

# the Wire <sup>SWCA</sup>

News from SWCA Environmental Consultants

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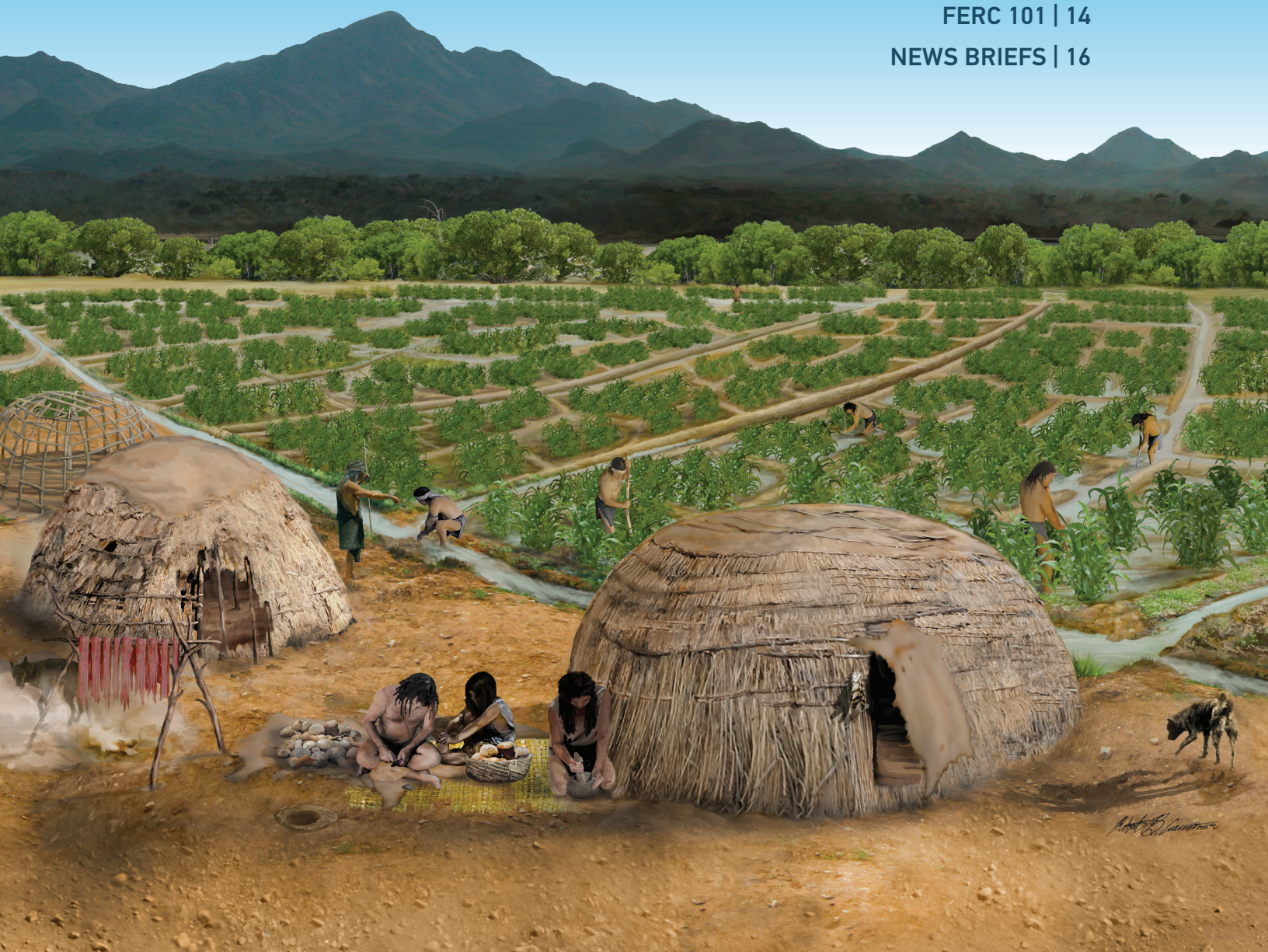
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## FOCUS: EXAMINING THE PAST, RESPONDING TO THE PRESENT, PLANNING FOR THE FUTURE

By John Thomas, CEO



The only constant in life is change, and the past several months have brought about plenty – with a new year, new administration, and renewed talk in Congress about revising environmental regulations and energy policies.

One thing that hasn't changed, however, is our commitment to clients and our ability to be nimble and respond to different challenges and opportunities nationwide. In this issue of *The Wire*, we want to highlight some of the exciting projects our offices get to work on and how these projects withstand the test of time.

Sometimes our work involves looking deep into the past, documenting archaeological finds and educating the public about civilizations that came before us. Such was the case at Sunset Road near Tucson (see page 3), where routine pre-construction investigations for a bridge revealed footprints and agricultural fields dating back thousands of years. The discovery was monumental, and answered some longstanding questions about how native peoples lived in what is now southern Arizona.

Other projects require a steadfast commitment over several years of time. This was the case for our Amherst office and

their decades-long work along the Connecticut River (see page 7). They found creative solutions to age-old problems with erosion and bank stabilization along the river, applying "soft engineering," which uses native materials to restore the landscape. The results benefit the river, wildlife, and the people who benefit from a functioning and stable riverine environment.

Still other projects have us looking to the future and responding to growing needs for advanced technology and renewable energy. The Plains and Eastern Clean Line project (see page 10) is a great example of this. The first high-voltage direct-current (HVDC) transmission line project of its kind in more than 20 years, Plains and Eastern will deliver wind energy from the Oklahoma panhandle east to nearly a million households. It also presented new opportunities for SWCA field crews to develop advanced mobile data collection techniques to save clients time and money.

SWCA has been in business for 35-plus years and we have seen and responded to large shifts in the economy, regulations, and client needs. No matter what changes may come, we remain committed to Sound Science and Creative Solutions. ■

## FOLLOWING THEIR FOOTSTEPS: WHEN ROUTINE ARCHAEOLOGICAL INVESTIGATIONS REVEAL GLIMPSES OF ANCIENT LIFEWAYS

By Suzanne Griset

One summer, nearly 3,000 years ago, monsoon rains caused Rillito Creek in Tucson, Ariz., to overflow its banks and swamp a family's fields at the confluence of the creek and the Santa Cruz River. As the water receded, a layer of sand was deposited, burying the footprints left by nine adults, two children, and a dog. The flood ruined that year's crop.

We might never have known about this family or the flood. But in 1983, a similar flood removed a bridge over the Santa Cruz River at Sunset Road. And in 2015, in anticipation of the closing of another bridge downstream, Pima County decided to replace the Sunset Road bridge and realign the road across a known prehistoric archaeological site. SWCA was hired to conduct routine archaeological investigations.

We learned that nothing about this investigation would be routine.

### FIRST STEPS

SWCA's task was to conduct archaeological testing to determine whether archaeological deposits were located below the proposed roadway, and, if so, to conduct data recovery excavations and document a sample of the resources before construction began.

The timeline was critical – construction was slated to begin in March 2016, which meant that all archaeological data recovery had to be complete by December 31, 2015. We began the project on October 1, 2015.

As any archaeologist will testify, unanticipated things tend to appear at the end of a project. In this case, on December 9, backhoe operator Dan Arnit, an experienced archaeological excavator, uncovered what appeared to be a human footprint preserved in mud more than one meter below the modern ground surface. He understood right away that this footprint wasn't recent.

### SWCA.COM HAS A NEW LOOK!

We're excited to announce the launch of the new SWCA.com! The new site delivers all the industry information you trust with a new design that puts our experts at your fingertips. Enjoy easy access to our services, market insights, career information, and more. Bonus: The website will offer video coverage of select articles from *The Wire*.

Cover Illustration courtesy of Robert B. Ciaccio, Desert Archaeology, Inc.



As he used a leaf blower to uncover the surrounding deposits, additional footprints were revealed, extending in trackways across irrigated fields. Ultimately, more than 100 footprints of 7 to 9 individuals—including a toddler, a juvenile, and a dog—were uncovered in 11 garden plots with more than 200 planting pits, alongside three lateral canals leading west into the Santa Cruz River. The nature of the sands deposited in the footprints indicated that the sand was deposited by the Rillito Creek. And, based on geomorphological studies conducted during the testing phase, we estimated that the footprints dated ca. 2,500–3,000 B.P. or around 1,000 B.C. Radiocarbon dating confirmed the ca. 2,500 B.P. date.

Upon discovery of the first footprint, myself as the project's Principal Investigator and Jerome Hesse, the project director, contacted Pima County. The County quickly understood the significance of the discovery. They also saw an opportunity to invite the public to see why archaeological investigations are an important part of any development that includes subsurface disturbance.

"In the American Southwest, it is rare that a site investigation yields more than an artifact assemblage that the public can recognize – something that looks familiar, something that speaks to them," says Ian Milliken, Pima County Cultural Resources Project Manager. The scientist in Milliken found the discovery exceptional, he said, because it had the potential to answer a multitude of questions about the history of this area.

***This was the missing proof of all that they had been told – that their people have lived and farmed this basin for thousands of years.***

As a public archaeologist, however, he knew that it was also an opportunity to engage the local community. "It provided a unique opportunity for public values to transcend scientific values, and 2,500-3,000-year-old human footprints were just the ticket."

For native tribes in the area, the footprints were a missing piece to a puzzle that had been handed down by elders for generations. When members of the Tohono O'odham Nation visited the exposed trackways, several commented that this was the missing proof of all that they had been told – that their people have lived and farmed this basin for thousands of years.

We proposed a tripartite approach to document, preserve, and provide public interpretation of the find, given its significance not only to the archaeological record, but to the history of the Tucson Basin.

SWCA hired a FCC-licensed drone operator to aerially document the area along the river as well as the features within the exposed field. We also contracted an experienced museum preparator, Michael Lee, to make silicone molds and plaster casts of individual prints and several trackways, so that they could be preserved for anticipated future exhibits.

Although SWCA's official fieldwork concluded on December 31, 2015, the County decided to make use of the intervening 2.5 months before construction to expand the excavation of the footprints as part of a public outreach effort. We assembled a

team to assist with these efforts: Doug Gann of Archaeology Southwest captured 3D photogrammetry of the field and footprints as they were exposed; Jon Boyd and Raven One-Five Tactical Consulting and Training provided forensic analysis of the number of individuals involved in the trackways. Volunteers supervised by Archaeology Southwest's volunteer coordinator, Allen Denoyer, continued to expose the feature during public tours led by SWCA and County staff over three 3-day weekends in January and February 2016. Over 4,000 people attended the tours – many returning more than once.

Before the footprints were covered with sand and road construction began, Tohono O'odham Chairman Edward Manuel, Vice Chairman Verlon Jose, and members of the Nation's Legislature also toured the fields and conducted a blessing.

SWCA is in the process of completing artifact and sample analyses for the final report. The plaster casts have already been used for the public tours, local class lectures, and a presentation at the Flagstaff Science Fair. Soon they will be traveling to Arizona's Historic Preservation Conference in Tucson, and they have provided the theme of this year's Arizona Archaeology and Heritage Awareness Month.

## UNITED BY THE FLOODS

Ironically, the flood of 1983 that removed the Sunset Road bridge led to the County's effort to build another; and it was a flood 3,000 years ago that caused the footprints to be filled with a layer of sand that preserved them in place.




Trench profiles tell us that other fields and canals were both above and below this one. Despite the overbank flooding, people returned to this same location and rebuilt their agricultural fields and canals to take advantage of ready water and good soil to grow corn. Their persistence allowed them to survive here for generations.

SWCA's investigations have also documented that the footprints lead into additional fields to the south of this project, into an adjacent parcel owned by the County.

Our investigations allow the County to plan for future development of that parcel, knowing ahead of time that additional significant archaeological resources are likely present. In response to public requests, they can plan a more permanent public interpretation of this window into the past. ■

For more information, contact **Suzanne Griset** at [sgriset@swca.com](mailto:sgriset@swca.com)

 To see bonus footage on this story, visit [www.swca.com](http://www.swca.com).





## GOING AGAINST THE FLOW: USING “SOFT ENGINEERING” TO SOLVE AGE-OLD PROBLEMS ON THE CONNECTICUT RIVER

*By Mickey Marcus*

The Connecticut is a river that many take for granted. Nationwide, it may not have the notoriety of the Mississippi, the Rio Grande, or the Colorado. But it is the longest river in New England, etching a course more than 400 miles long from the Quebec border south through four U.S. states. Its watershed is vast, and it supplies 70 percent of Long Island Sound’s fresh water. It has more than 1,000 dams on its tributaries and 16 dams on its main stem, a dozen of which are hydropower projects.

So, famous or not, when forces threaten the shorelines of the Connecticut, people take notice.

For the past 20 years, the Amherst office has been engaged in the evaluation, permitting, design, and construction of bank stabilization projects on a 22-mile stretch of riverbank on the Connecticut River. We have worked with landowners, regulatory agencies, municipalities, stakeholder groups, and other entities interested in the ecological restoration of riverbanks.

Gravity, nature, and development can all have an impact on riverbanks. A natural cycle of floods, hurricanes, spring freshets (thaws), ice scour, boating waves, camping, and recreational shoreline use lead to erosion, as do hydrological changes due to development.

In the past, people have tried anything they can think of to stabilize the banks — stone rip rap, concrete bulkheads, old tires, demolition debris, and even junk cars and kitchen appliances. The sheer bulk of these items helps to “harden” the riverbanks, but they also impact the aesthetic and habitat value of the landscape.

As we approached the various Connecticut River projects, we imagined a better, more natural way to stabilize the landscape.

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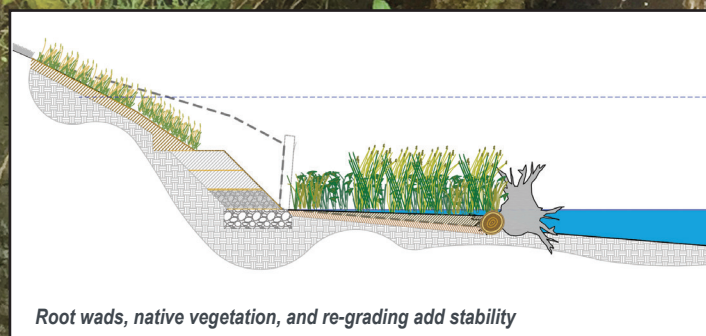
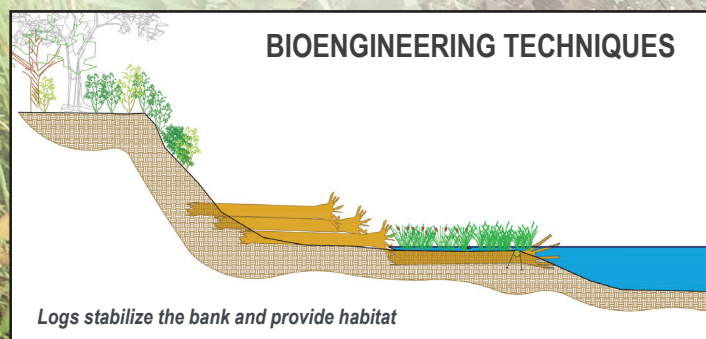
## “SOFT ENGINEERING” IS REBORN

Scientific literature suggests that cultures have used living plants to stabilize riverbanks for millennia. However, the practice fell out of popularity in the mid-20th Century, only regaining attention in recent years.

Soft engineering seeks to work with the landscape using natural materials. Some examples include using erosion control fabrics, coconut bio logs (logs engineered from coconut fibers), geolifts, native vegetation, wooden logs, root wads, and, to a much lesser degree, stone. These soft and hybrid bank stabilization projects have proved to be stable, and they have provided the additional benefits of improved aesthetics over stone rip rap. Plus, they also support valuable wildlife habitat.

## APPLYING SOFT ENGINEERING TO RIVER BANKS

Bank stabilization within this section of river is a challenge because the banks are high (17 feet to 60 feet tall), and these high banks are predominantly composed of fine-grained, sandy soils. Significant flood events, boat wakes, fluctuating water levels, past farming and logging practices, bridge construction, and changes to the watershed over nearly 300 years of settlement have influenced the course of the river and current bank conditions.



Above: Bioengineering is a less invasive method of stabilizing riverbanks compared to stone or concrete. The natural logs, root wads, and native shrubs provide valuable habitat for wildlife and rare dragonflies.

In the 1970s, the U.S. Army Corps of Engineers used several configurations of stacked car tires to stabilize more than 1,000 linear feet of eroding shoreline. The introduction of soft engineering (bioengineering) methods in 1995 was a welcome change for those who want to preserve the aesthetics of the river. Yet, while the bioengineering techniques were successful, they relied on a stone toe of slope and erosion control materials and plants on the slope above to stabilize the banks.

In an effort to eliminate the use of stone to provide natural shoreline habitat, we initiated demonstration projects in 2009 to stabilize the eroding shoreline using engineered woody debris.

Woody debris log jams were built at a spacing of approximately 120 feet on center and secured into the banks to anchor the planned sediment accretion formations. Native emergent and aquatic vegetation were planted between the log jams to help in the retention of sediment, and to provide wildlife and fisheries habitat. Over a four-year period, more than 5,700 linear feet of shoreline was built using these techniques.

*“In the past, people have tried anything they can think of to stabilize the banks...We imagined a better, more natural way.”*

## MEASURING SUCCESS

How would we know if the soft engineering methods were successful? We had to look at how much sediment was retained. Staff gages (rulers to measure water elevation) and scour chains (steel chains implanted in the riverbed to measure sediment) were installed vertically along the project’s aquatic bench. To measure bank erosion, bank pins consisting of metal welding rods were installed horizontally into the banks.

During the first year of monitoring, the woody debris structures accumulated more than six inches of new sediment by reducing water velocity along the shoreline during flood events. During Tropical Storm Irene (August, 2011), more than 60 inches of sediment was deposited and retained by the wood structures and vegetation.

Since 2009, there has been no measurable bank erosion in over one mile of this river reach, which previously eroded each year following spring melt and storm events.

## BENEFITS TO WILDLIFE

Engineered woody debris along river shorelines has an added benefit beyond erosion control – it provides habitat for wildlife on the Connecticut River. In the course of our work, we noticed that wildlife use these restored riverbanks more than they did in their pre-construction condition. Most notably, the restored riverbanks benefit several species of rare dragonflies.

Each of the constructed projects has a five year post-construction monitoring element of key habitat features and functions, vegetation, vertical sediment accretion or erosion, horizontal bank stability, wildlife habitat use, and stability.

Through the follow-up and monitoring, we have found that the submerged woody tangles provide important habitat for fish, turtles, and Odonates such as dragonflies and damselflies.

## BENEFITS TO PEOPLE

The bank stabilization work conducted on the Connecticut River was the first use of soil bioengineering on a large river system in the U.S. Beyond the erosion and habitat benefits, the restored riverbanks are benefitting all the people who live around and enjoy the river. The use of woody debris to accumulate sediment (versus stone, tires, and junk cars) has been an aesthetic improvement and has garnered praise by the landowners and the boating community. Farmland and forests have been protected.

Best of all, these techniques pioneered on the Connecticut River are beginning to be exported to other large river project sites nationwide. ■



For more information about riverbank restoration work and soft engineering, contact **Mickey Marcus** at [mmarcus@swca.com](mailto:mmarcus@swca.com).

To see bonus footage on this story, visit [www.swca.com](http://www.swca.com).



# PLAINS & EASTERN CLEAN LINE: HOW ONE LANDMARK TRANSMISSION LINE IS CHANGING THE FACE OF RENEWABLE ENERGY AND THE WAY SWCA COLLECTS FIELD DATA

By Christian T. Hartnett and Ken Lawrence

When is a power line not just a power line? When it has the potential to change history. The demand for clean energy is higher than ever, but meeting those demands requires robust infrastructure that doesn't yet exist. Wind and solar can go a long way toward powering our homes and businesses and meeting the demands to slash global carbon emissions. But you can't transport wind or solar energy by truck or pipeline.

Enter the Plains & Eastern Clean Line Transmission project. Slated to go online in 2020, Clean Line is America's largest clean energy infrastructure project to date. It spans 720 miles, from the Oklahoma panhandle region east to Arkansas, Tennessee, and other parts of the mid-South and Southeast. Once complete, it will deliver energy to almost a million homes.

It's historic because it is the first overhead high-voltage direct-current (HVDC) project in the U.S. in more than 20 years, and experts say it will pave the way for a substantial increase in renewable energy use. In other words, it will make energy derived from wind more accessible and more affordable.

So, naturally, when SWCA was brought in to conduct field work, we were excited. It was an opportunity for us to participate in a project that has a positive impact; but we also saw an opportunity to pool resources from several of our offices and solve some large-scale data collection problems.

## THE 720-MILE CHALLENGE

Before we began the actual field work, SWCA spent six years gathering background data, coordinating with agencies and tribes,

and doing preliminary technical reporting. When fieldwork commenced in May 2016, more than 90 SWCA cultural and natural resources field staff pulled from 10 offices were spread out across 720 miles of alignment in Oklahoma, Arkansas, and Tennessee.

Aside from Clean Line being the largest linear project SWCA had worked on to date – crossing public and private land – it was also one of the most in-depth projects. It required the identification of cultural resources, threatened and endangered species, wetland delineation, and all the associated monitoring efforts for any natural and cultural resources we identified.

This project proved to be a unique data management challenge to document in 'real time' the various natural and cultural concerns. The decision was made early on to utilize tablet-based data collection to record the majority of information collected by field crews.

## DEALING WITH THE DATA

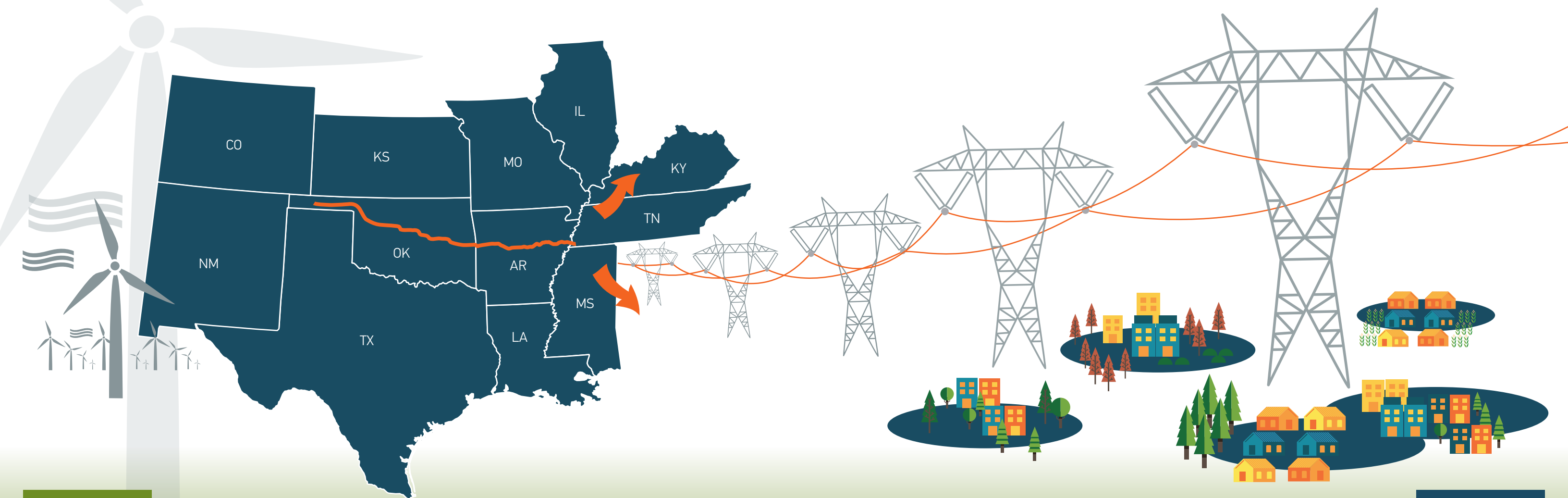
In anticipation of this challenge, the GIS and cultural resources departments of SWCA's Austin office began experimenting with tablet-based data collection for archaeological and historic structure surveys in 2013. The plan was to develop a system that had been fully field-tested on a variety of projects so that field crews could hit the ground running when the Clean Line project began.

We began developing a series of standard archaeological field forms that could be deployed in a variety of environments and projects. Initially, we focused on developing a form that would capture as much information as possible. But after testing these

forms in the field in the heat of a Texas summer, our crews let us know that they needed something more streamlined. Crew members found common, repetitive entries of the same data (e.g., project number) took valuable time and frequently caused avoidable data entry errors.

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*...experts say it will pave the way for a substantial increase in renewable energy use.*





It also became clear that in order to get field crews to adopt tablet technology, it was important to give them a role in development. Over the next year and half, we designed, tested, and redesigned the archaeological field forms. Testing began on small one-day jobs and quickly expanded to multi-day, multi-crew, multi-deployment projects.

### APPLYING DIGITAL TO CLEAN LINE

The Clean Line project required SWCA to scale up its tablet efforts by several orders of magnitude in a short amount of time. At the height of field work, there was a tablet for every archaeological field crew member and one tablet for each historic structure and aquatic resource team, requiring 80 tablets for 70 field personnel. The field procedures remained unchanged, but with the addition of each crew person recording their results (e.g., shovel test data) and associated photographs on a tablet.

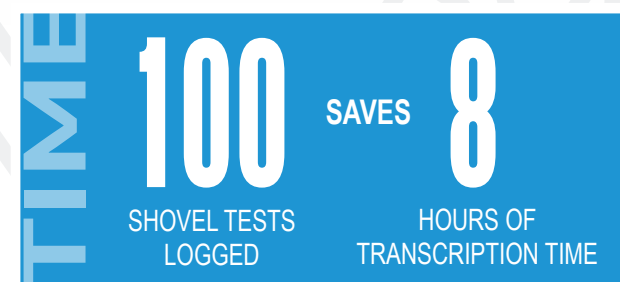
In the past, a crew chief or field director would have gathered all the daily paperwork and reviewed it for quality assurance. With the tablets, the entire crew did this in substantially less time. A little extra attention to entering the data on the tablets shortened the review process at the end of each day. Once each crew's daily data review was complete, they all uploaded their forms to the project database and were done working for the day.

By the end of the 2016 fieldwork, roughly spanning five months, the cultural resources crews recorded almost 40,000 shovel test excavations and 189 cultural resources (archaeological sites and isolated finds) across Oklahoma, Arkansas, and Tennessee. The natural resources group also collected an astounding amount of data during their recording of over 1,400 waterbodies, 300 wetlands, and associated photographs numbering over 4,000 to date. Overall, a massive amount of data was collected and electronically submitted for this project which conservatively amounts to \$160,000 of labor savings. ■

For more information about using mobile data collection on your project, contact **Christian T. Hartnett** at [chartnett@swca.com](mailto:chartnett@swca.com).



### BENEFITS OF MOBILE



### THE FUTURE OF DATA

Plains & Eastern Clean Line may be the first renewable project of its kind, but it likely won't be the last. As we move forward, large-scale mobile data collection will be a key element in the success of these types of projects. Here are just a few of the advantages for SWCA and our clients:

#### 1. LESS PAPER

From a logistical standpoint, mobile data cuts down on the amount of physical paper that needs to be collected, collated, and transcribed.

#### 2. DATA SECURITY

From a risk management perspective, eliminating paper reduces the potential for losing a vital piece of data. A missing form or photograph could have significant impacts to the client's timetable. Data collected on the tablet is sent by a simple click of a button and stored safely in a secure SWCA cloud server.

#### 3. LESS TIME

Mobile forms save time because they are designed to collect data systematically and uniformly, utilizing standardized menu choices and terminology. This eliminates the variation in the quality and quantity of the data recorded by field personnel.

#### 4. BETTER QA/QC

The near real-time link between field crews, task managers, and clients allows for an ongoing QA/QC of the data. Previously, it would often be weeks or months before somebody would be able to review the entire body of the dataset and identify data gaps. This eliminates the need to bother landowners months later for access to their property again.

#### 5. SIGNIFICANT COST SAVINGS

Mobile data collection saves clients money. In the past, a significant amount of time and money was spent transcribing handwritten field notes such as shovel test forms into digital formats. During the development period, the Austin office noted that for every 100 shovel tests recorded on a tablet, it saved approximately eight hours of transcription time. For a project the size of Clean Line with more than 40,000 shovel tests recorded in 2016 alone, this saved the project approximately 3,200 hours, which conservatively amounts to \$160,000 of labor.



# FERC 101: TIPS FOR A SUCCESSFUL FERC PROJECT

By Alyssa Albertone and Scott Urwick

Navigating ever-changing oil and gas regulations can be a challenge, but there are things you can do to help your project succeed.

We asked our FERC Program Director Scott Urwick to talk about the FERC process and best practices. Scott has more than 30 years of experience in environmental consulting with a specialized focus on large-scale natural gas projects regulated by FERC. He has experience negotiating the FERC process in unusually short timeframes on natural gas pipeline projects. He also helped develop the first-ever FERC Guidance Manual on Environmental Report Preparation in 1995.

**Wire:** *First of all, for those of us who don't know – what is FERC and why is it important?*

**Scott:** FERC stands for the Federal Energy Regulatory Commission, and it is an independent government agency, officially organized as part of the Department of Energy. FERC regulates the interstate transmission of natural gas, oil, and electricity, including review and approval of hydroelectric and natural gas projects. For these projects, FERC is responsible for determining the public convenience and necessity, as well as complying with the National Environmental Policy Act (NEPA).

**Wire:** *What's the first thing you tell clients who have FERC requirements to meet?*

**Scott:** Address constructability early. It is much better to ensure the project is constructible early in the design and review process, rather than relying on FERC's post-certificate variance process. And communication is key. Keep your FERC project manager in the loop at every stage, including project issues and proposed solutions.

**Wire:** *Can you tell us a bit about the filing process?*

**Scott:** FERC has a traditional filing process, in which an applicant files an application and FERC staff conducts its review, including environmental, prior to making a decision whether to approve the project. FERC also has a pre-filing process, in which FERC can begin to review the project and commence the NEPA review prior to the applicant officially filing its application. This pre-filing

process is mandatory for liquefied natural gas (LNG) projects and optional for natural gas pipeline and compression projects.

Regardless of which process you use, you want to be sure to address all filing requirements instead of relying solely on FERC's stated minimum filing requirements. If there are filing requirements that do not apply to your project, provide an explanation in your report. The same thing applies to requirements that have not been addressed; provide a reason and a schedule for addressing and filing information with FERC.

**Wire:** *How do you handle potential issues that may arise with a FERC project?*

**Scott:** I use a process: identify, track, assign, resolve. The process is important to ensure that nothing is overlooked. As issues are identified by you or any applicable agencies, add them to a tracking list and assign them to the appropriate project team member for resolution. Tracking will ensure that no issues are forgotten and that all are appropriately addressed in the FERC environmental report. Throughout the process, maintain thorough and accurate documentation, including identified issues and resolutions, agency communications, and communications with other affected stakeholders.

**Wire:** *What other advice do you have for developing a FERC environmental report?*

**Scott:** Be accurate and consistent. This applies to project dimensions, construction and operational land requirements, and quantified impacts on environmental resources. Part of your process should include performing checks to ensure that the information among the various resource reports and environmental permit applications is consistent. I also recommend practicing diligence with all permitting requirements and agency clearances. It can help to make checklists of agency permitting requirements to make sure they are addressed, and then include that permitting information in the report as appropriate.

**Wire:** *Do you have any advice for dealing with the many agencies involved in a complex FERC-regulated project?*

**Scott:** It may sound simple, but developing and preserving relationships. Your reputation with agencies and other stakeholders is critical. It's helpful to have an understanding of the various agency requirements going into the project. Additionally, providing complete and accurate responses to data requests – issued by FERC and other permitting agencies – allows the agencies to efficiently proceed with their required environmental reviews.

**Wire:** *Any parting words?*

**Scott:** Things are always evolving or changing. When setting out to permit a project, always consult with the agencies for the latest guidance. Your project will benefit from knowing what the agencies are expecting to see. ■

For more information about FERC-related projects, contact **Scott Urwick** at [surwick@swca.com](mailto:surwick@swca.com).



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## NEWS BRIEFS



**Chuck Katz** joined SWCA as Principal for our northern California operations. He oversees offices in Half Moon Bay, Fresno, and San Francisco. Chuck has more than 25 years of experience in the environmental consulting industry.

**Chuck Moomaw** joined SWCA as Vice President of Human Resources and Organizational Development. He oversees the Human Resources team to ensure that all of SWCA receives the support needed for maximum employee engagement and business excellence.



### 2016 Lawrence S. Semo Awards

SWCA's quarterly Lawrence S. Semo Scientific Achievement Award rewards individuals for demonstrating passion, creativity, and scientific excellence. The award is in honor of Larry Semo, who began working as a biologist for SWCA in 1993. A respected and widely published ornithologist, Larry had an insatiable desire to learn and a great love for the outdoors until his untimely passing in 2011. Three award

winners were named since our last edition of *The Wire*: **Brandy Rinck**, Geoarchaeologist in Seattle; **Scott Fisher**, Ecological Restoration Team Lead in Amherst; and **Chris Collins**, Senior Biologist in San Antonio.

### First Steven W. Carothers Award Winner

**Paul Burnett**, Cultural Resources Principal Investigator in Fort Collins, Colo., is the first recipient of the Steven W. Carothers Scientific Merit Award. Paul started his career with SWCA in 2004, and has been a Science Leadership Program member since 2010. The Steven W. Carothers award honors a scientist following in the footsteps of our founder by using excellent scientific skills to solve client problems.



### Have a Heart Award

SWCA awarded its third annual Have a Heart Award to its Albuquerque office. The Have a Heart Award is given annually to the office that most demonstrates SWCA's culture of giving by participating in SWCA Gives Back events and fundraisers.

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