



Addressing Long-Term Stewardship: Highlights from the Field

In 2004, EPA formed the Long-Term Stewardship (LTS) Task Force to evaluate the current state of long-term stewardship across its various waste cleanup programs. The Task Force included representatives from each of EPA's cleanup programs, including the Superfund, Resource Conservation and Recovery Act (RCRA), Underground Storage Tanks (UST), Brownfields, Federal facilities, and enforcement programs, and state cleanup programs. The Task Force identified and addressed a variety of challenges facing EPA and its partners responsible for ensuring the implementation, oversight and enforcement of LTS. These challenges generally fall into the following six categories:

- Roles and Responsibilities
- Institutional Controls
- Engineering Controls
- LTS Costs
- LTS Funding and Resources
- Information Management

Within these categories, the Task Force identified recommendations to address the challenges most seriously affecting federal, state, tribal and local governments at LTS sites. The results of the Task Force's effort are documented in its report *Long-Term Stewardship: Ensuring Environmental Site Cleanups Remain Protective Over Time* (available at <http://www.epa.gov/oswer/landrevitalization/publications.htm>).

The purpose of this fact sheet is to build upon the LTS Task Force efforts by highlighting LTS projects that address the challenges identified by the Task Force. This fact sheet is the first in a series intended to create awareness of LTS issues and approaches to addressing LTS challenges. The fact sheet highlights the following projects:

- Mississippi Department of Environmental Quality Brownfields Program IC Information Sharing Project
- National City's Land Use Control Implementation Plan
- Missouri Department of Natural Resources' Long Term Stewardship and IC Tracking System

Mississippi Department of Environmental Quality Brownfields Program IC Information Sharing Project

The State of Mississippi's Department of Environmental Quality (MDEQ) developed an information sharing system to improve the state response program; specifically to increase access to and the usefulness of the public record. There are two components to this system: (1) a Geospatial Pilot Project using Google Earth, and (2) an Excel Spreadsheet with links to deed notices and survey plats in Adobe PDF format. Simplicity and ease of use are emphasized. In the wake of Hurricane Katrina, DEQ applied for and received a CERCLA 104(k) Brownfields grant to identify brownfields in communities on the Gulf Coast for consideration early in the rebuilding process.



Using approximately 10 percent of the grant, the staff of the Groundwater Assessment and Remediation Division (GARD) of MDEQ created a Google Earth coverage map for the Mississippi Gulf Coast that includes pertinent information about sites that may have environmental conditions for consideration prior to rebuilding. The coverage includes MDEQ's existing brownfields inventory of CERCLA/Uncontrolled Sites, Underground Storage Tank Sites, Agency Interests, Above Ground Storage Tank sites, Pest Control Sites and Dry Cleaners. Some of the data were collected from within MDEQ while other data were collected from the Mississippi Department of Agriculture and Commerce (e.g., Above Ground Storage Tank Sites), from city directories (e.g., Dry Cleaners and Pest Control Sites), and EPA. The Google Earth Coverage, identified as a link entitled "GIS," can be found at <http://www.brownfields.ms> under the Announcements section. EPA Section 128(a) Brownfield funding is being utilized to maintain and enhance the coverage with plans to take the project statewide in the near future after roles and responsibilities are clearly defined.

The second component of the system involves MDEQ's existing brownfields inventory (<http://list.brownfields.ms>). Using EPA Section 128(a) Brownfield funding, MDEQ maintains this simple excel spreadsheet of pertinent information about sites in Mississippi. The IC component involves links to Deed Notices and Survey Plats for sites with institutional controls in place. The link is a PDF file of the Deed Notice identifying the Activity and Use Limitations (AULs) for the site and a map (e.g., survey plat) identifying the area within the property where the AULs apply.

MDEQ identified a number of challenges in both maintaining and utilizing the system. First, because the Google Earth Coverage includes data that are not directly controlled by the GARD staff, data quality, roles and responsibilities are issues that must be considered. MDEQ is considering a "wiki" philosophy with the Google Earth Coverage. In other words, the Google Earth Coverage would rely on interested stakeholders to be a part of the continuous improvement of the system with an understanding that errors are expected and will be addressed on an ongoing basis. Second, bringing the knowledge of these tools down to the local level (e.g., construction companies, local public works directors/employees, local government, water well drillers, etc.), particularly in a mostly rural state requires a tremendous amount of outreach and education, requiring additional resources. Finally, as the number of sites using ICs grows, so do the responsibilities for MDEQ, particularly relating to awareness through the years.



For more information on Mississippi's online access to ICs, contact Trey Hess at Mississippi's Department of Environmental Quality at Trey_Hess@deq.state.ms.us or 601.961.5654.

TOP (before) – Long's commercial laundry property before cleanup and redevelopment in Tupelo, Mississippi (Photo courtesy of Mississippi Department of Environmental Quality)

BOTTOM (after) – Fair Park has a deed notice listing activities that are not allowed on the property (Photo courtesy of Mississippi Department of Environmental Quality)

National City's Land Use Control Implementation Plan

National City, California is addressing issues of long-term stewardship to ensure properties with ICs are identified early on in the development process. The city is doing this through the development of a Land Use Control Implementation Plan (LUCIP) and by tying permitting activities to LTS. As efforts to address LTS continue, the city has made great progress since drafting the LUCIP in 2005.



The city recognized the need to define, communicate and formalize LTS roles and responsibilities through the development of a LUCIP. EPA approved National City's proposal to use 10 percent, or \$20,000, of its 2005 EPA Assessment grant to develop the LUCIP. The city met with regulatory agencies, including the California Department of Toxic Substances Control (DTSC), San Diego County and the State Water Resources Control Board to define LTS roles and responsibilities for each. The basic roles and responsibilities remain the same with the regulatory agencies responsible for selecting, implementing, monitoring and enforcing the institutional and engineering controls on a property, while the city takes a more proactive approach to communicate regulatory actions on properties to applicants.

As part of the LUCIP, National City intends to tie its permitting system to LTS activities. The initial plan was to require the applicant to apply for a permit on a property with ICs or ECs and then the regulatory agency would designate its approval by completing an approval form. Although the agencies were enthusiastic about the concept to tie LTS to permitting, the State Water Resources Control Board did not have the staff or money to do the additional work required to undertake this new IC/EC permitting approval process.

To address funding at the city level, National City is paying for the analysis of the fee structure for building and other permitting fees to develop a LUCIP fee (expected to be minimal) that will cover the cost of additional city LTS responsibilities. Once an appropriate LUCIP fee is identified and implemented, the city plans to tie its electronic city parcel map—which contains regulatory information including the regulatory agency involved at each applicable property—to the permitting process so each applicant is aware of ICs or ECs. The city included regulatory information on its parcel map by using EPA Assessment grant funds to hire a consultant to go through hard copy notebooks and files to identify properties with regulatory actions.

The city is also working on a strategy to standardize how ICs are recorded and has developed a Web site, the Brownfields Redevelopment Environmental Information System (BREIS), to allow easy access to environmental and redevelopment-related information, including ICs within National City (www.nationalcitybreis.org).



For more information on National City's LTS work contact Patricia Beard, National City's Redevelopment Manager, at PBeard@ci.national-city.ca.us or 619.336.4255.

TOP (before) – Former meat processing facility, auto wrecking yard, and landfill in National City, California (Photo courtesy of National City)

BOTTOM (after) – Rendering of the Marina Gateway project, a commercial project with a hotel and restaurant and a deed restriction due to the capping of hazardous materials remaining onsite (Rendering courtesy of National City)

Missouri Department of Natural Resources' Long Term Stewardship and IC Tracking System



The State of Missouri Department of Natural Resources (DNR) can share IC and EC data with EPA's comprehensive Institutional Control Tracking System (ICTS) due to the assistance of a component added to its existing Superfund/Brownfields project management data system SMARS (Site Management and Reporting System). DNR designed its LTS database within SMARS with a utility to export long-term stewardship data to federal, state and local partners who are looking for information on sites where contamination remains after the remedy is complete. Funding for the LTS data sharing project was received from EPA in Superfund and Brownfield grants.

SMARS currently houses LTS information for Superfund, Federal Facility, Brownfields Voluntary Cleanup Program (BVCP) and Missouri's other state response programs. The LTS component of SMARS includes housing IC information for Missouri's Storage Tanks Sites. Missouri's cleanup programs use a range of institutional controls to affect long-term stewardship. These include maintaining ground water protection areas, restrictive covenants with a monitoring contract, listing on the Registry of Confirmed Abandoned or Uncontrolled Hazardous Waste Disposal Sites in Missouri, deed notices, and ground water protection areas. The engineering controls in place and requiring monitoring range from large structures, such as the disposal cell at the Weldon Spring Superfund site, and ground water pump and treatment operations, as well as fences, caps, signs and other typical physical controls. Approximately 550 statewide sites are currently being tracked in the LTS database, although many more sites are suspected to be applicable and have not yet been added. The LTS data in SMARS are entered and maintained by DNR's environmental project managers. DNR plans an initiative in 2008 to provide this information to its local government partners to ensure the online LTS information is available to a wide public audience.

In 2006, Missouri DNR conducted an evaluation of its strengths and weaknesses related to LTS. The study took a comprehensive look at the department's LTS responsibilities and the resources available. The objective was to help the department judge how well it met those responsibilities for sites with ICs/ECs and to develop a set of recommendations to address areas requiring improvement. This study was developed to ensure that the responsibilities that are inherent in risk-based cleanups are addressed. Failures of ECs and ICs were reported around the country and Missouri sought to address the issue proactively. To accomplish this, all program areas were reviewed to see what processes were in place to ensure that stewardship was effective for sites with ICs and ECs, and that all sites with an environmental legacy were covered by some LTS process. The study was published in a report entitled "Missouri Long Term Stewardship: Current Practices and Future Recommendations." Subsequent to the completion of this report, the department convened a work group to study the report's nine major recommendations and prepare action plans to address and implement them.

The report estimated that the cost to implement all of the recommendations to improve statewide LTS processes could range from \$500,000 to \$900,000 per year with an addition of up to 10 full time staff. DNR is currently developing action plans to address five of the LTS recommendations. One recommendation has been partially realized as the Missouri legislature passed environmental covenant legislation during its 2007 session.



For more information and/or a copy of the report on the status of Missouri's LTS data sharing project, contact Robert Stout at Missouri's Department of National Resources at Robert.Stout@dnr.mo.gov or 573.751.7402.

TOP (before) – Former quarry and disposal site for demolition waste in Springfield, Missouri (Photo courtesy of Missouri Department of Natural Resources)

BOTTOM (after) – Jordan Valley Park, where a restrictive use covenant prohibits the construction of any building in the area of the former quarry where methane activity is being monitored (Photo courtesy of City of Springfield, Missouri)