation committee and as the editor of the Centerline newsletter. Her last day was on April 24, 2014. She accepted a promotion with the NCDOT IT Group where she will be able to grow her computer skill knowledge. Congratulations Christie and thank you for all your contributions! You spoiled us rotten.

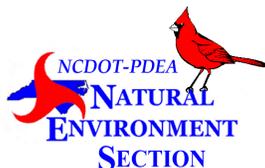
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Project Development Environmental Analysis Unit

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<https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx>

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