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The AquAeTerian



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In This Issue:

**President's Corner:
AquAeTer Begins 15th Year of
Service**

Page 1

**Double Feature:
Phase I Site Assessment & NEPA
Screening for Texas Telecommu-
nications Build-out**

Pages 2 & 3

**Utilizing Environmental Forensics
for Managing Risk in Insurance
Claims**

Page 4

**NEWS FLASH: AquAeTer Secures
Patent on Aerobic Biostimulation
Treatment for Groundwater!**

Check out Sean Muller's latest
mining adventures in Panama,
Mongolia, and beyond on our
website: www.aquaeter/mining.htm

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The President's Corner

Quindecim Annum Benefici 15th Year of Service

AquAeTer began our 15th year of service on August 17, 2006. We would like to thank all of our clients for allowing us to help them solve their environmental challenges and giving us a chance to succeed.

We thought we would take this opportunity to highlight some of our recent accomplishments such as the completion of a long-running permitting project with Dave Giffin of Emerald Performance Materials (formerly Noveon and BF Goodrich). We have been working on this project since 1988 and after many years, a diffuser was installed to allow a mixing zone to be established for meeting ammonia water quality standards on the Illinois River. The diffuser project team which formed in 2005, included AquAeTer for the conceptual design and permitting the Horner & Shifrin design engineering firm; and Massman Construction Company, who handled the diffuser installation. As a final step, AquAeTer conducted a diffuser performance test for Bob Mosher and Toby Frevert of the Illinois Environmental Protection Agency.



Mike Corn with Dave Giffin, Emerald Performance Materials, on the banks of the Illinois River

In this issue of the *AquAeTerian*, Darci Scherbak and Pam Hoover are featured for their recent achievements during a large cell tower build-out covering seven cities in Texas for Cricket Communications. Darci managed the implementation of over 550 Phase I site visits and report writing while Pam directed the NEPA Assessments. Thanks to their organizational efforts and attention to detail, the client was able to launch its services in each of these cities on schedule.

Also highlighted in this edition are two interesting projects completed by Guyton Giannotta of our Hershey office. Guyton has been busy assisting a national insurance company with environmental claims in Pennsylvania, Maryland and West Virginia. Guyton also continues to serve CNH Global NV on several soil and groundwater remediation projects.

AquAeTer's Centennial office is starting their 10th year of service this September. Congratulations to Steve Wampler, Cathryn Stewart, and Chris Bolin, who have been with this office since the beginning, and to the rest of the Colorado team for their commitment to AquAeTer and our clients. The Centennial office has been active in remediation projects, environmental monitoring and landfill design, and more recently in minerals exploration projects for international mining clients.

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Darci Scherbak, P.E.

Ms. Scherbak began her civil and environmental engineering career nine years ago working during an internship in college at Vanderbilt University. After receiving her undergraduate degree in civil and environmental engineering she worked at Eckenfelder, Inc. with Wes Eckenfelder and Jim Clarke, now Technical Directors at **AquAeTer**. Ms. Scherbak ventured to Atlanta to complete her master's degree at Georgia Tech in civil and environmental engineering and subsequently worked at Black & Veatch. She joined **AquAeTer** and her former colleagues in Nashville in 2005. Ms. Scherbak has worked on projects including air emissions studies, soil and groundwater investigations, hurricane stormwater sampling, environmental litigation support, and Phase I and Phase II Project Manage-

ment. She has also been involved in site investigations, construction oversight, remediation, environmental sampling, and regulatory compliance. Ms. Scherbak has conducted groundwater and pore water sampling, groundwater slug tests, and various site inspections and remedial investigations. She has prepared various reports including: work plans and other planning documents, site inspection reports, data evaluation reports, remedial investigation reports, focused feasibility study reports, as well as, focused corrective measure studies.

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Logistical Management Processes for Phase I & NEPA Reporting for a Telecommunications Build-out

At this time last year, **AquAeTer** was tasked with a project for a national telecommunications carrier, Cricket Communications, to conduct over 550 Phase I Environmental Site Assessments (ESAs) for a cell tower build-out throughout the State of Texas. This also included the preparation of National Environmental Policy Act (NEPA) Checklists. The Phase I Assessments were conducted within an average turnaround time of 21 days in order to support the client's critical construction deadlines.

AquAeTer has been assisting the telecommunications industry over the past nine years, but to this point had not been given a task of this magnitude (typical build-outs have been 60 sites or less). With over 500 sites on the horizon, several parts of the process needed to be streamlined. Project teams in all three offices were given an opportunity to map the entire process and identify opportunities to make improvements.



Team Involvement

Once established, the project teams went into high gear. A broad range of skill sets were utilized such as GIS mapping, site sketch rendering, Federal and State database searches, writing and reviewing of reports, and the electronic organization of files for final report assembly. **AquAeTer's** regulatory team members met with several State and Federal officials prior to the project's start in order to determine the current State-specific requirements for historical properties and endangered species. Several Indian tribes were also contacted to communicate the project plans. A Federal Emergency Management Agency (FEMA) representative was contacted to attain the most up-to-date information on flood-prone areas. The U.S. Fish and Wildlife Service was contacted to determine if any underground endangered species were present due to the karst topography. Throughout the entire process, communication was maintained with State Historic Preservation Officers (SHPO) which expedited the approval process.

Office Resources

Since the final reports were sent to the client electronically, servers and backup capabilities were upgraded in order to accommodate the extra data storage required. **AquAeTer** reconfigured its Brentwood, TN office to provide additional space for a "war room" to house the large number of files for the project. As the build-out progressed, additional office tools and upgrades were implemented including several project-specific checklists and forms.

State-of-the-Art Tools for the Job

Several automated tools were critical for this large undertaking. The client provided access to their web-based database system, which housed the necessary data for each cell tower site. These tools allowed the assigned teams to

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Ms. Hoover has been working with **AquAeTer** since the early days in 1993. Prior to her environmental career she worked as a biomedical research assistant at Vanderbilt Medical Center in Nashville. She received her undergraduate degree in environmental science and her master's degree in environmental and water resources engineering at Vanderbilt University. Now a registered Professional Engineer, Pam is **AquAeTer's** in-house regulatory expert. Ms. Hoover helps clients achieve and maintain environmental compliance, as well as, identify and decrease liabilities associated with property transactions and plant operations. Ms. Hoover routinely prepares NPDES permits (stormwater, industrial, and water quality) and air permits. Ms. Hoover assists a wide range of industrial clients

including petroleum industry, inorganic and organic chemical facilities, pulp and paper mills, wood treating facilities, and mining operations. She has also been responsible for the management of NEPA compliance and screening reports for the telecommunications industry. Additionally, Ms. Hoover assists on litigation support required for environmental forensic projects. As the Health, Safety, and Security Officer overseeing the company's health and safety program, she assists **AquAeTer's** project teams to ensure compliance with plant health and safety procedures.



analyze site-specific data immediately after receiving notices to proceed. **AquAeTer** implemented a customized web-based report writing software which stored all of the historical, State and Federal database information, photographs, and aerial and topographic maps. All of the site-specific information was available via the internet for all team members to access. The integration of these state-of-the-art tools enabled the final reports to be uploaded to Cricket's database for final review by their legal personnel.

Phase I ESA Site Visit Process

The site visit process began with **AquAeTer** team members setting up centralized field offices to support the seven cities throughout Texas. Field office space was available as part of the client's local office in each city, where field office files and remote server access could be set up. To avoid downtime during site visits, field office personnel developed a familiarity with the local areas so that daily routes could be efficiently planned in advance. The site inspectors set out for their daily "adventures" with copies of site files, site visit checklists, digital cameras, compasses, and city maps. The availability of the real-time traffic reports, handheld GPS devices, and a good umbrella were also handy items in the field. Once the site visits were underway, all documentation was scanned and uploaded to the **AquAeTer** offices by field personnel, which allowed report writing to begin almost immediately following field data acquisition.

NEPA Checklists

The NEPA evaluation process included consultation with various Federal, State, and local agencies including SHPO, Tribal Historic Preservation Officer (THPO), Division of Archaeology, and Fish and Wildlife Service. The evaluation process also included the visual inspections of the proposed sites; review of the historic site databases;



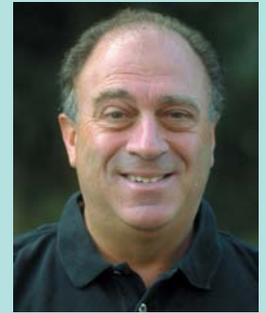
floodplain and wetlands map reviews; evaluation of wilderness areas and wildlife refuges; review of endangered/threatened species; and assessment of critical habitat maps.

Processes Put to the Test

This project enabled **AquAeTer** team members to work together in new ways to upgrade applicable processes and technologies and to provide improved services to our clients. We are pleased to report that these improved processes and tools were recently tested again in June for a North Carolina market where we successfully met the client's accelerated schedule. Thanks to all our hard working team members and to Cricket Communications who gave us these opportunities.

Mr. Giannotta has extensive experience in environmental and occupational health and safety management. Graduating from Indiana University of Pennsylvania with a B.S. in Occupational Health and Safety, he has managed projects in the U.S. and 19 countries. Prior to his consulting career he worked for large industrial manufacturers such as Ethyl Corporation and CNH Global NV. Currently in his 5th year with **AquAeTer**, Guyton is in charge of operations at our Hershey, Pennsylvania office. Mr. Giannotta is responsible for the technical management of projects intended to reduce our client's direct and indirect risk exposure to environmental impact issues. His recent project work includes management of remediation projects for contaminated groundwater and soil, industrial wastewater treatment system refurbishment, and

air emissions. Guyton has also conducted environmental site assessments and due diligence for real estate transactions. Mr. Giannotta has been instrumental in managing negotiations with regulatory agencies on all levels. He has provided consultation regarding corporate environmental strategies, major capital investments, and permitting and installation of environmental control systems. Guyton has also established a global environmental reserve tracking system with respect to recognized accounting practices and government laws and regulations.



Utilizing Environmental Forensics for Managing Risk in Insurance Claims

From our Hershey, Pennsylvania office, Guyton Giannotta has been working with a national insurance company providing assistance on environmental risk policy claims. Mr. Giannotta has been the liaison among the insurance company, the insured, the claimant and their respective counsels, as well as, the regulatory agencies. This claim support work has involved a turnkey approach, which often begins with coordination of emergency response, arriving at the scene of an incident for initial assessment and site investigation. This is followed by design and implementation of corrective remedial measures, communication with the involved parties, and negotiation of a fair settlement. The insured individuals or companies have ranged from industrial concerns and agricultural businesses to residential properties.

One recent claim involved a fish kill that resulted from a grocery store fire in a rural community. The grocery store had suffered \$5 million in damages from the fire and was also being fined \$750,000 for accusations that household chemicals may have leaked during the fire, killing the trout population in a nearby stream. Mr. Giannotta was called to the scene to assess the situation and determine the actual cause of the fish kill. The State environmental agency provided water quality data from before and after the fire which was analyzed by **AquAeTer's** scientists and engineers.

AquAeTer subsequently determined that the fire suppressant foam used by the local volunteer fire fighters caused low oxygen levels in the stream. The foam contained non-environmentally friendly material which depleted the oxygen levels in the stream and resulted in the fish kill. Guyton worked in close coordination with the State fish and wildlife agency and the environmental compliance enforcement agencies to manage the clean-up efforts and negotiate a fair settlement based on the new information that the data revealed. The claim resulted in a \$6,400 settlement which covered the restocking fee for the trout population in the stream.

Another interesting case involved a very large dairy farm and the contamination of drinking water wells in a nearby residential area. The dairy farm had applied a concentrated mix of manure to a 20-square mile area, which included neighboring

farms. The manure was applied just before a winter freeze which was immediately followed by a rapid increase in temperature, and three inches of rainfall within a six-hour period. This sequence of weather events caused stormwater run-off from the melting of frozen soil to transport residuals from the manure into a residential area. Two of the local residents filed a claim against the dairy farm for contamination of their water wells. The case had not been settled after more than a year and Mr. Giannotta was called upon to evaluate the water quality, remediate if necessary, and offer an agreeable settlement. Initially, the drinking water was analyzed to determine if human and/or animal bacteria were present in the drinking water. Additional investigation revealed that one of the residential water supply wells was very shallow and located too close to their own septic leach field, which could also contribute to the presence of fecal bacteria. Results of the bacterial analysis were inconclusive, however, as a protective measure the shallow drinking water well was replaced by a much deeper well. During this process, bottled drinking water was supplied to the residents. Mr. Giannotta oversaw the entire process and provided status reports to the local agencies and communicated with the property owners and dairy farm owner. After the deeper replacement well was installed, samples were taken and the results confirmed that the drinking water contained no bacteria. A final settlement was offered that was satisfactory to all of the parties involved and no penalties were issued to the dairy farm. The case is now in the final stages of closure.

These are just two examples of several instances where Mr. Giannotta has responded to our client's emergency requests involving investigation and remediation of groundwater and soil contamination attributed to spills. For our clients, Guyton takes the extra steps needed to mitigate these situations and focus on long-term resolutions that are environmentally prudent, while substantially reducing the financial risk and financial exposure for the insurance companies. This approach provides the best opportunities for a win-win situation for the environment and all of the parties involved.