



# EPA Investigates Cleanup Efficiencies at Contaminated Sites

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EPA's Office of Solid Waste and Emergency Response, in partnership with the Office of Enforcement and Compliance Assurance, launched in 2010, a three-year Integrated Cleanup Initiative (ICI) to identify and implement improvements to the Agency's site cleanup programs. In November 2010, nine project management pilots in nine different states were identified under this initiative to evaluate alternative approaches to achieving site cleanups more efficiently. These pilot projects demonstrate region-specific best practices and new approaches to project management. For further information on the ICI, please visit <http://www.epa.gov/oswer/integratedcleanup.htm>.

## Rhode Island

**SMITHFIELD** -- Throughout the 1970's, the **Davis Liquid Waste** site in EPA Region 1 accepted numerous types of liquid and chemical wastes that were transported in drums and bulk tank trucks and dumped directly into unlined lagoons and seepage pits. This site was added to the National Priorities List (NPL) in September 1983. In 1987, EPA issued a comprehensive Record of Decision (ROD) for the site that, among other actions, called for a source control remedy for contaminated soils and groundwater remediation. Litigation culminated in a series of settlements for performance of the source control remedy and also resulted in the creation of a site-specific special account containing approximately \$12 million. The groundwater remedy could not be implemented as initially envisioned because treated groundwater from the pump and treat system could not be injected to create a flushing/recirculation cell to remove contaminants adsorbed to saturated soil. EPA evaluated a number of other treatment technologies, and in September 2010, amended the ROD to change the original groundwater pump-and-treat remedy to *in-situ* chemical oxidation. The purpose of this pilot is to demonstrate if the offer of the funds available from a site-specific special account to the potentially responsible parties (PRPs) would provide EPA with sufficient leverage to expedite remedial design and remedial action (RD/RA) settlement negotiations for conduct of the groundwater remedy by the PRPs. EPA issued special notice for the performance of the RD/RA for the groundwater in January 2011 to five parties who had not performed any work or contributed to any past settlements and who have limited equitable share allocations based on a court decision. EPA held several meetings and conference calls with the PRP group during the negotiation period. Due largely to the court-

assigned equitable shares, the five parties struggled for months to reach an internal agreement on allocation. During negotiations, the group splintered, and EPA held meetings and calls with the subgroups separately. EPA continued to use the special account funds as an incentive, combined with the threat of losing special account funds and possible treble damages, and the PRP group was brought back together. EPA's enforcement strategy encouraged the PRPs to sign the consent decree taking full responsibility for all work and future costs. EPA received signature pages from all noticed parties by the end of July 2011. On August 10, 2011, EPA referred the settlement to the Department of Justice (DOJ) for lodging. This referral represents completion of the pilot process. A final report will examine efficiencies gained and document lessons learned, as well as the potential for broader application of this approach at other sites. For further information about this site, please visit [www.epa.gov/ne/superfund/sites/davisliquid](http://www.epa.gov/ne/superfund/sites/davisliquid).

## New York

**ELLENVILLE** -- The **Ellenville Scrap Iron and Metal** site in EPA Region 2 is a 24-acre, former scrap metal reclamation facility. About ten acres of the site were used for a variety of scrap metal operations and battery reclamation. The site includes a five-acre landfill composed of construction and demolition debris, including a variety of finely shredded wastes, scrap brick, concrete, wood and other metal debris. An adjacent residential property was formerly part of the facility. Associated soil contamination resulted in the listing of this site on the NPL in October 2002. The activities identified within the scope of this pilot include excavation of contaminated soils and consolidation with existing waste under a newly constructed landfill cap.

This pilot is designed to accelerate the RD/RA through an "integrated project delivery" approach to maximize efficiency of procurement, and management and delivery of design and construction services. Several months prior to issuing a ROD, EPA and the U.S. Army Corps of Engineers (USACE) began planning pilot activities. In September 2010, EPA executed an interagency agreement with the USACE to provide RD and construction services through the USACE's pre-placed contracts. Securing the services of the RA contractor early on in the process provided beneficial pre-construction technical support concurrent with the development of the RD. Waste consolidation, subgrade preparation, landfill backfill grading, and installation of the landfill liner have been completed, as well as residential property soil removal, topsoil placement and seeding. Some damage to the storm water drainage channels and retention basin was experienced as a result of Hurricane Irene. This delayed slightly the completion of construction activities and the date of the final inspection to September 28 (given favorable weather conditions). EPA expects to issue a "Preliminary Close Out Report" before September 30, 2011, which will document that all construction activities have been completed at the site. For further information about this site, please visit <http://www.epa.gov/region02/superfund/npl/ellenville>.



*Contouring for landfill cover at Ellenville Scrap Iron and Metal, Ellenville, NY*

## **New Jersey**

**BUENA BOROUGH** -- The **South Jersey Clothing Company (SJCC)** and **Garden State Cleaners (GSC)** sites in EPA Region 2 are two separate properties that have soil contaminated with volatile organic chemicals resulting in a co-mingled groundwater contamination plume. These sites were added to the NPL in October and March of 1989, respectively. In September 2010,

EPA issued a ROD amendment which called for, among other actions, acquisition and demolition of the GSC building and excavation of contaminated soils at both properties.



*Demolition of Garden State Cleaners building, Buena Borough, NJ*

This pilot is designed to accelerate the RD/RA for a project with a clearly defined scope through the use of in-house EPA staff. The RDs for the building demolition and the two soil excavations were completed in June 2011 by EPA's remedial program staff with input from the USACE who completed the detailed drawings. Acquisition of the GSC property occurred on June 30, 2011. EPA's removal program staff directed the building demolition, soil excavations and backfilling at both sites (completed mid-August) and transportation and disposal of demolition debris and contaminated soils (completed early September). Remedial and removal program staff will collaborate on the preparation of the three RA reports that are scheduled to be approved by late September 2011. For further information about these sites, please visit <http://www.epa.gov/region02/superfund/npl/sjcc/index.html> (South Jersey Clothing Company), and <http://www.epa.gov/region02/superfund/npl/gsc> (Garden State Cleaners).

## **Florida**

**POMPANO BEACH** -- Between 1977 and 2001, dry-cleaning operations conducted at the half-acre **Flash Cleaners** site resulted in the contamination of soil and groundwater with dry-cleaning solvents. In September 2008, this site was added to the NPL. The September 2010 ROD called for, among other actions, excavation and off-site disposal of contaminated soils, installation of a soil vapor extraction system (SVE) for removing contaminants from beneath the existing building, and

injection with emulsified oil substrate to enhance the natural degradation of contaminants in the groundwater.



*Collection of vapor samples at Flash Cleaners, Pompano Beach, FL*

Under this pilot, EPA is testing several innovative approaches to organizing site work to accelerate the RD and RA by conducting elements of these processes concurrently. For example, some RD work began prior to completion of the remedial investigation/feasibility study (RI/FS) and ROD to accelerate the start of RA. In addition, the contractor prepared the soil design first, separately from the groundwater design, to allow the soil RA to begin earlier than it would have if the Region had waited until both were completed. While the soil is excavated and the SVE system is constructed, the groundwater RD will be completed. All design plans have been prepared, soil excavation is complete, the soil vapor extraction system is in place, and the groundwater injection wells have been installed. The final on-site inspection was held on August 23. EPA expects to issue a "Preliminary Close Out Report" before September 30, 2011 that will document that all construction activities have been completed at the site. For further information about this site, please visit <http://www.epa.gov/region4/waste/npl/nplfls/flashclfs.htm>.

### South Carolina

GREENVILLE -- A textile and bleaching facility was constructed in 1903 at the 259-acre **U. S. Finishing/ Cone Mills property** in EPA Region 4. Past operations have contaminated at least 14 acres at the site and resulted in the presence of chromium in groundwater,

surface water and sediment. In March 2011, the site was proposed to the NPL.



*Existing buildings at the U. S. Finishing property, Greenville, SC*

Under this pilot, EPA established a special integrated project team in April (comprised of EPA, state, contractor and community members) in order to expedite the Cone Mills site study, the development of remedial alternatives and the selection of a site remedy (expected in September 2013). The project will utilize an adaptive project management framework integrating federal, state and contractor resources with the requisite skills and decision-making authority to act quickly as needs arise. The pilot project will engage the community and key stakeholders early and throughout the process in order to provide transparency and an active role for them in site cleanup and reuse decisions. A removal action is planned to begin in the next few months which will involve primarily the demolition and disposal of the main mill building. In August, 2011, EPA added additional fencing to secure the site. The RI scoping is currently underway and a portion of the field work for the RI is expected to begin in November 2011. Remaining RI activities will be conducted upon completion of the removal action. For further information about this site, please visit <http://www.epa.gov/superfund/sites/npl/nar1835.htm>.

### Michigan

ST. LOUIS -- The **Gratiot County Golf Course** site consists of approximately five acres in St. Louis, Michigan in EPA Region 5. From 1956 until 1970, the Michigan Chemical Corporation (later purchased by the Velsicol Chemical Corporation) burned and disposed of industrial waste on the site, including the pesticide, DDT. Approximately 2,000 to 3,000 gallons of hazardous

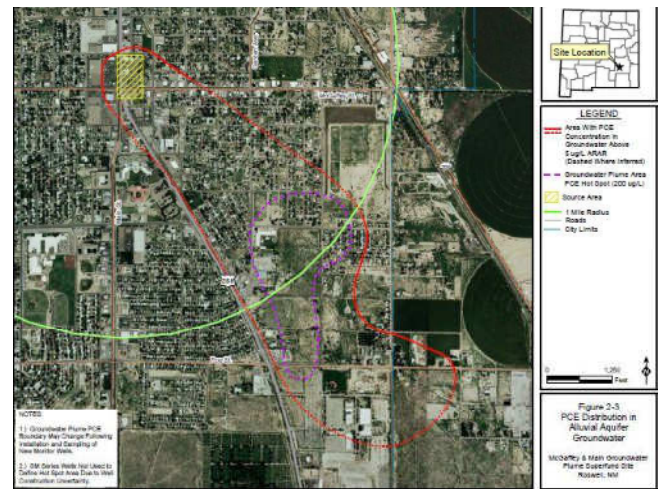


waste were disposed of on the property. This site was first proposed to the NPL in 1982. At that time, Velsicol removed 68,000 cubic yards of contaminated soil. As a result, the proposed NPL listing was cancelled. However, in 2006, additional soil and groundwater contamination was found. The State of Michigan completed some additional field investigations in January 2009 and as a result, the Gratiot County Golf Course site was added to the NPL in March 2010. The objective of this pilot is to expedite the remaining site study and alternatives development processes by using existing data, collecting only critically important new data, and increasing collaboration with EPA headquarters earlier in the Superfund site remediation process. In this way, EPA expects to streamline significantly discussions between headquarters and the region about remedial site study and cleanup options. Risk assessment activities began in September 2011 and EPA's development and evaluation of cleanup alternatives will begin in January 2012. Completion of this pilot is planned for spring 2012. For further information about this site, please visit <http://www.epa.gov/region5/cleanup/gratiotcountygolf/index.htm>.

## New Mexico

ROSWELL -- Dry-cleaning operations between 1956 and 1963 resulted in the contamination of soil and groundwater at the **McGaffey and Main Groundwater Plume** site in EPA Region 6. A perchloroethylene (PCE) groundwater contamination plume now extends about 1.5 miles and is threatening Roswell drinking water supplies. Unsafe levels of PCE in air have also been found inside buildings as a result of this contaminant's presence in soil and groundwater beneath the buildings. In October 2002, this site was added to the NPL. In September 2008, EPA issued a ROD that called for removing contaminated soil, addressing contaminated air within buildings, and addressing the contamination in groundwater through removal and treatment. The goal of this pilot is to demonstrate how EPA might optimize the process and plans for design and construction of the indoor air vapor mitigation system through involvement of "third-party" technical experts. It is expected that such optimization may improve remedy effectiveness, reduce remedy life-cycle cost, and accelerate remedy implementation. To date, the optimization team has completed a technical review of the intermediate and 95% RD documents for construction of a vapor intrusion mitigation system involving nine building locations. Construction of the

system is planned to begin in October 2011. Once completed, the system will permit continued use of these buildings while the remaining site remediation work continues. For further information on this site, please visit <http://www.epa.gov/region6/6sf/pdf/files/0605386.pdf>.



*The McGaffey and Main groundwater plume extends 1.5 miles in Roswell, NM*

## Texas

TERRELL -- The **Van der Horst USA Corporation** site is a former chrome- and iron-plating facility in EPA Region 6, which operated from the 1950's until December 2006. This 3.5-acre site, which was added to the NPL in March 2010, includes the former plating facility, wastewater treatment plant and associated undeveloped land. A 2009 removal action addressed a 46,000 square foot building situated on the site. The RI/FS will focus on groundwater and residual soil contamination, since all aboveground-contaminated media have been addressed. This pilot is designed to expedite RI/FS activities through early stakeholder collaboration aimed at fast-tracking field work and decision making. Innovative adaptive management techniques will be used during the RI field effort to minimize the number of sampling events. The RPM and risk assessor will be on-site during the RI sampling activities to make real-time decisions in the field. In addition, areas identified that may require remediation will be evaluated under EPA's removal authority to accelerate cleanup that may be accomplished under that authority. In April 2011, eight monitoring wells were installed and numerous soil borings were advanced to characterize the nature and extent of contamination. A second field mobilization was conducted in mid-September to obtain additional soil samples and soil gas data from the vadose zone. Access agreements are being prepared to allow for

installation of additional monitoring wells planned for mid- to late fall. Information obtained from these field activities will be used to fill data gaps and refine the conceptual site model. Completion of this pilot is expected by September 2012. For further information about this site, please visit <http://www.epa.gov/superfund/sites/npl/nar1810.htm>

## **California**

SACRAMENTO COUNTY -- The 3,452-acre **McClellan Air Force Base (AFB)** site in EPA Region 9 was established in 1936 and operated as an Air Force Logistics Command Base with a primary mission of management, maintenance and repair of aircraft, electronics and communication equipment. The Air Force identified 326 waste areas of known and suspected contamination as a result of past aircraft maintenance and repair operations. In July 1987, the McClellan Air Force Base was added to the NPL. Under the Department of Defense (DOD) Base Realignment and Closure program, McClellan AFB closed as an active military base in July 2001. Under a transfer with privatized cleanup agreement, McClellan Business Park, with oversight from EPA, will be responsible for addressing contamination in the first 15 feet of soil below the surface, and can do so concurrently with ongoing redevelopment efforts. The cost of this work will be paid for by the Air Force. The Air Force will continue cleaning up the groundwater and deeper soil. So far, two rounds of early transfers with privatized cleanup have been completed. Cleanup of the first transferred property was completed two years after the ROD was signed. McClellan Park is a national model for successful base redevelopment with a number of green technology companies on site (<http://www.epa.gov/region9/annualreport/>). Based on this experience, the current transfer has been proposed for this pilot. The goal of this pilot is to create a model process for accelerating the transfer of ownership and reuse of federal facilities properties wherever similar conditions permit.

elimination of hurdles caused by federal facilities enforcement and DOD policies; (3) integration of development and cleanup to accelerate productive reuse; and, (4) facilitation of property transfers to subsequent owners, reflecting real value in revitalization. Pilot accomplishments to date include: (1) Agreement reached on the property to be transferred (521 acres, 131 remediation sites, and an estimated 24,470 cubic yards of contaminated soil to be remediated); (2) Final Small Volume Site RI/FS submitted in May 2011 by the Air Force (forms the basis for this current transfer); (3) Federal Facility Agreement Amendment signed by the Air Force, EPA and California on August 23, 2011; (4) Draft Finding of Suitability for Early Transfer submitted by the Air Force on Sept 5, 2011 for regulators' review; and (5) EPA's Draft Agreement on Consent approved by DOJ and circulated to state regulators and McClellan Business Park together with the Statement of Work (September 23, 2011). To expedite review and concurrence, the majority of these documents were informally reviewed by the privatization partners prior to formal submittal. California Governor Brown and Sacramento County Board of Supervisors are expected to sign the final transfer documents by April 2012. For further information about this site, please visit [www.epa.gov/region9/McClellanAFB](http://www.epa.gov/region9/McClellanAFB).



*Aerial view of McClellan Air Force Base, Sacramento County, CA*