



Vol. 18 No. 2

Update to Clients

Update

Reducing hazards is focus of State landfill term contract

Under its NJDEP Landfill Closure Term Contract with joint venture partner The Louis Berger Group, Inc. (LBG), SAI is working on a total of six landfill sites throughout the State: Winslow, Combe Fill South, Fenimore, Leonia, Woodstown-Pilesgrove, and James. For Winslow and Combe Fill, studies and design activities are underway to complete the closure. For the other sites, LBG/SAI is responsible for conducting Immediate Environmental Concern (IEC) studies, used to determine the extent of the hazard to the local community and environment posed by these landfills. Depending on the results of the IEC, further actions may be authorized by NJDEP. Below is a brief description of each project.

The Winslow Landfill, a 95-acre site in Winslow Township, is close to Egg Harbor Creek. The landfill has not been properly closed, although a closure plan had been previously prepared. LBG/SAI has been contracted to do field investigations, including installation of test pits, a gas survey, and monitoring well installation. Also under way is preparation of both a conceptual design and a closure design for the site.

Combe Fill South Landfill is in Chester, Morris County. A critical concern at the site is offsite gas migration, which may pose a hazard to a future nearby residential area. LBG/SAI is conducting a Feasibility Study to conduct a pilot test for integration of an existing gas system in that portion of the site with a new system to prevent offsite gas migration.

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Edgeboro Landfill riverbank restoration design project approved by NJDEP

The lower Raritan River is home to a number of large landfills, including KinBuc, Edison, ILR and Edgeboro. Edgeboro Landfill is more than 300 acres, bordered by both the Raritan River and the South River. To enhance and protect the waterfront, Edgeboro Disposal, Inc. (EDI) has initiated a bank clean-up and restoration project along the Raritan River. Initial efforts included voluntary clean up of floatables from offsite sources. Efforts are now focused on a major riverbank stabilization project to protect the river from erosion of areas where waste had historically been placed before the more stringent regulations of today.

After evaluating various riverbank conditions, SAI developed several technical approaches for stabilization of the approximately 5,200-foot section of riverbank. The selected design encompasses grading of the riverbank, waste relocation within the landfill and placement of non-woven filter fabric, and riprap where needed to provide stability. Planned activities are designed to protect existing desirable trees.

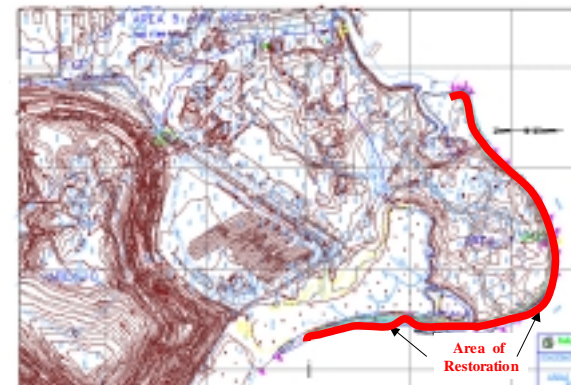
Recently approved by NJDEP, field work, design and permitting activities are underway.

This effort is just one of the projects performed by SAI for EDI. SAI first began assisting EDI in 1989 with Closure and Remediation issues and in permit negotiations for landfill expansion as well as the closure of existing waste areas. At that time, SAI proposed a Master Plan to systematically address all the separate closure and expansion issues.

In addition, SAI was directly involved with the design and implementation of numerous field activities leading to the preparation of a remedial investiga-



Raritan River lapping the banks of the landfill. The restoration project will stabilize the riverbank, possibly using native vegetation and rip rap.



A partial site map of the landfill, showing the bank restoration area along the Raritan River.

tion report and a comprehensive remedial action plan to address all potential exposure and contaminant migration which could impact environmental receptors. Following relocation of the waste, SAI acted as engineer for placement of final cover over the contained waste area. SAI is also currently performing other engineering closure activities for the landfill.

INSIDE

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Sediments sampling continues at Middlesex landfill to delineate PCB and pesticide levels

Since 2002, SAI has been working with the Borough of Middlesex conducting a Remedial Investigation (RI) of the municipal landfill.

The 15-acre former municipal landfill received mainly municipal wastes, but also received some drummed chemical wastes and radiologically contaminated DOE soils.

Landfill operations were terminated in 1974. The Borough engaged SAI to complete an RI to identify potential impacts of the landfill and to identify remedial actions necessary for closure approval from the NJDEP.

SAI designed the RI to be organized into three parallel tracks, including a radiological track, an upland soil/waste track, and a receptor track.

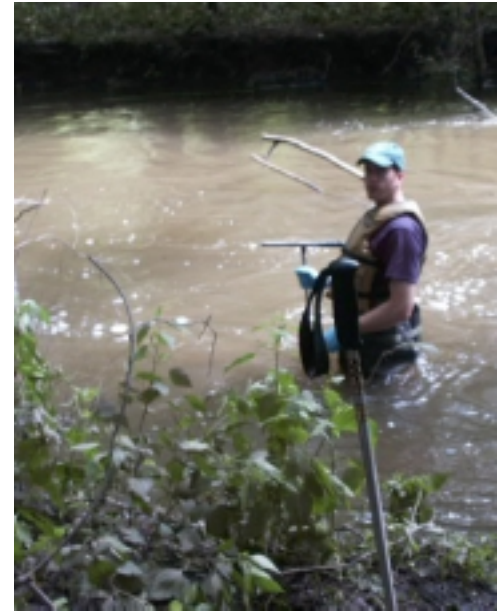
SAI completed the RI to assess and delineate the extent of chemical and radiological con-

tamination at the landfill and nearby receptors, including the Bound Brook (next to the landfill). The RI included: 30 borings, 6 shallow monitoring wells, 26 test pits, 3 surface water samples, 26 soil gas points, 7 sediment samples, 9 temporary well points.

In late July, SAI Scientists Jeffrey Kovach and Jennifer Fager conducted follow-up sediments sampling in the Bound Brook to delineate elevated PCB and pesticide levels observed in sediment samples collected in November 2003.

Additional services provided at the site have included:

- Preparation of Environmental Evaluation Report
- Preparation of Remedial Investigation Workplan
- Preparation of Wetlands Permits, Landfill Disruption Permit, and Health & Safety Plan



Environmental Scientist Jeffrey Kovach tries to stay dry as he uses a bucket auger to collect samples from the Bound Brook.

Landfill contract assignments include IEC studies

Continued from page 1

The 21-acre **James Landfill** is located in Brick Township, Ocean County. The site accepted waste from 1971 until 1987. Closure issues addressed included gas and stormwater management.

Evidence of waste deposition outside site boundaries encroaching on the adjacent residential area raised a major concern regarding landfill gas migration towards residential areas.

In addition, settlement has occurred at the site, resulting in ponding of water in several areas. The ponding resulted in the gas management system being submerged in some locations, affecting the gas collection and management onsite. LBG/SAI is conducting a Preliminary Closure Assessment and will provide a report detailing a conceptual closure

design approach and recommendations for the gas collection system.

The Woodstown-Pilesgrove Sanitary Landfill is located in rural Salem County in a wooded area in rural Salem County. Nearby residential developments obtain potable water from private wells.

The Fenimore Sanitary Landfill also is in a wooded rural area with adjacent residences, many of which have private wells for drinking water.

While no longer accepting waste, neither Woodstown nor Fenimore have been properly closed. In addition, neither have met State-mandated groundwater monitoring requirements. At both sites, IEC studies underway will determine if there are any risk(s) to

the surrounding environment from gas exposure and/or groundwater contamination.

The Leonia Section of the Bergen County Municipal Landfill (BCLF) is located in Bergen County within the Hackensack Meadows. The site is about 75 acres within the approximately 754-acre BCLF. Development for recreational and other purposes has already occurred in certain areas of the BCLF, including athletic fields, picnic locations, stables, and trails.

Potential problems at the Leonia Section include eroded side slopes resulting in waste exposure along the riverbank. This problem will be addressed in the overall Closure Plan. LBG/SAI also is conducting an IEC study to determine if site poses any risk(s) from gas exposure and/or groundwater contamination.

Marwan Sadat, Ph.D., P.E. presented *A Case Study of Brownfields Redevelopment – Recycling Old Contaminated Sites* to the Conference on Revitalizing and Restoring Communities held at the University of Virginia in Charlottesville in April.

Amira Fahim, Ph.D., P.E. presented *Evaluation of Geotechnical Properties of Construction and Demolition Screening for Utilization as Fill Material at Brownfield Sites* co-authored by **Dr. Sadat**, to the 19th International Conference on Solid Waste Technology and Management held last spring in Philadelphia.

IN BRIEF

Trenton renaissance continues with redevelopment of former brewery site

A lone three-story structure located in the northwestern corner of the property is all that remains at the site of the former Champale Brewery in Trenton. Historical records indicate this building, dating to the 1790s, has been the home of myriad businesses, and once housed the popular Trenton Inn and Bar.

Now, K. Hovnanian is looking to redevelop the property with the construction of town homes. The site, at the corner of Lalor and Lambertson streets across from the Route 29 Tunnel Park, is in a section of Trenton experiencing redevelopment while preserving the historical integrity of this old city. Visitors to the new park across the street have experienced an educational tour of Trenton's history. The redevelopment is designed to be a perfect blend of this past culture with new brownfield redevelopment.

The former Champale Brewery site was, throughout its history, home to light industry, and until the mid-20th century housed both a brewery and an ice manufacturing company. While undergoing several name changes, the brewery remained until the mid-1990s when, after a period of general decline, the Champale Brewery closed.

Most recently, the site was used as an equipment staging ground for the construction of the new park atop the Route 29 tunnel.

Initial redevelopment work on the site was initiated by the City. Earlier this year, the Trenton Department of Housing and Economic Development selected SAI to complete an earlier remedial investigation at the site that was started by others in the mid-1990s. Work at the site, which is designated as a brownfield, is being funded by the State Hazardous Discharge Site Remediation Fund.

Remedial investigation work has included the review of previous reports to gain an understanding of current conditions, and the coordination of fieldwork, including:

- a geophysical survey
- performance of soil borings at areas of concern



This three-story building, including parts dating to the late 1700s, is the last original structure at the former Champale Brewery site.

- installation of three new groundwater monitoring wells
- collection of three rounds of groundwater samples, and
- preparation of a comprehensive Remedial Investigation Report.

SAI's investigation showed that soils throughout the site are clean and all soil issues have been settled. After completing the RI, the goal is to apply for a sitewide No Further Action Letter for Soils.

In addition, although a source of groundwater contamination identified during the Route 29 tunnel construction was not determined, SAI is recommending further investigation of the groundwater conditions upgradient in order to identify the source of contamination.

This will include the installation of one more well on the site and the performance of two more rounds of groundwater sampling. This will then help SAI to better understand the conditions of the groundwater.

SAI hopes to apply for a Classification Exception Area on behalf of the City and K. Hovnanian so that they may proceed in the process of bringing this near-vacant lot back to life.

Another Champale site was SAI's first project in Trenton

SAI has worked on many projects in and for the City of Trenton over the years. The first was the redevelopment of the former Champale warehouse in the early 1990s, coincidentally, across from our office on Lambertson Road. A few of the projects are highlighted below.



One of SAI's early brownfields projects included a Site Investigation & Remediation, contaminated soil removal and NFA from NJDEP.



A Site Investigation Report documented removal of a 550-gallon tank for the City at Hetzel Field.



Work at a site in downtown Trenton, proposed future home of a townhome development, included Preliminary Assessment, Site Investigation, Remedial Action Selection & Remedial Action Workplan.



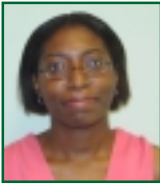
Home to a convalescent center, this brownfields project included site investigation, feasibility assessment & HUD funding assistance.

Suzanne Macaoay and **Barbara Hayes, Ph.D., P.E.**, presented *Regulations, Clean-up Costs, and Groundwater Modeling: Litigation of Insurance Claims at a Contaminated Site* at the 2004 NGWA Ground Water and Environmental Law Conference in Chicago in May. The presentation was co-authored by **Dr. Sadat**.

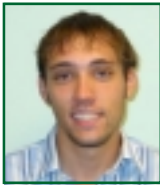
Vice President Ken Goldstein was recently on a panel discussion concerning Brownfields in New Jersey that was filmed for the Regional News Network cable news outlet. The show, called *The Environment and You*, aired on October 18.

Welcome!

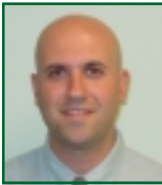
Melissa Lindsay has joined SAI as an Environmental Scientist in the Science Division. She earned her BS degree in Meteorology & Environmental Science from Rutgers University in May. While at Rutgers Ms. Lindsay was named to the Dean's List from 2000 to 2003 and was an intern at the National Weather Service in Mt. Holly, NJ.



Brett Iwicki has joined SAI as an Environmental Scientist in the Science Division. Brett earned his BA in Geography from Rutgers in 2003. His previous work experience includes an internship at NJDEP in 2002.



Raymond El-Khoury has joined SAI as an Environmental Engineer in the Engineering Division. Mr. El-Khoury is currently completing his Ph.D. in Civil and Environmental Engineering from Rutgers University, where he also earned his MS in September. He also earned both a BS and MS in Civil Engineering from Balamand University in Lebanon, where he had worked as a Site Civil Engineer for major construction projects.



Dr. Sadat announces long-term plan for employee ownership of SAI

In September SAI Founder Dr. Marwan M. Sadat, P.E., met with company senior staff to announce a restructuring plan for the company with the goal of developing into a full employee-owned firm. The overall plan, as Dr. Sadat put it, was “to reward the people who have helped me grow the company with a real opportunity for ownership of what they have built.” The plan will also have the benefit of allowing him to focus more of his efforts on technical project matters.

To begin the process of greater employee involvement in ownership and management, Dr. Sadat appointed Joe Wiley, III, former Senior Vice president of Operations, to the position of Chief Operating Officer. Joe will perform the executive functions that Dr. Sadat has exercised in the past, with the exception of certain non-routine financial decisions. During the meeting, Dr. Sadat said, “I’ve known Joe since 1976 when we were together at the NJDEP. We have worked closely for almost 30 years now, and I believe that he will have the best interests of all of us in taking over these responsibilities.”

Joe Wiley has served as Project Director for many significant projects undertaken by SAI including the Jersey Gardens Mall, Southern Ocean Landfill, South Bound Brook redevelopment, City of Shanghai Solid Waste Planning, and many others. He has directed Marketing and Operations for SAI since 1988. “It is a great honor and responsibility to take over these duties from Marwan,” said Joe. “He has formed a great



Joe Wiley and Dr. Marwan Sadat

company by bringing together so many talented individuals. My role will be to lead us through the evolution into an employee owned organization. In doing so, I expect we will continue the principles that Dr. Sadat has established, balancing environmental needs with economic opportunity, understanding the regulations, creatively solving technical problems and serving our Clients. I would like to thank Dr. Sadat for his decision to give us the opportunity to eventually become employee-owned.”

Besides being a step in his long-term plan for the company, Dr. Sadat is pleased that this change will allow for his more active involvement than ever in company projects. As he quipped, “Joe can do the boring stuff. I want to be involved in your projects and I will now have more time to spend with our Clients.”

New project manager joins SAI

Rodger Ferguson, CHMM, has joined SAI as a Project Manager in the Science Division. Mr. Ferguson has more than 20 years of professional experience. A graduate of Ursinus College with a B.S. in Chemistry, Mr. Ferguson was Laboratory Director for 5 years for a NJDEP/PADEP certified environmental laboratory. Mr. Ferguson’s project management responsibilities have included Underground Storage Tanks, Soil/Groundwater Remediation, Industrial Site Remediation Act cases, Health & Safety Program Development, Litigation Support, Phase I/II/



III Environmental Audits, RCRA Hazardous Waste Management, NPDES permit compliance, and Safe Drinking Water Act compliance. Mr. Ferguson was recently named by NJDEP as one of the first “Cleanup Stars,” (along with Sr. Vice President Kenneth Goldstein, P.E.) and has subsequently received one of the first expedited “No Further Action” letters to be granted under the pilot program.

Mr. Ferguson’s certifications include:

- Certified Hazardous Materials Manager
- NJDEP BUST Closure and Subsurface Evaluation
- NJDEP SRP Cleanup Star

From the Editor -

If you would like to receive a full-color electronic version of our newsletter in Adobe PDF format via email, or if you want additional information about SAI and its services, please email me at: kkane@sadat.com.

Thanks — we look forward to hearing from you.